### **EXHIBIT NO. MCC-1**

## **Statement of Qualifications**

Mr. Clevinger graduated from Pensacola Christian College with a Bachelor's degree in Accounting (1993) and from California Coast University with a Master's in Business Administration (2010).

He began his career in Accounting with Interim Healthcare as Payroll Accountant.

Additionally, he has held positions with Regent Lighting Corp. as Staff Accountant from 1996 to 2000; University of North Carolina Dental Faculty Practice as Accounting Manager from 2000 to 2002; Redeye Inc. as Royalty Accounting Manager from 2004 to 2005; and Wavecom, Incorporated as a Financial Analyst from 2007 to 2009.

In 2011, he joined Xcel Energy as Senior Rate Analyst, and then Principal Rate Analyst in the Rates Dept. of their utility subsidiary, Public Service Company of Colorado ("PSCo"). His responsibilities included development of revenue requirement studies, calculation of various rate riders, as well as, annual reports, earnings test calculations, and supporting various base rate filings made by PSCo for its electric, gas, and steam utilities.

Mr. Clevinger began his employment with Black Hills Utilities Holding in August 2015 as Manager, Regulatory Services for the Company's two utility properties in Colorado. His current duties include preparing annual reports, normalized earnings reports, various riders, and preparing revenue requirement studies for rate reviews in various states including Colorado. He currently manages three analysts and a supervisor in this area.

### BLACK HILLS NEBRASKA GAS, LLC

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Calculation of the Revenue Deficiency

# BLACK HILLS NEBRASKA GAS, LLC ASSETS AND OTHER DEBITS FOR THE BASE YEAR ENDED DECEMBER 31, 2019

Exhibit No. MCC-2 Statement A Page 1 of 2

Line No.	Description	Notes	FERC Account		December 31, 2019
	The state of the s				,
1	Utility Plant		101	ø	719 124 702
2	Gas Plant in Service		101	\$	718,134,793
3	Gas Plant in Service - ARO		101		3,261
4	Gas Leased Assets		101		933,812
5	Completed Construction Not Classified		106		92,659,688
6	Construction Work in Progress	(1)	107		11,800,664
7	Gas Plant Acquisition Adjustment	(1)	114		42,487,092
8	Gas Stored Underground		117		45.525.452
9 10	Other-Utility Property		118		45,535,472
11	Cross Hillity Plant			\$	011 554 792
12	Gross Utility Plant		108	Ф	911,554,782
13	Accum. Prov. For Depreciation Accum. Prov. For Depreciation - RWIP		108		(271,000,955)
14			108		1,183,436
15	Accum. Prov. For Depreciation - ARO Accum. Prov. For Gas Leased Assets				(3,263)
16			108		(808,284)
17	Accum. Prov. For Amortization		111		(29,245)
18	Accum. Prov. For Amort. Of Acq Adj Res for Depr Other Utility Property		115 119		(14,863,661)
19	Total Utility Plant		119	\$	626,032,809
20	Total Othicy Flant			Ψ	020,032,007
21	Non-Utility Property	1	01; 108; 121-122	\$	540,433
22	Non-Othity I Toperty	1	01, 100, 121-122	Ψ	540,435
23					
24	Current and Accrued Assets				
25	Cash		131	\$	
26	Working Funds		135	Φ	_
27	Notes & Accts Receivable - Net		141-145; 173		70,482,287
28	Acets Rec Assoc Company		146		6,594,941
29	Fuel Stocks		151, 152		0,574,741
30	Material and Supplies		154-163		5,606,796
31	**		164		
32	Gas Stored Underground				7,413,038
	Prepayments		165		522,648
33	Other Current Assets		174, 176		2,894
34	Derv Instrument Assets		175	ф.	- 22 (04
35	Total Current & Accrued Assets			\$	90,622,604
36	D.C 1D 124				
37	Deferred Debits		101	¢	
38	Unamortized Debt Expense		181	\$	29,070,156
39	Other Regulatory Assets		182		28,079,156
40	Preliminary Survey		183		107,633
41	Miscellaneous Debits		184-187		1,463,618
42	Deferred Income Tax		190		60,194,005
43	Unrecovered PGA		191	<u>•</u>	303,221
44 45	Total Deferred Debits			\$	90,147,633
45 46	Total Assats and Other Debits			¢	907 242 470
46 47	Total Assets and Other Debits			\$	807,343,479

<sup>48 (</sup>Note 1): The 114 account contains the acquisition adjustment for Black Hills Nebraska Gas Utility.

<sup>49</sup> The goodwill associated with the acquisition of SourceGas has not at any time been allocated to BHGD-NE.

<sup>50</sup> It is entirely allocated to Black Hills Service Company ("BHSC") as is reflected on BHSC's books.

# BLACK HILLS NEBRASKA GAS, LLC LIABILITIES AND OTHER CREDITS FOR THE BASE YEAR ENDED DECEMBER 31, 2019

Exhibit No. MCC-2 Statement A Page 2 of 2

Line			FERC		
No.	Description	Notes	Acct		December 31, 2019
1	Proprietary Capital				
2	Miscellaneous Paid in Capital		211	\$	237,502,161
3	Unapprop. Retained Earnings		216	\$	42,091,309
4	Accum. Other Comprehensive Income		219	*	-
5	Total Proprietary Capital			\$	279,593,470
6	1 7 1				,
7	Long Term Debt				
8	Intercompany Notes Payable	(2)	223	\$	1,234,246
9	Unamort Discount on LTD		226	\$	<del>-</del>
10	Operating Lease Obligation		227	\$	62,085
11					
12	Other Non-Current Liabilities		228-230	\$	16,971,004
13					
14	Current & Accrued Liability				
15	Accounts Payable		232	\$	34,281,628
16	Notes Pay. Assoc Company		233		301,784,014
17	Acc Pay. Assoc Company		234		57,569,074
18	Customer Deposits		235		3,518,846
19	Taxes Accrued		236		4,394,339
20	Interest Accrued		237		-
21	Tax Collections Payable		241		3,972,746
22	Misc Current & Accrued Liab		242		12,120,663
23	Operating Lease Obligation - ST		243		64,726
24	Deriv Instrument Liab		244		-
25	Total Current & Accrued Liability			\$	417,706,036
26					
27	Deferred Credits				
28	Customer Advance for Construction		252	\$	-
29	Other Deferred Credits		253		5,390,841
30	Other Regulatory Liabilities		254		22,429,462
31	Acc Def ITC		255		-
32	Acc Def Inc Taxes - Property		282		53,045,323
33	Acc Def Inc Taxes - Other		283		10,911,013
34	Total Deferred Credits			\$	91,776,639
35					
36					
37	Total Liabilities & Other Credits			\$	807,343,479

<sup>39 (</sup>Note 2): Includes \$1,234,246 allocated from a corporate term loan due 2021, issued in accordance with a

38

<sup>40</sup> PSC order related to the early termination and settlement of a gas supply contract (the Noble contract).

<sup>41</sup> Proceeds from this term loan were used to finance the early termination of the gas supply contract,

<sup>42</sup> resulting in a regulatory asset. This term loan is excluded from capital structures or cost of debt calculations.

# BLACK HILLS NEBRASKA GAS, LLC STATEMENT OF INCOME FOR THE BASE YEAR ENDED DECEMBER 31, 2019

Exhibit No. MCC-2 Statement B

# Line

No.	Description	Reference	Dec	ember 31, 2019
	2 toti prion	10000		<u> </u>
1	Gas Sales	480-482	\$	145,980,108
2	Other Revenue	483-496		72,924,106
3	Sub-Total		\$	218,904,213
4				
5				
6	Production & Gathering	750-770	\$	=
7	Other Gas Supply	800-813		75,525,851
8	Underground Storage	814-836		-
9	Other Storage Expense	840-844		-
10	Transmission Expense	850-867		365,206
11	Distribution Expense	870-894		27,047,946
12	Customer Accounts Expense	901-905		7,364,060
13	Customer Service and Informational Expenses	907-910		255,757
14	Sales Expenses	911-916		561,524
15	Administrative & General Expense	920-932		31,946,971
16	Total O&M		\$	143,067,313
17				
18	Depreciation & Amortization	403-405	\$	24,036,687
19	Taxes Other than Income	408.1		5,875,853
20	Sub-Total		\$	29,912,539
21				
22	Net Operating Income	Ln.3 - Ln.16 - Ln.20	\$	45,924,361
23				
24	Non-Utility Operating Income (& Expense)	403, 408.2, 409.2, 415-426	\$	3,969,388
25	Interest (Expense)	427-431		(19,320,606)
26	AFUDC - Debt & Equity	432		1,088,104
27	Non-Operating (Expense)	Ln. 24 + Ln. 25 + Ln. 26	\$	(14,263,114)
28	· · · · · · · · · · · · · · · · · · ·			,
29	Income/(Loss) Before Tax	Ln.22 + Ln.27	\$	31,661,247
30	, ,			
31	(Federal Income Taxes)/Benefit	409.1, 410-411	\$	(2,997,982)
32				<u> </u>
33	Net Utility Income/(Loss)	Ln.29 + Ln.31	\$	28,663,266

# BLACK HILLS NEBRASKA GAS, LLC RETAINED EARNINGS STATEMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Exhibit No. MCC-2 Statement C

### Line

No.	Description	Reference		Amount
1 2	Balance as of December 31, 2019 Change in Equity in calendar 2020	211 - 216 Ln. 4 - Ln. 1	\$ \$	279,593,470 45,406,530
3 4	Balance at End of Period		\$	325,000,000

### BLACK HILLS NEBRASKA GAS, LLC PLANT IN SERVICE SUMMARY FOR THE TEST YEAR ENDING DECEMBER 31, 2020

				(a)		(b)		(c) (Note 1) D-1		(d) (b) + (c)
Line No.	Description	Reference	Plant in Service 12/31/2018		Plant in Service 12/31/2019		& Ex	Subsequent pected Pro Forma ons & Adjustments	Adjusted Plant in Service	
1 2	Intangible	Sched D-1 Ln.6	\$	1,364,199	\$	1,364,199	\$	-	\$	1,364,199
3 4	Gathering and Processing Plant	(Note 2)		-		-		-		-
5 6	Storage Plant	(Note 2)		-		-		-		-
7 8	Base Gas Storage	(Note 2)		-		-		-		-
9 10	Transmission	Sched D-1 Ln.13		6,346,090		6,163,725		-		6,163,725
11 12	Distribution	Sched D-1 Ln.33		623,395,574		715,468,698		75,664,063		791,132,761
13 14	General	Sched D-1 Ln.59		49,010,994		87,797,857		14,739,313		102,537,170
15 16	Other Utility	Sched D-1 Ln.66		40,650,508		45,535,472		(17,761,107)		27,774,365
17 18	Plant in Service	Sum (Ln1:Ln15)	\$	720,767,365	\$	856,329,951	\$	72,642,269	\$	928,972,220
19 20	Total Plant in Service	Ln 17	\$	720,767,365	\$	856,329,951	\$	72,642,269	\$	928,972,220

<sup>21 (</sup>Note 1) Subsequent additions references Schedule D-1, which includes property additions and adjustments for the Pro Forma Period.

<sup>22 (</sup>Note 2) There was no plant in service in this category in the base year, and no subsequent additions anticipated in the test year.

Sect II: 004.03A1, B Exhibit No. MCC-2

#### BLACK HILLS NEBRASKA GAS, LLC PLANT IN SERVICE ADJUSTMENTS DETAIL

		YEAR ENDING DECEMBER 31, 2020	(a)		(b)		(c)		(d)		(e)	153	Schedule D-1
Line No.	FERC Acct	Description	Plant in Service 12/31/2018		Plant in Service 12/31/2019		(Note 3) Existing Plant CAM Adjustment		Sched. D-2) o Forma Plant Additions	Pr	(Sched. D-3) to Forma Plant Retirements		Adjusted Balance 12/31/2020
1		INTANGIBLE PLANT								_			
2	301	Intangibles Organization	\$ 256	s	256	\$		\$		\$		\$	256
3	302	Intangibles Franchises & Consents	121,062		121,062		-		-		-		121,062
4	303	Intangibles Miscellaneous	742,881		742,881		-		-		-		742,881
5	303.01	Intangibles Miscellaneous - Easements	500,000	_	500,000							_	500,000
6 7		Total Intangible Plant	\$ 1,364,199	S	1,364,199	\$	-	\$	-	S	-	\$	1,364,199
8		TRANSMISSION PLANT											
9	365.03	Right-of-Way	\$ 176,834	\$	170,272	\$		\$		\$		\$	170,27
10	366.01	Structures and Improvements	8,174	_	8,174	Ψ.	_		_	~	-	-	8,17
11	367	Transmission Plant - Mains	5,536,951		5,361,147		-		-		-		5,361,14
12	369.03	Transmission Plant - Meas. & Reg. Sta. Equip.	624,132		624,132		-		-		-		624,13
13		Total Transmission Plant	\$ 6,346,090	\$	6,163,725	\$	-	\$	-	\$	-	\$	6,163,72
14													
15 16	374.01	DISTRIBUTION PLANT	\$ 2.832.146		1 250 060	s					(750.274)		600.40
17	374.01	Distribution Plant - Land	\$ 2,832,146 4,606,979	\$	1,358,868	2	-	\$	1,548,168	\$	(750,374)	\$	608,49 1,724,26
18	374.02	Land Rights (Non-Depreciable) Land Rights - Right of Way (Depreciable)	160,217		176,100 6,797,136		-		1,348,108		-		6,797,13
19	375.01	Structures and Improvements	6,470,313		4,987,056				804,543		(2,379,315)		3,412,28
20	375.20	Structures and Improvements - Other	12,119		12,119		_		-		(2,579,515)		12,11
21	376	Distribution Plant - Mains	339,340,326		404,011,716		-		41,241,939		(747,438)		444,506,21
22	378	Distribution Plant - Meas. & Reg. Sta. Equip General	18,911,687		23,549,301		-		1,857,896		-		25,407,19
23	379	Measuring & Regulating Station Equip City Gate Check Stn.	4,499,659		4,504,804		-		1,447,570		-		5,952,37
24	380	Distribution Plant - Services	119,153,976		134,854,199		-		20,017,573		(484,329)		154,387,44
25	381	Meters	58,797,396		42,421,416		-		3,539,198		-		45,960,61
26	382.01	Meter Installations	12,135,182		11,094,170		-		1,201,506		-		12,295,67
27	383.01	Distribution Plant - House Regulators	42,601,890		70,846,697		-		2,754,301		-		73,600,99
28 29	383.71 384.01	Distribution Plant - House Regulators - Farm Taps	311,567		848,957		-		194,575		-		1,043,53
30	384.01	House regulator installations Industrial Measuring & Regulating Station Equipment	1,680,850 11,408,783		1,505,149 8,058,005		-		48,644 5,369,606		-		1,553,79 13,427,61
31	386	Other Property on Customers' Premises	35,279		35,279		-		3,309,000		-		35,27
32	387	Other Equipment	437,205		407,725		_		_		-		407,72
33		Total Distribution Plant	\$ 623,395,574	S	715,468,698	\$	-	\$	80,025,519	S	(4,361,456)	\$	791,132,76
34 35		GENERAL PLANT											
36	389.01	Land	\$ 2,101,521	S	5,210,068	S	-	\$	543,081	s	(3,944)	\$	5,749,20
37	389.02	Land Rights - Right of Way	-		1,183,494		-		148,113		-		1,331,60
38	390.01	Structures and Improvements	6,932,000		38,224,611		-		4,147,164		(490,715)		41,881,06
39	390.51	Leasehold Improvements	353,875		93,091		-		-		-		93,09
40	391.01	Office Machines	470,109		425,979		-		49,371		-		475,35
41	391.02	Office Furniture	162,391		-		-		-		-		-
42 43	391.03 391.04	Computer Hardware	247,658 329,173		558,110 170,100		-		49,371 544,747		-		607,48 714,84
44	391.04	Software System Development	150,246		170,100		-		344,/4/		-		/14,84
45	391.03	Ipad Hardware	332,868		611,479								611,47
46	392.01	Transportation Equipment	4,673,240		-		_		_		_		-
47	392.02	Cars	7,011,752		3,878,361		-		-		(959,036)		2,919,32
48	392.03	Light Trucks	8,783,079		17,570,348		-		4,235,162		(1,468,256)		20,337,25
49	392.04	Medium Trucks	383,956		199,121		-		1,383,529		(57,896)		1,524,75
50	392.05	Heavy Trucks	2,007,098		3,072,012		-		271,961		(69,831)		3,274,14
51	392.06	Trailers	200,544		818,274		-		264,801		(41,646)		1,041,42
52	393 394	Stores Equipment	28,178		28,178		-		- 461.062		-		28,17
53 54	394	Tools, Shop, and Garage Equipment Laboratory Equipment	7,886,979 241,206		8,876,092 88,803		-		6,461,962		-		15,338,05 88,80
55	396	Power Operated Equipment	4,789,334		5,766,089		-				(268,625)		5,497,46
56	397	Communication Equipment	872,646		846,080		_		_		(200,025)		846,08
57	398	Miscellaneous Equipment	1,056,783		177,568		-		_				177,56
58	399	Other Tangible Property	(3,643)	_	-			_		_		_	-
59		Total General Plant	\$ 49,010,994	\$	87,797,857	\$	-	\$	18,099,262	\$	(3,359,949)	\$	102,537,17
60 61	118	Other Utility Plant (Corporate Shared Assets - Note 1a)	\$ 18,801,771	s	20,990,031	s	(2,725,014)	\$	610,268	s	(12,041,346)	s	6,833,93
62	118	Other Utility Plant (Corporate Shared Assets - Note 1a) Other Utility Plant (Corporate Shared Assets - Note 1b)	\$ 18,801,7/1 5,037,743	3	7,174,394	3	(1,187,323)	3	010,268	3	(321,263)	2	6,833,9. 5,665,80
63	118	Other Utility Plant (Corporate Shared Assets - Note 1b) Other Utility Plant (Corporate Shared Assets - Note 2a)	7,854,963		9,280,391		(296,930)		2,444,756		(2,753,329)		8,674,88
64	118	Other Utility Plant (Corporate Shared Assets - Note 2b)	3,521,818		2,269,139		(131,008)		352,590		(996,106)		1,494,61
65	118	Other Utility Plant (Corporate Shared Assets - Note 2c)	5,434,212		5,821,518		(1,054,269)		499,243		(161,376)		5,105,1
66		Total Other Utility Plant	\$ 40,650,508	\$	45,535,472	\$	(5,394,543)	\$	3,906,857	\$	(16,273,421)	\$	27,774,36
67 68		Total Gas Plant In Service	\$ 720,767,365	s	856,329,951	\$	(5,394,543)	\$	102,031,638	s	(23,994,826)	s	928,972,22
69		Total Gas Frant III Service	\$ 720,707,303	_	030,327,731	9	(3,377,343)	Ψ	102,001,000	9	(23,777,020)	-	720,712,22

<sup>(</sup>Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

(Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

(Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM.

(Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

(Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

(Note 3) Adjustment to include BHSC plant assets that will be allocated to Black Hills Nebraska Gas, LLC. As discussed in the Direct Testimony of Michael Clevinger.

# BLACK HILLS NEBRASKA GAS, LLC PLANNED PLANT ADDITIONS FROM JANUARY 1, 2020 TO DECEMBER 31, 2020 FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A1, B Exhibit No. MCC-2 Schedule D-2

2   DISTRIBUTION PLANT   3 374.01   Distribution Plant - Land   4 374.02   Land Rights (Non-Depreciable)   1,548.168   374.03   Land Rights - Right of Way (Depreciable)   375.20   Structures and Improvements - Other   375.20   Structures and Improvements - Other   4,124.1939   378   Distribution Plant - Mains   41,241.939   378   Distribution Plant - Mains   48,241.939   378   Distribution Plant - Services   20,017.573   380.01   Metern Installations   1,201.506   383.71   Distribution Plant - House Regulators Farm Taps   194.575   2,754.301   383.01   Distribution Plant - House Regulators Farm Taps   194.575   383.71   Distribution Plant - House Regulators Farm Taps   194.575   384.01   Mouse regulator installations   48,644   389.02   Distribution Plant - House Regulators Farm Taps   194.575   385   Industrial Measuring & Regulating Station Equipment   5,369.066   Other Property on Customers' Premises	Line No.	FERC Acct	Project Description		Amount
3   374.01   1   1   1   1   1   1   1   1   1	1		•		
374.02         Land Rights (Non-Depreciable)         1,548,168           375.01         Structures and Improvements - Other         804,543           375.20         Structures and Improvements - Other         41,241,939           378         Distribution Plant - Mains         41,241,939           378         Distribution Plant - Mains         1,187,898           378         Distribution Plant - Mains         1,147,570           11         380         Distribution Plant - Services         20,017,573           12         381         Meter         3,359,198           381         Misch Installations         1,201,503           382,01         Distribution Plant - House Regulators         2,754,301           383,71         Distribution Plant - House Regulators         2,754,301           384,01         House regulator installations         48,644           384,01         House regulator installations         48,644           385,02         Cher Equipment         5,80,606           385,01         House regulator installations         48,644           386,02         Cher Equipment         5           20         Total Distribution Plant         5           21         Sall         Other Equipment         5			DISTRIBUTION PLANT		
5 374.0 I Land Rights - Right of Way (Depreciable)         8 04,543           7 375.20 Structures and Improvements         8 04,543           7 375.20 Structures and Improvements         41,241,939           8 376 Distribution Plant - Mains         41,241,939           10 379 Measuring & Regulating Station Equip City Gate Check Stn.         1,447,570           11 380 Distribution Plant - Services         20,017,573           12 381 Meters         3,539,198           3 382.01 Distribution Plant - House Regulators         2,754,301           15 384.01 Meter Installations         1,201,506           16 384.01 House regulator installations         2,754,301           15 385.71 Distribution Plant - House Regulators - Farm Taps         194,575           385.71 Close regulator installations         3,569,606           16 384.01 House regulator installations         3,569,606           17 385 Industrial Measuring & Regulating Station Equipment         5,369,606           18 386 Other Equipment         5,309,01           20 Total Equipment         8,0225,519           21 389.02 Land Kights - Right of Way         14,11,104           23 390.01 Lassehold Improvements         4,437,104           24 389.02 Land Kights - Right of Way         4,437,104           25 390.01 Evacuation of City Freeze Company         4,437,104	3	374.01	Distribution Plant - Land	\$	-
6 375.01         Structures and Improvements - Other           7 375.02         Structures and Improvements - Other           8 376         Distribution Plant - Mains         41,241,939           9 378         Distribution Plant - Mains         1,857,896           10 379         Measuring & Regulating Station Equip City Gate Check Stn.         1,447,570           11 380         Distribution Plant - Services         20,117,573           13 382.01         Meter Installations         1,201,503           13 383.10         Distribution Plant - House Regulators         2,754,301           15 383.71         Distribution Plant - House Regulating Station Equipment         5,369,606           18 385         Other Property on Customers' Premises         -           19 387         Other Equipment regulation Station Equipment         5           18 386.0         Other Property on Customers' Premises         -           20 Total Distribution Plant         \$ 80,025,519           21 Total Distribution Plant         \$ 80,025,519           22 Strong Cerear         Total Distribution Plant         \$ 80,025,519           23 389.01         Land Rights - Right of Way         148,113           24 389.02         Land Rights - Right of Way         148,113           25 391.03         Structures and Impro	4	374.02	Land Rights (Non-Depreciable)		1,548,168
7 375.20         Surteutres and Improvements - Other         41,241,939           8 376         Distribution Plant - Mains         41,241,939           9 378         Distribution Plant - Meas. & Reg. Sta. Equip General         1,857,896           10 379         Measuring & Regulating Station Equip City Gate Check Stn.         1,47570           12 381         Meters         3,339,198           13 382.01         Meter Installations         2,017,573           14 383.01         Distribution Plant - House Regulators         2,754,301           15 383.71         Distribution Plant - House Regulators - Farm Taps         194,575           16 384.01         House regulator installations         48,644           17 385         Industrial Measuring & Regulating Station Equipment         5,509,006           18 386         Other Property on Customers' Premises         -           19 387         Total Distribution Plant         \$8,0025,519           21         Total Distribution Plant         \$8,0025,519           22         Total Distribution Plant         \$8,0025,519           23         Total Regulation Station Equipment         \$8,0025,519           24         389.02         Land         \$141,716           25         390.01         Structures and Improvements <t< td=""><td>5</td><td>374.03</td><td>Land Rights - Right of Way (Depreciable)</td><td></td><td>-</td></t<>	5	374.03	Land Rights - Right of Way (Depreciable)		-
8         376         Distribution Plant - Manis         41,241,919           9         378         Distribution Plant - Meas. & Reg. Sta. Equip General         1,857,896           10         379         Measuring & Regulating Station Equip City Gate Check Stn.         1,447,570           11         380         Distribution Plant - Services         20,017,573           12         381         Meters         3,539,198           13         382,01         Micer Installations         1,201,506           14         383,01         Distribution Plant - House Regulators         2,754,301           15         384,01         House regulator installations         194,575           16         384,01         House regulator installations         2,754,301           18         386,0         Other Equipment         3,506,606           18         386         Other Equipment         3,506,606           18         388         Total Distribution Plant         \$8,0025,519           20         Total Mights - Right of Way         14,141           21         389,01         Land Rights - Right of Way         14,141           25         390,01         Structures and Improvements         4,147,164           26         390,25	6	375.01	Structures and Improvements		804,543
9         378         Distribution Plant - Meas. & Reg. Sta. Equip General         1.837,896           10         379         Measuring & Regulating Station Equip City Gate Check Sta.         2,0017,573           12         381         Meters         3,30,9198           13         382.01         Meter Installations         1,201,506           14         383.01         Distribution Plant - House Regulators         2,754,301           15         383.71         Distribution Plant - House Regulators - Farm Taps         1,201,506           16         384.01         House regulator installations         4,644           17         385         Industrial Measuring & Regulating Station Equipment         5,09,606           18         386         Other Property on Customers' Premises         -           19         387         Cher Equipment         5           20         Total Distribution Plant         8,025,519           21         Total Distribution Plant         8,025,519           22         Total Distribution Plant         8,025,519           23         389.01         Land         8,543,681           24         389.02         Land Rights - Right of Way         1,41,716           25         389.01         Lacaschold I	7	375.20	Structures and Improvements - Other		-
10         379         Measuring & Regulating Station Equip- City Gate Check Stn.         1,447,579           11         380         Distribution Plant - Services         3,539,198           12         381         Meters         3,539,198           13         382,01         Meter Installations         1,275,4301           15         383,71         Distribution Plant - House Regulators Farm Taps         194,575           16         384,01         House regulator installations         48,644           17         388         Industrial Measuring & Regulating Station Equipment         5,369,606           18         380         Other Property on Customers' Premises	8	376	Distribution Plant - Mains		41,241,939
1	9	378			1,857,896
12         381         Meters         3,539,198           13         382.01         Meter Installations         2,754,301           14         383.01         Distribution Plant - House Regulators - Farm Taps         194,575           15         384.71         Distribution Plant - House Regulators - Farm Taps         194,575           16         384.01         House regulator installations         48,644           17         385         Industrial Measuring & Regulating Station Equipment         5,369,006           18         386         Other Property on Customers' Premises         -           20         Total Distribution Plant         -           21         Total Distribution Plant         -           23         389.01         Land         \$ 80,025,519           24         389.02         Land Rights - Right of Way         148,113           25         390.01         Urasehold Improvements         4147,164           26         390.51         Leasehold Improvements         4147,164           27         391.01         Office Furniture         -           29         391.03         Computer Hardware         -           39         391.03         Computer Hardware         -	10				1,447,570
13         382.01         Meter Installations         1,201,506           14         383.01         Distribution Plant - House Regulators         2,754,301           15         384.01         House regulator installations         48,644           17         385         Industrial Measuring & Regulating Station Equipment         5,369,600           18         386         Other Property on Customers' Premises         -           19         387         Other Equipment         \$80,025,191           21         Total Distribution Plant         \$80,025,519           21         Total Distribution Plant         \$80,025,519           21         GENERAL PLANT         \$80,025,519           23         389.01         Land Rights - Right of Way         148,113           24         389.02         Land Rights - Right of Way         1417,164           25         390.01         Structures and Improvements         4,147,164           26         390.1         Leaschold Improvements         4,247,164           26         390.1         Computer Hardware         4,237,1           391.03         Office Furniture         2           391.04         Software         544,747           31         392.01         T	11		Distribution Plant - Services		
14         383.01         Distribution Plant - House Regulators         2,754,301           15         383.71         Distribution Plant - House Regulators - Farm Taps         194,575           16         384.01         House regulator installations         48,644           17         385         Industrial Measuring & Regulating Station Equipment         5,369,606           18         386         Other Pequipment            20         Total Distribution Plant         80,025,519           21         Total Distribution Plant         80,025,519           22         GENERAL PLANT         ***           23         389.01         Land Rights - Right of Way         148,113           25         390.01         Lard Rights - Right of Way         148,113           26         390.15         Leaschold Improvements         4,147,164           29         391.01         Office Machines         49,371           391.02         Office Furniture         -           391.03         Soldware         49,371           301.04         Soldware         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -	12	381	Meters		
15         383.71         Ibstribution Plant - House Regulators - Farm Taps         194,575           16         384.01         House regulator installations         48,646           17         385         Industrial Measuring & Regulating Station Equipment         5,369,606           18         386         Other Property on Customers' Premises         -           20         Universal Measuring & Regulating Station Equipment         -           21         Total Distribution Plant         \$80,025,519           21         Total Distribution Plant         \$80,025,519           21         Total Plant PLANT         ***           23         389.01         Land         \$543,081           24         389.02         Land Rights - Right of Way         148,113           25         390.01         Structures and Improvements         4,147,164           26         390.15         Leasehold Improvements         4,237           27         391.01         Office Machines         49,371           39         391.02         Office Furniture         -           29         391.03         Computer Hardware         4,247,47           31         392.01         System Development         -           32         3					1,201,506
16         384.01         Industrial Measuring & Regulation Station Equipment         5,369.06           17         385         Industrial Measuring & Regulating Station Equipment         -           19         387         Other Equipment         -           20         Total Distribution Plant         -           21         Book Declaration         -           22         Total Distribution Plant         -           23         389.01         Land         \$ 543,081           24         389.02         Land Rights - Right of Way         148,113           25         390.01         Istructures and Improvements         4,147,164           26         390.11         Ceasehold Improvements         49,371           27         391.01         Office Machines         49,371           39         391.01         Office Puriture         -           29         391.02         Office Furniture         -           391.03         System Development         -           31         391.05         System Development         -           31         391.05         System Development         -           30         392.01         Transportation Equipment         -           <			· · · · · · · · · · · · · · · · · · ·		
17         385         Industrial Measuring & Regulating Station Equipment         - 3,369,606           18         386         Other Property on Customers Premises            20         Nother Equipment            21         Total Distribution Plant         \$80,025,519           21         Beneficial State PLANT         \$543,081           23         389.01         Land         \$543,081           26         390.51         Leasehold Improvements         4147,164           26         390.51         Leasehold Improvements            27         391.01         Office Furniture            29         391.02         Office Furniture            39         391.01         Office Purniture            39         391.02         Office Furniture            39         391.03         System Development            30         391.04         Stower            31         392.01         Transportation Equipment            38         392.02         Laborators Equipment            40         394         Medium Trucks         1,381,592					
18			· ·		
					5,369,606
			* •		-
		387			-
22         GENERAL PLANT         \$ 543,081           23         389.01         Land Rights - Right of Way         148,113           25         390.01         Structures and Improvements         4,147,164           26         390.51         Leaschold Improvements         -           27         391.02         Office Furniture         -           28         391.02         Office Furniture         -           29         391.03         Computer Hardware         49,371           30         391.04         Software         49,371           30         391.05         System Development         -           31         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.02         Lage Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Trailers         264,801           39         393         Stores Equipment         -           40         394         Fools, Shop, and Garage Equipment         -           42			Total Distribution Plant	\$	80,025,519
23         389.01         Land         \$ 543,081           24         389.02         Land Rights - Right of Way         148,113           25         390.01         Structures and Improvements         4,147,164           26         390.51         Leaschold Improvements         -           27         391.01         Office Wachines         49,371           28         391.02         Office Furniture         49,371           39         391.03         Computer Hardware         49,371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         4,235,162           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -					
24         389.02         Land Rights - Right of Way         148,113           25         390.01         Structures and Improvements         4,147,164           26         390.51         Leasehold Improvements         -           27         391.01         Office Machines         49,371           28         391.02         Office Furniture         -           29         391.03         Computer Hardware         49,371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         271,961           38         392.05         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           41         395         Laboratory Equipment         -					
25         390.01         Structures and Improvements         -           26         390.51         Leasehold Improvements         -           27         391.01         Office Machines         49,371           28         391.02         Office Furniture         -           29         391.03         Computer Hardware         49,371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           41         395         Laboratory Equipment         -           43				\$	
26         390.51         Leasehold Improvements         4.7           27         391.01         Office Machines         49.371           28         391.02         Office Furniture         49.371           29         391.03         Computer Hardware         49.371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           45 <td></td> <td></td> <td>• •</td> <td></td> <td></td>			• •		
27         391.01         Office Machines         49,371           28         391.02         Office Furniture         -           29         391.03         Computer Hardware         49,371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           45 <t< td=""><td></td><td></td><td>•</td><td></td><td>4,147,164</td></t<>			•		4,147,164
28         391.02         Office Furniture         -           29         391.03         Computer Hardware         49,371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45 <t< td=""><td></td><td></td><td>*</td><td></td><td>-</td></t<>			*		-
29         391.03         Computer Hardware         49,371           30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         271,961           36         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           48					*
30         391.04         Software         544,747           31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         -           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           48         118         Other Utility Plant (Corporate Shared Assets - Note 1a)         \$ 18,099,262					
31         391.05         System Development         -           32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         6,461,962           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           46         Total General Plant         \$ 18,099,262           47         Total General Plant         \$ 610,268           49         118			<u>*</u>		,
32         391.07         Ipad Hardware         -           33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         6,461,962           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           45         399         Miscellaneous Equipment         -           46         Total General Plant         \$ 18,099,262           47         Total General Plant         \$ 18,099,262           48         118         Other Utility Plant (Corporate Shared Assets - Note 1a)         \$ 610,268					
33         392.01         Transportation Equipment         -           34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         6,461,962           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           46         Total General Plant         \$ 18,099,262           47         ***         ***           48         118         Other Utility Plant (Corporate Shared Assets - Note 1a)         \$ 610,268           49         118         Other Utility Plant (Corporate Shared Assets - Note 2b)         3 52,590 <td></td> <td></td> <td>· ·</td> <td></td> <td>-</td>			· ·		-
34         392.02         Cars         -           35         392.03         Light Trucks         4,235,162           36         392.04         Medium Trucks         1,383,529           37         392.05         Heavy Trucks         271,961           38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         6,461,962           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           46         Total General Plant         \$ 18,099,262           47         **         **           48         118         Other Utility Plant (Corporate Shared Assets - Note 1a)         \$ 610,268           49         118         Other Utility Plant (Corporate Shared Assets - Note 2b)         2,444,756           51         118         Other Utility Plant (Corporate Shared Assets - Note			1		-
35       392.03       Light Trucks       4,235,162         36       392.04       Medium Trucks       1,383,529         37       392.05       Heavy Trucks       271,961         38       392.06       Trailers       264,801         39       393       Stores Equipment       -         40       394       Tools, Shop, and Garage Equipment       6,461,962         41       395       Laboratory Equipment       -         42       396       Power Operated Equipment       -         43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       \$       1         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53 <td></td> <td></td> <td></td> <td></td> <td>-</td>					-
36       392.04       Medium Trucks       1,383,529         37       392.05       Heavy Trucks       271,961         38       392.06       Trailers       264,801         39       393       Stores Equipment       -         40       394       Tools, Shop, and Garage Equipment       6,461,962         41       395       Laboratory Equipment       -         42       396       Power Operated Equipment       -         43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       \$ 18       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utilit					4 225 162
37       392.05       Heavy Trucks       271,961         38       392.06       Trailers       264,801         39       393       Stores Equipment       -         40       394       Tools, Shop, and Garage Equipment       6,461,962         41       395       Laboratory Equipment       -         42       396       Power Operated Equipment       -         43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       \$ 18       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Gas Plant In Service       \$ 3,906,857			e e e e e e e e e e e e e e e e e e e		
38         392.06         Trailers         264,801           39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         6,461,962           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           46         Total General Plant         \$ 18,099,262           47         \$ 18         Other Utility Plant (Corporate Shared Assets - Note 1a)         \$ 610,268           49         118         Other Utility Plant (Corporate Shared Assets - Note 1b)         -           50         118         Other Utility Plant (Corporate Shared Assets - Note 2a)         2,444,756           51         118         Other Utility Plant (Corporate Shared Assets - Note 2b)         352,590           52         118         Other Utility Plant (Corporate Shared Assets - Note 2c)         499,243           53         Total Other Utility Plant         \$ 3,906,857           54         Total Gas Plant In Service					
39         393         Stores Equipment         -           40         394         Tools, Shop, and Garage Equipment         6,461,962           41         395         Laboratory Equipment         -           42         396         Power Operated Equipment         -           43         397         Communication Equipment         -           44         398         Miscellaneous Equipment         -           45         399         Other Tangible Property         -           46         Total General Plant         \$ 18,099,262           47         \$ 18         Other Utility Plant (Corporate Shared Assets - Note 1a)         \$ 610,268           49         118         Other Utility Plant (Corporate Shared Assets - Note 2b)         -           50         118         Other Utility Plant (Corporate Shared Assets - Note 2b)         352,590           52         118         Other Utility Plant (Corporate Shared Assets - Note 2c)         499,243           53         Total Other Utility Plant         \$ 3,906,857           54         Total Gas Plant In Service         \$ 102,031,638					
40       394       Tools, Shop, and Garage Equipment       6,461,962         41       395       Laboratory Equipment       -         42       396       Power Operated Equipment       -         43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       \$ 118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638					204,001
41       395       Laboratory Equipment       -         42       396       Power Operated Equipment       -         43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       ***       ***         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       **       Total Gas Plant In Service       \$ 102,031,638			1 1		6 461 962
42       396       Power Operated Equipment       -         43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       ***       ***         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       **       Total Gas Plant In Service       \$ 102,031,638					-
43       397       Communication Equipment       -         44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       ***       ***         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       **       **         55       Total Gas Plant In Service       \$ 102,031,638					_
44       398       Miscellaneous Equipment       -         45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       ***       ***         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       **       **         55       Total Gas Plant In Service       \$ 102,031,638					_
45       399       Other Tangible Property       -         46       Total General Plant       \$ 18,099,262         47       ***         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       **       **         55       Total Gas Plant In Service       \$ 102,031,638			• •		_
46       Total General Plant       \$ 18,099,262         47       ***         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       **       Total Gas Plant In Service       \$ 102,031,638					_
47         48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638				\$	18.099.262
48       118       Other Utility Plant (Corporate Shared Assets - Note 1a)       \$ 610,268         49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638					-,,
49       118       Other Utility Plant (Corporate Shared Assets - Note 1b)       -         50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638		118	Other Utility Plant (Corporate Shared Assets - Note 1a)	\$	610.268
50       118       Other Utility Plant (Corporate Shared Assets - Note 2a)       2,444,756         51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638			• • • •	•	-
51       118       Other Utility Plant (Corporate Shared Assets - Note 2b)       352,590         52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638					2,444,756
52       118       Other Utility Plant (Corporate Shared Assets - Note 2c)       499,243         53       Total Other Utility Plant       \$ 3,906,857         54       Total Gas Plant In Service       \$ 102,031,638					
53       Total Other Utility Plant       \$ 3,906,857         54       \$ 102,031,638         55       Total Gas Plant In Service       \$ 102,031,638					
54 55 Total Gas Plant In Service \$ 102,031,638			• • • •		
55 Total Gas Plant In Service <u>\$ 102,031,638</u>			•	4	- ) , ,
			Total Gas Plant In Service	\$	102,031,638
				<u> </u>	-

<sup>(</sup>Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities per CAM.

57

<sup>58 (</sup>Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

<sup>59 (</sup>Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM.

<sup>60 (</sup>Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

<sup>(</sup>Note 2c) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated gas utilities per CAM.

### BLACK HILLS NEBRASKA GAS, LLC PLANNED PLANT RETIREMENTS FROM JANUARY 1, 2020 TO DECEMBER 31, 2020 FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Line	FERC			
No.	Acct	Project Description		Amount
1				
2		INTANGIBLE PLANT		
3	301	Intangibles Organization	\$	-
4 5	302 303	Intangibles Franchises & Consents Intangibles Miscellaneous		-
6		Intangibles Miscellaneous - Easements		-
7	303.01	Total Intangible Plant	-\$	-
8		6		
9		TRANSMISSION PLANT		
10		Right-of-Way	\$	-
11		Structures and Improvements		-
12	367	Transmission Plant - Mains		-
13 14	369.03	Transmission Plant - Meas. & Reg. Sta. Equip. Total Transmission Plant	-\$	-
15		Total Transmission Plant	э	-
16		DISTRIBUTION PLANT		
17	374.01	Distribution Plant - Land	\$	(750,374)
18	374.02	Land Rights (Non-Depreciable)		-
19	374.03	Land Rights - Right of Way (Depreciable)		-
20		Structures and Improvements		(2,379,315)
21	375.2	Structures and Improvements - Other		-
22	376	Distribution Plant - Mains		(747,438)
23 24	378 379	Distribution Plant - Meas. & Reg. Sta. Equip General		-
25	380	Measuring & Regulating Station Equip City Gate Check Stn.  Distribution Plant - Services		(484,329)
26	381	Meters		(404,329)
27		Meter Installations		_
28		Distribution Plant - House Regulators		-
29	383.71	Distribution Plant - House Regulators - Farm Taps		-
30	384.01	House regulator installations		-
31	385	Industrial Measuring & Regulating Station Equipment		-
32	386	Other Property on Customers' Premises		-
33 34	387	Other Equipment Total Distribution Plant	-\$	- (4.261.456)
35		Total Distribution Plant	э	(4,361,456)
36		GENERAL PLANT		
37	389.01		\$	(3,944)
38	389.02	Land Rights - Right of Way		- 1
39	390.01	Structures and Improvements		(490,715)
40		Leasehold Improvements		-
41		Office Machines		-
42		Office Furniture		-
43 44		Computer Hardware Software		-
45		System Development		-
46		Ipad Hardware		-
47		Transportation Equipment		-
48	392.02			(959,036)
49	392.03	Light Trucks		(1,468,256)
50		Medium Trucks		(57,896)
51		Heavy Trucks		(69,831)
52		Trailers		(41,646)
53 54	393 394	Stores Equipment Tools, Shop, and Garage Equipment		-
55	395	Laboratory Equipment		_
56	396	Power Operated Equipment		(268,625)
57	397	Communication Equipment		-
58	398	Miscellaneous Equipment		-
59	399	Other Tangible Property		-
60		Total General Plant	\$	(3,359,949)
61		21 YTH 21 (2		
62		Other Utility Plant (Corporate Shared Assets - Note 1a)	\$	(12,041,346)
63		Other Utility Plant (Corporate Shared Assets - Note 1b)		(321,263)
64 65		Other Utility Plant (Corporate Shared Assets - Note 2a) Other Utility Plant (Corporate Shared Assets - Note 3b)		(2,753,329)
65 66		Other Utility Plant (Corporate Shared Assets - Note 2b) Other Utility Plant (Corporate Shared Assets - Note 2c)		(996,106)
67	118	Total Other Utility Plant	2	(161,376) (16,273,421)
68		Tour Outer Outing Flain	φ	(10,2/3,721)
69		Total Gas Plant In Service	\$	(23,994,827)
70			=	
71	(Note 1a)	Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities	per CA	AM.

<sup>(1) (</sup>Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities per CAM.

<sup>72 (</sup>Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

<sup>73 (</sup>Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM.

<sup>(</sup>Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

<sup>75 (</sup>Note 2e) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated gas utilities per CAM.

### BLACK HILLS NEBRASKA GAS, LLC ADJUSTED ACCUMULATED PROVISION FOR DEPRECIATION FOR THE TEST YEAR ENDING DECEMBER 31, 2020

		(a)	(b)	(c)		(d)		(e)	<b>(f)</b>		(g)
		12/31/2018	12/31/2019			(Note 3)		(Note 4)	(Note 6)		2/31/2020
T		Per Book	Per Book	Existing Plant		Accumulated		Accumulated	Accumulated		Adjusted
Line No.	Description	Accumulated Depreciation	Accumulated Depreciation	AM Accumulated Depreciation		Depreciation Plant ddition Adjustments (M-2)	D.	Depreciation etirements (D-3)	Depreciation Roll Forward		ccumulated epreciation
INO.	Description	 Depreciation	Depreciation	Depreciation	A	udition Adjustments (NI-2)	K	etirements (D-3)	Kon Forwaru	D	epreciation
1	Intangible	\$ 954,603	\$ 988,584	\$ -	\$	-	\$	-	\$ 63,434 \$	3	1,052,018
2	8	,,,,,	,								, ,
3	Gathering and Processing (Note 5)	(18,028)	(18,028)	-		-		18,028	-		-
4											
5	Storage Plant	-	-	-		-		-	-		-
6											
7	Transmission	4,212,174	4,260,643	-		-		-	50,163		4,310,806
8											
9	Distribution	237,496,161	249,936,085	-		909,436		(3,611,082)	19,237,273		266,471,712
10											
11	General	16,522,247	15,862,916	-		446,331		(3,356,005)	4,485,592		17,438,834
12		12 0 10 000	12.007.126	(1.650.100)		15.505		(12.041.246)	1 262 502		454.010
13	Other Utility Plant (Corporate Shared Assets - Note 1a)	12,040,900	12,887,426	(1,673,100)		17,535		(12,041,346)	1,263,503		454,018
14	Other Utility Plant (Corporate Shared Assets - Note 1b)	155,500	233,297	(38,609)		-		(321,263)	564,348		437,773
15	Other Utility Plant (Corporate Unrecovered Reserve - Note 1c)	(1,178,988)	(1,178,988)	(492,173)		-		-	139,263		(1,531,898)
16	Other Utility Plant (Corporate Shared Assets - Note 2a)	3,909,308	4,446,443	(142,266)		94,379		(2,753,329)	757,396		2,402,624
17	Other Utility Plant (Corporate Shared Assets - Note 2b)	824,923	154,562	(8,924)		9,182		(996,106)	120,410		(720,876)
18	Other Utility Plant (Corporate Shared Assets - Note 2c)	2,216,338	3,002,681	(543,781)		33,824		(161,376)	751,540		3,082,887
19	Other Utility Plant (Corporate Unrecovered Reserve - Note 2d)	(4,681,761)	(4,681,761)	(84,364)		-		-	397,177		(4,368,948)
20											
21	Total Adjusted Accumulated Depreciation	\$ 272,453,377	\$ 285,893,862	\$ (2,983,217)	\$	1,510,686	\$	(23,222,480)	\$ 27,830,101 \$	3	289,028,951
22						·		·			·

<sup>23 (</sup>Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities per CAM.

<sup>24 (</sup>Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

<sup>25 (</sup>Note 1c) Figure represents Other Utility Plant, Corporate Unrecovered Reserve allocated on customer count per CAM.

<sup>26 (</sup>Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM.

<sup>27 (</sup>Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

<sup>28 (</sup>Note 2c) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated gas utilities per CAM.

<sup>29 (</sup>Note 2d) Figure represents Other Utility Plant, Corporate Unrecovered Reserve allocated on general ratio per CAM.

<sup>(</sup>Note 3) Includes depreciation expenses for subsequent additions and adjustments for the pro forma period based on depreciation rates provided on Statement J. This amount is then divided by two to reflect the Test Year.

<sup>31 (</sup>Note 4) Adjustment to remove the accumulated depreciation associated to the assets removed on Schedule D-3.

<sup>32 (</sup>Note 5) Adjustment to remove the accumulated depreciation on Gathering and Processing, which has no related assets.

<sup>33 (</sup>Note 6) Roll forward of the 12/31/2019 balances to reflect the 2020 year end balances.

Line FERC		YEAR ENDING DECEMBER 31, 2020  Description	(a) Plant in Service 12/31/2019		(b) (Note 3) Depreciation cisting Rates		(c) (Note 4) ) Depreciation New Rates	Acc	Schedule E-1 (d) (b) + (c) Adjustment to umulated Depr 12/31/2020
1		INTANGIBLE PLANT							
1 2	301	Intangible PLANI Intangibles Organization	\$ 256	\$	7	\$	_	\$	7
3	302	Intangibles Franchises & Consents	121,062	-	3,008	*	234	*	3,242
4	303	Intangibles Miscellaneous	742,881		18,733		16,368		35,102
5	303.01	Intangibles Miscellaneous - Easements	500,000		16,667		8,417		25,083
6		Total Intangible Plant	\$ 1,364,199	\$	38,415	\$	25,019	\$	63,434
7		TRANSMISSION NA ANTE							
8 9	265.02	TRANSMISSION PLANT Right-of-Way (Depreciable)	\$ 170,272	\$	1,782	\$	431	\$	2,214
10	366.01	Structures and Improvements	8,174	\$	135	Ф	13	Ф	148
11	367	Transmission Plant - Mains	5,361,147		29,308		8,757		38,064
12		Transmission Plant - Meas. & Reg. Sta. Equip.	624,132		5,409		4,327		9,736
13 14		Total Transmission Plant	\$ 6,163,725	\$	36,634	\$	13,529	\$	50,163
15		DISTRIBUTION PLANT							
16	374.01	Distribution Plant - Land	\$ 1,358,868	\$	-	\$	-	\$	-
17	374.02	Land Rights (Non-Depreciable)	176,100		-		-		-
18	374.03	Land Rights - Right of Way (Depreciable)	6,797,136		94,132		21,524		115,656
19	375.01	Structures and Improvements	4,987,056		97,403		12,634		110,037
20	375.20	Structures and Improvements - Other	12,119		242		86		329
21	376	Distribution Plant - Mains	404,011,716		7,152,348		1,952,723		9,105,071
22 23	378 379	Distribution Plant - Meas. & Reg. Sta. Equip General Measuring & Regulating Station Equip City Gate Check Stn.	23,549,301 4,504,804		332,700 90,096		212,729 21,173		545,429 111,269
24	380	Distribution Plant - Services	134,854,199		3,037,325		1,591,280		4,628,604
25	381	Meters	42,421,416		1,243,505		677,329		1,920,833
26	382.01	Meter Installations	11,094,170		192,194		98,738		290,932
27	383.01	Distribution Plant - House Regulators	70,846,697		1,333,467		769,867		2,103,335
28	383.71	Distribution Plant - House Regulators - Farm Taps	848,957		15,225		7,046		22,271
29	384.01	House regulator installations	1,505,149		30,103		6,071		36,174
30	385	Industrial Measuring & Regulating Station Equipment	8,058,005		163,444		69,299		232,743
31	386	Other Property on Customers' Premises	35,279		706		122		828
32 33	387	Other Equipment Total Distribution Plant	\$ 715,468,698	\$	10,964	-\$	2,800 5,443,421	\$	13,763
34		Total Distribution Fiant	\$ 715,400,090	J	13,793,633	φ	3,443,421	Ф	19,237,273
35		GENERAL PLANT							
36	389.01		\$ 5,210,068	\$	-	\$	-	\$	-
37		Land Rights - Right of Way (Non-Depreciable)	1,183,494		-		-		-
38		Structures and Improvements	38,224,611		585,863		379,698		965,561
39 40		Leasehold Improvements Office Machines	93,091 425,979		20,096		2,880 7,071		2,880 27,167
41		Office Furniture	423,979		20,090		7,071		27,107
42		Computer Hardware	558,110		26,658		36,779		63,437
43	391.04	1	170,100		55,543		102		55,645
44	391.05	System Development	´-		-		-		-
45	391.07	Ipad Hardware	611,479		135,883		40,765		176,648
46		Transportation Equipment	-		-		-		-
47	392.02		3,878,361		255,329		127,598		382,927
48 49		Light Trucks	17,570,348		1,106,448		409,975		1,516,422
		Medium Trucks	199,121 3,072,012		11,947 193,375		8,337 48,743		20,284 242,117
50 51	392.05	Heavy Trucks Trailers	3,072,012 818,274		52,599		17,975		70,573
52	393	Stores Equipment	28,178		1,409		376		1,785
53	394	Tools, Shop, and Garage Equipment	8,876,092		280,518		116,869		397,387
54	395	Laboratory Equipment	88,803		1,760		1,365		3,125
55	396	Power Operated Equipment	5,766,089		373,018		73,614		446,632
56	397	Communication Equipment	846,080		82,105		18,783		100,888
57	398	Miscellaneous Equipment	177,568		9,154		2,959		12,114
58 59	399	Other Tangible Property Total General Plant	\$ 87,797,857	\$	3,191,704	-\$	1,293,887	\$	4,485,592
60		Total General Flaint	9 01,171,031	φ	3,171,/04	φ	1,273,007	ψ	7,705,592
61	118	Other Utility Plant (Corporate Shared Assets - Note 1a)	20,990,031		258,335		1,005,168		1,263,503
62	118	Other Utility Plant (Corporate Shared Assets - Note 1b)	7,174,394		70,051		494,297		564,348
63	118	Other Utility Plant (Corporate Unrecovered Reserve - Note 1c)	1,671,161		-		139,263		139,263
64	118	Other Utility Plant (Corporate Shared Assets - Note 2a)	9,280,391		160,285		597,112		757,396
65	118	Other Utility Plant (Corporate Shared Assets - Note 2b)	2,269,139		21,925		98,486		120,410
66	118	Other Utility Plant (Corporate Shared Assets - Note 2c)	5,821,518		94,195		657,345		751,540
67 68	118	Other Utility Plant (Corporate Unrecovered Reserve - Note 2d) Total Other Utility Plant	\$ 51,972,758	\$	604,791	-\$	397,177 3,388,848	\$	397,177 3,993,639
69 70		Total Gas Plant In Service	\$ 862,767,237	\$	17,665,397	\$	10,164,704	\$	27,830,101
71				<u> </u>		<u> </u>			,,

<sup>72</sup> (Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities per CAM.

which calculates 10 months under the new rates effective March 1, 2020.

<sup>73</sup> (Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

<sup>74</sup> (Note 1c) Figure represents Other Utility Plant, Corporate Unrecovered Reserve allocated on customer count per CAM.

<sup>75</sup> (Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM.

<sup>76</sup> 77

<sup>(</sup>Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM. (Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM. (Note 2c) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated gas utilities per CAM. (Note 2d) Figure represents Other Utility Plant, Corporate Unrecovered Reserve allocated on general ratio per CAM.

<sup>78</sup> 79

<sup>(</sup>Note 3) Calculation of 2020 depreciation under existing rates for 8 months (January - August), except account 118 Other Utility Plant, which calculates 2 months

<sup>80</sup> under existing rates since new rates were effective March 1, 2020. 81 (Note 4) Calculation of 2020 depreciation under new rates for 4 months (September - December) when interim rates go into effect except account 118 Other Utility Plant,

### BLACK HILLS NEBRASKA GAS, LLC WORKING CAPITAL FOR THE TEST YEAR ENDING DECEMBER 31, 2020

			(a)	(b)	(c)	(d) $[(a) + (b) + (c)]$
Line No.	Description	Reference	Per Books	ro Forma djustment (Note 1)	Other ljustments (Note 2)	Adjusted
1 2	Cash Working Capital	Sched F-2 pg1 Ln.21	\$ (1,677,029)	\$ -	\$ (509,119)	\$ (2,186,148)
3	Materials and Supplies	Sched F-1 Ln.13 (a)	5,398,698	(350,675)	-	5,048,023
5 6	Prepaid Expenses	Sched F-1 Ln.13 (b)	488,586	(94,303)	-	394,283
7	Total Working Capital	Sum Ln.1 - Ln.5	\$ 4,210,255	\$ (444,978)	\$ (509,119)	\$ 3,256,158

<sup>9 (</sup>Note 1) The adjustment is based on a thirteen month average. See Schedule F-1 for details.

<sup>10 (</sup>Note 2) Reference Schedule F-2 pg 2 which utilizes the lead lag results including adjustments to Pro Forma Period amounts.

# BLACK HILLS NEBRASKA GAS, LLC COMPONENTS OF CLAIMED WORKING CAPITAL FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A2 Exhibit No. MCC-2 Schedule F-1

Line				(a) Materials nd Supplies	(b) Prepaid Expenses
No.	Year	Month	(a	/c 154, 163)	(a/c 165)
1	2018	December	\$	4,301,179 \$	546,123
2	2019	January		4,277,948	399,227
3		February		4,657,931	269,670
4		March		4,548,778	165,063
5		April		4,648,359	95,266
6		May		4,991,732	81,285
7		June		5,057,769	192,666
8		July		5,852,063	433,146
9		August		6,025,857	512,267
10		September		5,378,730	575,000
11		October		5,201,358	743,923
12		November		5,283,892	623,459
13	2019	December		5,398,698	488,586
14					
15	13-Month Aver	age	\$	5,048,023 \$	394,283
16					
17	Pro Forma Adjı	ıstment	\$	(350,675)	(94,303)

## BLACK HILLS NEBRASKA GAS, LLC CASH WORKING CAPITAL - PER BOOKS FOR THE BASE YEAR ENDED DECEMBER 31, 2019

Sect II: 004.03A2 Exhibit No. MCC-2 Schedule F-2 Page 1 of 2

	(a)	<b>(b)</b>	(c)	(d)	(e)	(f)	(g)	(h)
Line		Test Year	Revenue	Expense	(b/ sum of b) *d Lead Days	(c) - (d) Net	(f)/365 days	(b) * (g)
No.	Account Description	Expenses	Lag	Lead	Weighted	(Lead)/Lag	Factor	CWC Req
-	•	•			J	, , ,		•
1	Operations & Maintenance Expense							
2	Federal Income Tax Withheld	\$ 4,788,843	37.6996	14.0000	0.3642	23.6996	0.0649	\$ 310,942
3	FICA Taxes Withheld - Employee	2,264,966	37.6996	14.0000	0.1723	23.6996	0.0649	147,065
4	Net Payroll	13,460,749	37.6996	14.0000	1.0238	23.6996	0.0649	874,013
5	Gas Purchases - PGA - NEG	75,442,264	38.8566	32.6530	13.3826	6.2036	0.0170	1,282,220
6	Other O & M	47,110,492	37.6996	45.6250	11.6767	(7.9254)	(0.0217)	(1,022,928)
7	<b>Total Operation &amp; Maintenance Expense</b>	\$ 143,067,314						\$ 1,591,312
8								
9	Gas Purchases (ChoiceGas Supplier Payments) - NEGD	\$ 70,932,491	36.1261	35.0634	13.5114	1.0627	0.0029	\$ 206,513
10								
11	Taxes other than Income Taxes							
12	Property Taxes	\$ 3,909,166	37.6996	335.8070	7.1314	(298.1074)	(0.8167)	
13	FICA Taxes - Employer's	2,264,966	37.6996	14.0000	0.1723	23.6996	0.0649	147,065
14	Unemployment Taxes (FUTA & SUTA)	51,886	37.6996	14.0000	0.0039	23.6996	0.0649	3,369
15	City Franchise Taxes	6,969,285	37.6996	65.7954	2.4911	(28.0958)	(0.0770)	(536,459)
16	Sales Taxes	18,239,542	37.6996	35.2000	3.4879	2.4996	0.0068	124,909
17	Total Taxes other than Income Taxes	\$ 31,434,846						\$ (3,453,858)
18								
19	Current Income Taxes-Federal and State	\$ 9,574,529	37.6996	38.5000	2.0025	(0.8004)	(0.0022)	\$ (20,995)
20								
21	Total Cash Working Capital Requirement	\$ 184,076,689						(1,677,029)

### BLACK HILLS NEBRASKA GAS, LLC CASH WORKING CAPITAL - AS ADJUSTED FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A2 Exhibit No. MCC-2 Schedule F-2 Page 2 of 2

	(a)	-	(b) Pro Forma	(c)	(d)	(e) (b/ sum of b) *d	(f) (c) - (d)	(g) (f)/365 days	(h) (b) * (g)
Line		-	Period	Revenue	Expense	Lead Days	Net	(1)/303 days	(b) (g)
No.	Account Description		Expenses	Lag	Lead	Weighted	(Lead)/Lag	Factor	CWC Req
1	Operations & Maintenance Expense								
2	Federal Income Tax Withheld (Note 1)	\$	5,482,949	37.6996	14.0000	0.4013	23.6996	0.0649	\$ 356,010
3	FICA Taxes Withheld - Employee		2,492,433	37.6996	14.0000	0.1824	23.6996	0.0649	161,835
4	Net Payroll		15,512,604	37.6996	14.0000	1.1355	23.6996	0.0649	1,007,240
5	Gas Purchases - PGA - NEG		75,442,264	38.8566	32.6530	12.8799	6.2036	0.0170	1,282,220
6	Other O & M		52,047,386	37.6996	45.6250	12.4158	(7.9254)	(0.0217)	(1,130,125)
7	Total Operation & Maintenance Expense	\$	150,977,636						\$ 1,677,181
8									
9	Gas Purchases (ChoiceGas Supplier Payments) - NEGD	\$	70,932,491	36.1261	35.0634	13.0039	1.0627	0.0029	\$ 206,513
10									
11	Taxes other than Income Taxes								
12	Property Taxes	\$	4,660,325	37.6996	335.8070	8.1824	(298.1074)	(0.8167)	\$ (3,806,239)
13	FICA Taxes - Employer's		2,492,433	37.6996	14.0000	0.1824	23.6996	0.0649	161,835
14	Unemployment Taxes (FUTA & SUTA)		51,886	37.6996	14.0000	0.0038	23.6996	0.0649	3,369
15	City Franchise Taxes		6,969,285	37.6996	65.7954	2.3975	(28.0958)	(0.0770)	(536,459)
16	Sales Taxes		18,239,542	37.6996	35.2000	3.3568	2.4996	0.0068	124,909
17	Total Taxes other than Income Taxes	\$	32,413,472						\$ (4,052,585)
18									
19	Current Income Taxes-Federal and State	\$	7,869,975	37.6996	38.5000	1.5842	(0.8004)	(0.0022)	\$ (17,258)
20								· · · · · · · · · · · · · · · · · · ·	· · · · · ·
21	Total Cash Working Capital Requirement	\$	191,261,083						\$ (2,186,148)

(Note 1) Pro Forma expenses in column (b) are calculated by dividing 2019 Federal Income Tax Withheld by 2019 Per Book Wages & Salaries Expense, and multiplying that percentage by the 2020 Annualized Payroll on Sched H-4.

### BLACK HILLS NEBRASKA GAS, LLC COST OF CAPITAL - PRO FORMA FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect IV: 004.05A, B Exhibit No. MCC-2 Statement G

(d)

						(b) x (c)
Line						
No.	Description		Amount	Percent of Total	Cost	Weighted Cost
1	Per Book Base Year as of December 31, 2018:					
2	Long-Term Debt	\$	208,250,000	48.42%	4.35%	2.11%
3	Preferred Stock		-	0.00%	0.00%	0.00%
4	Common Equity (Note 1)		221,825,595	51.58%	10.00%	5.16%
5	Rate of Return	\$	430,075,595	100.00%		7.27%
6						
7						
8	Per Book Base Year as of December 31, 2019:					
9	Long-Term Debt	\$	284,250,000	50.41%	4.17%	2.10%
10	Preferred Stock		-	0.00%	0.00%	0.00%
11	Common Equity (Note 1)		279,593,470	49.59%	10.00%	4.96%
12	Rate of Return	\$	563,843,470	100.00%		7.06%
13						
14						
15	For the Test Year Ending December 31, 2020					
16	Long-Term Debt Sched. G-	1 Ln 58 \$	325,000,000	50.00%	4.11%	2.06%
17	Preferred Stock		-	0.00%	0.00%	0.00%
18	Common Equity		325,000,000	50.00%	10.00%	5.00%
19	Rate of Return	\$	650,000,000	100.00%		7.06%
20						

(a)

(b)

(c)

<sup>21 (</sup>Note 1) Prior year return on equity percentage is adjusted to reflect the rate proposed in this proceeding.

# BLACK HILLS NEBRASKA GAS, LLC COST OF DEBT - TOTAL COMPANY

Sect IV: 004.05A, B Exhibit No. MCC-2 Schedule G-1

(a)	(b)	(c)	(d)	(e)	<b>(f)</b>	(g)	(h)	(i)	<b>(j)</b>	(k)	(1)	(m)
Title	Issue	Maturity	Amount Issued	= (f) ÷ (d)  Price Per Unit	Net Proceeds Amount	Coupon/Interest Rate	Yield to Maturity	Financing Costs	(Gain)/Loss on Reacquired Debt	= (h)+(i)+(j) Cost of Money	Principal Outstanding	= (k) x (l) Annual Cost
		,							•	•		
BHC \$525M Notes Due 2023 BHC \$300M Notes Due 2026	11/19/2013	11/30/2023		0.9953 0.9970	111,971,250	4.25% 3.95%	4.31% 3.99%	0.09% 0.10%	0.00% 0.00%	4.40% 4.08%	112,500,000	4,950
BHC \$300M Notes Due 2026	1/13/2016 8/19/2016	1/15/2026 9/15/2046	20,517,857 20,517,857	0.9946	20,455,688 20,406,035	4.20%	4.23%	0.10%	0.10%	4.08%	20,517,857 20,517,857	837 896
BHC \$400M Notes Due 2027	8/19/2016	1/15/2027	27,357,143	0.9995	27,343,191	3.15%	3.16%	0.79%	0.20%	4.37%	27,357,143	1,135
3HC \$400M Notes Due 2027 3HC \$400M Notes Dues 2033	8/17/2018	5/1/2033	27,357,143	0.9954	27,232,121	4.35%	4.39%	0.08%	0.04%	4.51%	27,357,143	1,133
Total Long-Term Debt										=	208,250,000	9,052
total Long-Term Debt											208,230,000	9,032
Average Cost of Debt											_	4.35%
FOR THE BASE YEAR ENDED D	ECEMBER 31,	2019										
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	<b>(j)</b>	(k)	(I)	(m)
				$= (\mathbf{f}) \div (\mathbf{d})$	Net Proceeds	Coupon/Interest	Yield to	Financing	(Gain)/Loss on	= (h)+(i)+(j) Cost of	Principal	$= (\mathbf{k}) \times (\mathbf{l})$
Title	Issue	Maturity	Amount Issued	Price Per Unit	Amount	Rate	Maturity	Costs	Reacquired Debt	Money	Outstanding	Annual Cost
DIIC 0525M N-4 D 2022	11/10/2012	11/20/2022	6 112 500 000	0.0052	111 071 250	4.259/	4.210/	0.000/	0.000/	4.400/	112 500 000	4,95
SHC \$525M Notes Due 2023 SHC \$300M Notes Due 2026	11/19/2013 1/13/2016	11/30/2023 1/15/2026	\$ 112,500,000 23,817,857	0.9953 0.9970	111,971,250	4.25% 3.95%	4.31% 3.99%	0.09% 0.10%	0.00% 0.00%	4.40% 4.08%	112,500,000 23,817,857	4,93
HC \$300M Notes Due 2026 HC \$300M Notes Due 2046	8/19/2016	9/15/2046	23,817,857	0.9946	23,745,689 23,688,050	4.20%	4.23%	0.10%	0.10%	4.08%	23,817,857	1,04
SHC \$400M Notes Due 2027	8/19/2016	1/15/2027	31,757,143	0.9995	31,740,947	3.15%	3.16%	0.79%	0.20%	4.37%	31,757,143	1,04
BHC \$400M Notes Dues 2033	8/17/2018	5/1/2033	27,357,143	0.9954	27,232,121	4.35%	4.39%	0.79%	0.20%	4.13%	27,357,143	1,31
3HC \$400M Notes Due 2029	10/3/2019	10/15/2029	32,500,000	0.9966	32,388,200	3.05%	3.09%	0.09%	0.00%	3.18%	32,500,000	1,03
BHC \$300M Notes Due 2049	10/3/2019	10/15/2029	32,500,000	0.9981	32,436,625	3.88%	3.89%	0.04%	0.06%	3.99%	32,500,000	1,03
311C \$300M 1100C But 2019	10/3/2019	10/13/2019	32,500,000	0.5501	32, 130,022	3.0070	3.0370	0.0170	0.0070	3.7770	32,500,000	1,27
Total Long-Term Debt										=	284,250,000	11,84
Average Cost of Debt											_	4.17%
FOR THE TEST YEAR ENDING I	DECEMBER 31	<u>, 2020</u>										
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	<b>(j)</b>	(k)	(1)	(m)
				= (f) ÷ (d)	Net Proceeds	Coupon/Interest	Yield to	Financing	(Gain)/Loss on	= (h)+(i)+(j) Cost of	Principal	$=$ (k) $\times$ (l)
Title	Issue	Maturity	Amount Issued	Price Per Unit	Amount	Rate	Maturity	Costs	Reacquired Debt	Money	Outstanding	Annual Cos
HC \$525M Notes Due 2023	11/19/2013	11/30/2023	525,000,000	0.9953	522,532,500	4.25%	4.31%	0.09%	0.00%	4.40%	525,000,000	23,10
BHC \$300M Notes Due 2026	1/13/2016	1/15/2026	300,000,000	0.9970	299,091,000	3.95%	3.99%	0.10%	0.00%	4.08%	300,000,000	12,24
BHC \$300M Notes Due 2046	8/19/2016	9/15/2046		0.9946	298,365,000	4.20%	4.23%	0.04%	0.10%	4.37%	300,000,000	13,1
3HC \$400M Notes Due 2027	8/19/2016	1/15/2027		0.9995	399,796,000	3.15%	3.16%	0.79%	0.20%	4.15%	400,000,000	16,6
3HC \$400M Notes Dues 2033	8/17/2018	5/1/2033		0.9954	398,172,000	4.35%	4.39%	0.08%	0.04%	4.51%	400,000,000	18,0
3HC \$400M Notes Due 2029	10/3/2019	10/15/2029		0.9966	398,624,000	3.05%	3.09%	0.09%	0.00%	3.18%	400,000,000	12,72
300M Notes Due 2049	10/3/2019	10/15/2049	300,000,000	0.9981	299,415,000	3.88%	3.89%	0.04%	0.06%	3.99%	300,000,000	11,9
.ong-Term Debt										=	\$ 2,625,000,000 \$	107,7
Weighted Average Cost of BHC Debt												4.11%

BLACK HILLS NEBRASKA GAS, LLC OPERATING AND MAINTENANCE EXPENSES FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect III: 004.04A Exhibit No. MCC-2 Statement H

				(a)	(	(b)		(c)		(d)		(e)		(f)		(g)		(h)		(i)		(j)
Line No.	FERC Acct	Description		Base Year Adjusted	Sche	ed H-1	Sc	hed H-2	s	ched H-3		Sched H-4	5	Sched H-5	Sch	ned H-6		Sched H-7	:	Sched H-8	Sel	hed H-9
1 2		Production and Gathering																				
3		Operation																				
4	750	Operation Supervision & Engineering	\$	_	\$	_	\$	_	\$	-	S	_	\$	_	S	_	S	_	\$	-	S	-
5	752	Gas Wells Expense	•	_	*	_	-	_	*	-	-	_	-	_	-	_	-	_	-	-	-	-
6	753	Field Line Expense		=		-		-		-		-		-		-		-		-		-
7	754	Field Compressor Station Expense		-		-		-		-		-		-		-		-		-		-
8	755	Field Compressor Station Fuel and Power		-		-		-		-		-		-		-		-		-		-
9	756	Field Measuring & Regulating Station Expense		-		-		-		-		-		-		-		-		-		-
10	757	Purification Expense		-		-		-		-		-		-		-		-		-		-
11	758	Gas Well Royalties		=		-		-		-		-		-		-		-		-		-
12	759	Other Expenses		-		-		-		-		-		-		-		-		-		-
13	760	Rents	<u> </u>	-	-	-	•	-	6	-		-	•	-	•	-	S	-	•	-	•	-
14 15		<b>Total Production Operation Expenses</b>	3	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	3	-	\$	-	\$	-
16		Maintenance																				
17	761	Maintenance Supervision & Engineering	\$		\$		S		S		S		S		S		S		•		\$	
18	762	Maintenance of Structures & Improvements	Ψ	_	Ψ	_	Ψ	_	Ψ	_	9	_	Ψ	_	Ψ	_	Ψ	_	Ψ	_	Ψ	_
19	763	Maintenance of Producing Gas Wells		_		_		_		_		_		_		_		_		_		_
20	764	Maintenance of Field Lines		_		_		_		-		_		_		_		_		-		-
21	765	Maintenance of Field Compressor Station Equipment		=		-		-		-		-		-		-		-		-		-
22	766	Maintenance of Field Measuring & Regulating Station Equipment		-		-		-		-		-		-		-		-		-		-
23	767	Maintenance of Purification Equipment		<u> </u>		-		-		-		-		-		-		-		-		
24		Total Production Maintenance Expenses	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
25																						
26																						
27		Other Gas Supply Expense																				
28		Operation																				
29	804	Natural Gas City Gate Purchase	\$	70,953,810	\$	-	\$	-	\$	(70,953,810		-	\$	-	\$	-	\$	-	\$	-	\$	-
30	805 805.1	Other Gas Purchases Purchased Gas Cost Adjustments		(2,419,037)		-		-		2,419,037		-		-		-		-		-		-
31 32	805.1	Exchange Gas		5,499,380		-		-		(5,499,380	J)	-		-		-		-		-		-
33	808	Gas Storage-Gas Ops		-		-		-		-		-		-		-		-		-		-
34	808.1	Withdrawals from Storage		10,881,933				_		(10,881,933	3)			_		_		_		_		_
35	808.2	Gas Delivered to Storage		(9,373,035)				_		9,373,035		_		-		-		_		_		-
36	812	Gas Used for Other Utility Operation		(17,200)		_		_		17,200		_		_		_		_		_		_
37	813	Other Gas Supply Expense		-		-		-		-		-		-		-		-		-		-
38		Total Other Gas Supply Expense	-\$	75,525,851	\$	-	\$	-	\$	(75,525,851	1) \$	-	\$	-	\$	-	\$	-	\$	-	\$	
39																						
40		Underground Storage Expense																				
41		Operation																				
42	814	Operation Supervision & Engineering	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
43	816	Wells Expense		=		-		-		-		-		-		-		-		-		-
44	817	Lines Expense		-		-		-		-		-		-		-		-		-		-
45	818	Compressor Station Expense		-		-		-		-		-		-		-		-		-		-
46 47	819 820	Compressor Station Fuel and Power		-		-		-		-		-		-		-		-		-		-
47	820 821	Storage - Measuring & Regulating Station Expense Purification Expense		-		-		-		-		-		-		-		-		-		-
49	824	Other Expenses		-		-		-		-		-		-		-		-		-		-
50	826	Rents		_		_		_		_												_
51	020	Total Operation Underground Storage Expense	<u>s</u>		\$		\$		S		\$		\$		S		S		\$	_	S	
52		1 S S S. S. S.			-		-		~		•		*		-		~		4		-	
53		Maintenance																				
54	830	Maintenance Supervision & Engineering	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
55	832	Maintenance of Reservoirs & Wells		-		-		-		-		-		-		-		-		-		-
56	833	Maintenance of Lines		=		-		-		-		-		-		-		-		-		-
57	834	Maintenance of Compressor Station Equipment		-		-		-		-		-		-		-		-		-		-
58	835	Maintenance of Measuring & Regulating Station Equipment		-		-		-		-		-		-		-		-		-		-
59	836	Maintenance of Purification Equipment			_	-		-		-		-		-		-		-		-		-
60		Total Maintenance Underground Storage Expense	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
61 62		Total Underground Storage Expense	s		•		s		s		\$		\$		\$		\$		\$		\$	
02		i otai Onuci gi ounu Stoi age Expense	3	-	Φ	-	φ	-	Φ	-	3	-	э	-	J.	-	٥	-	э	-	Ф	-

No. 4 63 64 65 66 67 68 69 70 71 72 73	850 851 852 853 856	Description  Transmission Expense Operation Operation Supervision & Engineering		Base Year Adjusted	s												
64 65 66 67 68 69 70 71 72 73	851 852 853 856	Operation				ched H-1	Sched H-2	Sched H-3	3	Sched H-4	Sched H-5	Sch	ed H-6	Sched H-7	Sche	d H-8	Sched H-9
65 66 67 68 69 70 71 72 73	851 852 853 856	Operation															
67 8 68 8 69 70 71 72 73	851 852 853 856	Operation Supervision & Engineering															
68 69 70 71 72 73	852 853 856		\$	203,254	\$	-	\$ (1,843)	\$	- \$		\$ -	\$	2,387 \$	-	\$	-	\$ -
69 70 71 72 73	853 856	System Control & Load Dispatching		1,180		-	=		-	25	=		13	-		-	=
70 71 72 73	856	Communication System Expenses		-		-	-		-	-	-		-	-		-	-
71 72 73 73 73		Compressor Labor & Expense		- (2.014		-	=		-	-	-		-	-		-	=
72 73	857	Mains Expense Measuring & Regulating Station Expense		63,014 12,311		-	-		-	26 7	-		-	-		-	-
73	859	Other Expenses		64,900		-	-		-	172	-		905	-		-	-
15	860	Rents		-		_			_	1/2	_		703			_	_
74	000	Total Operation	\$	344,659	\$		\$ (1,843)	\$	- \$	231	\$ -	S	3,304 \$		<b>S</b>	-	\$ -
75				,,,,,			. ( ) /						- /				
76		Maintenance															
	861	Maintenance Supervision & Engineering	\$	17,231	\$	-	\$ (64)	\$	- \$	-	\$ -	\$	411 \$	-	\$	-	\$ -
	862	Maintenance of Structures & Improvements		-		-	-		-	-	-		-	-		-	-
	863 864	Maintenance of Mains		3,182		-	-		-	194	-		(0)	-		-	-
	865	Maintenance of Compressor Station Equipment  Maintenance of Measuring & Regulating Station Equipment		-		-	-		-	-	-		-	-		-	-
	866	Maintenance of Measuring & Regulating Station Equipment		134		-	-		-	- 8	-		0	-		-	-
	867	Maintenance of Other Equipment		-		_	_		_	-	_		-	-		_	_
84		Total Maintenance	\$	20,547	\$	-	\$ (64)	\$	- \$	202	\$ -	\$	411 \$	-	\$	-	\$ -
85																	
86		Total Transmission Expense	\$	365,206	\$	-	\$ (1,907)	\$	- \$	433	\$ -	\$	3,715 \$	-	\$	-	\$ -
87																	
88		Distribution Expense															
89 90	870	Operation Dist. Operating and Supervision Engineering	\$	3,911,607	\$	(143)	\$ (3,965)	•	- S	258,382	\$	S	3,934 \$		· \$		s -
	871	Dist. Load Dispatching	Ф	832		(143)	\$ (3,903)	Ф	- J	230,362		3	3,934 \$	_	. ф		J -
	872	Compressor Station Labor & Expense		147		_	-		-	_	_		_	_		_	_
	874	Oper./Inspect Underground Dist. Mains - Gas		6,687,347		(14,126)	=		-	695,688	-		26	-		-	-
	875	Dist. Measuring & Regulating Station Expense - General		1,509,155		(344,922)	-		-	77,480	-		-	-		-	-
	876	Dist. Measuring & Regulating Station Expense - Industrial		22,849		-	-		-	1,841	-		-	-		-	-
	877	Measuring & Regulating Station Expense - City Gate Check Station		179,143			-		-	26,053	-		-	-		-	-
	878	Oper./Inspect Meters & Collect Data - Gas		1,600,377		(1,774)	-		-	189,102	-		3	-		-	-
	879 880	Dist. Customer Installation Expense Dist. Ops. Other Expenses		1,160,183 8,973,797		(1,971) (3,931)	(2,086)		-	117,237 986,098	-		346	-		-	-
	881	Dist. Oper. Rents		36,571		(3,931)	(2,080)		-	960,096	_		3	_			-
101	001	Total Operation		24,082,009	\$	(366,867)	\$ (6,051)	S	- \$	2,351,881	s -	S	4,311 \$		· \$	-	\$ -
102				,,		(,,	. (-, ,			, ,			,		,		
103		Maintenance															
	885	Dist. Maint. Supervision & Engineering	\$	203	\$	-	\$ -	\$	- \$	-	\$ -	\$	- \$	-	\$	-	\$ -
	886	Maintenance of Structures & Improvements		302		-	-		-	-	-		-	-		-	-
	887 888	Perf. Underground Distribution Line Maintenance - Gas Dist. Maint. of Compressor Station Equipment		511,842 6,878		(14,595)	=		-	39,798 1,014	-		(2) (1)	-		-	=
	889	Maintenance of Measuring & Regulating Station Expense -General		294,799		(175)	-		-	16,066	-		(1)	-		-	-
	890	Dist. Maint. of Measuring & Regulating Station Equip - Industrial		79,113		(26)	-		-	6,635	-		-	-		-	-
	891	Maintenance of Measuring & Regulating Station - City Gate Check Stn.		497,327		(1,742)	-		-	23,412	_		-	-		_	_
	892	Dist. Maint. of Services		422,369		(143)	-		-	47,068	-		-	-		-	-
	893	Dist. Maint. of Meters & House Regulators		1,021,188		(1,685)	=		-	80,293	-		(1,141)	-		-	-
	894	Dist. Maint. of Other Equipment		131,916		-	-		-	19,226	-		-	-		-	
114		Total Maintenance	\$	2,965,936	\$	(18,367)	\$ -	\$	- \$	233,514	\$ -	\$	(1,144) \$	-	\$	-	\$ -
115		Table 1. C. F.	\$	27.047.046	s	(205 222)	6 (6.051)	6	- \$	2.505.205	e		2.167 6	_	\$		s -
116 117		Total Distribution Expense	3	27,047,946	3	(385,233)	\$ (6,051)	3	- 3	2,585,395	\$ -	\$	3,167 \$	-	. 3	-	5 -
117		Customer Account Expenses															
119		Operation Operation															
	901	Customer Accounts Supervision	\$	254,770	\$	-	\$ -	\$	- \$	1,890	\$ -	\$	2,830 \$	-	\$	_	\$ -
121	902	Meter Reading Expense		664,995		-	-		-	70,977	-		83	-		-	-
	903	Customer Record & Collection Expense		5,763,196		(1,640)	-		-	43,634	-		50,220	-		243,387	-
	904	Uncollectible Accounts		519,241		-	-		-	-	-		-	177,7	82	-	-
	905	Miscellaneous Customer Accounts Expense		161,857			-		-	2,215	-		2,875	-			-
125 126		Total Customer Account Expense	\$	7,364,060	\$	(1,640)	\$ -	\$	- \$	118,716	\$ -	\$	56,007 \$	177,7	82 \$	243,387	\$ -

(i)

(h)

# BLACK HILLS NEBRASKA GAS, LLC OPERATING AND MAINTENANCE EXPENSES FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect III: 004.04A Exhibit No. MCC-2 Statement H

(j)

				()		(-)		(-)	(-)		(-)			(8)	( )		0		•
Line	FERC			Base Year															
No.	Acct	Description		Adjusted	s	ched H-1	S	Sched H-2	Sched H-3		Sched H-4	Sched H-5	S	ched H-6	Sched H-7	S	ched H-8	Sch	ed H-9
127		Customer Service and Information Expenses																	
128		Operation																	
129	907	Supervision	\$	101,887	\$	-	\$	- \$	=	\$	- \$	=	\$	1,223 \$	-	\$	=	\$	-
130	908	Customer Assistance Expense		132,164		-		(409)	=		-	=		869	-		=		-
131	909	Informational/Instructional Advertising Expense		17,850		-		(17,193)	-		-	=-		7	-		-		-
132	910	Miscellaneous Cust Serv & Inform Expense		3,857		-		(16)	-		-	=-		(30)	-		-		-
133 134		Total Customer Srvc & Inform Exp.	\$	255,757	\$	-	\$	(17,618) \$	-	\$	- \$	-	\$	2,070 \$	-	\$	-	\$	-
135		Sales Expenses																	
136		Operation																	
137	911	Supervision	\$	-	\$	-	\$	- \$	-	\$	- \$	=.	\$	- \$	-	\$	-	\$	-
138	912	Demonstrating and Selling Expense		352,923		-		(8,538)	-		1,631	=.		1,252	-		-		-
139	913	Advertising Expenses		208,274		-		(206,976)	-		353	-		83	-		-		-
140	916	Miscellaneous Sales Expense		326		-		-	-		-	=.		1	-		-		-
141		Total Sales Expense	\$	561,524	\$	-	\$	(215,514) \$	-	\$	1,984 \$	-	\$	1,336 \$	-	\$	-	\$	-
142																			
143		Administrative & General Expense																	
144		Operation																	
145	920	Administrative & General Salaries	\$	11,029,388	\$	-	\$	- \$	-	\$	53,547 \$	-	\$	2,265,233 \$	-	\$	-	\$	-
146	921	Office Supplies & Expense		3,723,829		-		(105,854)	_		29	-		698,375	_		-		-
147	922	Administrative Expense Transferred-Cr		(2,373,972)		-		-	_		-	-		(874,617)	-		-		-
148	923	Outside Services Employed		3,281,237		(411,096)		-	-		_	-		162,910	_		-		-
149	924	Property Insurance		31,740		- 1		-	_		-	-		75	_		-		-
150	925	Injuries and Damages		1,439,451		_		_	_		_	_		88,201	_		-		_
151	926	Employee Pensions and Benefits		8,937,872		_		_	_		213,287	328,708		2,276,143	_		-		212,676
152	927	Franchise Requirements		-		-		_	_		-	-		-	_		-		-
153	928	Regulatory Commission Expense		_		_		_	_		_	_		_	_		-		_
154	929	Duplicate Charges - Credit		(1,240)		_		_	_		_	_		(30)	_		_		_
155	930.1	General Advertising Expense		410,817		_		(412,156)	_		_	_		(2,168)	_		_		_
156	930.2	Miscellaneous General Expense		1,331,686		(56,679)		(17,733)	_		(9)	_		48,946	_		_		_
157	931	Rents		2,465,662		-		-	_		- (-)	_		697,391	_		_		_
158	,,,,	Total Operation	<u></u>	30,276,470	-\$	(467,775)	S	(535,744) \$		\$	266,854 \$	328,708	S	5,360,459 \$		\$		\$	212,676
159		Tomi Operation	Ψ	30,270,170	Ψ	(107,775)	Ψ.	(555,711)		Ψ	200,001	320,700		2,500,157		Ψ		Ψ	212,070
160		Maintenance																	
161	932	Maintenance of General Plant	S	1,670,501	\$	_	\$	- S	_	\$	46 \$	_	S	36,611 \$	_	\$	_	\$	_
162	,,,_	Total Administrative & General Exp	\$	31,946,971	\$	(467,775)		(535,744) \$		\$	266,900 \$	328,708		5,397,071 \$		\$		\$	212,676
163		Total Administrative & General Exp	J	31,740,771	Φ	(307,773)	Ψ	(555,744) \$	-	φ	200,700 \$	320,700	Ψ	5,571,071 \$	_	φ	_	Ψ	212,070
164		<b>Total Operating &amp; Maintenance Exp</b>	\$	143,067,314	\$	(854,648)	\$	(776,834) \$	(75,525,851	1) \$	2,973,428 \$	328,708	\$	5,463,365 \$	177,78	2 \$	243,387	\$	212,676

(b)

(c)

(d)

(e)

(f)

(g)

(a)

				(k)		(1)		(m)		(n)		(0)
Line No.	FERC Acct	Description	Scho	ed H-10	Se	ched H-11	Sch	ed H-12		Total Adjustments		Adjusted Total
1 2		Production and Gathering										
3		Operation										
4	750	Operation Supervision & Engineering	\$	_	S	_	\$	_	\$	_	s	_
5	752	Gas Wells Expense	Ψ	_	Ψ	_	Ψ	_	Ψ	_	Ψ	_
6	753	Field Line Expense		_		-		-		_		-
7	754	Field Compressor Station Expense		_		_		-		-		_
8	755	Field Compressor Station Fuel and Power		-		-		-		-		-
9	756	Field Measuring & Regulating Station Expense		-		-		-		-		-
10	757	Purification Expense		-		-		-		-		-
11	758	Gas Well Royalties		-		-		-		-		-
12	759	Other Expenses		-		-		-		-		-
13	760	Rents		-		-		-		-		-
14		Total Production Operation Expenses	\$	-	\$	-	\$	-	\$	-	\$	-
15												
16		Maintenance										
17	761	Maintenance Supervision & Engineering	\$	-	\$	-	\$	-	\$	-	\$	-
18	762	Maintenance of Structures & Improvements		-		-		-		-		-
19	763	Maintenance of Producing Gas Wells		-		-		-		-		-
20 21	764 765	Maintenance of Field Lines  Maintenance of Field Compressor Station Equipment		-		-		-		-		-
22	766	Maintenance of Field Measuring & Regulating Station Equipment		-		-		-		-		-
23	767	Maintenance of Purification Equipment		-		-		-		-		-
24	707	Total Production Maintenance Expenses	-\$		\$		\$		\$	<u>-</u>	\$	
25		Total I Toduction Maintenance Expenses	φ		Φ		Φ		φ		φ	
26												
27		Other Gas Supply Expense										
28		Operation										
29	804	Natural Gas City Gate Purchase	\$	_	\$	_	\$	-	\$	(70,953,810)		-
30	805	Other Gas Purchases		-		-		-		2,419,037		-
31	805.1	Purchased Gas Cost Adjustments		-		-		-		(5,499,380)		-
32	806	Exchange Gas		-		-		-		-		-
33	808	Gas Storage-Gas Ops		-		-		-		-		-
34	808.1	Withdrawals from Storage		-		-		-		(10,881,933)		-
35	808.2	Gas Delivered to Storage		-		-		-		9,373,035		-
36	812	Gas Used for Other Utility Operation		-		-		-		17,200		-
37	813	Other Gas Supply Expense		-		-		-		=		-
38		Total Other Gas Supply Expense	\$	-	\$	-	\$	-	\$	(75,525,851)	\$	-
39												
40		Underground Storage Expense										
41	014	Operation			s				\$		•	
42 43	814	Operation Supervision & Engineering	\$	-	\$	-	\$	-	\$	-	\$	-
43	816 817	Wells Expense Lines Expense		-		-		-		-		-
45	818	Compressor Station Expense		-		-		-		-		-
45 46	818	Compressor Station Expense Compressor Station Fuel and Power		-		-		-		-		-
46	820	Storage - Measuring & Regulating Station Expense		-		-		-		-		-
48	821	Purification Expense		-		-		-		-		-
49	824	Other Expenses		-		-		-		_		-
50	826	Rents		-		-		-		_		-
51	-20	Total Operation Underground Storage Expense	\$	-	\$	-	\$	-	S	-	\$	
52			-		-		-		*		-	
53		Maintenance										
54	830	Maintenance Supervision & Engineering	\$	-	\$	-	\$	-	\$	-	\$	-
55	832	Maintenance of Reservoirs & Wells		-		-		-		-		-
56	833	Maintenance of Lines		-		-		-		-		-
57	834	Maintenance of Compressor Station Equipment		-		-		-		-		-
58	835	Maintenance of Measuring & Regulating Station Equipment		-		-		-		-		-
59	836	Maintenance of Purification Equipment		-		-		-		-		-
60		Total Maintenance Underground Storage Expense	\$	-	\$	-	\$	-	\$	-	\$	- '
61		m. 187 1	_						-			
62		Total Underground Storage Expense	\$	-	\$	-	\$	-	\$	-	\$	-

				(k)		(l)		(m)	(n)		(0)
Line No.	FERC Acct	Description	Sch	ed H-10	Sc	ched H-11	Scho	ed H-12	Total Adjustments		Adjusted Total
63		•							•		
64		Transmission Expense									
65	850	Operation	\$		\$		\$	(42) 5	502	•	203,756
66 67	851	Operation Supervision & Engineering	\$	-	3	-	3		33	Ф	
68	852	System Control & Load Dispatching Communication System Expenses		-		-		(5)	33		1,213
69	853	Compressor Labor & Expense		-		-		-	-		-
70	856	Mains Expense		_		_		(2)	24		63,039
71	857	Measuring & Regulating Station Expense		_		_		(1)	6		12,317
72	859	Other Expenses		_		_		(47)	1,030		65,930
73	860	Rents		_		_		-	-,		-
74		Total Operation	\$	-	\$	_	\$	(97) 5	1,595	\$	346,25
75											
76		Maintenance									
77	861	Maintenance Supervision & Engineering	\$	-	\$	-	\$	(48) 5	\$ 299	\$	17,530
78	862	Maintenance of Structures & Improvements		-		-		-	-		-
79	863	Maintenance of Mains		-		-		(18)	176		3,35
80	864	Maintenance of Compressor Station Equipment		-		-		-	=		-
81	865	Maintenance of Measuring & Regulating Station Equipment		-		-		-	-		-
82	866	Maintenance of Communication Equipment		-		-		-	8		143
83 84	867	Maintenance of Other Equipment  Total Maintenance	<u>\$</u>	-	\$	-	\$	- (66) 9	483	\$	21,030
85		Total Maintenance	3	-	3	-	Þ	(66) 5	463	Ф	21,030
86		Total Transmission Expense	\$	_	\$	_	\$	(163) 5	2,078	s	367,28
87		Total Transmission Expense	Ψ		Ψ		Ψ	(103)	2,070	Ψ	307,20
88		Distribution Expense									
89		Operation									
90	870	Dist. Operating and Supervision Engineering	\$	-	\$	-	\$	(18,212) 5	239,996	\$	4,151,60
91	871	Dist. Load Dispatching		-		-		(1)	(1)		830
92	872	Compressor Station Labor & Expense		-		-		-	-		147
93	874	Oper./Inspect Underground Dist. Mains - Gas		-		161,999		(33,524)	810,063		7,497,411
94	875	Dist. Measuring & Regulating Station Expense - General		-		-		(4,829)	(272,271)		1,236,884
95	876	Dist. Measuring & Regulating Station Expense - Industrial		-		-		(162)	1,679		24,528
96	877	Measuring & Regulating Station Expense - City Gate Check Station		-		-		(1,126)	24,928		204,07
97 98	878 879	Oper./Inspect Meters & Collect Data - Gas		-		-		(11,602)	175,729 108,113		1,776,106
99	880	Dist. Customer Installation Expense Dist. Ops. Other Expenses		-		-		(7,154) (56,502)	923,925		9,897,722
100	881	Dist. Oper. Rents		-		-		(30,302)	323,923		36,574
101	001	Total Operation	-\$		\$	161,999	\$	(133,112) 5		S	26,094,17
102			*		-	,	*	(,)	-,,	*	,,,,,,,,,
103		Maintenance									
104	885	Dist. Maint. Supervision & Engineering	\$	-	\$	-	\$	-	\$ -	\$	203
105	886	Maintenance of Structures & Improvements		-		-		-	-		302
106	887	Perf. Underground Distribution Line Maintenance - Gas		-		-		(3,334)	21,867		533,709
107	888	Dist. Maint. of Compressor Station Equipment		-		-		(6)	1,008		7,88
108	889	Maintenance of Measuring & Regulating Station Expense -General		-		-		(1,309)	14,583		309,38
109	890	Dist. Maint. of Measuring & Regulating Station Equip - Industrial		-		-		(402)	6,207		85,32
110	891	Maintenance of Measuring & Regulating Station - City Gate Check Stn.		-		-		(1,978)	19,692		517,019
111	892	Dist. Maint. of Services		-		-		(3,101)	43,825		466,19
112 113	893 894	Dist. Maint. of Meters & House Regulators Dist. Maint. of Other Equipment		-		-		(7,427) (1,093)	70,040		1,091,223 150,049
114	894	Total Maintenance	\$		\$		S	(18,648) 5	18,133 195,354	\$	3,161,29
115		Total Maintenance	Ф	-	Ф	-	Ф	(10,040)	193,334	Þ	3,101,29
116		Total Distribution Expense	\$	-	\$	161,999	\$	(151,760)	2,207,516	\$	29,255,462
117		*	•			7	-		,,		,,
118		Customer Account Expenses									
119		Operation									
120	901	Customer Accounts Supervision	\$	-	\$	-	\$	(328) 5	4,391	\$	259,162
121	902	Meter Reading Expense		-		-		(5,504)	65,556		730,55
122	903	Customer Record & Collection Expense		-		-		(4,080)	331,521		6,094,71
123	904	Uncollectible Accounts		-		-		-	177,782		697,023
124	905	Miscellaneous Customer Accounts Expense		-		-		(233)	4,857		166,714
125		Total Customer Account Expense	\$	-	\$	-	\$	(10,144) \$	584,108	\$	7,948,168

				(k)		(I)		(m)	(n)	(0)
Line	FERC								Total	Adjusted
No.	Acct	Description	Sc	hed H-10	Sc	ched H-11	Se	ched H-12	Adjustments	Total
127		Customer Service and Information Expenses								
128		Operation								
129	907	Supervision	\$	-	\$	-	\$	(4) \$	1,220 \$	103,107
130	908	Customer Assistance Expense		-		-		(30)	430	132,593
131	909	Informational/Instructional Advertising Expense		=		-		-	(17,186)	664
132	910	Miscellaneous Cust Serv & Inform Expense		-		-		(0)	(46)	3,811
133		Total Customer Srvc & Inform Exp.	\$	-	\$	-	\$	(34) \$	(15,582) \$	240,175
134										
135		Sales Expenses								
136		Operation								
137	911	Supervision	\$	-	\$	-	\$	- \$	- \$	-
138	912	Demonstrating and Selling Expense		-		-		(231)	(5,886)	347,037
139	913	Advertising Expenses		-		-		-	(206,539)	1,735
140	916	Miscellaneous Sales Expense		-		-		-	1	327
141		Total Sales Expense	\$	-	\$	-	\$	(231) \$	(212,424) \$	349,099
142		•								
143		Administrative & General Expense								
144		Operation								
145	920	Administrative & General Salaries	\$	-	\$	-	\$	- S	2,318,779 \$	13,348,167
146	921	Office Supplies & Expense		-		-		-	592,550	4,316,380
147	922	Administrative Expense Transferred-Cr		-		-		-	(874,617)	(3,248,589)
148	923	Outside Services Employed		_		_		_	(248,186)	3,033,051
149	924	Property Insurance		_		_		_	75	31,815
150	925	Injuries and Damages		_		_		_	88,201	1,527,652
151	926	Employee Pensions and Benefits		_		_		_	3,030,814	11,968,686
152	927	Franchise Requirements		_		_		_	- , , <u>-</u>	-
153	928	Regulatory Commission Expense		_		_		_	_	_
154	929	Duplicate Charges - Credit		_		_		_	(30)	(1,270)
155	930.1	General Advertising Expense		_		_		_	(414,324)	(3,507)
156	930.2	Miscellaneous General Expense		142,854		_		(58)	117,321	1,449,007
157	931	Rents		- 1.2,00		_		-	697,391	3,163,053
158	,,,	Total Operation	<u></u>	142,854	\$		S	(58) \$	5,307,974 \$	35,584,444
159		Total Operation	9	142,034	Ψ		Ψ	(50) \$	3,301,514 \$	33,304,444
160		Maintenance								
161	932	Maintenance of General Plant	¢	_	\$	_	\$	(5) \$	36,652 \$	1,707,153
162	134	Total Administrative & General Exp	<u>s</u>	142,854	\$	<del>-</del>	\$	(63) \$	5,344,627 \$	37,291,598
163		rotai Auministrative & Ocherai Exp	3	142,034	Ф	-	Ф	(03) \$	J,J <del>44</del> ,04/ \$	31,471,398
164		Total Operating & Maintenance Exp	_\$	142,854	\$	161,999	\$	(162,394) \$	(67,615,528) \$	75,451,785

### BLACK HILLS NEBRASKA GAS, LLC OUT OF PERIOD/ATYPICAL ACCOUNTING ADJUSTMENTS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

			,	(a) Note 1) se Year	(b) (Note 2) Base Year	(c) (Note 3) Base Yea		(d) (Note 4) Base Year	(e) (Note 5) Base Year		(f) -(a) - (b) - (c) - (d) - (e)
Line	FERC		F1	16	Construction	Odoran		.00	Paint Town		B
No.	Acct	Account Description	Floo	od Costs	Damages	Disposa	1 0	ffice Moves	Border Station	1	Pro Forma Adjustment
1	870	Dist. Operating and Supervision Engineering	\$	143	\$ -	\$	- \$	-	\$ -	\$	(143)
2	874	Dist. Mains & Services Expense		4,345	9,780		-	-	-		(14,126)
3	875	Dist. Measuring & Regulating Station Expense - General		-	-		-	-	344,922		(344,922)
4	878	Dist. Meter & House Regulator Expense		1,774	-		-	-	-		(1,774)
5	879	Dist. Customer Installation Expense		1,971	-		-	-	-		(1,971)
6	880	Dist. Other Expenses		3,931	-		-	-	-		(3,931)
7	887	Dist. Maint. of Mains		14,595	-		-	-	-		(14,595)
8	889	Maintenance of Measuring & Regulating Station Expense -General		175	-		-	-	-		(175)
9	890	Dist. Maint. of Measuring & Regulating Station Equip - Industrial		26	-		-	=	-		(26)
10	891	Maintenance of Measuring & Regulating Station - City Gate Check Stn.		1,742	-		-	-	-		(1,742)
11	892	Dist. Maint. of Services		143	-		-	-	-		(143)
12	893	Dist. Maint. of Meters & House Regulators		1,685	-		-	-	-		(1,685)
13	903	Customer Record & Collection Expense		1,640	-		-	=	-		(1,640)
14	923	Outside Services Employed		-	-		-	411,096	-		(411,096)
15	930.2	Miscellaneous General Expense		-	-	56,6	579	=	-		(56,679)
16											_
17		Total	\$	32,171	\$ 9,780	\$ 56,6	579 \$	411,096	\$ 344,922	\$	(854,648)
18											

<sup>19 (</sup>Note 1) This schedule reflects expenses charged to Operations & Maintenance for flooding cleanup, which are removed to reflect a normal base year.

<sup>20 (</sup>Note 2) This schedule reflects expenses charged to Operations & Maintenance for a construction damages, which are removed to reflect a normal base year.

<sup>21 (</sup>Note 3) This schedule reflects expenses charged to Operations & Maintenance for odorant disposal, which are removed to reflect a normal base year.

<sup>22 (</sup>Note 4) This schedule reflects expenses charged to Operations & Maintenance for office moves, which are removed to reflect a normal base year.

<sup>23 (</sup>Note 5) This schedule reflects expenses charged to Operations & Maintenance for painting town border stations, which are removed to reflect a normal base year.

### BLACK HILLS NEBRASKA GAS, LLC REMOVAL OF EXPENSES NOT APPROPRIATE FOR RECOVERY FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect III: 004.04B, C, D, E Exhibit No. MCC-2 Schedule H-2

	Line FERC		(a) (Notes 1, 2) Base Year	(b) (Note 2)	(c) (Note 2) Base Year Charitable	(d) (Note 2) Base Year Rebates &	(e) (Note 2) Base Year	(f) -(a) - (b) - (c) - (d) - (e)
Line No.	FERC Acct	Account Description	Advertising Expenses	Base Year Dues Expense	Contributions Expense	Promotional Item Expense	Sponsorship Expense	Total Expense Adjustment
1 2	850	Operation Supervision & Engineering	\$ -	\$ 1,843	\$ -	\$ -	\$ -	\$ (1,843)
3 4	861	Maintenance Supervision & Engineering	-	64	-	-	-	(64)
5 6	870	Dist. Operating and Supervision Engineering	2,612	1,353	-	-	-	(3,965)
7 8	880	Dist. Ops. Other Expenses	1,415	171	-	-	500	(2,086)
9 10	893	Dist. Maint. of Meters & House Regulators	-	-	-	-	-	-
11 12	903	Customer Record & Collection Expense	-	-	-	-	-	-
13 14	908	Customer Assistance Expense	-	409	-	-	-	(409)
15 16	909	Informational & Instructional Advertising	17,193		-	-	-	(17,193)
17 18	910	Miscellaneous Cust Serv & Inform Exp.	16		-	<del>-</del>	-	(16)
19 20	912	Demonstrating & Selling Expense	4,913	ŕ	1,223		-	(8,538)
21 22 23	913	Advertising Expense	89,483	-	-	114,752	2,741	(206,976)
24	916	Miscellaneous Sales Expense	- 1 450	102.964	-	-	540	(105.954)
25 26	921	Office Supplies & Expense	1,450	103,864	-	-	540	(105,854)
27 28	928	Regulatory Commission Expense	- 201 410	-	-	-	120.747	- (412.150)
29 30	930.1	General Advertising	281,410		-	-	130,747	(412,156)
31 32	930.2	Misc. General Expense  Total	14,648 \$ 413,130		- \$ 1,222	- 114.750	- \$ 124.539	(17,733)
33 34		Totai	\$ 413,139	\$ 113,192	\$ 1,223	\$ 114,752	\$ 134,528	\$ (776,834)

<sup>5 (</sup>Note 1) Base Year Advertising Expense of \$67,912 is included as it is related to Human Resource Hiring, Regulatory Notices, or Safety.

<sup>(</sup>Note 2) The removal of expenses not appropriate for recovery is discussed in the direct testimony of Mr. Clevinger.

# BLACK HILLS NEBRASKA GAS, LLC REMOVAL OF GAS COSTS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Line	<b>FERC</b>			<b>Accounts Recovered</b>
No.	Acct	Description	Reference	Through the PGA
1	804	Natural Gas City Gate Purchase	Stmt H Ln. 29 (a)	\$ 70,953,810
2 3	805	Purchased Gas Expense	Stmt H Ln. 30 (a)	(2,419,037)
5	805.1	Purchased Gas Cost Adjustments	Stmt H Ln. 31 (a)	5,499,380
6 7 8	806	Purchased Gas Expense	Stmt H Ln. 32 (a)	-
9 10	808.1	Withdrawals from Storage	Stmt H Ln. 34 (a)	10,881,933
11 12	808.2	Gas Delivered to Storage	Stmt H Ln. 35 (a)	(9,373,035)
13 14	812	Gas Used for Other Utility Operation	Stmt H Ln. 35 (a)	(17,200)
15 16	813	Other Gas Supply Expense	Stmt H Ln. 37 (a)	 <del>-</del>
17 18		Total Gas Costs	Sum Ln.1 - Ln.15	\$ 75,525,851

# BLACK HILLS NEBRASKA GAS, LLC WAGES AND SALARIES ADJUSTMENT FOR ANNUALIZATION OF DIRECT EMPLOYEES FOR THE TEST YEAR ENDING DECEMBER 31, 2020

				(a) Fest Year		(b) (Note 1)		(c) (b) - (a) yroll & Benefit
Line No.	FERC Acct	Description		Per Book Total	A	Annualized Payroll	Annualization Adjustment	
1		Production and Gathering						
2		Operation						
3	754	Field Compressor Station Expense	\$	-	\$	-	\$	-
4 5	756	Field Measuring & Regulating Station Expense  Total Operation	\$		-\$		<u> </u>	-
6		Total Operation	Φ	-	φ	-	Þ	-
7		Maintenance						
8	766	Maintenance of Field Measuring & Regulating Station Equipment	\$	-	\$	-	\$	-
9 10	767	Maintenance of Purification Equipment  Total Maintenance	\$	-	-\$		\$	-
11		Total Maintenance	э	-	Þ	-	\$	-
12		Underground Storage Expense						
13		Operation						
14	816	Wells Expense	\$	-	\$	-	\$	-
15	817	Lines Expense		-		-		-
16 17	818 820	Compressor Station Expense Storage - Measuring & Regulating Station Expense		-		-		-
18	821	Purification Expense		-		-		_
19		Total Operation	\$	-	\$	-	\$	-
20								
21		Maintenance						
22 23	830 832	Maintenance Supervision & Engineering Maintenance of Reservoirs & Wells	\$	-	\$	-	\$	-
24	833	Maintenance of Lines		-		-		-
25	834	Maintenance of Compressor Station Equipment		-		-		-
26	835	Maintenance of Measuring & Regulating Station Equipment		-		-		-
27	836	Maintenance of Purification Equipment						-
28		Total Maintenance	\$	-	\$	-	\$	-
29 30		Transmission Expense						
31		Operation						
32	850	Operation Supervision & Engineering	\$	-	\$	-	\$	-
33	851	System Control & Load Dispatching		396		422		25
34	852	Communication System Expense		-		-		-
35 36	853 856	Compressor Labor & Expense Mains Expense		412		439		26
37	857	Measuring & Regulating Station Expense		106		113		7
38	859	Other Expenses		2,705		2,877		172
39	860	Rents						-
40		Total Operation	\$	3,620	\$	3,851	\$	231
41 42		Maintanana						
42	861	Maintenance Maintenance Supervision & Engineering	\$	_	\$	_	\$	_
44	862	Maintenance of Structures & Improvements	Ψ	-	Ψ	-	Ψ	-
45	863	Maintenance of Mains		3,037		3,231		194
46	864	Maintenance of Compressor Station Equipment		-		-		-
47	865	Maintenance of Measuring & Regulating Station Equipment		-		-		-
48 49	866 867	Maintenance of Communication Equipment  Maintenance of Other Equipment		132		141		8
50	807	Total Maintenance	-\$	3,169	\$	3,371	\$	202
51				,		,		
52		Total Transmission Expense	\$	6,789	\$	7,222	\$	433
53								
54 55		Distribution Expense Operation						
56	870	Dist. Operating and Supervision Engineering	\$	1,958,993	\$	2,217,375	\$	258,382
57	871	Dist. Load Dispatching	~	-	-	-		
58	872	Compressor Station Labor & Expense		-		-		-
59	874	Dist. Mains & Services Expense		4,254,742		4,950,430		695,688
60 61	875 876	Dist. Measuring & Regulating Station Expense - General Dist. Measuring & Regulating Station Expense - Industrial		580,917 8,816		658,397		77,480
61 62	876 877	Measuring & Regulating Station Expense - Industrial  Measuring & Regulating Station Expense - City Gate Check Station		8,816 152,793		10,657 178,847		1,84 26,053
63	878	Dist. Meter & House Regulator Expense		1,311,023		1,500,125		189,102
64	879	Dist. Customer Installation Expense		888,405		1,005,643		117,237
65	880	Dist. Other Expenses		6,221,349		7,207,447		986,098
66 67	881	Dist. Rents	_	15 277 020	-	17 700 010	\$	- 221 001
n:/		Total Operation	\$	15,377,038	\$	17,728,919	Ψ.	2,351,881

# BLACK HILLS NEBRASKA GAS, LLC WAGES AND SALARIES ADJUSTMENT FOR ANNUALIZATION OF DIRECT EMPLOYEES FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Line FERC No. Acct		Description		(a) Test Year Per Book Total	A	(b) (Note 1) Annualized Payroll	(c) (b) - (a) Payroll & Benefit Annualization Adjustment	
68 69		Maintenance						
70	885	Dist. Maint Supervision & Engineering	\$	-	\$	_	\$	-
71	886	Maintenance of Structures & Improvements	*	-	*	-	*	-
72	887	Dist. Maint. of Mains		418,617		458,416		39,798
73	888	Dist. Maint. of Compressor Station Equipment		7,279		8,293		1,014
74	889	Maintenance of Measuring & Regulating Station Expense -General		140,672		156,738		16,066
75	890	Dist. Maint. of Measuring & Regulating Station Equip - Industrial		59,123		65,759		6,635
76	891	Maintenance of Measuring & Regulating Station Expense - City Gate Check Station		226,976		250,388		23,412
77 70	892	Dist. Maint. of Services		332,849		379,917		47,068
78 79	893 894	Dist. Maint. of Meters & House Regulators Dist. Maint. of Other Equipment		581,856 103,474		662,150 122,700		80,293 19,226
80	024	Total Maintenance	-\$	1,870,847	\$	2,104,361	\$	233,514
81		Total Maintenance	Ψ	1,070,047	Ψ	2,104,301	Ψ	255,514
82		Total Distribution Expense	\$	17,247,885	\$	19,833,280	\$	2,585,395
83		r	•	., .,	•	- , ,	•	, ,
84		Customer Account Expenses						
85		Operation						
86	901	Supervision	\$	29,639	\$	31,529	\$	1,890
87	902	Meter Reading Expenses		488,903		559,880		70,977
88	903	Customer Record & Collection Expenses		366,619		410,254		43,634
89	904	Uncollectible Accounts		- 22.506		25.001		- 2.215
90 91	905	Misc Customer Accounts Expenses	<u> </u>	33,586 918,748	-\$	35,801 1,037,464	\$	2,215 118,716
92		Total Customer Account Expense	Þ	916,746	Ф	1,037,404	Ф	116,/10
93		Customer Service and Information Expenses						
94		Operation 2.170 matter 2.170 ma						
95	907	Supervision	\$	-	\$	-	\$	-
96	908	Customer Assistance Expenses		-		-		-
97	909	Informational/Instructional Advertising Exp.		-		-		-
98	910	Miscellaneous Cust Serv & Inform Exp.						-
99		Total Customer Srvc & Inform Exp.	\$	-	\$	-	\$	-
100								
101		Sales Expenses						
102 103	911	Operation Supervision	\$		\$		\$	
103	911	Demonstrating and Selling Expenses	Ф	25,581	Ф	27,212	Ф	1,631
105	913	Advertising Expenses		1,945		2,298		353
106	916	Misc Sales Expenses		-		-		-
107		Total Sales Expense	\$	27,526	\$	29,510	\$	1,984
108								
109		Administrative & General Expense						
110		Operation						
111	920	Administrative & General Salaries	\$	634,762	\$	688,308	\$	53,547
112	921	Office Supplies & Expenses		195		224		29
113	922	Administrative Expenses Transferred-Cr		-		-		-
114 115	923 924	Outside Services Employed Property Insurance		-		-		-
116	924	Injuries and Damages		_		_		-
117	926	Employee Pensions and Benefits		1,677,995		1,891,281		213,287
118	927	Franchise Requirements		-		-		,
119	928	Regulatory Commission Expenses		-		-		-
120	930.1	General Advertising Expense		-		-		-
121	930.2	Miscellaneous General Expenses		(64)		(72)		(9)
122	931	Rents						-
123		Total Operation	\$	2,312,887	\$	2,579,741	\$	266,854
124		W. C.						
125	022	Maintenance Maintenance of General Plant	e	722	e	760	e	4.6
126 127	932	Maintenance of General Plant Total Administrative & General Exp	3	2,313,610	<u> </u>	769 2,580,510	<u>\$</u>	266,900
127		Total Administrative & General Exp	Þ	4,513,010	Ф	2,300,310	Ф	200,900
129			\$	20,514,558	\$	23,487,986	\$	2,973,428
						, 10/,/00		

<sup>131 (</sup>Note 1) The Company calculated its annual pro forma period costs (including benefits, incentives and base pay) for each of the 375 direct employees.

# BLACK HILLS NEBRASKA GAS, LLC EMPLOYEE BENEFITS ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

13

			(a) Base Year	(b) Pro Forma (Note		(c)	
Line No.	FERC Acct	Description	Per Books		(2018-2020) Average		Adjustment
1		Benefits Plan:					
2 3	926	Retiree Healthcare Net Periodic Expense and Administrative Costs	\$ 835,847	\$	820,368	\$	(15,480)
4 5	926	Retiree Healthcare Plan Costs (amortization of Regulated Assets)	\$ 287,461	\$	201,919	\$	(85,541)
6		Pension:					
7 8	926	Pension Plan Net Periodic Expense and Administrative Costs	\$ 782,086	\$	1,217,856	\$	435,770
9 10	926	Pension Plan Costs (amortization of Regulated Assets)	\$ 639,254	\$	633,214	\$	(6,041)
11 12		Total Benefits Adjustment	\$ 2,544,648	\$	2,873,356	\$	328,708

<sup>(</sup>Note 1) The three year average is comprised of actual expenses for 2018 & 2019 as well as the forecasted expense for 2020 as provided by our actuaries.

Exhibit No. MCC-2 Schedule H-6

(a) (b) (c) (d) (e)

(Note 2)

Line No.	FERC Acct	Account Description	Base Year		2020 CAM Factors	Add 2021 CAM Factors Update from 2020 Capital Expenditures		Merit Adjustment	Headcount Adjustment
1	850	Operation Supervision & Engineering	\$ 154,995	5	\$ 3,157	\$	(770)	\$ -	\$ -
2 3 4	851	System Control & Load Dispatching	671	1	17		(4)	-	-
5	859	Other Expenses	62,427	7	1,188		(283)	-	-
7 8	861	Maintenance Supervision & Engineering	17,231	1	541		(130)	-	-
9 10	863	Maintenance of Mains	91	1	(0)		-	-	-
11 12	866	Maintenance of Communication Equipment	2	2	0		(0)	-	-
13 14	870	Dist. Operating and Supervision Engineering	1,658,970	)	4,826		(892)	-	-
15 16	871	Dist. Load Dispatching	963	3	-		-	-	-
17 18	874	Oper./Inspect Underground Dist. Mains - Gas	9,057	7	33		(7)	-	-
19 20	875	Dist. Measuring & Regulating Station Expense - General	-		-		-	-	-
21 22	878	Oper./Inspect Meters & Collect Data - Gas	891	1	4		(1)	-	-
23 24	880	Dist. Ops. Other Expenses	693,056		450		(104)	-	-
25 26	881	Dist. Oper. Rents	21,879		4		(1)	-	-
27 28	887	Perf. Underground Distribution Line Maintenance - Gas	(847)		(3)		1	-	-
29 30	888	Dist. Maint. of Compressor Station Equipment	271		(1)		(0)	-	-
31 32	893	Dist. Maint. of Meters & House Regulators	323,883		(1,113)		(29)	-	-
33 34	901	Customer Accounts Supervision	219,095		2,828		2	-	-
35 36 37	902 903	Meter Reading Expense  Customer Record & Collection Expense	16,827 5,272,641		83 49,578		(0) 641	-	-
38 39	903	Miscellaneous Customer Accounts Expense	135,483		2,788		87	-	-
40 41	903	Supervision	101,806		1,223		87	-	-
42 43	907	Customer Assistance Expense	131,933		946		(77)	-	-
44 45	909	Informational/Instructional Advertising Expense	12,161		14		(7)	-	-
46	707	mornational institutional Advertising Expense	12,101		14		(7)	-	-

Exhibit No. MCC-2 Schedule H-6

(a) (b) (c) (d) (e)

(Note 2)

Line					2020 CAM	Add 2021 CAM Factors Update from 2020 Capital		Headcount
No.	FERC Acct			Base Year	Factors	Expenditures	Merit Adjustment	Adjustment
47	910	Miscellaneous Cust Serv & Inform Expense		1,343	(30)	0	-	-
48	0.4.0			25.200	4.000	4.45		
49 50	912	Demonstrating and Selling Expense		356,300	1,398	(147)	-	-
51	913	Advertising Expenses	Note 1	88,596	98	(15)		_
52	713	Advertising Expenses	11010 1	00,570	70	(13)		
53	916	Miscellaneous Sales Expense		326	1	(0)	-	-
54								
55	920	Administrative & General Salaries		10,426,511	476,978	11,684	279,873	1,496,697
56								
57	921	Office Supplies & Expense		3,125,876	132,487	6,913	-	-
58 59	922	Administrative Expense Transferred-Cr		(2,251,200)		_	_	_
60	)	Administrative Expense Transferred-Ci		(2,231,200)	_	_	_	_
61	923	Outside Services Employed		2,740,730	152,714	10,195	_	-
62		1 ,			,	•		
63	924	Property Insurance		28,949	69	6	-	-
64								
65	925	Injuries and Damages		1,082,857	81,751	6,450	-	-
66 67	926	Employee Pensions and Benefits		3,584,488	1,241,103	(6,359)	144,128	897,270
68	920	Employee rensions and Benefits		3,304,400	1,241,103	(0,339)	144,120	897,270
69	929	Duplicate Charges - Credit		(1,240)	(31)	1	_	_
70				(-,= ,	()			
71	930.1	General Advertising Expense	Note 1	266,759	(416)	(1,752)	-	-
72								
73	930.2	Miscellaneous General Expense		708,149	46,175	2,771	-	-
74	021	D .		2.264.110	150.541	20.755		
75 76	931	Rents		2,264,118	172,541	28,755	-	-
77	932	Maintenance of General Plant		1,603,530	128,046	6,780		_
78	732	ivalification of General Flant		1,003,550	120,010	0,700		
79		Total Costs	5	32,859,578	\$ 2,499,451	\$ 63,707	\$ 424,001	\$ 2,393,967
80			_					

81 (Note 1) Removed pro forma adjusted balances in accounts 930.1 and 913 related to advertising.

82 (Note 2) These expenses are a combination of Assigned, Distributed and and indirect allocated

83

84

85

charges to Black Hills Nebraska Gas Utility Company and Black Hills Nebraska Gas Distribution

from Black Hills Service Company without any additional fees. All costs are charged to Black Hills

Nebraska as the costs are incurred by Black Hills Service Company.

<sup>86</sup> The allocation methods for indirect charges are described in the Cost Allocation Manual.

Exhibit No. MCC-2 Schedule H-6

(f) (g) (h) (i) (j) (k)

Line No.	FERC Acct	t Account Description	IT Init	iatives	Trans	Credit	FERC So Adjust				ro Forma Adjusted	crease/ ecrease)
1	850	Operation Supervision & Engineering	\$	-	\$	-	\$	-	\$	-	\$ 157,382	\$ 2,387
2 3 4	851	System Control & Load Dispatching		-		-		-		-	684	13
5	859	Other Expenses		-		-		-		-	63,332	905
7 8	861	Maintenance Supervision & Engineering		-		-		-		-	17,642	411
9 10	863	Maintenance of Mains		-		-		-		-	90	(0)
11 12	866	Maintenance of Communication Equipment		-		-		-		-	2	0
13 14	870	Dist. Operating and Supervision Engineering		-		-		-		-	1,662,904	3,934
15 16	871	Dist. Load Dispatching		-		-		-		-	963	-
17 18	874	Oper./Inspect Underground Dist. Mains - Gas		-		-		-		-	9,082	26
19 20	875	Dist. Measuring & Regulating Station Expense - General		-		-		-		-	-	-
21 22	878	Oper./Inspect Meters & Collect Data - Gas		-		-		-		-	894	3
23 24	880	Dist. Ops. Other Expenses		-		-		-		-	693,402	346
25 26	881	Dist. Oper. Rents		-		-		-		-	21,882	3
27 28	887	Perf. Underground Distribution Line Maintenance - Gas		-		-		-		-	(849)	(2)
29 30	888	Dist. Maint. of Compressor Station Equipment		-		-		-		-	270	(1)
31 32	893	Dist. Maint. of Meters & House Regulators		-		-		-		-	322,741	(1,141)
33 34	901	Customer Accounts Supervision		-		-		-		-	221,925	2,830
35 36	902	Meter Reading Expense		-		-		-		-	16,909	83
37 38	903	Customer Record & Collection Expense		-		-		-		-	5,322,861	50,220
39 40	905	Miscellaneous Customer Accounts Expense		-		-		-		-	138,358	2,875
41 42	907	Supervision		-		-		-		-	103,029	1,223
43 44	908	Customer Assistance Expense		-		-		-		-	132,802	869
45 46	909	Informational/Instructional Advertising Expense		-		-		-		-	12,168	7

Exhibit No. MCC-2 Schedule H-6

(f) (g) (h) (i) (j) (k)

Line No.	FERC Acc	ct Account Description		IT Initiatives	Trans Credit	FERC Software Adjustment	Facilities	Pro Forma Adjusted	Increase/ (Decrease)
47	910	Miscellaneous Cust Serv & Inform Expense		-	-	-	-	1,314	(30)
48	,,,,	Miscolanicous Cust Selv & Inform Emperior						1,51.	(50)
49	912	Demonstrating and Selling Expense		-	-	-	-	357,552	1,252
50									
51	913	Advertising Expenses	Note 1	-	-	-	-	88,679	83
52									
53	916	Miscellaneous Sales Expense		-	-	-	-	327	1
54									
55	920	Administrative & General Salaries		-	-	-	-	12,691,743	2,265,233
56 57	921	Office Supplies & Expense		558,975				3,824,250	698,375
58	921	Office Supplies & Expense		338,973	-	-	-	3,824,230	098,373
59	922	Administrative Expense Transferred-Cr		_	(397,271)	_	(477,346)	(3,125,817)	(874,617)
60	,22	Tunning the Expense Transferred C.			(377,271)		(177,510)	(3,123,017)	(071,017)
61	923	Outside Services Employed		_	_	_	_	2,903,640	162,910
62		1 7						, , .	. , .
63	924	Property Insurance		-	-	-	-	29,024	75
64									
65	925	Injuries and Damages		-	-	-	-	1,171,058	88,201
66									
67	926	Employee Pensions and Benefits		-	-	-	-	5,860,631	2,276,143
68	020	D. F. et al. C. Fr						(1.270)	(20)
69 70	929	Duplicate Charges - Credit		-	-	-	-	(1,270)	(30)
71	930.1	General Advertising Expense	Note 1				_	264,592	(2,168)
72	750.1	General Advertising Expense	11010 1					201,372	(2,100)
73	930.2	Miscellaneous General Expense		_	_	_	_	757,095	48,946
74								, , , , , , ,	,
75	931	Rents		-	-	-	496,095	2,961,509	697,391
76									
77	932	Maintenance of General Plant		-	-	(98,215)	-	1,640,141	36,611
78									
79		Total Costs	=	\$ 558,975	\$ (397,271)	\$ (98,215)	\$ 18,749	\$ 38,322,943	\$ 5,463,365
80				<del></del>	<del>_</del>	_	_	_	_

81 (Note 1) Removed pro forma adjusted balances in accounts 930.1 and 913 related to advertising.

83

84

85

<sup>82 (</sup>Note 2) These expenses are a combination of Assigned, Distributed and and indirect allocated

charges to Black Hills Nebraska Gas Utility Company and Black Hills Nebraska Gas Distribution

from Black Hills Service Company without any additional fees. All costs are charged to Black Hills

Nebraska as the costs are incurred by Black Hills Service Company.

<sup>86</sup> The allocation methods for indirect charges are described in the Cost Allocation Manual.

# BLACK HILLS NEBRASKA GAS, LLC BAD DEBT ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

•	•	
	ım	A
	/11	•

No.	Description	Reference		Amount
1	Calendar Year 2017 Net Write-Offs		\$	641,877
2	Calendar Year 2018 Net Write-Offs		Ψ	771,643
3	Calendar Year 2019 Net Write-Offs			519,241
4	Total Net Write-Offs		\$	1,932,762
5				
6	Average Net Write Offs		\$	644,254
7				
8	Billed Revenue - Calendar Year 2017		\$	141,184,429
9	Billed Revenue - Calendar Year 2018			151,735,026
10	Billed Revenue - Calendar Year 2019			146,161,049
11				
12	Average Billed Revenue (2017 - 2019)		\$	146,360,168
13				
14	Average Effective Uncollectible Rate (3 year average)	Ln.6 / Ln.12		0.4402%
15				
16	Adjusted Revenue	Stmt M Ln. 5 (e)	\$	158,348,235
17				
18	Net Write Off Calculated		\$	697,023
19				
20	FERC 904	Stmt H Ln. 123 (a)	_\$	519,241
21	m - 1 + 11		Φ.	155 500
22	Total Adjustment		\$	177,782

# BLACK HILLS NEBRASKA GAS, LLC ALTERNATIVE FORMS OF PAYMENT ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Line No.	FERC Acct	Description	a) Book	(b) o Forma Adjusted	(a) Pro Forma Adjusted		
1 2	903	Customer Record & Collection Expenses	\$ -	\$ 243,387	\$	243,387	

<sup>(</sup>Note 1) The alternative forms of payment adjustment extends the convenience of customers paying their bills by credit card to all customers.

### BLACK HILLS NEBRASKA GAS, LLC SYNERGY REGULAORY ASSETS AMORTIZATION ADJUSTMENT FOR THE BASE YEAR ENDED DECEMBER 31, 2019

Exhibit No. MCC-2 Schedule H-9

(Note 1)

Line No.	FERC Acct	Description	FERC Description	Reference		Amount
1		Synergy Regulatory Asset balance		Application No. NG-0084	\$	850,705
2 3		Amortization Period		4 Years		4
4 5	926	Annual Amortization Amount	Employee Pensions and Benefits	Ln.1 ÷ Ln.3	\$	212,676
6	(Note 1) The	a acquisition severance adjustment stem	from the 2016 acquisition of SourceGas, as	discussed in the testimony of Mic	hael Clevi	inger

<sup>(</sup>Note 1) The acquisition severance adjustment stems from the 2016 acquisition of SourceGas, as discussed in the testimony of Michael Clevinger.

### BLACK HILLS NEBRASKA GAS, LLC RESEARCH AND DEVELOPMENT ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Exhibit No. MCC-2 Schedule H-10

	(Note 1)
<b>(b)</b>	(c)

			(a)	(b)	(c)
Line No.	FERC Acct	Description	Amount Per Customer Average N of Custom		o Forma ljustment
1 2	930.2	Miscellaneous General Expense	\$ 0.50	285,707	\$ 142,854

<sup>3 (</sup>Note 1) Operations Technology Development (OTD) membership dues are based upon the number of customers.

### BLACK HILLS NEBRASKA GAS, LLC LINE LOCATE ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Exhibit No. MCC-2 Schedule H-11

				(a)	Ext	(b) (Note 1) ternal Locates	(c) (Note 2)		(d)	(e)
Line	FERC					Moving to	<b>External Locates</b>	;	Test Year	
No.	Acct	Account Description	Ba	ase Year Expense		Internal	Price Increase		Expense	Total Expense Adjustment
1 2	874	Oper./Inspect Underground Dist. Mains - Gas	\$	6,687,347	\$	(248,193)	\$ 410,191	\$	6,849,346	\$ 161,999
3		Total	\$	6,687,347	\$	(248,193)	\$ 410,191	\$	6,849,346	\$ 161,999

<sup>5 (</sup>Note 1) Reduction in expense due to line locates in Columbus, Norfolk, and York performed by employees instead of external contractor.

<sup>6 (</sup>Note 2) Increase in expense due to price increase from external contractor for the Lincoln service area.

### BLACK HILLS NEBRASKA GAS, LLC FLEET DEPRECIATION ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

ine			E	ase Year	(Note 1) Pro Forma	
lo.	FERC Acct	Account Description	Vehi	cle Loadings		Adjusted
1	754	Field Compressor Station Expense	\$	-	\$	_
2	756	Field Measuring & Regulating Station Expense		-		-
3	764	Maintenance of Field Lines		-		-
1	766	Maintenance of Field Measuring & Regulating Station Equipment		-		-
5	767	Maintenance of Purification Equipment		-		-
6 7	814	Operation Supervision & Engineering		-		-
8	816 817	Wells Expense Lines Expense		-		-
9	818	Compressor Station Expense		_		_
10	820	Storage - Measuring & Regulating Station Expense		_		_
1	821	Purification Expense		-		-
2	830	Maintenance Supervision & Engineering		-		-
13	832	Maintenance of Reservoirs & Wells		-		-
4	833	Maintenance of Lines		-		-
.5	834	Maintenance of Compressor Station Equipment		-		-
16	835	Maintenance of Measuring & Regulating Station Equipment		-		-
.7	836	Maintenance of Purification Equipment		-		-
8	850	Operation Supervision & Engineering		975		(
.9 20	851 852	System Control & Load Dispatching Communication System Expanses		112		
:1	852 853	Communication System Expenses Compressor Labor & Expense		-		_
22	856	Mains Expense		47		_
:3	857	Measuring & Regulating Station Expense		17		
24	859	Other Expenses		1,106		(
25	860	Rents		-		-
26	861	Maintenance Supervision & Engineering		1,129		(
7	862	Maintenance of Structures & Improvements		-		-
28	863	Maintenance of Mains		412		(
9	864	Maintenance of Compressor Station Equipment		-		-
0	865	Maintenance of Measuring & Regulating Station Equipment		-		-
1	866	Maintenance of Communication Equipment		-		
2	867	Maintenance of Other Equipment		425 450		(10.2
3	870 871	Dist. Operating and Supervision Engineering Dist. Load Dispatching		425,450 28		(18,2
5	874	Oper./Inspect Underground Dist. Mains - Gas		783,160		(33,5
6	875	Dist. Measuring & Regulating Station Expense - General		112,813		(4,8
37	876	Dist. Measuring & Regulating Station Expense - Industrial		3,783		(1,0
8	877	Measuring & Regulating Station Expense - City Gate Check Station		26,298		(1,1
9	878	Oper./Inspect Meters & Collect Data - Gas		271,037		(11,6
10	879	Dist. Customer Installation Expense		167,122		(7,1
11	880	Dist. Ops. Other Expenses		1,319,952		(56,5
12	885	Dist. Maint. Supervision & Engineering		-		
3	886	Maintenance of Structures & Improvements		-		-
14	887	Perf. Underground Distribution Line Maintenance - Gas		77,879		(3,3
5	888	Dist. Maint. of Compressor Station Equipment		130		
16	889	Maintenance of Measuring & Regulating Station Expense -General		30,577		(1,3
17 18	890	Dist. Maint. of Measuring & Regulating Station Equip - Industrial  Maintenance of Measuring & Regulating Station - City Gate Check Stn.		9,384		(1.0
.9	891 892	Dist. Maint. of Services		46,206 72,438		(1,9
0	893	Dist. Maint. of Services  Dist. Maint. of Meters & House Regulators		173,494		(7,4
1	894	Dist. Maint. of Other Equipment		25,533		(1,0
52	901	Customer Accounts Supervision		7,660		(3
3	902	Meter Reading Expense		128,571		(5,5
4	903	Customer Record & Collection Expense		95,308		(4,0
5	905	Miscellaneous Customer Accounts Expense		5,442		(2
6	907	Supervision		82		
7	908	Customer Assistance Expense		709		
8	910	Miscellaneous Cust Serv & Inform Expense		2		
9	911	Supervision		-		
0	912	Demonstrating and Selling Expense		5,388		(2
1	921	Office Supplies & Expense		1 2 4 0		-
2	930.2	Miscellaneous General Expense		1,348		(
53 54	932	Maintenance of General Plant	-	118		
5 6		Total Costs	\$	3,793,710	\$	(162,3
57 58		Fleet Depreciation Expense adjustment from Statement J (Line 22 & 23)			\$	(269,1
59		Below The Line Vehicle loading Capitalization rate			*	39.6
) フ		- ·			\$	(106,7
0		Capitalized amount (Line 68 x Line 69)				

#### BLACK HILLS NEBRASKA GAS, LLC OPERATING REVENUE FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Exhibit No. MCC-2 Statement I

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	(n)	(0)
Line No. Operating Revenue	Base Year Revenues	Exclude Unbilled/Other Revenues	Exclude Discontinued Revenues	Billing Determinant Synchronization Adj. to I-1 (Ln. 1)	Customer Revenue Adj. I-1 (Ln. 2)	Customer Class Adj. I-1 (Ln. 3)	Remove Gas Cost Adjustment	Weather Normalization Adj. I-1 (Ln. 5)	Incremental Growth Adj. I-1 (Ln. 6)	Agriculture Revenue Adj. I-1 (Ln. 10)	Pipeline Replacement Adj. I-1 (Ln. 7)	2020 Safety & Integrity (SSIR) Adj. I-1 (Ln. 8)	Fuel Line Replacement Adj. I-1 (Ln. 9)	Non-Regulated Revenue Credit I-2	Sum (a - n) Pro Forma Adjusted Total
1 Base Revenues - Jurisdictional															
2 480-482, 489 Sales of Gas - Jurisdictional \$	118,394,409	s -	S -	\$ 64,984	\$ 671,223	\$ (207,142)	s -	\$ (4,118,020)	898,797	S -	\$ 393,733	\$ (692,726)	\$ (105,688)	s -	\$ 115,299,571
3 480-482, 489 Sales of Gas - Unbilled	(2,221,036)			-		(=,)	-	- (,,,,,			-	- (,)	- (,)		-
4 480-482 Sales of Gas - PGA	77,344,023	-,,	-			_	(77,344,023)		_		_		_		
5 496 Provision for Rate Refunds - Jurisdictional	(3,156,985)	3,156,985	_		_	_	-	_	_	_	_	_	_	_	_
6 Total Base Revenues - Jurisdictional \$	190,360,412	\$ 5,378,021	S -	\$ 64,984	\$ 671,223	\$ (207,142)	\$ (77,344,023)	\$ (4,118,020)	\$ 898,797	S -	\$ 393,733	\$ (692,726)	\$ (105,688)	\$ -	\$ 115,299,571
7	, ,					,	. ( , . , ,	. (, ., .,				. ( ,,	. (,,		
8 Base Revenues - Non-Jurisdictional															
9 480-482, 489 Sales of Gas - Non-Jurisdictional \$	23,448,674	S -	\$ -	\$ (140)	\$ 191,442	\$ 207,142	\$ -	S - :	S -	\$ 2,164,749	s -	\$ -	S -	s -	\$ 26,011,867
10 480-482 Sales of Gas - PGA	560,397	-	-	-	-	-	(560,397)	-	-	-	_	-	-	-	-
11 489 Transportation Revenue - Unbilled	254,003	(254,003)	-		-	-		-	-	-	-	-	-	-	-
12 496 Provision for Rate Refunds - Non-Jurisdiction	-	- 1	-		-	-	-	-	-	-	-	-	-	-	-
13 Total Base Revenues - Non-Jurisdictional \$	24,263,074	\$ (254,003)	\$ -	\$ (140)	\$ 191,442	\$ 207,142	\$ (560,397)	S - :	S -	\$ 2,164,749	s -	\$ -	S -	\$ -	\$ 26,011,867
14															
15 Subtotal Base Revenues - Jurisdictional & Non-Jurisdictional \$	214,623,486	\$ 5,124,018	\$ -	\$ 64,844	\$ 862,666	\$ -	\$ (77,904,421)	\$ (4,118,020)	\$ 898,797	\$ 2,164,749	\$ 393,733	\$ (692,726)	\$ (105,688)	\$ -	\$ 141,311,438
16															
17 Other Revenues															
18 483 Sales for Resale \$	-	\$ -	S -	\$ -	S -	\$ -	\$ -	\$ -	s -	\$ -	\$ -	\$ -	\$ -	S -	S -
19 487 Forfeited Discounts	715,622	-	-		-	-	-	-	-	-	-	-	-	-	715,622
20 488 Miscellaneous Service Revenues	2,910,285	-	-		-	-	-	-	-	-	-	-	-	-	2,910,285
21 493 Rent From Gas Property	1,000	-	(1,000)		-	-	-	-	-	-	-	-	-	1,023,704	1,023,704
22 495 Other Gas Revenues	653,820	-	-	-	-	-	-	-	-	-	-	-	-	-	653,820
23 Total Other Operating Revenue \$	4,280,727	\$ -	\$ (1,000)	S -	\$ -	s -	\$ -	\$ -	-	s -	\$ -	\$ -	s -	\$ 1,023,704	\$ 5,303,431
24															
25 Total Gas Operating Revenue \$	218,904,213	\$ 5,124,018	\$ (1,000)	\$ 64,844	\$ 862,666	\$ -	\$ (77,904,421)	\$ (4,118,020)	\$ 898,797	\$ 2,164,749	\$ 393,733	\$ (692,726)	\$ (105,688)	\$ 1,023,704	\$ 146,614,868

Н

### BLACK HILLS NEBRASKA GAS, LLC SUMMARY OF REVENUE ADJUSTMENTS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Fuel Line Replacement Adjustment - \$

Agricultural Adjustment - \$

Total Adjusted Revenue - \$

9

10

11

A

В

(105,688)

2,164,749

141,311,438

 $\mathbf{C}$ 

Exhibit No. MCC-2 Schedule I-1 Section 3, Exhibit B Page 1 of 1

I

- Stmt I col (m)

2,164,749 Stmt I col (j)

16,594,172

Line BH Gas Non-**BH Gas** No. Description **Total State** Jurisdictional **BH Gas Utility** Distribution Jurisdictional **BH Gas Utility** Distribution Reference 1. Base Rate Revenue Base Year Revenue - \$ 141,907,927 118,459,393 77,584,534 40,874,859 23,448,534 9,184,807 14,263,727 Stmt I col (d) Customer Revenue Adjustments - \$ 21,711 2 862,666 671,223 649,513 191,442 232,888 (41,446) Stmt I col (e) 3 Customer Class Realignment - \$ 207,142 Stmt I col (f) (207,142)(207,142)207,142 118,923,474 40,689,428 14,429,423 Adjusted Revenue - \$ 142,770,592 78,234,047 23,847,118 9,417,695 5 Weather Normalization - \$ (4,118,020)(4,118,020)(2,903,341)(1,214,679)- Stmt I col (h) 898,797 Growth - \$ 898,797 723,520 175,277 - Stmt I col (i) 6 Pipeline Replacement Adjustment - \$ 393,733 393,733 393,733 - Stmt I col (k) 8 2020 Safety and Integrity (SSIR) Adjustment - \$ (692,726)(692,726)(692,726)- Stmt I col (1)

(105,688)

76,342,271

38,957,300

(105,688)

115,299,571

D

 $\mathbf{E}$ 

F

2,164,749

26,011,867

9,417,695

G

### BLACK HILLS NEBRASKA GAS, LLC NON-REGULATED ALLOCATED ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Exhibit No. MCC-2 Schedule I-2

(a) (b)

Line No.	Revenue Requirement Components	Reference	Utility Allocated Adjustment	Adj	te 1) usted otal
1					
2	Gross Plant	Sched I-2 Pg. 2 Ln. 24 + 40 (a)	\$ 8,666,614		
3	Accumulated Reserve	Sched I-2 Pg. 2 Ln. 24 + 40 (d)	(2,239,621)		
4	Accumulated Deferred Income Tax (ADIT)	Sched I-2 Pg. 2 Ln. 24 + 40 (g)	(470,401)		
5	Rate Base		\$ 5,956,593		
6					
7	Interest Expense	Ln. 5 x Stmt G Ln. 16 (d)	\$ 122,408		
8	Equity Return	Ln. 5 x Stmt G Ln. 18 (d)	\$ 297,830		
9		` ,			
10	Depreciation Expense	Sched I-2 Pg. 2 Ln. 24 + 40 (c)	\$ 473,146		
11					
12	Property Taxes	Ln 2 x Property Tax Rate (Note 2)	\$ 49,400		
13					
14	Income Tax Expense	Ln 8 x (((1-0.0781) x (0.21)) + 0.0781)	\$ 80,920		
15					
16	Revenue Requirement / Credit	Sum Ln.7 through Ln.14	\$ 1,023,704	\$	1,023,704
17					
18	Total Gas Revenue Adjustment		\$ 1,023,704	\$	1,023,704
19					

<sup>20 (</sup>Note 1) Revenue credit associated with the non-regulated use of Nebraska Gas, LLC assets.

<sup>21 (</sup>Note 2) Property Tax Rate is the calculation of 2019 property taxes divided by 2019 plant in service.

Property Tax Rate = 0.0057

### BLACK HILLS NEBRASKA GAS, LLC NON-REGULATED USE OF ASSETS ADJUSTMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Exhibit No. MCC-2 Schedule I-2 Pg. 2

		(a)	(b) 1 Year	(c) (a) * (b) <b>Book</b>	(d) Accumulated	(e)	(f) Tax	(g)	(h) (g) - ((a)-(d))	(i)	(j) (h) * (i)	(k)
Line		Plant in	Depreciation	Depreciation	Depreciation	MACRS HY	Depreciation	Tax Basis			<b>Ending Deferred</b>	Deferred Tax
No.	Schedule Reference	Service	Rate (Note 1)	Expense	Adjustment	Convent	Rate	Depreciation	Difference	Tax Rate	Tax	Adjustment
1												
2	Remove Non-Regulated Use of Assets											
3	Revenue Credit (Schedule I-9)											
4	387	\$ 57,081	2.06%	\$ 1,176		PowerTax	PowerTax	\$ -	\$ 39,920	27.17%	\$ 10,846 \$	,
5	389.01	255,293	0.00%	-	(2,068)		PowerTax	313,156	55,795	27.17%	15,159	15,159
6	390.01	1,873,006	2.98%	55,816	10,807	PowerTax	PowerTax	1,786,715	(75,484)	27.17%	(20,509)	(20,509)
7	390.51	4,561	9.28%	423	(5,207)		PowerTax	4,423	(5,346)	27.17%	(1,452)	(1,452)
8	391.01	20,873	4.98%	1,039	(7,490)		PowerTax	2,638	(25,725)	27.17%	(6,990)	(6,990)
9	391.03	27,347	19.77%	5,407	(34,688)		PowerTax	17,108	(44,927)	27.17%	(12,207)	(12,207)
10	391.04	8,335	0.18%	15	(31,083)		PowerTax	61	(39,356)	27.17%	(10,693)	(10,693)
11	391.07	29,962	20.00%	5,992	3,163	PowerTax	PowerTax	26,000	(799)	27.17%	(217)	(217)
12	392.01	-	0.00%	-	370,029	PowerTax	PowerTax	18,842	388,870	27.17%	105,656	105,656
13	392.02	542,971	9.87%	53,591	498,908	PowerTax	PowerTax	431,132	387,069	27.17%	105,166	105,166
14	392.03	2,459,849	7.00%	172,189	442,640	PowerTax	PowerTax	348,732	(1,668,477)	27.17%	(453,324)	(453,324)
15	392.04	27,877	12.56%	3,501	5,899	PowerTax	PowerTax	5,743	(16,235)	27.17%	(4,411)	(4,411)
16	392.05	430,082	4.76%	20,472	181,698	PowerTax	PowerTax	36,196	(212,187)	27.17%	(57,651)	(57,651)
17	392.06	114,558	6.59%	7,549	15,689	PowerTax	PowerTax	4,242	(94,628)	27.17%	(25,710)	(25,710)
18	393	1,381	4.00%	55	376	PowerTax	PowerTax	65	(939)	27.17%	(255)	(255)
19	394	434,929	3.95%	17,180	133,075	PowerTax	PowerTax	110,989	(190,864)	27.17%	(51,858)	(51,858)
20	395	4,351	4.61%	201	2,390	PowerTax	PowerTax	(4,860)	(6,821)	27.17%	(1,853)	(1,853)
21	396	807,252	3.83%	30,918	407,025	PowerTax	PowerTax	273,543	(126,684)	27.17%	(34,420)	(34,420)
22	397	118,451	6.66%	7,889	92,922	PowerTax	PowerTax	5,034	(20,495)	27.17%	(5,568)	(5,568)
23	398	8,701	5.00%	435	13,886	PowerTax	PowerTax	(11,003)	(5,818)	27.17%	(1,581)	(1,581)
24	Total Non-Regulated Use of Assets 12/31/19	\$ 7,226,861		\$ 383,849	\$ 2,194,972			\$ 3,368,756	\$ (1,663,134)		\$ (451,872) \$	(451,872)
25												
26												
27		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
28				(a) * (b)					(c) - (g)		(h) * (i)	
			1 Year	Book	Accumulated		Tax					
		Plant in	Depreciation	Depreciation	Depreciation	MACRS HY	•	Tax Basis			Ending Deferred	Deferred Tax
29		Service	Rate (Note 1)	Expense	Adjustment	Convent	Rate	Depreciation	Difference	Tax Rate	Tax	Adjustment
30												
31 32	Non-Regulated Use of Assets Plant Additions Revenue Credit (Schedule I-9)											
33	389.01	\$ 26,611	0.00%		\$ -	None	0.00%		\$ -	27.17%	\$ - \$	
34	390.01	203,211	2.98%	6,056	3,028	39 Year	1.39%	2,827	3,229	27.17%	877	439
35	390.51	-	9.28%	-	-	39 Year	1.39%	-	-	27.17%	-	-
36	391.01	2,419	4.98%	120	60	7 Yr HYC	14.29%	346	(225)	27.17%	(61)	(31)
37	391.03	2,419	19.77%	478	239	5 Yr HYC	20.00%	484	(6)	27.17%	(2)	(1)
38	391.04	26,693	0.18%	48	24	3 Yr SL	16.67%	4,449	(4,401)	27.17%	(1,196)	(598)
39	392.03	592,923	7.00%	41,505	20,752.29	5 Yr HYC	20.00%	118,585	(77,080)	27.17%	(20,943)	(10,471)
40	392.04	193,694	12.56%	24,328	12,164	5 Yr HYC	20.00%	38,739	(14,411)	27.17%	(3,915)	(1,958)
41	392.05	38,075	4.76%	1,812	906.18	5 Yr HYC	20.00%	7,615	(5,803)	27.17%	(1,577)	(788)
42	392.06	37,072	6.59%	2,443	1,222	5 Yr HYC	20.00%	7,414	(4,971)	27.17%	(1,351)	(675)
43	394	316,636	3.95%	12,507	6,254	7 Yr HYC	14.29%	45,234	(32,727)	27.17%	(8,892)	(4,446)
44	Total Non-Regulated Use of Asset Additions	\$ 1,439,753	<del>.</del>	\$ 89,298	\$ 44,649	=		\$ 225,691	\$ (136,394)		\$ (37,058) \$	(18,529)
45												

<sup>46 (</sup>Note 1) Composite depreciation rates as recommended in the depreciation study by Gannett Fleming, as found on Schedule J-1.

### BLACK HILLS NEBRASKA GAS, LLC DEPRECIATION AND AMORTIZATION EXPENSE FOR THE TEST YEAR ENDING DECEMBER 31, 2020

27

Exhibit No. MCC-2 Statement J

TOIL	HE TEST TEAR EXDING DECEMBER 31, 2920		(a)		(b)		(c) (a) - (b)	
Line No.	Description	Reference	Test Year Depreciation Expense	A	epreciation/ mortization Expense Base Year	n Depreciation/ Amortization		
1 2	Depreciation							
3	Intangible	Sched. J-1 Ln. 6 (e)	\$ 75,057	\$	33,980	\$	41,077	
5	Gathering and Processing Plant	(Note 2)	-		-		-	
7	Storage Plant	(Note 2)	-		-		-	
9 10	Transmission	Sched. J-1 Ln. 13 (e)	40,586		49,688		(9,102)	
11 12	Distribution	Sched. J-1 Ln. 33 (e)	18,103,068		19,753,043		(1,649,975)	
13 14 15	General (less Vehicles) Amortization of Unrecovered Reserve	Sched. J-1 Ln. 59 (e) - Ln.22 (a) Attachment MCC-4 Black Hills Nebraska Gas, LLC Depreciation Study - (\$1,060,862 / 5 yrs)	2,097,454 212,172		868,501		1,228,953 212,172	
16 17	Other Utility Plant-BHSC (less Vehicles)	Sched J-1 Ln. 69 (e)	2,841,311		3,331,474		(490,163)	
18 19	Total Other Utility Plant		\$ 2,841,311	\$	3,331,474	\$	(490,163)	
20 21	Total Depreciation and Amort Expense less Vehicles	(Note 1)	\$ 23,369,648	\$	24,036,687	\$	(667,038)	
22 23 24	Depreciation charged to O&M Accounts (Vehicles) Depreciation charged to O&M Accounts (Vehicles)	Sched J-1 Ln. 46 to 51 (e) + Sched J-1 Ln. 55 (e) + Sched J-1 Ln 72-76 (e) Sched J-1 Ln. 77 (e)	\$ 2,441,182 102,895	\$	2,712,861 100,343	\$	(271,679) 2,552	
25 26	Total Depreciation and Amortization Expense	Ln. 20 + Ln.22 + Ln.23	\$ 25,913,725	\$	26,849,891	\$	(936,166)	

<sup>28 (</sup>Note 1) The Adjusted Depreciation Expense and Per Books amount includes the removal of fleet capitalization which is charged through the vehicle loadings process.

<sup>29 (</sup>Note 2) There was no plant in service in this category in the base year, and no subsequent additions anticipated in the test year.

Exhibit No. MCC-2

Schedule J-1

#### BLACK HILLS NEBRASKA GAS, LLC GAS PLANT IN SERVICE FOR THE TEST YEAR ENDING DECEMBER 31, 2020

(a) (b) (c) (d) (a) + (b)(c) \* (d) Adjusted (Note 3) (Note 4) Adjusted Plant Remove: Non-Plant Account Line FERC in Service Depreciable Depreciable Depreciation Depreciation No. Acct Description (Sched D-1) Items Plant Rate Expense INTANGIBLE PLANT Intangibles Organization \$ 256 \$ (256) \$ 2 301 \$ Intangibles Franchises & Consents 121,062 121,062 0.58% 702 3 Intangibles Miscellaneous 742,881 742,881 6.61% 49,104 303.01 Intangibles Miscellaneous - Easements 500,000 500,000 5.05% 25,250 Total Intangible Plant 1,363,943 6 1,364,199 (256) -\$ 75,057 8 TRANSMISSION PLANT 9 365.03 Right-of-Way \$ 170,272 \$ 170,272 0.76% \$ 1,294 10 366.01 Structures and Improvements 8,174 8,174 0.49% 40 11 Transmission Plant - Mains 5,361,147 5,361,147 0.49% 26,270 369.03 Transmission Plant - Meas. & Reg. Sta. Equip. 12,982 12 624,132 624,132 2.08% 13 Total Transmission Plant 6,163,725 6,163,725 40,586 14 15 DISTRIBUTION PLANT \$ 16 374.01 Distribution Plant - Land \$ 608,494 (608,494)17 374.02 Land Rights (Non-Depreciable) 1,724,268 (1,724,267.90) 374.03 Land Rights - Right of Way (Depreciable) 6,797,136 0.95% 64,573 18 6,797,136 19 Structures and Improvements 3,412,284 3,412,284 0.76% 25,933 Structures and Improvements - Other 12,119 12,119 2.14% 259 20 21 Distribution Plant - Mains 444,506,217 444,506,217 1.45% 6,445,340 Distribution Plant - Meas. & Reg. Sta. Equip. - General 22 378 25,407,197 25,407,197 2.71% 688,535 23 Measuring & Regulating Station Equip.- City Gate Check Stn. 5,952,374 5,952,374 83,928 379 1 41% 24 Distribution Plant - Services 154,387,443 154,387,443 3.54% 5,465,315 380 25 381 Meters 45,960,615 45,960,615 4.79% 2,201,513 382.01 Meter Installations 12,295,676 2.67% 26 12,295,676 328,295 Distribution Plant - House Regulators 2,399,393 27 383.01 73,600,998 73,600,998 3.26% Distribution Plant - House Regulators - Farm Taps 2.49% 28 1.043,532 1.043,532 25,984 29 House regulator installations 1,553,793 1,553,793 1.21% 18,801 30 Industrial Measuring & Regulating Station Equipment 13,427,611 13,427,611 2.58% 346,432 31 Other Property on Customers' Premises 35,279 35,279 1.04% 367 32 Other Equipment 407,725 407,725 2.06% 8,399 33 Total Distribution Plant 791,132,761 (2,332,761) 18,103,068 34 35 GENERAL PLANT 36 389.01 Land \$ 5,749,205 (5,749,205) \$ 37 389.02 Land Rights - Right of Way 1,331,607 (1,331,607.11) 38 390.01 Structures and Improvements 41,881,060 41,881,060 2.98% 1,248,056 39 390.51 Leasehold Improvements 93,091 93,091 9.28% 8,639 40 391.01 Office Machines 475,350 475,350 4.98% 23,672 41 391.02 Office Furniture 42 391.03 Computer Hardware 607,481 607,481 19.77% 120,099 43 Software 714,847 714,847 1,287 391.04 0.18% 44 391.05 System Development 611,479 611,479 122,296 45 391.07 Ipad Hardware 20.00% 46 392.01 Transportation Equipment 47 2,919,325 2,919,325 9.87% 288,137 392.02 Cars 48 392.03 Light Trucks 20,337,254 20,337,254 7.00% 1,423,608 49 392.04 Medium Trucks 1.524,755 1,524,755 12.56% 191,509 50 392.05 Heavy Trucks 3,274,142 3,274,142 4.76% 155,849 51 392.06 Trailers 1,041,429 1,041,429 6.59% 68,630 52 Stores Equipment 28,178 4 00% 1,127 393 28,178 53 394 Tools, Shop, and Garage Equipment 15,338,054 15,338,054 3.95% 605,853 54 395 Laboratory Equipment 88,803 88,803 4.61% 4,094 55 396 Power Operated Equipment 5,497,464 5,497,464 3.83% 210,553 56 397 Communication Equipment 846,080 846,080 6.66% 56,349 57 398 Miscellaneous Equipment 177,568 177,568 5.00% 8,878 58 399 Other Tangible Property 59 Total General Plant 102,537,170 (7,080,812) 95,456,358 4,538,636

Exhibit No. MCC-2

### BLACK HILLS NEBRASKA GAS, LLC GAS PLANT IN SERVICE

GAS P	LANT IN	NEBRASKA GAS, ELC   SERVICE   YEAR ENDING DECEMBER 31, 2020		(a)	(b)		(c)	(d)	EXIII	Schedule J-1 (e)
Line	FERC			Adjusted Plant in Service	 emove: Non- Depreciable	]	(a) + (b) Depreciable	(Note 3) Plant Account Depreciation		(c) * (d) (Note 4) Adjusted epreciation
No.	Acct	Description	1	(Sched D-1)	Items		Plant	Rate		Expense
60										<u> </u>
61		OTHER UTILITY PLANT (less Vehicles)								
62	118	Other Utility Plant (Corporate Shared Assets - Note 1a)	\$	6,810,747	\$ -	\$	6,810,747	5.75%	\$	391,383
63	118	Other Utility Plant (Corporate Shared Assets - Note 1b)		5,637,556	-		5,637,556	8.27%		466,095
64	119	Other Utility Plant (Corporate Unrecovered Reserve - Note 1c)		1,671,161	-		1,671,161	10.00%		167,116
65	118	Other Utility Plant (Corporate Shared Assets - Note 2a)		8,094,533	-		8,094,533	7.72%		624,975
66	118	Other Utility Plant (Corporate Shared Assets - Note 2b)		1,413,652	-		1,413,652	5.21%		73,627
67	118	Other Utility Plant (Corporate Shared Assets - Note 2c)		4,734,353	-		4,734,353	13.55%		641,503
68	119	Other Utility Plant (Corporate Unrecovered Reserve - Note 2d)		4,766,125	 		4,766,125	10.00%		476,612
69		Total Other Utility Plant (less Vehicles)	\$	33,128,126	\$ -	\$	33,128,126		\$	2,841,311
70										
71		OTHER UTILITY PLANT (Vehicles)								
72	118	Other Utility Plant (Corporate Shared Assets - Note 1a)	\$	23,191	\$ -	\$	23,191	9.30%	\$	2,157
73	118	Other Utility Plant (Corporate Shared Assets - Note 1b)		28,252	-		28,252	7.14%		2,018
74	118	Other Utility Plant (Corporate Shared Assets - Note 2a)		580,355	-		580,355	9.70%		56,270
75	118	Other Utility Plant (Corporate Shared Assets - Note 2b)		80,963	-		80,963	9.61%		7,780
76	118	Other Utility Plant (Corporate Shared Assets - Note 2c)		370,763	 		370,763	9.35%		34,671
77		Total Other Utility Plant (Vehicles)	\$	1,083,525	\$ -	\$	1,083,525		\$	102,895
78										
79		Total Gas Plant In Service	\$	935,409,506	\$ (9,413,829)	\$	925,995,676		\$	25,701,553
80										

<sup>81 (</sup>Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities per CAM.

<sup>82 (</sup>Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

<sup>83 (</sup>Note 1c) Figure represents Other Utility Plant, Corporate Unrecovered Reserve allocated on customer count per CAM.

<sup>(</sup>Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM. 84

<sup>85</sup> (Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

<sup>(</sup>Note 2c) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated gas utilities per CAM.

<sup>87</sup> (Note 2d) Figure represents Other Utility Plant, Corporate Unrecovered Reserve allocated on general ratio per CAM.

<sup>88 (</sup>Note 3) Depreciation rates as recommended in the depreciation studies by Gannett Fleming, presented in attachments MCC-4 and MCC-5.

<sup>(</sup>Note 4) Annual depreciation expense related to pro forma capital additions and adjustments.

### BLACK HILLS NEBRASKA GAS, LLC COMPUTATION OF FEDERAL INCOME TAX FOR THE TEST YEAR ENDING DECEMBER 31, 2020

			(a)			(b)		(c)
Line No.	Description	Reference		Total Company Per Books		djustment to Per Books		(a) + (b) Adjusted
1	•	Stmt. M Ln. 13	•	45,924,360	\$		\$	40,707,483
2	Interest Expense	Sunt. Wi Lii. 13	Ф	(11,043,220)	Þ	(5,216,877) (1,031,686)	Ф	(12,074,906)
3	Pre-tax net operating income		\$	34,881,140	\$	(6,248,563)	\$	28,632,577
4	Tax Adjustments - Permanent Differences							
5	Fines & Penalties		\$	454	\$	(454)	\$	-
6	Meals			333,210		-		333,210
7	Club Dues			24,532		(24,532)		-
8 9	Lobbying Entertainment			20,809		(20,809)		-
10	PEP Life - Cash Surrender Value			16,172 (36,848)		(16,172) 36,848		-
11	Total Permanent Differences		\$	358,330	\$	(25,120)	\$	333,210
12	Town I dimension Billion bloods		Ψ	330,330	Ψ.	(20,120)	Ψ	333,210
13	Tax Adjustments - Temporary Differences							
14	DTA LT - VACATION:		\$	102,042	\$	-	\$	102,042
15	DTA LT - BAD DEBT RESERVE:			(4,913,707)		177,782		(4,735,924)
16	DTA LT - EMPLOYEE GROUP INSURANCE:			74,328		-		74,328
17	DTA LT - BONUS:			(253,021)		-		(253,021)
18	DTA LT - STIP BONUS:			-		-		-
19	DTA LT - AIP BONUS:			(2.020)		-		(2.028)
20 21	DTA LT - WORKMANS COMP: DTA LT- BOWDOIN REGULATED LIABILITY			(3,038)		-		(3,038)
22	DTA LT- OTHER CURRENT:	•		276		-		276
23	DTA LT-RETIREE HEALTHCARE:			-		_		270
24	DTA LT- PERFORMANCE PLAN:			(14,392)		_		(14,392)
25	DTA LT-LINE EXTENSION DEP GAS:			-		_		-
26	DTL LT-PENSION FAS 87:			(1,233,957)		429,729		(804,228)
27	DTA LT-FAS 106 RETIREE LIAB:			(436,494)		420,290		(16,204)
28	DTA LT - PUC FEES:			-		-		-
29	DTA LT - OPERATING LEASE:			(122,612)		122,612		(0)
30	DTA LT-RATE REFUND			(394,472)		394,472		0
31	DTA LT - LIABILITY FED NON-RATE BASE:			(930,906)		930,906		(0)
32	DTA LT-PGA LIAB:			(192,038)		192,038		-
33	DTA LT - GOODWILL AMORT:			(9,497,500)		- (1.404)		(9,497,500)
34	DTA LT - LIABILITY FED PROPERTY:			1,404		(1,404)		0
35 36	DTA LT - DEFERRED COSTS GAS:			-		-		-
37	DTA LT - TRANSACTION COSTS: DEF TAX PROPERTY LT-ACCELERATED DEI	D.		(9,967,153)		(22,885,485)		(32,852,638)
38	DTL LT - REG ASSET NONSERVICE :			(490,255)		490,255		(0)
39	DTL LT- BOWDOIN REGULATED ASSET:			5,225,804		(5,225,804)		(0)
40	DTL LT-REG RETIREE HEALTHCARE ASSETS	:		242,272		(242,272)		_
41	DTA LT-DEBT PREMIUM:			-		-		-
42	DTL LT - PREPAID EXPENSES:			-		-		-
43	DTA LT-DEFERRED REVENUE:			3,166,396		(3,166,396)		0
44	DTL LT-LT RATE CASE ASSET:			(339,662)		-		(339,662)
45	DTL LT-OPERATING LEASE:			121,337		(121,337)		0
46	DTL LT-REG PSC PENSION ASSET:			479,242		(479,242)		-
47	DTL LT - PGA ASSET:			619,962		(619,962)		(0)
48	DTL LT-GOODWILL AMORT:		<u>\$</u>	(11,559,681)	•	(20,592,919)	•	(11,559,681) (59,899,642)
49 50	Total Temporary Differences		Э	(30,315,824)	\$	(29,583,818)	\$	(39,899,042)
51	Taxable Income (NOL)		\$	4,923,646	\$	(35,857,501)	\$	(30,933,855)
52	Net Operating Loss		φ	(4,923,646)	φ	35,857,501)	φ	30,933,855
53	Taxable Income		\$	(1,525,010)	\$	-	\$	-
54	Talmore Income		Ψ		Ψ		Ψ	
55	Provision for Federal Income Tax:							
56	Federal Taxable Income			-		-		-
57	Total Federal Tax	21.00%						
58								
59	Summary of Provision for Income Tax:							
60	Federal Income Tax		\$	-	\$	-	\$	-
61	D. 6 14							
62	Deferred Income Taxes:	27 170/	•	0.574.520	•	(1.704.552)	e.	7.960.075
63 64	Deferred Income Tax ARAM Plant Protected EDFIT	27.17%	Э	9,574,529	\$	(1,704,553)	\$	7,869,975
65	ARAM NOL DDFIT			-		-		-
66	Total EDFIT Amortization		\$	_	\$	_	\$	_
67	Total EDITI Amortization		Ψ		Ψ		Ψ	
68	Total Income Tax		-\$	9,574,529	-\$	(1,704,553)	\$	7,869,975
69							_	
70	Interest Expense Sync with Rate Base:							
71	Total Rate Base	Stmt M Ln.27	\$	525,867,609			\$	586,160,478
72	X Wtd Cost of Debt	Stmt G Ln.9		2.10%				2.06%
73	Interest Expense		\$	11,043,220			\$	12,074,906
74			_	11.042.222			_	12.054.005
75	Adjusted Interest Exp.		\$	11,043,220			\$	12,074,906

### BLACK HILLS NEBRASKA GAS, LLC TAXES OTHER THAN FEDERAL INCOME TAX FOR THE TEST YEAR ENDING DECEMBER 31, 2020

### Exhibit No. MCC-2 Statement L

(a) (b)

Line				
No.	Description	Reference		Amount
1	FICA Tax			
2	Per Books		\$	2,264,966
3	Out of Period adjustments		Ψ	2,204,700
4	Pro Forma Adjustment	Sched L-1 Ln. 4		227,467
5	Adjusted Total	Sched E 1 Ell. 1	\$	2,492,433
6	110,0000 10001		Ψ	2, 1, 2, 1, 1, 2
7	Federal Unemployment Tax			
8	Per Books		\$	23,120
9	Out of Period adjustments		•	
10	Pro Forma Adjustment			-
11	Adjusted Total		\$	23,120
12	J			-,
13	State Unemployment Tax			
14	Per Books		\$	28,766
15	Out of Period adjustments			, -
16	Pro Forma Adjustment			-
17	Adjusted Total		\$	28,766
18	3			
19	State Sales & Use Tax			
20	Per Books		\$	(212,355)
21	Out of Period adjustments	Sched L-1 Ln. 7		231,473
22	Pro Forma Adjustment			-
23	Adjusted Total		\$	19,118
24				
25	Property Taxes			
26	Per Books		\$	3,909,166
27	Out of Period adjustments			235,859
28	Pro Forma Adjustment	Sched L-1 Ln. 13		515,300
29	Adjusted Total		\$	4,660,325
30				
31	Miscellaneous Other Taxes			
32	Per Books		\$	178
33	Out of Period adjustments			-
34	Pro Forma Adjustment			
35	Adjusted Total		\$	178
36				
37	TOTIT - Payroll Loading & Other			
38	Per Books		\$	(137,989)
39	Out of Period adjustments			-
40	Pro Forma Adjustment			
41	Adjusted Total		\$	(137,989)
42				
43	Total Taxes Other Than Income		_	
44	Per Books		\$	5,875,853
45	Out of Period adjustments			467,332
46	Pro Forma Adjustment			742,767
47	Adjusted Total		\$	7,085,952

### BLACK HILLS NEBRASKA GAS, LLC TAXES OTHER THAN FEDERAL INCOME TAX FOR THE TEST YEAR ENDING DECEMBER 31, 2020

### Exhibit No. MCC-2 Schedule L-1

Line				(a)
No.	Description	Reference		Amount
1	FICA Tax Adjustment			
2	<u></u>	Sched H-4 Ln.129	¢	2 072 429
	Net O&M Payroll Changes	Sched H-4 Lh.129	\$	2,973,428
3	FICA Tax Rate			7.65%
4	Adjustment to FICA Tax	Ln. 2 x Ln. 3	\$	227,467
5				
6	State Sales & Use Tax			
7	NE Advantage Act tax reduction in base period	Note 1	\$	231,473
8	Total Sales & Use Tax adjustment		\$	231,473
9				
10	Property Tax Adjustment			
11	Pro Forma Capital Additions	Stmt D Ln. 17 (c) - Ln. 15 (c)	\$	90,403,376
12	Property to Gross Plant Factor			0.5700%
13	Pro Forma Adjustment	Ln. 11 x Ln. 12	\$	515,300
14				
15	(Note 1) - This was a one-time reduction in 2019	P relating to 2008-2009.		

### BLACK HILLS NEBRASKA GAS, LLC OVERALL REVENUE REQUIREMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A Exhibit No. MCC-2 Statement M Page 1

				(a)		(b)		(c) (a) + (b)		(d) Additional		(e) (c) + (d) Adjusted
Line				Base Year		Pro Forma		Adjusted		Revenue		Rate of
No.	Description	Reference		Per Books		Adjustments		Total		Required		Return
1	Operating Revenue											
2	Total Sales - Jurisdictional	Stmt I Ln.6	\$	190,360,412	\$	(75,060,842)	\$	115,299,571	\$	11,733,366	\$	127,032,937
2	Total Sales - Jurisdictional	Stmt I Ln.13	Ф	, , ,	Þ		Ф	, ,	Þ	11,733,300	\$	, ,
3				24,263,074		1,748,793		26,011,867		-		26,011,867
4	Other Operating Revenue	Stmt I Ln.23		4,280,727	Ф.	1,022,704	Ф.	5,303,431	Ф.	11.722.266		5,303,431
3	Total Operating Revenue		\$	218,904,213	\$	(72,289,345)	\$	146,614,869	\$	11,733,366	\$	158,348,235
6	0 4 5											
7	Operating Expenses					(== == =====						
8	Operation and Maintenance	Stmt H Ln.164	\$	143,067,314	\$	(67,615,528)	\$	75,451,786	\$	-	\$	75,451,786
9	Depreciation	Stmt J Ln.20(b)		24,036,687		(667,038)		23,369,648		-		23,369,648
10	Taxes Other Than Income Tax	Stmt L Ln.44		5,875,853		1,210,099		7,085,952				7,085,952
11	Total Operating Expenses			172,979,853	\$	(67,072,467)	\$	105,907,386	\$		\$	105,907,386
12												
13	Operating Income Before Tax	Ln.5 - Ln.11	\$	45,924,360	\$	(5,216,878)	\$	40,707,483	\$	11,733,366	\$	52,440,849
14												
15	Income Tax Expense	Stmt K Ln.70		9,574,529		(1,704,553)		7,869,975		3,187,944		11,057,919
16												
17	Return (Operating Income)	Ln.13 - Ln.15		36,349,831			\$	32,837,508			\$	41,382,930
18												
19	Rate of Return	Ln.17 ÷ Ln.27		6.91%				5.60%				7.06%
20												
21	Rate Base											
22	Plant in Service	Stmt D, Ln.19	\$	856,329,951	\$	72,642,269	\$	928,972,220	\$	-	\$	928,972,220
23	Accumulated Depreciation	Stmt E, Ln.21		(285,893,862)		(3,135,089)		(289,028,951)		_		(289,028,951)
24	Working Capital	Stmt F Ln.7		4,210,255		(954,097)		3,256,158		_		3,256,158
25	Other Rate Base Items	Sched M-1 Ln.74		(48,778,735)		(8,260,213)		(57,038,949)		_		(57,038,949)
26	Salet Teate Base Relias	Senes III I Dii./ I	-	(.5,770,755)		(0,200,213)		(27,330,717)			-	(27,030,313)
27	Total Rate Base		\$	525,867,609	\$	60,292,870	\$	586,160,478	\$	-	\$	586,160,478

### BLACK HILLS NEBRASKA GAS, LLC JURISDICTIONAL REVENUE REQUIREMENT FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect IV: 004.03A Exhibit No. MCC-2 Statement M Page 2

				(a)	(b) (c) (a) + (b)				(d) Additional		(e) (c) + (d) Adjusted	
Line				Base Year		Pro Forma		Adjusted		Revenue		Rate of
No.	Description	Reference		Per Books	A	Adjustments		Total		Required		Return
1	Operating Revenue											
2	Total Sales - Jurisdictional	Stmt N Ln. 292	\$	175,116,722	\$	(59,817,152)	\$	115,299,571	\$	17,295,841	\$	132,595,412
3	Total Sales - Non Jurisdictional			-		-		-		-		-
4	Other Operating Revenue	Stmt N Ln. 289		3,822,696		881,088		4,703,784				4,703,784
5	Total Operating Revenue		\$	178,939,419	\$	(58,936,064)	\$	120,003,355	\$	17,295,841	\$	137,299,196
6												
7	Operating Expenses											
8	Operation and Maintenance	Stmt N Ln. 260	\$	58,831,274	\$	6,992,782	\$	65,824,056	\$	-	\$	65,824,056
9	Depreciation	Stmt N Ln. 270		-		20,260,396		20,260,396		-		20,260,396
10	Taxes Other Than Income Tax	Stmt N Ln. 279		5,089,119		1,048,515		6,137,633		-		6,137,633
11	Total Operating Expenses		\$	63,920,392	\$	28,301,693	\$	92,222,086	\$	-	\$	92,222,085
12												
13	Operating Income Before Tax	Ln.5- Ln.11	\$	115,019,027	\$	(87,237,758)	\$	27,781,269	\$	17,295,841	\$	45,077,111
14												
15	Income Tax Expense	Stmt N Ln. 302		5,846,812		(1,040,908)		4,805,904		4,699,263		9,505,167
16	_											
17	Return (Operating Income)	Ln.13 - Ln.15	\$	109,172,215			\$	22,975,365			\$	35,571,944
18												
19	Rate of Return	Ln.17 ÷ Ln.27		24.23%				4.56%				7.06%
20												
21	Rate Base											
22	Plant in Service	Stmt N Ln. 61	\$	737,967,774	\$	62,367,854	\$	800,335,628	\$	_	\$	800,335,628
23	Accumulated Depreciation	Stmt N Ln. 72	,	(246,253,636)	•	(1,567,271)	•	(247,820,907)	·	_	Ť	(247,820,907)
24	Working Capital	Stmt N Ln. 82		3,796,547		(822,250)		2,974,297		_		2,974,297
25	Other Rate Base Items	Stmt N Ln. 89		(44,952,955)		(6,684,174)		(51,637,129)		_		(51,637,129)
26	S and Table 2 also Rollis	2 mil 1 · 2 m 0 )		(,,,,,,,,,,		(0,001,171)		(01,007,127)				(51,057,125)
27	Total Rate Base		\$	450,557,729	\$	53,294,160	\$	503,851,889	\$	-	\$	503,851,889

### BLACK HILLS NEBRASKA GAS, LLC OTHER RATE BASE ITEMS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A3, B Exhibit No. MCC-2 Schedule M-1

				(a)		(b)		(c)		(d) Adjusted
Line No.	Account	Description		mber 31, 2018 ding Balance		ember 31, 2019 ding Balance		Pro Forma djustment		her Rate Base Reductions
1		Deferred Income Tax Assets								
2	190300	DT1000 - VACATION:	\$	163,072	\$	167,440	\$	-	\$	167,440
3	190300	DT1010 - BAD DEBT RESERVE:		1,672,345		736,429		48,303		784,732
4	190300	DT1020 - EMPLOYEE GROUP INSURANCE:		35,984		85,292		-		85,292
5	190300	DT1030 - BONUS:		336,237		269,758		-		269,758
6	190300	DT1050 - WORKMANS COMP:		189,748		179,287		-		179,287
7	190300	DT1050 - OTHER:		3,892		3,743		_		3,743
8	190300	DT2020 - RETIREE HEALTHCARE		103,338		158,751		114,192		272,943
9	190300	DT2092 - FAS 109 OTHER:		4,110,482		2,962,262		(1,222,062)		1,740,200
10	190300	DT3010 - PERFORMANCE PLAN		3,086		140		(1,222,002)		140
11	190300	DT3076 - LINE EXTENSION DEP GAS:		(1,165)		(1,040)				(1,040)
12	190300	DT3090 - PENSION FAS 87		(1,716,297)		(1,837,486)		116,757		(1,720,729)
13	190300	DT4110 - OTHER REG LIAB:		(1,/10,297)				110,737		
				2 025 152		2,522		-		2,522
14	190300	DT4120 - PENSION FAS 158 LIAB:		3,925,153		4,001,446		-		4,001,446
15	190300	DT4125 - RET HLTH FAS158 LIAB:		72,296		320,280		-		320,280
16	190300	DT4130 - FAS 106 RETIREE LIAB:		1,647,073		1,453,579		-		1,453,579
17	190300	DT4132 - UNIFORM CAP ADJUSTMENT:		-		-		-		-
18	190300	DT4135 - INSURANCE RESERVE		38,809		-		-		-
19	190300	DT4165 - NOL CARRYFORWARD:		5,029,651		7,611,459		1,684,782		9,296,241
20	190300	DT4415 - ALT FUEL VEHICLE CREDIT		50,000		50,000		-		50,000
21	190300	DT4430 - R&D CREDIT		7,286		7,286		-		7,286
22	190300	DT4466 - PUC FEES:		76,066		82,809		-		82,809
23	190300	DT3060 - ARO FASB 143 ASSET		1,502,653		-		-		-
24		Total Deferred Income Tax Assets	\$	17,249,709	-\$	16,253,957	\$	741,973	\$	16,995,930
25						-,, -				
26		Regulatory Liabilities for Excess Deferred Income Taxes ("EDFIT")								
27	254015	Protected Property - (EDFIT)	\$	(20,047,884)	\$	(20,763,764)	\$	_	\$	(20,763,764)
28	254015	Non-Protected Plant - (EDFIT)	Ψ	(5,007,957)	Ψ	(3,620,477)	Ψ	3,620,477	Ψ	(20,703,701)
29	254015	Protected NOL - Deficient Deferred Federal Income Taxes ("DDFIT")		3,528,551		3,722,221		3,020,477		3,722,221
30		. ,						(2.172.577)		3,/22,221
	254015	Non-Protected Non-Property - (EDFIT)/DDFIT		2,059,536		2,172,577		(2,172,577)		-
31	254015	Regulatory Liability for non-refunded ARAM		(581,204)		(3,049,952)		3,049,952		
32		Total Regulatory Liabilities for (EDFIT)	\$	(20,048,958)	\$	(21,539,395)	\$	4,497,852	\$	(17,041,543)
33										
34		Accumulated Deferred Income Taxes - Property								
35	282300	DT4063 - ACCUMULATED DEPRECIATION	_\$	(36,324,563)	_\$	(37,136,762)	\$	(5,769,213)	\$	(42,905,975)
36 37		Total Accelerated Deferred Income Taxes - Property	\$	(36,324,563)		(37,136,762)	\$	(5,769,213)	\$	(42,905,975)
38		State Tax Items								
39	190300	DT1500 - STATE INC TAX INCL:	\$	1,619,124	\$	3,718,721	\$		\$	3,718,721
40	190300	DT3020 - STATE NOL:	Ψ	731,392	Ψ	2,200,756	Ψ	1,549,452	Ψ	3,750,208
41	282300	DT1059 - ACCUMULATED DEPRECIATION-ST				(14,981,386)		1,549,452		
42	254015	DT1500 - NON-PROTECTED STATE TAXES (DDIT):		(4,891,299)				-		(14,981,386)
		* /		(122,022)		7,400,436		-		7,400,436
43	283300	DT1500 - STATE INC TAX INCL		(122,822)		40,823		-	_	40,823
44		Total State Taxes	\$	(2,663,605)	\$	(1,620,650)	\$	1,549,452	\$	(71,198)
45										
46		Accumulated Deferred Income Taxes - Other								
47	283300	DT1030 - BONUS	\$	-	\$	-	\$	-	\$	-
48	283300	DT2014 - REG RETIREE HEALTHCARE ASSET:		49,478		-		-		-
49	283300	DT3018 - FED EFF OF STATE NOL:		803,541		(462,159)		(325,385)		(787,544)
49		DT3090 - PENSION FAS 87:		(190,829)		(209,303)		-		(209,303)
50	283300			(19,627)		(19,692)		_		(19,692)
	283300 283300	DT4040 - PREPAID EXPENSES:				(19,092)				
50		DT4040 - PREPAID EXPENSES: DT4100a - GAIN DEFERRAL		(1,616,568)		(19,092)		-		-
50 51	283300 283300					-		-		-
50 51 52 53	283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET:		(1,616,568) (173,736)				-		(230,454)
50 51 52 53 54	283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET:		(1,616,568) (173,736) 390,638		(230,454)		- - -		(230,454)
50 51 52 53 54 55	283300 283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET		(1,616,568) (173,736) 390,638 (311,647)		-		- - -		-
50 51 52 53 54 55 56	283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB		(1,616,568) (173,736) 390,638 (311,647)		(230,454)		(375 385)	•	(230,454) - (295,432)
50 51 52 53 54 55 56 57	283300 283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET	<u> </u>	(1,616,568) (173,736) 390,638 (311,647)	<u> </u>	(230,454)	<u> </u>	(325,385)	\$	(230,454)
50 51 52 53 54 55 56 57 58	283300 283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB	-\$	(1,616,568) (173,736) 390,638 (311,647)	<u> </u>	(230,454)	<u>\$</u>	(325,385)	\$	(230,454) - (295,432)
50 51 52 53 54 55 56 57 58 59	283300 283300 283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB Total Accelerated Deferred Income Taxes - Other		(1,616,568) (173,736) 390,638 (311,647) 1 (1,068,748)		(230,454)				(230,454) - (295,432) - (1,542,425)
50 51 52 53 54 55 56 57 58 59 60	283300 283300 283300 283300 283300 283300 283300	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB Total Accelerated Deferred Income Taxes - Other	<b>s</b>	(1,616,568) (173,736) 390,638 (311,647)	<b>\$</b>	(230,454) - (295,432) - (1,217,040)	<b>\$</b>	(325,385)	<b>\$</b>	(230,454) - (295,432) - (1,542,425) (8,954,892)
50 51 52 53 54 55 56 57 58 59 60 61	283300 283300 283300 283300 283300 283300 283300 282000/254015 235000	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB Total Accelerated Deferred Income Taxes - Other  OTHER UTILITY PLANT DIT and EDFIT CUSTOMER DEPOSITS		(1,616,568) (173,736) 390,638 (311,647) 1 (1,068,748)		(230,454)				(230,454) - (295,432) - (1,542,425)
50 51 52 53 54 55 56 57 58 59 60 61 62	283300 283300 283300 283300 283300 283300 283300 282000/254015 235000	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB Total Accelerated Deferred Income Taxes - Other		(1,616,568) (173,736) 390,638 (311,647) 1 (1,068,748)		(230,454) - (295,432) - (1,217,040)				(230,454) - (295,432) - (1,542,425) (8,954,892)
50 51 52 53 54 55 56 57 58 59 60 61	283300 283300 283300 283300 283300 283300 283300 282000/254015 235000	DT4100a - GAIN DEFERRAL DT4150 - LT RATE CASE ASSET: DT4155 - REG PSC PENSION ASSET: DT4201 - REG OTHER ASSET DT4265 - REG ASSET ARO LIAB Total Accelerated Deferred Income Taxes - Other  OTHER UTILITY PLANT DIT and EDFIT CUSTOMER DEPOSITS		(1,616,568) (173,736) 390,638 (311,647) 1 (1,068,748)		(230,454) - (295,432) - (1,217,040)				(230,454) - (295,432) - (1,542,425) (8,954,892)

### BLACK HILLS NEBRASKA GAS, LLC OTHER RATE BASE ITEMS - PRO FORMA CAPITAL ADDITIONS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A3 Exhibit No. MCC-2 Schedule M-2

		(a)	(b)	(c) (a) * (b)	(d)	(e)	(f)	(g) (a) * (f)	(h) (g) - (c)	(i)	(j) (h) * (i)	(k)
Line No.	Schedule Reference	Plant in Service	1 Year Depreciation Rate (Note 3)	Book Depreciation Expense	Accumulated Depreciation Adjustment	MACRS HY Convent	Tax Depreciation Rate	Tax Depreciation	Difference	Tax Rate	Ending Deferred Tax	Deferred Tax Adjustment
1	Schedule D-2 Plant Additions Non-Repair Items											
2	Schedule B-2 Frank Additions Non-Repair Rems											
3	374.01	\$ -	0.00%	\$ -	\$ -	None	0.00%	\$ -	\$ -	27.17%	\$ -	\$ -
4	374.02	1,548,168	0.00%	-	_	None	0.00%	-	-	27.17%	-	-
5	374.03	-	0.95%	-	-	None	0.00%	-	-	27.17%	-	-
6	375.01	704,242	0.76%	5,352	2,676	20 Yr HYC	3.75%	26,409	(21,057)	27.17%	(5,721)	(5,721)
7	375.20	-	2.14%	-	-	20 Yr HYC	3.75%	-	-	27.17%	-	-
8	376	36,514,294	1.45%	529,457	264,729	20 Yr HYC	3.75%	1,369,286	(839,829)	27.17%	(228,181)	(228,181)
9	378	1,601,713	2.71%	43,406	21,703	20 Yr HYC	3.75%	60,064	(16,658)	27.17%	(4,526)	(4,526)
10	379	1,365,217	1.41%	19,250	9,625	20 Yr HYC	3.75%	51,196	(31,946)	27.17%	(8,680)	(8,680)
11	380	12,831,636	3.54%	454,240	227,120	20 Yr HYC	3.75%	481,186	(26,946)	27.17%	(7,321)	(7,321)
12	381	3,291,454	4.79%	157,661	78,830	20 Yr HYC	3.75%	123,430	34,231	27.17%	9,301	9,301
13	382.01	1,032,557	2.67%	27,569	13,785	20 Yr HYC	3.75%	38,721	(11,152)	27.17%	(3,030)	(3,030)
14	383.01	2,210,889	3.26%	72,075	36,037	20 Yr HYC	3.75%	82,908	(10,833)	27.17%	(2,943)	(2,943)
15	383.71	-	2.49%	-	-	20 Yr HYC	3.75%	-	-	27.17%	-	-
16	384.01	-	1.21%	-	-	20 Yr HYC	3.75%	-	-	27.17%	-	-
17	385	3,973,985	2.58%	102,529	51,264	20 Yr HYC	3.75%	149,024	(46,496)	27.17%	(12,633)	(12,633)
18	386	-	1.04%	-	-	20 Yr HYC	3.75%	-	-	27.17%	-	-
19	387	-	2.06%	-	-	20 Yr HYC	3.75%	-	-	27.17%	-	-
20	389.01	543,081	0.00%	-	-	None	0.00%	-	-	27.17%	-	-
21	389.02	148,113	0.00%	-	-	20 Yr HYC	3.75%	5,554	(5,554)	27.17%	(1,509)	(1,509)
22	390.01	4,147,164	2.98%	123,585	61,793	39 Year	1.39%	57,687	65,898	27.17%	17,905	17,905
23	390.51	-	9.28%	-	-	39 Year	1.39%	-	-	27.17%	-	-
24	391.01	49,371	4.98%	2,459	1,229	7 Yr HYC	14.29%	7,053	(4,594)	27.17%	(1,248)	(1,248)
25	391.02	-	0.00%	-	-	7 Yr HYC	14.29%	-	-	27.17%	-	-
26	391.03	49,371	19.77%	9,761	4,880		20.00%	9,874	(114)	27.17%	(31)	(31)
27	391.04	544,747	0.18%	981	490	3 Yr SL	16.67%	90,791	(89,811)	27.17%	(24,401)	(24,401)
28	391.05	-	0.00%	-	-	7 Yr HYC	14.29%	-	-	27.17%	-	-
29	391.07	-	20.00%	-	-	7 Yr HYC	14.29%	-	-	27.17%	-	-
30	392.01	-	0.00%	-	-	7 Yr HYC	14.29%	-	-	27.17%	-	-
31	392.02	-	9.87%	-	-	5 Yr HYC	20.00%	-	-	27.17%	- (4.40.500)	- (4.40.500)
32	392.03	4,235,162	7.00%	296,461	148,231	5 Yr HYC	20.00%	847,032	(550,571)	27.17%	(149,590)	(149,590)
33	392.04	1,383,529	12.56%	173,771	86,886		20.00%	276,706	(102,935)	27.17%	(27,967)	(27,967)
34	392.05	271,961	4.76%	12,945	6,473		20.00%	54,392	(41,447)	27.17%	(11,261)	(11,261)
35	392.06	264,801	6.59%	17,450	8,725	5 Yr HYC	20.00%	52,960	(35,510)	27.17%	(9,648)	(9,648)
36	393	- ( 4(1 0(2	4.00%	255 249	107 (24	7 Yr HYC	14.29%	- 022 127	- (((7,000)	27.17%	(101.465)	(101.465)
37	394	6,461,962	3.95%	255,248	127,624	7 Yr HYC	14.29%	923,137	(667,890)	27.17%	(181,465)	(181,465)
38 39	395 396	-	4.61% 3.83%	-	-	7 Yr HYC 7 Yr HYC	14.29% 14.29%	-	-	27.17% 27.17%	-	-
	396 397	-		-	-	7 Yr HYC 7 Yr HYC		-	-	27.17%	-	-
40 41	397 398	-	6.66% 5.00%	-	-	7 Yr HYC 7 Yr HYC	14.29% 14.29%	-	-	27.17%	-	-
41	398	-	0.00%	-	-	7 Yr HYC	14.29%	-	-	27.17%	-	-
42	Total Direct Plant Addition Non-Repair Items	\$ 83,173,417	0.0070	\$ 2,304,200		_	14.2770	\$ 4,707,412		4/.1/70	\$ (652,950)	\$ (652,950)
73	Total Diffeet Flant Addition Front-Repair Itells	Ø 03,173,417		9 4,304,400	9 1,132,100			9 4,707,412	σ (2,403,212)		g (032,930)	(032,730)

### BLACK HILLS NEBRASKA GAS, LLC OTHER RATE BASE ITEMS - PRO FORMA CAPITAL ADDITIONS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

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Sect II: 004.03A3 Exhibit No. MCC-2 Schedule M-2

			(a)	(b)		(c)	(d)	(e)	(f)		(g)	(h)	(i)		(j)		(k)
				1.37		(a) * (b)	4		Tr.		(a) * (f)	(g) - (c)			(h) * (i)		
Line				1 Year Depreciation	D	Book epreciation	Accumulated Depreciation	MACRS HY	Tax Depreciation					End	ding Deferred	Dof	erred Tax
No.	Schedule Reference	Plan	nt in Service	Rate (Note 3)	D	Expense	Adjustment	Convent	Rate		Depreciation	Difference	Tax Rate	Enc	Tax		justment
44	Schedule Reference	1141	iit iii Sei vice	Rate (Note 3)		Expense	Aujustinent	Convent	Kate	1 4 3	Depreciation	Difference	1 ax Nate		Tax	Au	justinent
45	Plant Additions Repair Items																
46	Tunt Additions Repair Reins																
47	374.01	\$	_	0.00%	\$	_	s -	Repair	100.00%	\$	_	s -	27.17%	\$	_	\$	-
48	374.02	-	_	0.00%	-	_	-	Repair	100.00%	-	_	-	27.17%		_	-	-
49	374.03		_	0.95%		-	_	Repair	100.00%		-	-	27.17%		-		-
50	375.01		100,301	0.76%		762	38		100.00%		100,301	(99,539)	27.17%		(27,045)		(27,045)
51	375.20		´-	2.14%		-	_	Repair	100.00%		-	-	27.17%		-		-
52	376		4,727,645	1.45%		68,551	34,27		100.00%		4,727,645	(4,659,094)	27.17%		(1,265,871)		(1,265,871)
53	378		256,182	2.71%		6,943	3,47	1 Repair	100.00%		256,182	(249,240)	27.17%		(67,718)		(67,718)
54	379		82,353	1.41%		1,161	58	1 Repair	100.00%		82,353	(81,192)	27.17%		(22,060)		(22,060)
55	380		7,185,936	3.54%		254,382	127,19	1 Repair	100.00%		7,185,936	(6,931,554)	27.17%		(1,883,296)		(1,883,296)
56	381		247,744	4.79%		11,867	5,93	3 Repair	100.00%		247,744	(235,877)	27.17%		(64,088)		(64,088)
57	382.01		168,949	2.67%		4,511	2,25	5 Repair	100.00%		168,949	(164,439)	27.17%		(44,678)		(44,678)
58	383.01		543,412	3.26%		17,715	8,85	1	100.00%		543,412	(525,697)	27.17%		(142,831)		(142,831)
59	383.71		194,575	2.49%		4,845	2,42		100.00%		194,575	(189,730)	27.17%		(51,549)		(51,549)
60	384.01		48,644	1.21%		589	29	1	100.00%		48,644	(48,055)	27.17%		(13,057)		(13,057)
61	385		1,395,622	2.58%		36,007	18,00		100.00%		1,395,622	(1,359,615)	27.17%		(369,406)		(369,406)
62	386		-	1.04%		-	-	Repair	100.00%		-	-	27.17%		-		-
63	387		-	2.06%		-	-	Repair	100.00%		-	-	27.17%		-		-
64 65	Total Direct Plant Addition Repair Items	\$	14,951,364		\$	407,333	\$ 203,66	6		\$	14,951,364	\$ (14,544,031)		\$	(3,951,599)	\$	(3,951,599)
66	Total Direct Pro Forma Plant Additions	\$	98,124,781		s	2,711,533	\$ 1,355,76	7		S	19,658,776	\$ (16,947,243)		S	(4,604,549)	S	(4,604,549)
67	Tomi 21 col 1 o 1 o 1 mil 1 mil 1 danions		>0,12 1,701			2,711,000	4 1,555,75	_			19,000,770	(10,517,213)			(1,001,01)	Ψ	(1,001,212)
68	Other Utility Shared Service Plant Adjustment (118/119)																
69	Other Utility Plant (Corporate Shared Assets - Note 1a)	\$	610,268	5.75%	\$	35,069	\$ 17,53	5 Various	Various	\$	-	\$ 35,069	27.17%	\$	9,528	\$	9,528
70	Other Utility Plant (Corporate Shared Assets - Note 1b)		-	8.27%		-	_	Various	Various		-	· -	27.17%				-
71	Other Utility Plant (Corporate Shared Assets - Note 2a)		2,444,756	7.72%		188,758	94,37	9 Various	Various		-	188,758	27.17%		51,285		51,285
72	Other Utility Plant (Corporate Shared Assets - Note 2b)		352,590	5.21%		18,364	9,18	2 Various	Various		-	18,364	27.17%		4,989		4,989
73	Other Utility Plant (Corporate Shared Assets - Note 2c)		499,243	13.55%		67,647	33,82	4 Various	Various		-	67,647	27.17%		18,380		18,380
74		\$	3,906,857		\$	309,839	\$ 154,91	9		\$	-	\$ 309,839		\$	84,183	\$	84,183
75																	
76	Grand Total Pro Forma Plant	\$	102,031,638		\$	3,021,372	\$ 1,510,68	6_		\$	19,658,776				_	\$	(4,520,366)
77								_							-		
78	Retiree Medical Adjustment to expense											420,290	27.17%				114,192
79	Pension											429,729	27.17%				116,757
80	Bad Debt Adjustment											177,782	27.17%				48,303

<sup>82 (</sup>Note 1a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated utilities per CAM.

<sup>83 (</sup>Note 1b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on customer count of all regulated gas utilities per CAM.

Note 2a) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all entities per CAM.

<sup>85 (</sup>Note 2b) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated utilities per CAM.

<sup>86 (</sup>Note 2c) Figure represents Other Utility Plant, Corporate Shared Assets allocated on the blended ratio to all regulated gas utilities per CAM.

<sup>87 (</sup>Note 3) Composite depreciation rates as recommended in the depreciation study by Gannett Fleming, as found on Schedule J-1.

### BLACK HILLS NEBRASKA GAS, LLC OTHER RATE BASE ITEMS - ADJUSTMENTS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

Sect II: 004.03A3 Exhibit No. MCC-2 Schedule M-3

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(g)
Line No.	Schedule Reference	2019 Gross Plant Ending Balance	1 Year Depreciation Rate	Book Depreciation Expense Period	(a) * (b)  Book  Depreciation  Expense	MACRS HY Convent	Tax Depreciation Rate	Tax Depreciation Expense	Difference	Tax Rate	Ending Deferred Tax	Deferred Tax Adjustment
1 2	Direct Roll Forward to 12/31/20 (Note 1)	\$ 810,794,479	Various	Calendar 2020	\$ 23,836,463	Various	Various	\$ 31,838,689	\$ (8,002,226)	27.17%	PowerTax S	(2,174,197)
3	Shared Service Roll Forward to 12/31/20 (Note 2)	\$ 45,535,472	Various	Calendar 2020	\$ 3,993,639	Various	Various	\$ 2,239,493	\$ 1,754,145	27.17%	PowerTax	\$ 476,600
Line		2019 Gross Plant	1 Year Depreciation	Accumulated Depreciation		MACRS HY	Tax Depreciation	Adjusted Tax			Ending	Deferred Tax
No.	Schedule Reference	Adjustment	Rate	Activity	Net Book Value		Rate	Basis	Difference	Tax Rate	Deferred Tax	Adjustment
4 5 6	Retirements by 12/31/2020	(23,994,827)	Various	Calendar 2020	\$ 3,215,865	Various	Various	\$ 1,564,218	\$ 1,651,647	27.17%	PowerTax	\$ 448,751
7	Grand Total Adjustment										_	6 (1,248,847)

<sup>(</sup>Note 1) Provides the direct accumulated deferred income tax adjustment for Sched. M-1, associated with the roll forward of the direct accumulated reserve balance (Stmt E) as of 12/31/2019 to 12/31/2020 reflecting the full rate base impact.

<sup>10 (</sup>Note 2) Provides the shared service accumulated deferred income tax adjustment for Sched. M-1, associated with the roll forward of shared service accumulated reserve balance (Stmt E) as of 12/31/2019 to 12/31/2020 reflecting the full rate base impact.

									Jurisdi		
									ctional	Jurisdictional Base	
No.	Acct	Description	Reference		Base Year	Reference	Pro I	orma Adjusted	<b>%</b>	Year	Jurisdictional \$
		m et c									
1	201	Plant in Service	Sched D-1	\$	256	Sched D-1	\$	256	87%	\$ 223	\$ 223
2	301 302	Intangibles Organization Intangibles Franchises & Consents	Sched D-1 Sched D-1	Þ	121,062	Sched D-1	Э	121,062	87% 87%		
3	302	Intangibles Miscellaneous	Sched D-1		742,881	Sched D-1		742,881	87%	*,	
4		Intangibles Miscellaneous - Easements	Sched D-1 Sched D-1		500,000	Sched D-1		500,000	87% 87%		
6	303.01	Total Intangible Plant	Stmt D	\$	1,364,199	Stmt D	\$	1,364,199	CALC		
7		Total Intangible Fiant	Stille D	Ф	1,304,199	Sunt D	\$	1,304,199	CALC	\$ 1,100,930	\$ 1,100,930
8	365.03	Right-of-Way	Sched D-1	\$	170,272	Sched D-1	\$	170,272	49%	\$ 83,410	\$ 83,410
9		Structures and Improvements	Sched D-1	Ψ	8,174	Sched D-1	Ψ	8,174	48%	*, -	
10	367	Transmission Plant - Mains	Sched D-1		5,361,147	Sched D-1		5,361,147	55%		
11		Transmission Plant - Meas. & Reg. Sta. Equip.	Sched D-1		624,132	Sched D-1		624,132	61%		
12	507.05	Total Transmission Plant	Stmt D	-\$	6,163,725	Stmt D	\$	6,163,725	CALC -	*,-	
13			Sum B	Ψ.	0,100,720	Sum B	Ψ	0,100,720	CILE	0,.50,572	5,150,552
14	374.01	Distribution Plant - Land	Sched D-1	\$	1,358,868	Sched D-1	\$	608,494	67%	\$ 916,844	\$ 410,558
15		Land Rights (Non-Depreciable)	Sched D-1	-	176,100	Sched D-1	*	1,724,268	71%	*	
16		Land Rights - Right of Way (Depreciable)	Sched D-1		6,797,136	Sched D-1		6,797,136	71%	*	
17		Structures and Improvements	Sched D-1		4,987,056	Sched D-1		3,412,284	67%		
18		Structures and Improvements - Other	Sched D-1		12,119	Sched D-1		12,119	71%		
19	376	Distribution Plant - Mains	Sched D-1		404,011,716	Sched D-1		444,506,217	83%		
20	378	Distribution Plant - Meas. & Reg. Sta. Equip General	Sched D-1		23,549,301	Sched D-1		25,407,197	67%		
21	379	Measuring & Regulating Station Equip City Gate Check Stn.	Sched D-1		4,504,804	Sched D-1		5,952,374	71%	\$ 3,211,885	\$ 4,243,989
22	380	Distribution Plant - Services	Sched D-1		134,854,199	Sched D-1		154,387,443	99%	\$ 133,939,298	\$ 153,340,020
23	381	Meters	Sched D-1		42,421,416	Sched D-1		45,960,615	87%	\$ 36,865,866	\$ 39,941,568
24	382.01	Meter Installations	Sched D-1		11,094,170	Sched D-1		12,295,676	87%	\$ 9,641,266	\$ 10,685,422
25	383	Distribution Plant - House Regulators	Sched D-1		71,695,655	Sched D-1		74,644,531	87%	\$ 62,306,322	\$ 64,869,010
26	384.01	House regulator installations	Sched D-1		1,505,149	Sched D-1		1,553,793	87%	\$ 1,308,033	\$ 1,350,307
27	385	Industrial Measuring & Regulating Station Equipment	Sched D-1		8,058,005	Sched D-1		13,427,611	87%	\$ 7,002,721	\$ 11,669,118
28	386	Other Property on Customers' Premises	Sched D-1		35,279	Sched D-1		35,279	99%	\$ 35,040	\$ 35,040
29	387	Other Equipment	Sched D-1		407,725	Sched D-1		407,725	86%	\$ 351,316	\$ 351,316
30		Total Distribution Plant	Stmt D	\$	715,468,698	Stmt D	\$	791,132,761	CALC	\$ 614,964,237	\$ 681,175,069
31											

 Total Company
 Jurisdictional

 Line FERC
 (a) (b) (c) (d) (e) = (a) \* (d) (f) = (c) \* (d)

									Jurisdi	T ' P' & 1D	
No.	Acct	Description	Reference		Base Year	Reference	Pro	Forma Adjusted	ctional %	Jurisdictional Base Year	Jurisdictional \$
32	389.01		Sched D-1	\$	5,210,068	Sched D-1	\$	5,749,205	87%		
33		Land Rights - Right of Way	Sched D-1	Ψ	1,183,494	Sched D-1	Ψ	1,331,607	87%		
34		Structures and Improvements	Sched D-1		38,224,611	Sched D-1		41,881,060	87%		
35		Leasehold Improvements	Sched D-1		93,091	Sched D-1		93,091	87%		
36		Office Machines	Sched D-1		425,979	Sched D-1		475,350	87%		
37		Office Furniture	Sched D-1		-	Sched D-1		-	0%		\$ -
38	391.03	Computer Hardware	Sched D-1		558,110	Sched D-1		607,481	87%	\$ 486,408	\$ 529,436
39		Software	Sched D-1		170,100	Sched D-1		714,847	87%		
40	391.05	System Development	Sched D-1		-	Sched D-1		-	0%	\$ -	\$ -
41	391.07	Ipad Hardware	Sched D-1		611,479	Sched D-1		611,479	87%	\$ 532,920	\$ 532,920
42	392.01	Transportation Equipment	Sched D-1		-	Sched D-1		-	0%	\$ -	\$ -
43	392.02	Cars	Sched D-1		3,878,361	Sched D-1		2,919,325	87%	\$ 3,380,095	\$ 2,544,270
44	392.03	Light Trucks	Sched D-1		17,570,348	Sched D-1		20,337,254	87%	\$ 15,313,027	\$ 17,724,459
45	392.04	Medium Trucks	Sched D-1		199,121	Sched D-1		1,524,755	87%	\$ 173,540	\$ 1,328,864
46	392.05	Heavy Trucks	Sched D-1		3,072,012	Sched D-1		3,274,142	87%		\$ 2,853,502
47	392.06	Trailers	Sched D-1		818,274	Sched D-1		1,041,429	87%	\$ 713,147	\$ 907,633
48	393	Stores Equipment	Sched D-1		28,178	Sched D-1		28,178	87%	\$ 24,557	\$ 24,557
49	394	Tools, Shop, and Garage Equipment	Sched D-1		8,876,092	Sched D-1		15,338,054	87%		
50	395	Laboratory Equipment	Sched D-1		88,803	Sched D-1		88,803	87%		
51	396	Power Operated Equipment	Sched D-1		5,766,089	Sched D-1		5,497,464	87%		
52	397	Communication Equipment	Sched D-1		846,080	Sched D-1		846,080	87%		
53	398	Miscellaneous Equipment	Sched D-1		177,568	Sched D-1		177,568	87%		
54	399	Other Tangible Property	Sched D-1		<u> </u>	Sched D-1		<del>-</del>	0%_		\$ -
55		Total General Plant	Stmt D	\$	87,797,857	Stmt D	\$	102,537,170	CALC	\$ 76,518,174	\$ 89,363,878
56	110		G 1 1D 1	¢.	20 164 425	C 1 1D 1	\$	12 400 747	0.50/	e 26.720.502	e 11.050.015
57		Other Utility Plant (Corporate Shared Assets - Allocated on Customer Cou		\$	28,164,425	Sched D-1	2	12,499,747	95%	* -77	
58 59	118	Other Utility Plant (Corporate Shared Assets - Allocated on Blended Ratic	Stmt D	\$	17,371,047 45,535,472	Sched D-1 Stmt D	<u> </u>	15,274,619 27,774,365	87% -	. , ,	
60		Other Utility Plant	Simi D	Þ	43,333,472	Simi D	\$	27,774,363	CALC	\$ 41,839,834	\$ 25,171,152
61		TOTAL PLANT IN SERVICE		\$	856,329,951		\$	928,972,220	CALC	\$ 737,967,774	\$ 800,335,628
62		TOTAL TEACT IN GERVICE		Ψ	030,527,731		y.	720,772,220	CHLC	9 131,701,714	000,555,020
63		Accumulated Depreciation									
64		Intangible	Stmt E	\$	(988,584)	Stmt E	\$	(1,052,018)	87%	\$ (861,577)	\$ (916,861)
65		Gathering and Processing	Stmt E	-	18,028	Stmt E	*	-	0%		(,,,,,,,
66		Storage Plant	Stmt E		-	Stmt E		-	0%		
67		Transmission	Stmt E		(4,260,643)	Stmt E		(4,310,806)	56%	\$ (2,375,527)	\$ (2,403,495)
68		Distribution	Stmt E		(249,936,085)	Stmt E		(266,471,712)	86%	\$ (215,198,053)	\$ (229,435,432)
69		General	Stmt E		(15,862,916)	Stmt E		(17,438,834)	88%	\$ (13,942,431)	\$ (15,327,556)
70		Other Utility Plant (Corporate Shared Assets - Allocated on Customer Cou	Stmt E		(11,941,736)	Stmt E		640,107	95%	\$ (11,329,512)	\$ 607,291
71		Other Utility Plant (Corporate Shared Assets - Allocated on Blended Ratic	Stmt E		(2,921,925)	Stmt E		(395,688)	87%_	\$ (2,546,536)	\$ (344,853)
72		Total Accumulated Depreciation	Stmt E	\$	(285,893,862)		\$	(289,028,951)	CALC	\$ (246,253,636)	\$ (247,820,907)
73											
74		Net Plant		\$	570,436,089		\$	639,943,269	CALC	\$ 491,714,137	\$ 552,514,720
75											
76		Working Capital									
77		Purchased Gas Working Capital	Schedule F-2	\$	1,282,220	Schedule F-2	\$	1,282,220	100%		
78		Property Tax Working Capital	Schedule F-2		(3,192,743)	Schedule F-2		(3,806,239)	86%		
79		Other Working Capital Allowance	Stmt F		233,494	Stmt F		337,871	87%		
80		Materials and Supplies	Stmt F		5,398,698	Stmt F		5,048,023	86%		
81		Prepayments Tracel Warking Conide!	Stmt F	<u> </u>	488,586	Stmt F	<u>s</u>	394,283	86%_	,	
82 83		Total Working Capital		\$	4,210,255		3	3,256,158	CALC	\$ 3,796,547	\$ 2,974,297
83											

									Jurisdi ctional	Jurisdictional Base	
No.	Acct	Description	Reference		Base Year	Reference	Pro	Forma Adjusted	ctional %	Year	Jurisdictional \$
84		Other Rate Base Items									V 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14 44-14
85		Customer Deposits	Sched M-1	\$	(3,518,846)	Sched M-1	\$	(3,518,846)	95%	\$ (3,338,443) \$	(3,338,443)
86		Customer Advances	Sched M-1	*	-	Sched M-1	*	-	0%		-
87		Accumulated Deferred Income Taxes	Sched M-1		(26,682,757)	Sched M-1		(38,218,760)	86%		(32,997,343)
88		Excess/Deficient Deferred Income Taxes (Jurisdictional Only)	Sched M-1		(18,577,133)	Sched M-1		(15,301,343)	100%	( - ) ) )	(15,301,343)
89		Total Other Rate Base Items	Sched M-1	-S	(48,778,735)	Sched M-1	-\$	(57,038,949)	CALC		(51,637,129)
90				-	(10,110,100)		-	(=1,000,000)		( ( ( , , , , , , , , , , , , , , , , ,	(==,===,===)
91		Total Rate Base		\$	525,867,609		\$	586,160,478	CALC	\$ 450,557,729 \$	503,851,889
92				-	,,		-	,,			,
93		Operation and Maintenance Expense									
94		· · · · · · · · · · · · · · · · · · ·									
95		Production and Gathering									
96		Operation									
97	750	Operation Supervision & Engineering	Stmt H	\$	_	Stmt H	\$	_	0%	s - s	_
98	752	Gas Wells Expense	Stmt H	*	_	Stmt H	*	_	0%		_
99	753	Field Line Expense	Stmt H		-	Stmt H		_	0%		_
100	754	Field Compressor Station Expense	Stmt H		_	Stmt H		_	0%		_
101	755	Field Compressor Station Fuel and Power	Stmt H		_	Stmt H		_	0%		_
102	756	Field Measuring & Regulating Station Expense	Stmt H		_	Stmt H		_	0%		_
103	757	Purification Expense	Stmt H		_	Stmt H		_	0%		_
104	758	Gas Well Royalties	Stmt H		-	Stmt H		_	0%	s - s	_
105	759	Other Expenses	Stmt H		-	Stmt H		_	0%		_
106	760	Rents	Stmt H		-	Stmt H		_	0%	\$ - \$	_
107		<b>Total Production Operation Expenses</b>	Stmt H	\$	-	Stmt H	\$	-	CALC	\$ - \$	-
108		• •									
109		Maintenance									
110	761	Maintenance Supervision & Engineering	Stmt H	\$	-	Stmt H	\$	_	0%	s - s	_
111	762	Maintenance of Structures & Improvements	Stmt H		-	Stmt H		_	0%	\$ - \$	_
112	763	Maintenance of Producing Gas Wells	Stmt H		-	Stmt H		_	0%	\$ - \$	_
113	764	Maintenance of Field Lines	Stmt H		-	Stmt H		_	0%	s - s	_
114	765	Maintenance of Field Compressor Station Equipment	Stmt H		-	Stmt H		-	0%	\$ - \$	-
115	766	Maintenance of Field Measuring & Regulating Station Equipment	Stmt H		-	Stmt H		-	0%	\$ - \$	-
116	767	Maintenance of Purification Equipment	Stmt H		-	Stmt H		-	0%	s - s	-
117		Total Production Maintenance Expenses	Stmt H	\$	-	Stmt H	\$	-	CALC	\$ - \$	-
118		•									
119		Other Gas Supply Expense									
120		Operation									
121	804	Natural Gas City Gate Purchase	Stmt H	\$	70,953,810	Stmt H	\$	-	0%	\$ - \$	-
122	805	Other Gas Purchases	Stmt H		(2,419,037)	Stmt H		_	0%	s - s	_
123	805.1	Purchased Gas Cost Adjustments	Stmt H		5,499,380	Stmt H		-	0%	\$ - \$	-
124	806	Exchange Gas	Stmt H		-	Stmt H		-	0%	\$ - \$	-
125	808	Gas Storage-Gas Ops	Stmt H		-	Stmt H		-	0%	\$ - \$	-
126	808.1	Withdrawals from Storage	Stmt H		10,881,933	Stmt H		-	0%	s - s	-
127	808.2	č	Stmt H		(9,373,035)	Stmt H		-	0%	\$ - \$	-
128	812	Gas Used for Other Utility Operation	Stmt H		(17,200)	Stmt H		-	0%	\$ - \$	-
129	813	Other Gas Supply Expense	Stmt H		-	Stmt H		-	0%	\$ - \$	-
130		Total Other Gas Supply Expense		\$	75,525,851		\$	-	CALC	\$ - \$	-
131											

									Jurisdi ctional	Jurisdictional Base	
No.	Acct	Description	Reference		Base Year	Reference	Pro Fo	rma Adjusted	%	Year	Jurisdictional \$
132		Underground Storage Expense									
133		Operation									
134	814	Operation Supervision & Engineering	Stmt H	\$	-	Stmt H	\$	-	0%		\$ -
135	816	Wells Expense	Stmt H		-	Stmt H		-	0%		\$ -
136	817	Lines Expense	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
137	818	Compressor Station Expense	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
138	819	Compressor Station Fuel and Power	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
139	820	Storage - Measuring & Regulating Station Expense	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
140	821	Purification Expense	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
141	824	Other Expenses	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
142	826	Rents	Stmt H		<u> </u>	Stmt H			0%_	\$ -	\$ -
143		Total Operation Underground Storage Expense	Stmt H	\$	-	Stmt H	\$	-	CALC	\$ -	\$ -
144											
145		Maintenance									
146	830	Maintenance Supervision & Engineering	Stmt H	\$	-	Stmt H	\$	-	0%	\$ -	\$ -
147	832	Maintenance of Reservoirs & Wells	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
148	833	Maintenance of Lines	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
149	834	Maintenance of Compressor Station Equipment	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
150	835	Maintenance of Measuring & Regulating Station Equipment	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
151	836	Maintenance of Purification Equipment	Stmt H		-	Stmt H		-	0%	\$ -	\$ -
152		Total Maintenance Underground Storage Expense	Stmt H	\$	-	Stmt H	\$	-	CALC	\$ -	\$ -
153		• • •									
154		Total Underground Storage Expense		\$	-		\$	-	CALC	s -	\$ -
155											
156		Transmission Expenses									
157		Operation									
158	850	Operation Supervision & Engineering	Stmt H	\$	203,254	Stmt H	\$	203,756	55%	\$ 112,427	\$ 112,704
159	851	System Control & Load Dispatching	Stmt H	*	1,180	Stmt H	4	1,213	54%		\$ 657
160	852	Communication System Expenses	Stmt H		-,	Stmt H		-	0%		\$ -
161	853	Compressor Labor & Expense	Stmt H		_	Stmt H		_	0%		\$ -
162	856	Mains Expense	Stmt H		63,014	Stmt H		63,039	55%		
163	857	Measuring & Regulating Station Expenses	Stmt H		12,311	Stmt H		12,317	55%		
164	859	Other Expenses	Stmt H		64,900	Stmt H		65,930	55%		
165	860	Rents	Stmt H		-	Stmt H		-	0%		\$ -
166	000	Total Transmission Operation	5411411	<u></u>	344,659	54111111	\$	346,254	CALC -	*	1
167		Tomi Transmission operation		Ψ	2,000		Ψ	3.0,20.	C. ILC	1,0,02,	
168		Maintenance									
169	861	Maintenance Supervision & Engineering	Stmt H	\$	17,231	Stmt H	\$	17,530	55%	\$ 9,531	\$ 9,696
170	862	Maintenance of Structures & Improvements	Stmt H	Ψ	-	Stmt H	Ψ	-	0%		\$ -
170	863	Maintenance of Mains	Stmt H		3,182	Stmt H		3,357	55%		\$ 1,857
171	864	Maintenance of Compressor Station Equipment	Stmt H		5,162	Stmt H		3,337	0%	* /:	\$ 1,657
172	865	Maintenance of Measuring & Regulating Station Equipment	Stmt H		-	Stmt H		-	0%		\$ - \$ -
173	866	Maintenance of Communication Equipment  Maintenance of Communication Equipment	Stmt H		134	Stmt H		143	55%		\$ - \$ 79
174	867	Maintenance of Communication Equipment  Maint. of Other Equipment	Stmt H Stmt H		134	Stmt H Stmt H		143	55% 0%		\$ /9 \$ -
175	00/	Total Transmission Maintenance	Simi H	\$	20,547	Sunt H	\$	21,030	CALC -		•
		rotal fransinission maintenance		Ф	20,347		Φ	21,030	CALC	φ 11,303	φ 11,032
177 178		Total Transmission Evnonses		e	365,206		\$	267 104	CALC	e 201.005	© 202 144
178		Total Transmission Expenses		\$	305,200		•	367,284	CALC	\$ 201,995	\$ 203,144
1/9											

									Jurisdi ctional	Jurisdictional Base	
No.	Acct	Description	Reference		Base Year	Reference	Pro I	Forma Adjusted	%	Year	Jurisdictional \$
180		Distribution Expense									
181		Operation									
182	870	Dist. Operating and Supervision Engineering	Stmt H	\$	3,911,607	Stmt H	\$	4,151,603	86% \$	3,365,820	\$ 3,572,329
183	871	Dist. Load Dispatching	Stmt H		832	Stmt H		830	63% \$		
184	872	Compressor Station Labor & Expense	Stmt H		147	Stmt H		147	72% \$		
185	874	Dist. Mains & Services Expenses	Stmt H		6,687,347	Stmt H		7,497,411	87% \$		
186	875	Dist. Measuring & Regulating Station Expenses - General	Stmt H		1,509,155	Stmt H		1,236,884	67% \$		
187	876	Dist. Measuring & Regulating Station Expenses - Industrial	Stmt H		22,849	Stmt H		24,528	87% \$		
188	877	Measuring & Regulating Station Expense - City Gate Check Station	Stmt H		179,143	Stmt H		204,071	67% \$		
189	878	Oper./Inspect Meters & Collect Data - Gas	Stmt H		1,600,377	Stmt H		1,776,106	87% \$		
190	879	Dist. Customer Installation Expenses	Stmt H		1,160,183	Stmt H		1,268,296	99% \$	, , , , , , , , , , , , , , , , , , , ,	
191	880	Dist. Other Expenses	Stmt H		8,973,797	Stmt H		9,897,722	86% \$		
192	881	Dist. Rents	Stmt H		36,571	Stmt H		36,574	86%_\$		
193		Total Distribution Operation		\$	24,082,009		\$	26,094,171	CALC \$	20,649,045	\$ 22,453,268
194											
195	00.5	Maintenance			202			202	020/ 4	1.00	
196	885	Dist. Maint Supervision & Engineering	Stmt H	\$	203	Stmt H	\$	203	83% \$		
197	886	Maintenance of Structures & Improvements	Stmt H		302	Stmt H		302	67% \$		
198	887	Perf. Underground Distribution Line Maintenance - Gas	Stmt H		511,842	Stmt H		533,709	83% \$		
199	888	Dist. Maint. of Compressor Station Equipment	Stmt H		6,878	Stmt H		7,885	72% \$		
200	889	Maintenance of Measuring & Regulating Station Expense -General	Stmt H		294,799	Stmt H		309,381	67% \$		
201	890	Dist. Maint. of Measuring & Regulating Station Equip - Industrial	Stmt H		79,113	Stmt H		85,321	87% \$		
202	891	Maintenance of Measuring & Regulating Station Expense - City Gate Che	Stmt H		497,327	Stmt H		517,019	67% \$		
203	892	Dist. Maint. of Services	Stmt H		422,369	Stmt H		466,194	99% \$		
204	893	Dist. Maint. of Meters & House Regulators	Stmt H		1,021,188	Stmt H		1,091,228	87% \$		
205	894	Dist. Maint. of Other Equipment	Stmt H	\$	131,916	Stmt H	\$	150,049	86%_\$		·
206 207		Total Distribution Maintenance		\$	2,965,936		2	3,161,290	CALC \$	5 2,449,890	\$ 2,617,121
207		Total Distribution Expenses		\$	27,047,946		\$	29,255,462	CALC S	23,098,935	\$ 25,070,389
209		Total Distribution Expenses		J	27,047,940		J	29,233,402	CALC	23,090,933	\$ 23,070,309
210		Customer Accounting Expense									
210		Operation									
212	901	Customer Accounts Supervision	Stmt H	\$	254,770	Stmt H	\$	259,162	95% \$	\$ 241,709	\$ 245,875
213	902	Meter Reading	Stmt H	φ	664,995	Stmt H	φ	730,551	95% \$		
214	903	Customer Records and Collection Expense	Stmt H		5,763,196	Stmt H		6,094,718	95% \$		
215	904	Uncollectible Accounts	Stmt H		519,241	Stmt H		697,023	95% \$		
216	905	Misc Customer Accounts Expenses	Stmt H		161,857	Stmt H		166,714	95% \$		
217	705	Total Customer Accounting Expense	Sunt 11	\$	7,364,060	Suit II	\$	7,948,168	CALC		
218		Total Customer Accounting Expense		Ψ	7,501,000		Ψ	7,710,100	Cribe q	0,700,522	7,510,001
219		Customer Service & Information									
220		Operation Control of the Control of									
221	907	Supervision	Stmt H	\$	101,887	Stmt H	\$	103,107	84% \$	85,904	\$ 86,933
222	908	Customer Assistance Expenses	Stmt H	Ψ	132,164	Stmt H	Ψ	132,593	84% \$		
223	909	Informational/Instruc Advertising Exp.	Stmt H		17,850	Stmt H		664	84% \$		
224	910	Misc Cust Serv & Inform Exp.	Stmt H		3,857	Stmt H		3,811	84% \$		
225		Total Customer Service and Information		\$	255,757		\$	240,175	CALC S		
226				4	200,707		7	2.0,173		210,000	202,.70
227		Total Customer Expense		\$	7,619,817		\$	8,188,343	CALC S	7,202,158	\$ 7,743,183
228		•									

No.   Solic Expense   Pro Form Adjusted   Pr										Jurisdi		
Sale Feperse			D 1.4	D 6		D 17	D 6	ъ.				
		Acct		Reference		Base Year	Reference	Pro	Forma Adjusted	<u>%</u>	Year	Jurisdictional \$
221   911   Supervision			•									
121   122   122   123   123   124   125		011	•	CII	¢.		C. II	Ф		00/ 6	,	¢
943   Advertising Expenses			•		\$	252.022		2	247.027			
196   Min. Salet Speeme			e e .						,			
Total Sales Expense												
Administrative and General Expenses		916		Stmt H	-		Stmt H	_				
Administrative and General Expenses			Total Sales Expense		3	501,524		3	349,099	CALC	4/3,430	\$ 294,333
238   Operation			Administrative and Consul Evnences									
290			•									
240   921   Office Supplies & Exponse   Stort H   3,723,829   Stort H   4,316,380   87% \$ 3,245,417 \$ 3,761,840     421   922   Ottoide Services Employed   Stort H   3,281,237   Stort H   3,333,615   87% \$ 2,285,865 \$ 2,243,384     424   925   Injuries and Daranges   Stort H   3,11740   Stort H   3,181,57652   Stort H   3,131,390     426   926   Injuries and Daranges   Stort H   3,1474,51   Stort H   3,181,57652   Stort H   3,131,390     426   927   Injuries and Daranges   Stort H   1,494,51   Stort H   1,196,866   87% \$ 1,254,510 \$ 1,331,390     426   927   Injuries and Daranges   Stort H   1,196,866   87% \$ 1,264,510 \$ 1,313,1390     427   928   Ottoide Exponses   Stort H   1,196,866   87% \$ 1,264,510 \$ 1,313,1390     428   929   Duplicate Charges - Credit   Stort H   1,131,1680   Stort H   1,597   87% \$ 1,106,100 \$ 1,102,134     428   921   Recent Advertating Exponses   Stort H   1,311,1680   Stort H   1,490,007   87% \$ 1,106,100 \$ 1,102,2481     429   921   Recht Stort H   Stort H   1,490,007   87% \$ 1,106,100 \$ 1,102,2481     429   921   Recht Stort H   Stort H   1,490,007   87% \$ 1,106,100 \$ 1,102,2481     420   921   Recht Stort H   Stort H   1,490,007   87% \$ 1,106,100 \$ 1,102,2481     421   922   Maintenance of General Exponses   Stort H   Stort H   1,490,007   87% \$ 1,106,007 \$ 1,203,233     422   923   Maintenance of General Minitenance   Stort H   St		020	•	Ctt II	ø	11 020 200	C44 II	¢	12 249 167	070/ 6	0.612.405	e 11 (22 202
241   922   Administrative Expenses Transfered Cr   Smt H   (2373,972)   Smt H   (3,348,589)   87, 8   (2,068,980)   \$ (2,813,22)   (2,914,22)					\$			2				
242   928   Outside Services Employed			••									
243   924   Property Insurance   Sum II   31,740   Sum II   31,815   86% \$ 27,404   \$ 27,404   \$ 24,405   \$ 23,146,804   \$ 24,405   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,805   \$ 24,405   \$ 26,141,8			•									
1												
											' ' '	
246   929   Duplicate Charges-Credit												
247   930.1   General Adventising Expenses   Simt H   410.817   Simt H   1.31.686   Simt H   1.49.007   S7% \$   3.58.088 \$   (3.956)     48   930.2   Miscellaneus General Expenses   Simt H   1.31.686   Simt H   1.49.007   S7% \$   2.148.890 \$   2.756.685     52   Total Admin & General Operations   Simt H   2.465.662   Simt H   3.16.003   S7% \$   2.148.890 \$   2.756.685     52   Maintenance   Simt H   S   1.670.501   Simt H   S   1.707.153   S8% \$   1.468.257 \$   1.500.472     52   Maintenance General Maintenance   Simt H   S   1.670.501   Simt H   S   1.707.153   S8% \$   1.468.257 \$   1.500.472     52   Total Admin & General Maintenance   Simt H   S   1.670.501   Simt H   S   1.707.153   S8% \$   1.468.257 \$   1.500.472     52   Total Administrative & General Expenses   S   31.946.971   S   3.7291.598   CALC \$   2.7884,750 \$   3.251.005     52   Depreciation Expense   Simt H   S   3.39.00   Simt H   S   3.791.598   CALC \$   2.7884,750 \$   3.251.005     52   Depreciation Expense   Simt H   S   3.39.00   Simt H   S   Simt H   Simt H   S   Simt H   S   Simt H   S   Simt H   Simt H   Simt H   S   Simt H   S									, ,			
248   30.2   Miscellanous General Expenses   Simt H   1,331,686   Simt H   1,449,007   \$7.87   \$1,160,600   \$1,252,848     49									,			
Start   Star			E 1						,			* * * *
Total Admin & General Operations   S   30,276,470   S   35,584,444			1								, ,	
		931		Stmt H			Stmt H					
State   Stat			Total Admin & General Operations		\$	30,276,470		\$	35,584,444	CALC S	5 26,386,492	\$ 31,012,533
Simple   S												
Total Admin & General Maintenance   S   1,670,501   S   1,707,153   CALC   S   1,468,257   S   1,500,472   S   1,500,472   S   S   1,500,472   S   S   S   S   S   S   S   S   S												
Total Administrative & General Expenses   S   31,946,971   S   37,291,598   CALC   S   27,854,750   S   32,513,005		932		Stmt H	\$		Stmt H	\$				
Same			Total Admin & General Maintenance		\$	1,670,501		\$	1,707,153	CALC \$	1,468,257	\$ 1,500,472
S												
Total Operating & Maintenance Expenses   S			Total Administrative & General Expenses		\$	31,946,971		\$	37,291,598	CALC S	27,854,750	\$ 32,513,005
Depreciation Expense   Stmt J   S   33,980   Stmt J   S   75,057   87%   S   29,615   S   65,414												
Depreciation Expense   Stmt J   S   33,980   Stmt J   S   75,057   R7%   S   29,615   S   65,414			Total Operating & Maintenance Expenses		\$	143,067,313		\$	75,451,785	CALC S	58,831,274	\$ 65,824,056
Description of Plant   Stmt J   Stmt												
Content   Cont			•									
Storage Plant   Storage Plan			E	Stmt J	\$	33,980	Stmt J	\$	75,057			\$ 65,414
Transmission   Stmt J   49,688   Stmt J   40,586   56%   \$ 27,704   \$ 22,629				Stmt J		-	Stmt J		-			
Distribution   Stmt J   19,753,043   Stmt J   18,103,068   86% \$ 17,007,614 \$ 15,586,965			č	Stmt J		-	Stmt J		-			
Stmt J   S			Transmission	Stmt J		49,688	Stmt J		40,586	56% \$	27,704	\$ 22,629
267   Other Utility Plant (Allocated on Customer Count)   Stmt J   2,044,148   Stmt J   1,024,594   95%   1,939,349   972,066	265		Distribution	Stmt J		19,753,043	Stmt J		18,103,068			
Color   Colo			General	Stmt J		868,501	Stmt J		2,309,626			\$ 2,030,006
Total Depreciation Expense   \$ 24,036,687   \$ 23,369,648   CALC \$ 20,889,575 \$ 20,260,396	267		Other Utility Plant (Allocated on Customer Count)	Stmt J		2,044,148	Stmt J		1,024,594	95% \$	1,939,349	\$ 972,066
270 271	268		Other Utility Plant (Allocated on Blended Ratio)	Stmt J		1,287,327	Stmt J		1,816,717	87%_\$	1,121,939	\$ 1,583,317
Taxes Other Than Income           272         Property Taxes         Stmt L         \$ 3,909,166         Stmt L         \$ 4,660,325         86% \$ 3,375,099 \$ 4,023,635           273         Payroll Taxes         Stmt L         2,264,966         Stmt L         2,492,433         87% \$ 1,973,979 \$ 2,172,222           274         Unemployment - Federal         Stmt L         23,120         Stmt L         23,120         87% \$ 20,150         \$ 20,150           275         Unemployment - State         Stmt L         28,766         Stmt L         28,766         87% \$ 25,070         \$ 25,070           276         Miscellaneous         Stmt L         (350,166)         Stmt L         (118,693)         87% \$ (305,179)         (103,444)           277         Total Taxes Other Than Income         \$ 5,875,853         \$ 7,085,952         CALC         5,089,119         6,137,633           278         Total Oper. Exp. Before Inc. Tax         \$ 172,979,852         \$ 105,907,385         CALC         \$ 44,023,635	269		Total Depreciation Expense		\$	24,036,687		\$	23,369,648	CALC \$	20,889,575	\$ 20,260,396
272         Property Taxes         Stmt L         \$ 3,909,166         Stmt L         \$ 4,660,325         86% \$ 3,375,099 \$ 4,023,635           273         Payroll Taxes         Stmt L         2,264,966         Stmt L         2,492,433         87% \$ 1,973,979 \$ 2,172,222           274         Unemployment - Federal         Stmt L         23,120         Stmt L         23,120         87% \$ 20,150 \$ 20,150           275         Unemployment - State         Stmt L         28,766         Stmt L         28,766         87% \$ 25,070 \$ 25,070           276         Miscellaneous         Stmt L         (350,166)         Stmt L         (118,693)         87% \$ 305,179 \$ (103,444)           277         Total Taxes Other Than Income         \$ 5,875,853         \$ 7,085,952         CALC \$ 5,089,119 \$ 6,137,633           278         Total Oper. Exp. Before Inc. Tax         \$ 172,979,852         \$ 105,907,385         CALC \$ 84,809,967 \$ 92,222,086	270											
273         Payroll Taxes         Stmt L         2,264,966         Stmt L         2,492,433         87% \$ 1,973,979 \$ 2,172,222           274         Unemployment - Federal         Stmt L         23,120         Stmt L         23,120         87% \$ 20,150 \$ 20,150           275         Unemployment - State         Stmt L         28,766         Stmt L         28,766         87% \$ 25,070 \$ 25,070           276         Miscellaneous         Stmt L         (350,166)         Stmt L         (118,693)         87% \$ (305,179) \$ (103,444)           277         Total Taxes Other Than Income         \$ 5,875,853         \$ 7,085,952         CALC \$ 5,089,119 \$ 6,137,633           278         Total Oper. Exp. Before Inc. Tax         \$ 172,979,852         \$ 105,907,385         CALC \$ 84,809,967 \$ 92,222,086	271		Taxes Other Than Income									
274         Unemployment - Federal         Stmt L         23,120         Stmt L         23,120         87% \$         20,150         20,150           275         Unemployment - State         Stmt L         28,766         Stmt L         28,766         87% \$         25,070         25,070           276         Miscellaneous         Stmt L         (350,166)         Stmt L         (118,693)         87% \$         (305,179)         (103,444)           277         Total Taxes Other Than Income         \$         5,875,853         \$         7,085,952         CALC         5,089,119         6,137,633           278         Total Oper. Exp. Before Inc. Tax         \$         172,979,852         \$         105,907,385         CALC         \$         84,809,967         \$         92,222,086	272		Property Taxes	Stmt L	\$	3,909,166	Stmt L	\$	4,660,325	86% \$	3,375,099	\$ 4,023,635
275         Unemployment - State         Stmt L         28,766         Stmt L         28,766         Stmt L         22,766         87% \$         25,070 \$         25,070           276         Miscellaneous         Stmt L         (350,166)         Stmt L         (118,693)         87% \$         (305,179) \$         (103,444)           277         Total Taxes Other Than Income         \$ 5,875,853         \$ 7,085,952         CALC \$         5,089,119 \$         6,137,633           278         Total Oper. Exp. Before Inc. Tax         \$ 172,979,852         \$ 105,907,385         CALC \$         84,809,967 \$         92,222,086	273		Payroll Taxes	Stmt L		2,264,966	Stmt L		2,492,433	87% \$	1,973,979	\$ 2,172,222
Z76         Miscellaneous         Stmt L         (350,166)         Stmt L         (118,693)         87%         \$ (305,179)         \$ (103,444)           277         Total Taxes Other Than Income         \$ 5,875,853         \$ 7,085,952         CALC         \$ 5,089,119         \$ 6,137,633           278         Total Oper. Exp. Before Inc. Tax         \$ 172,979,852         \$ 105,907,385         CALC         \$ 84,809,967         \$ 92,222,086	274		Unemployment - Federal	Stmt L		23,120	Stmt L		23,120	87% \$	20,150	\$ 20,150
277         Total Taxes Other Than Income         \$ 5,875,853         \$ 7,085,952         CALC         \$ 5,089,119         \$ 6,137,633           278         279         Total Oper. Exp. Before Inc. Tax         \$ 172,979,852         \$ 105,907,385         CALC         \$ 44,809,967         \$ 92,222,086	275		Unemployment - State	Stmt L		28,766	Stmt L		28,766	87% \$	25,070	\$ 25,070
278 279 Total Oper. Exp. Before Inc. Tax \$ 172,979,852 \$ 105,907,385 CALC \$ 84,809,967 \$ 92,222,086	276		Miscellaneous	Stmt L		(350,166)	Stmt L		(118,693)	87% \$	(305,179)	\$ (103,444)
279 Total Oper. Exp. Before Inc. Tax \$ 172,979,852 \$ 105,907,385 CALC \$ 84,809,967 \$ 92,222,086	277		Total Taxes Other Than Income		\$	5,875,853		\$	7,085,952	CALC S	5,089,119	\$ 6,137,633
	278											
280	279		Total Oper. Exp. Before Inc. Tax		\$	172,979,852		\$	105,907,385	CALC \$	84,809,967	\$ 92,222,086
	280											

# Exhibit No. MCC-2 Revenue Requirement Study Page 62 of 63 Exhibit No. MCC-2 Statement N

# BLACK HILLS NEBRASKA GAS, LLC PER BOOKS AND PRO FORMA ADJUSTED REVENUE REQUIREMENT ANALYSIS FOR THE TEST YEAR ENDING DECEMBER 31, 2020

										Jurisdictional Base	
No.	Acct	Description	Reference		Base Year	Reference	Pro	Forma Adjusted	%	Year	Jurisdictional \$
281 282		Other Operating Revenue Sales for Resale	Stmt I	\$		Church I	\$		0%	e	
282		Forfeited Discounts	Stmt I Stmt I	Э	715,622	Stmt I Stmt I	\$	715,622	100%		\$ 715,622
283		Miscellaneous Service Revenues	Stmt I Stmt I		2,910,285	Stmt I Stmt I		2,910,285	87%		
285		Rent From Gas Property	Stmt I		1,000	Stmt I		1,023,704	86%		
286		Other Gas Revenues	Stmt I		653,820	Stmt I		653,820	87%		
287		Total Other Operating Revenue	Stmt I	\$	4,280,727	Stmt I	\$	5,303,431	CALC		
288		Total Other Operating Revenue	Sunt 1	Ф	4,280,727	Sunt 1	Ф	3,303,431	CALC	\$ 3,822,090	\$ 4,703,764
289		<b>Revenue Under Existing Rates</b>									
290		Sales of Gas	Stmt I	\$	214,623,486	Stmt I	\$	141,311,438	82%	\$ 175,116,722	\$ 115,299,571
291 292		Total Revenue Under Existing Rates	Stmt I	<u> </u>	214,623,486	Stmt I	<u>s</u>	141,311,438	CALC -	\$ 175,116,722	\$ 115,299,571
293		Total Revenue Older Existing Rates	Sunt 1	J	214,023,400	Stillt I	J	141,511,450	CALC	5 1/3,110,/22	113,277,371
294		Oper. Expense Before Income Tax		\$	172,979,852		\$	105,907,385	CALC	\$ 84,809,967	\$ 92,222,086
295 296		Oper. Income Before Income Tax		-\$	45,924,361		\$	40,707,483	CALC -	\$ 94,129,452	\$ 27,781,269
297		oper. Income Before income Tax		Ψ	43,724,301		Ψ	40,707,403	CHEC	J 71,127,132	27,701,207
298		Federal Income Tax Calculation									
299		Oper. Income Before Income Tax		\$	45,924,361		\$	40,707,483	CALC	\$ 94,129,452	\$ 27,781,269
300		Federal and State Income Tax	Stmt K	\$	9,574,529			7,869,975	61%	\$ 5,846,812	\$ 4,805,904
301		Total Federal Income Tax		\$	9,574,529		\$	7,869,975	CALC	\$ 5,846,812	\$ 4,805,904
302											
303		Total Operating Expense		\$	182,554,381		\$	113,777,360		\$ 90,656,779	\$ 97,027,990
304											
305		Return to equity pretax		\$	36,349,832		\$	32,837,508	CALC	\$ 88,282,640	\$ 22,975,365
306		Rate Base		\$	525,867,609		\$	586,160,478	CALC	\$ 450,557,729	\$ 503,851,889
307		Rate of Return, Existing Rates			6.91%			5.60%	CALC	19.59%	4.56%
308		, ,									
309		Return Under Current Rates									
310											
311		Revenue from Gas Sales		\$	214,623,486		\$	141,311,438	CALC	\$ 175,116,722	\$ 115,299,571
312		Other Operating Revenue		\$	4,280,727			5,303,431	CALC	3,822,696	4,703,784
313											
314		Total Operating Revenue		\$	218,904,213		\$	146,614,868	CALC	\$ 178,939,419	\$ 120,003,355
315		1 8			-, , -			-,- ,			,,
316		Operation and Maintenance Expense		\$	143,067,313		\$	75,451,785	CALC	\$ 58,831,274	\$ 65,824,056
317		Depreciation and Amortization Expense		*	24,036,687		*	23,369,648	CALC	20,889,575	20,260,396
318		Taxes Other than Income Tax			5,875,853			7,085,952	CALC	5,089,119	6,137,633
319		Federal Income Tax - Existing Rates			9,574,529			7,869,975	CALC	5,846,812	4,805,904
320		Teachin meetine Tuni Emissing Tunes			>,0 / 1,02>			7,005,570	CILLE	5,0.0,012	1,000,701
321		Total Operating Expense		\$	182,554,381		<u> </u>	113,777,360	CALC	\$ 90,656,779	\$ 97,027,990
322		Levering Enhance		Ψ	102,001,001		Ψ	110,777,500	C. ILC	20,000,117	71,021,770
323		Return		\$	36,349,832		\$	32,837,508	CALC	\$ 88,282,640	\$ 22,975,365
324		Rate Base		Ψ	525,867,609		Ψ	586,160,478	CALC	450,557,729	503,851,889
325		Rate of Return, Current Rates			6.91%			5.60%	CALC	19.59%	4.56%
326		Rate of Retain, Cultent Rates			0.71/0			5.0070	CALC	17.57/0	7.5070
320											

 Total Company
 Jurisdictional

 Line FERC
 (a) (b) (c) (d) (e) = (a) \* (d) (f) = (c) \* (d)

No.	Acct Description	Reference	Base Year	Reference	Pro Fo	rma Adjusted	Jurisdi ctional Ju %	risdictional Base Year	Jurisdictional \$
327	Overall Revenue Requirement and Revenue Defici		Dusc 1 cui	Hererenee	11010	ina rajusteu	7.0	1001	our isurctionar o
328									
329	Rate Base				\$	586,160,478	CALC \$	450,557,729 \$	503,851,889
330	Rate of Return			Stmt G		7.06%	CALC	7.06%	7.06%
331	Return				\$	41,382,930	CALC \$	31,809,376 \$	35,571,943
332	Operation and Maintenance Expenses					75,451,785	CALC	58,831,274	65,824,056
333	Depreciation and Amortization Expense					23,369,648	CALC	20,889,575	20,260,396
334	Taxes Other than Income Tax					7,085,952	CALC	5,089,119	6,137,633
335	Federal Income Tax - Existing Rates					7,869,975	CALC	5,846,812	4,805,904
336									
337	Total Pre-tax Revenue Requirement				\$	155,160,290	CALC \$	122,466,155 \$	132,599,933
338	Less: Other Operating Revenue					5,303,431	CALC	3,822,696	4,703,784
339									
340	Net Pre-tax Revenue Requirement				\$	149,856,859	CALC \$	118,643,458 \$	127,896,149
341									
342	Revenue Under Existing Rates				\$	141,311,438	CALC \$	175,116,722 \$	115,299,571
343	Revenue Deficiency								
344	Amount before tax adjustment				\$	(8,545,422)	CALC \$	56,473,264 \$	(12,596,578)
345	Tax Adjusted Amount Needed (line 346 x line 349)					(11,733,365)	CALC	77,541,105	(17,295,841)
346									
347 348	Tax Multiplier (1/(12717)					1.37306	CALC	1.37306	1.37306

<sup>349</sup> Note: In column (d), the Jurisdictional %, 'CALC' denotes lines with calculated values. Inputting hard-coded figures on these lines will create inaccurate model results.

### BLACK HILLS NEBRASKA GAS, LLC. PER BOOKS - CASH WORKING CAPITAL FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 1 of 14

Line No.	Account Description (A)	Test Year Expenses (B)	Revenue Lag (C)	Expense Lead Days (D)	Lead Days Weighted (B/ SUM OF B) *D (E)	Net (Lead)/Lag (C) - (D) (F)	Factor (Col F/365) (G)	CWC Req (B) X (G) (H)
1	Operations & Maintenance Expense							
2	Federal Income Tax Withheld	4,788,843	37.6996	14.0000	0.3642	23.6996	0.0649 \$	310,941.78
3	FICA Taxes Withheld - Employee (1)	2,264,966	37.6996	14.0000	0.1723	23.6996	0.0649	147,065
4	Net Payroll (1)	13,460,749	37.6996	14.0000	1.0238	23.6996	0.0649	874,013
5	Gas Purchases - PGA - NEG	75,442,264	38.8566	32.6530	13.3826	6.2036	0.0170	1,282,220
6	Other O&M	47,110,492	37.6996	45.6250	11.6767	(7.9254)	(0.0217)	(1,022,928)
7	Total Operation & Maintenance Expense (1)	143,067,314			26.6195			1,591,312
8								
9								
10	Gas Purchases - Choice - NEGD	70,932,491	36.1261	35.0634	13.5114	1.0627	0.0029	206,513
11								
12	Taxes other than Income Taxes							
13	Property Taxes (1)	3,909,166	37.6996	335.8070	7.1314	(298.1074)	(0.8167)	(3,192,743)
14	FICA Taxes - Employer's (1)	2,264,966	37.6996	14.0000	0.1723	23.6996	0.0649	147,065
15	Unemployment Taxes (FUTA & SUTA) (1)	51,886	37.6996	14.0000	0.0039	23.6996	0.0649	3,369
16	City Franchise Taxes	6,969,285	37.6996	65.7954	2.4911	(28.0958)	(0.0770)	(536,459)
17	Sales Taxes	18,239,542	37.6996	35.2000	3.4879	2.4996	0.0068	124,909
18	<b>Total Taxes other than Income Taxes</b>	31,434,846			13.2865			(3,453,858)
19								
20	Current Income Taxes-Federal (1)	9,574,529	37.6996	38.5000	2.0025	(0.8004)	(0.0022)	(20,995)
21								
22	Total Cash Working Capital Requirement	\$ 184,076,689					\$	(1,677,029)

24 (Note 1) Calculations that are made within Exhibit 3

### BLACK HILLS NEBRASKA GAS, LLC. AS ADJUSTED - CASH WORKING CAPITAL FOR THE PRO FORMA PERIOD ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 2 of 14

Line No.	Account Description (A)	Test Year Expenses (B)	Revenue Lag (C)	Expense Lead Days (D)	Lead Days Weighted (B/ SUM OF B) *D (E)	Net (Lead)/Lag (C) - (D) (F)	Factor (Col F/365) (G)	CWC Req (B) X (G) (H)
1	Operations & Maintenance Expense							
2	Federal Income Tax Withheld	5,482,949	37.6996	14.0000	0.4034	23.6996	0.0649 \$	356,010.41
3	FICA Taxes Withheld - Employee (1)	2,492,433	37.6996	14.0000	0.1834	23.6996	0.0649	161,835
4	Net Payroll (1)	15,512,604	37.6996	14.0000	1.1413	23.6996	0.0649	1,007,240
5	Gas Purchases - PGA - NEG	75,442,264	38.8566	32.6530	12.9461	6.2036	0.0170	1,282,220
6	Other O&M	52,047,386	37.6996	45.6250	12.4797	(7.9254)	(0.0217)	(1,130,125)
7	Total Operation & Maintenance Expense (1)	150,977,636			27.1539			1,677,181
8								
10	Gas Purchases - Choice - NEGD	70,932,491	36.1261	35.0634	13.0708	1.0627	0.0029	206,513
11 12	Taxes other than Income Taxes							
13	Property Taxes (1)	4,660,325	37.6996	335.8070	8.2245	(298.1074)	(0.8167)	(3,806,239)
14	FICA Taxes - Employer's (1)	2,492,433	37.6996	14.0000	0.1834	23.6996	0.0649	161,835
15	Unemployment Taxes (FUTA & SUTA) (1)	51,886	37.6996	14.0000	0.0038	23.6996	0.0649	3,369
16	City Franchise Taxes	6,969,285	37.6996	65.7954	2.4098	(28.0958)	(0.0770)	(536,459)
17	Sales Taxes	18,239,542	37.6996	35.2000	3.3741	2.4996	0.0068	124,909
18	<b>Total Taxes other than Income Taxes</b>	31,434,846	0	0	14.1956			(4,052,585)
19								
20 21	Current Income Taxes-Federal (1)	7,869,975	37.6996	38.5000	1.5923	(0.8004)	(0.0022)	(17,258)
22	<b>Total Cash Working Capital Requirement</b>	\$ 190,282,457					\$	(2,186,148)

<sup>24 (</sup>Note 1) Calculations that are made within Exhibit 3

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### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - REVENUE LAG FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 3 of 14

LINE	DESCRIPTION	(A) RECEIPT	(B) SERVICE	(C) BILLING	(D) = (A) + (B) + (C) TOTAL REVENUE	(E)	(F) WEIGHTED
NO.	DESCRIPTION	LAG	LAG	PROCESS LAG	LAG TIME	REVENUE	REVENUE
1	NEG REVENUE LAG	21.80	15.21	1.84	38.8566	200,282,857	7,782,301,633
2	BHGD NE REVENUE LAG	18.89	15.21	2.03	36.1261	147,257,794	5,319,847,934
3							
4	TOTAL					347,540,651	13,102,149,567
5							
6	NEG / NEGD WEIGHTED AV	ERAGE LAG TIME	Ε	Total Weighted Revenue / Total	Revenue		37.6996

### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - PAYROLL EXPENSE LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 4 of 14

LINE NO.	DESCRIPTION	(A) NUMBER OF DAYS IN YEAR PAY	. ,		MIDPOINT OF	(E) PAY LEAD DAYS	(F) (Note 1)
1	NEG PAYROLL EXPENSE LEAD	365	26	14.0	7.0	7.0	14.00
2	BHGD NE PAYROLL EXPENSE LEAD	365	26	14.0	7.0	7.0	14.00
					NEG/ NEGD L	EAD TIME	14.00

(Note 1) EMPLOYEES ARE PAID BI-WEEKLY (EVERY OTHER TUESDAY).

### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - GAS PURCHASES EXPENSE LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 5 of 14

DESCRIPTION	(A)  TOTAL OF  AMOUNTS PAID	(B)  DAILY WEIGHTED AMOUNT PAID	(C) 365 DAYS	(D) = [ (B) / (A) ] X (C ) (Note 1) WEIGHTED GAS PURCHASES LEAD DAYS
NEG GAS PURCHASES EXPENSE LEAD	75,442,264	6,749,085	365	32.65
BHGD NE GAS PURCHASES EXPENSE LEAD	70,932,491	6,814,072	365	35.06
	Total	Nebraska WEIGHTED AVER	AGE LEAD TIME	33.82
	NEG GAS PURCHASES EXPENSE LEAD	DESCRIPTIONTOTAL OF AMOUNTS PAIDNEG GAS PURCHASES EXPENSE LEAD BHGD NE GAS PURCHASES EXPENSE LEAD75,442,264 70,932,491	DESCRIPTIONTOTAL OF AMOUNTS PAIDWEIGHTED AMOUNT PAIDNEG GAS PURCHASES EXPENSE LEAD BHGD NE GAS PURCHASES EXPENSE LEAD75,442,2646,749,08570,932,4916,814,072	DESCRIPTIONTOTAL OF AMOUNTS PAIDDAILY WEIGHTED AMOUNT PAID365 DAYSNEG GAS PURCHASES EXPENSE LEAD75,442,2646,749,085365

(NOTE 1) DOLLAR WEIGHTED AVERAGE OF DAYS FROM LAST DAY OF THE DELIVERY PERIOD TO PAYMENT DATE.

#### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL -PROPERTY TAX LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 6 of 14

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	( <b>J</b> )
T TNIE		STATUTOR					B (1)			DOLL 4D
LINE NO.	SERVICE PERIOD	Y PAYMENT DATE	DUE DATE	Amount	Length of Service time	Mid point	Days pmnt date out following service period	Exp Lag	% OF 365	DOLLAR DAYS
NO.	SERVICE PERIOD	DATE	DUE DATE	Amount		Wild point	tollowing service periou	Exp Lag	76 OF 303	DAIS
1	JANUARY 1 - JUNE 30, 2018	4/1/2019	NEG - On or before April 1	\$ 553,561.40	182.50	91.25	254	344.75	94.5%	522,850.12
2	JULY 1 - DECEMBER 31, 2018	8/1/2019	NEG - On or before August 1	\$ 538,134.88	182.50	91.25	200	290.75	79.7%	428,664.98
3	JANUARY 1 - JUNE 30, 2018	5/1/2019	NEG - On or before May 1	\$ 548,804.91	182.50	91.25	254	344.75	94.5%	518,357.51
4	JULY 1 - DECEMBER 31, 2018	9/1/2019	NEG - On or before September 1	\$ 261,719.64	182.50	91.25	200	290.75	79.7%	208,479.41
5	JANUARY 1 - JUNE 30, 2018	5/1/2019	BHGD NE - On or before May 1	1,053,515.68	182.50	91.25	285	375.75	102.9%	1,084,543.88
6	JULY 1 - DECEMBER 31, 2018	9/1/2019	BHGD NE - On or before September 1	660,929.08	182.50	91.25	221	311.75	85.4%	564,505.86
7				3,616,665.59						3,327,401.77
8										
9								Dollar days/ total a	nnual amount	92%
10									Days in Year	365.00
11							NEG / BHGE	NE Weighted aver	rage lead days	335.81

Nebraska property taxes are payable as follows according to Neb. Rev. Stat. § 77-203 and § 77-204:

<sup>\*</sup>All property taxes levied for any county, city, village, or other political subdivision therein shall be due and payable on December 31 next following the date of levy except as provided in section 77-1214. The first half of the real estate taxes due under Neb. Rev. Stat. §77-203 in all counties except Douglas, Lancaster and Sarpy becomes delinquent and must be paid by May 1, with the second half due by September 1. Douglas, Lancaster and Sarpy Counties, and other counties whose populations may exceed 100,000, follow the above rules with the relevant dates being April 1 and August 1.

### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - INCOME TAX LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 7 of 14

	(A)	(B)	(C) = (A) + or - (B)	(D) (NOTE 1)	$(\mathbf{E}) = (\mathbf{C}) \times (\mathbf{D})$
LINE NO.	STATUTORY PAYMENT DATE	MID-POINT OF SERVICE PERIOD	PERIOD DAYS	PERCENT OF PAYMENT	LEAD DAYS
1	APRIL 15	JULY 1	(77.0)	25.0%	(19.25)
2	JUNE 17	JULY 1	(14.0)	25.0%	(3.50)
3	SEPTEMBER 16	JULY 1	77.0	25.0%	19.25
4	DECEMBER 16	JULY 1	168.0	25.0%	42.00
5					
6	INCOME TAX LEAD				38.50

(NOTE 1) REFLECTS PAYMENT OF 25% OF INCOME TAX ON EACH QUARTERLY DUE DATE.

### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - OTHER O&M LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 8 of 14

LINE NO.	DESCRIPTION	(A) NUMBER OF DAYS IN YEAR	(B) (Note 1) (1 / 8)	(A) x (B) (C) CALCULATED LEAD
1	OTHER O & M LEAD	365	0.125	45.6250

(Note 1) THE 1/8TH RULE WAS USED TO CALCULATE THE EXPENSE LEAD FOR OTHER O&M.

NEG/ NEGD FICA / FED W/H Expense Lead

# BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - FICA / FED W/H / STATE W/H EXPENSE LEADS FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 9 of 14

14.00

LINE	(A) PERIOD	(B) PERIOD	(C)	(D) = (E -1) FUNDS TSF OUT OF	(E) = (A+B)/2	(F) = (A + E) $MIDPOINT$	(G) = (D - F)
NO.	BEGIN	END	PAY DATE	NE ACCT	MIDPOINT	DATE	TAX LEAD
1	12/17/18	12/30/18	01/08/19	01/07/19	7.0	12/24/18	14
2	12/31/18	01/13/19	01/22/19	01/21/19	7.0	01/07/19	14
3	01/14/19	01/27/19	02/05/19	02/04/19	7.0	01/21/19	14
4	01/28/19	02/10/19	02/19/19	02/18/19	7.0	02/04/19	14
5	02/11/19	02/24/19	03/05/19	03/04/19	7.0	02/18/19	14
6	02/25/19	03/10/19	03/19/19	03/18/19	7.0	03/04/19	14
7	03/11/19	03/24/19	04/02/19	04/01/19	7.0	03/18/19	14
8	03/25/19	04/07/19	04/16/19	04/15/19	7.0	04/01/19	14
9	04/08/19	04/21/19	04/30/19	04/29/19	7.0	04/15/19	14
10	04/22/19	05/05/19	05/14/19	05/13/19	7.0	04/29/19	14
11	05/06/19	05/19/19	05/28/19	05/27/19	7.0	05/13/19	14
12	05/20/19	06/02/19	06/11/19	06/10/19	7.0	05/27/19	14
13	06/03/19	06/16/19	06/25/19	06/24/19	7.0	06/10/19	14
14	06/17/19	06/30/19	07/09/19	07/08/19	7.0	06/24/19	14
15	07/01/19	07/14/19	07/23/19	07/22/19	7.0	07/08/19	14
16	07/15/19	07/28/19	08/06/19	08/05/19	7.0	07/22/19	14
17	07/29/19	08/11/19	08/20/19	08/19/19	7.0	08/05/19	14
18	08/12/19	08/25/19	09/03/19	09/02/19	7.0	08/19/19	14
19	08/26/19	09/08/19	09/17/19	09/16/19	7.0	09/02/19	14
20	09/09/19	09/22/19	10/01/19	09/30/19	7.0	09/16/19	14
21	09/23/19	10/06/19	10/15/19	10/14/19	7.0	09/30/19	14
22	10/07/19	10/20/19	10/29/19	10/28/19	7.0	10/14/19	14
23	10/21/19	11/03/19	11/12/19	11/11/19	7.0	10/28/19	14
24	11/04/19	11/17/19	11/26/19	11/25/19	7.0	11/11/19	14
25	11/18/19	12/01/19	12/10/19	12/09/19	7.0	11/25/19	14
26	12/02/19	12/15/19	12/24/19	12/23/19	7.0	12/09/19	14

#### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - FUTA & SUTA TAXES FOR THE BASE YEAR ENDING DECEMBER 31, 2019

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LINE	(A)	(B)	(C)	(D) = (E -1) FUNDS TSF OUT OF NE	$(\mathbf{E}) = (\mathbf{A} + \mathbf{B})/2$	(F) = (A + E) $MIDPOINT$	(G) = (D - F)
NO.	PERIOD BEGIN	PERIOD END	PAY DATE	ACCT	MIDPOINT	DATE	TAX LEAD
1	12/17/18	12/30/18	01/08/19	01/07/19	7.0	12/24/18	14
2	12/31/18	01/13/19	01/22/19	01/21/19	7.0	01/07/19	14
3	01/14/19	01/27/19	02/05/19	02/04/19	7.0	01/21/19	14
4	01/28/19	02/10/19	02/19/19	02/18/19	7.0	02/04/19	14
5	02/11/19	02/24/19	03/05/19	03/04/19	7.0	02/18/19	14
6	02/25/19	03/10/19	03/19/19	03/18/19	7.0	03/04/19	14
7	03/11/19	03/24/19	04/02/19	04/01/19	7.0	03/18/19	14
8	03/25/19	04/07/19	04/16/19	04/15/19	7.0	04/01/19	14
9	04/08/19	04/21/19	04/30/19	04/29/19	7.0	04/15/19	14
10	04/22/19	05/05/19	05/14/19	05/13/19	7.0	04/29/19	14
11	05/06/19	05/19/19	05/28/19	05/27/19	7.0	05/13/19	14
12	05/20/19	06/02/19	06/11/19	06/10/19	7.0	05/27/19	14
13	06/03/19	06/16/19	06/25/19	06/24/19	7.0	06/10/19	14
14	06/17/19	06/30/19	07/09/19	07/08/19	7.0	06/24/19	14
15	07/01/19	07/14/19	07/23/19	07/22/19	7.0	07/08/19	14
16	07/15/19	07/28/19	08/06/19	08/05/19	7.0	07/22/19	14
17	07/29/19	08/11/19	08/20/19	08/19/19	7.0	08/05/19	14
18	08/12/19	08/25/19	09/03/19	09/02/19	7.0	08/19/19	14
19	08/26/19	09/08/19	09/17/19	09/16/19	7.0	09/02/19	14
20	09/09/19	09/22/19	10/01/19	09/30/19	7.0	09/16/19	14
21	09/23/19	10/06/19	10/15/19	10/14/19	7.0	09/30/19	14
22	10/07/19	10/20/19	10/29/19	10/28/19	7.0	10/14/19	14
23	10/21/19	11/03/19	11/12/19	11/11/19	7.0	10/28/19	14
24	11/04/19	11/17/19	11/26/19	11/25/19	7.0	11/11/19	14
25	11/18/19	12/01/19	12/10/19	12/09/19	7.0	11/25/19	14
26	12/02/19	12/15/19	12/24/19	12/23/19	7.0	12/09/19	14
				1	NEG/ NEGD FUTA / SU	TA Expense Lead	14.0000

#### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - CITY FRANCHISE TAX LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

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Line			ORDINANCE		PMT FREQUENC			Exp Lag + Pmt		
No.	STATE	CITY	NO.	D (YRS)	Y	DUE DATE	Annual Amount	Days	% OF 365	DOLLAR DAYS
1	NE	CITY OF ASHLAND CITY OF AUBURN	Franchise-002345 Franchise-002522	25	Monthly	w/in 15 days of previous month-end	22,679.94	22.21	0.06	1,379.96
2 3	NE NE	CITY OF AURORA	Franchise-002322	15 25	Monthly Monthly	w/in 15 days of previous month-end w/in 15 days of previous month-end	20,880.26 76,461.31	22.21 22.21	0.06 0.06	1,270.45 4,652.27
4	NE	CITY OF BATTLE CREEK		25	Annual	by April 30	9,128.05	189.50	0.52	4,739.08
5	NE	CITY OF BEATRICE	Franchise-002947	25	Monthly	w/in 15 days of previous month-end	192,140.78	22.21	0.06	11,690.76
6	NE	CITY OF BEE	Franchise-002268	25	Annual	by April 30	1,685.24	189.50	0.52	874.94
7	NE	CITY OF BELLEVUE - NE		15	Quarterly	by 15th of month following end of Quarter	114,074.10	52.63	0.14	16,446.98
8	NE	CITY OF BLAIR	Franchise-002095	15	Annual	by April 30	128,155.24	189.50	0.52	66,535.39
9 10	NE NE	CITY OF BLUE SPRINGS CITY OF COLUMBUS	Franchise-003063	25 25	Bi-Annually Monthly	on or before July 31 and January 31 w/in 15 days of previous month-end	2,543.45 213,650.16	98.25 22.21	0.27 0.06	684.64 12,999.49
11	NE	CITY OF CORTLAND	Franchise-002460	25	Annual	by April 30	4,284.36	189.50	0.52	2,224.35
12	NE		Franchise-003027	25	Annual	by April 30	1,937.80	189.50	0.52	1,006.06
13	NE	CITY OF CRETE	Franchise-002821	15	Bi-Annually	on or before May 31 and November 31	81,838.35	98.25	0.27	22,029.09
14	NE	CITY OF DAVID CITY	Franchise-003016	5	Bi-Annually	on or before May 31 and November 31	43,866.13	98.25	0.27	11,807.80
15	NE	CITY OF DORCHESTER	Franchise-002279	25	Annual	by April 30	8,044.22	189.50	0.52	4,176.38
16 17	NE NE	CITY OF EXETER CITY OF FAIRBURY	Franchise-002619 Franchise-002610	25 15	Annual Bi-Annually	by April 30	6,791.72 54,436.56	189.50 98.25	0.52 0.27	3,526.11 14,653.13
18	NE NE	CITY OF FRIEND	Franchise-002283	25	Annual Annual	on or before July 31 and January 31 by April 30	10,910.34	189.50	0.52	5,664.41
19	NE	CITY OF GARRISON	Franchise-002864	25	Annual	by April 30	616.30	189.50	0.52	319.97
20	NE	CITY OF GENEVA - NE	Franchise-002882	25	Annual	by April 30	38,298.41	189.50	0.52	19,883.70
21	NE	CITY OF GRETNA	Franchise-002312	25	Bi-Annually	on or before July 31 and January 31	94,641.33	98.25	0.27	25,475.37
22	NE	CITY OF HAMPTON	Franchise-002738	25	Bi-Annually	on or before July 31 and January 31	5,141.05	98.25	0.27	1,383.86
23	NE	CITY OF HICKMAN	Franchise-002055 Franchise-002063	20	Annual	by April 30	4,162.28	189.50	0.52	2,160.96
24 25	NE NE	CITY OF HOOPER CITY OF HUMBOLDT	Franchise-002003	25 25	Annual Bi-Annually	by April 30 on or before July 31 and January 31	8,869.60 5,380.27	189.50 98.25	0.52 0.27	4,604.90 1,448.25
26	NE	CITY OF HUMPHREY	Franchise-002942	25	Annual	by April 30	7,263.40	189.50	0.52	3,771.00
27	NE	CITY OF LA VISTA	Franchise-002955	25	Quarterly	by 15th of month following end of Quarter	228,674.22	52.63	0.14	32,969.81
28	NE	CITY OF LINCOLN - NE	Franchise-002632	20	Monthly	w/in 15 days of previous month-end	2,942,964.22	22.21	0.06	179,063.92
29	NE		Franchise-002629	25	Annual	by April 30	19,758.69	189.50	0.52	10,258.28
30	NE	CITY OF MEADOW GROV	Franchise-0025/4 Franchise-002860	25	Annual	by April 30	2,589.80	189.50	0.52	1,344.57
31 32	NE NE	CITY OF MILFORD - NE CITY OF NEWMAN GROV		25 25	Annual Annual	by April 30 by April 30	17,336.09 6,075.45	189.50 189.50	0.52 0.52	9,000.52 3,154.24
33	NE	CITY OF NORFOLK	Franchise-002295	25	Monthly	w/in 15 days of previous month-end	431,199.51	22.21	0.06	26,236.23
34	NE	CITY OF OAKLAND	Franchise-002461	25	Annual	by April 30	13,445.04	189.50	0.52	6,980.37
35	NE	CITY OF OSCEOLA	Franchise-002824	25	Annual	by April 30	15,615.53	189.50	0.52	8,107.24
36	NE	CITY OF PALMYRA	Franchise-002482	25	Bi-Annually	on or before July 31 and January 31	5,324.71	98.25	0.27	1,433.30
37	NE	CITY OF PAPILLION	Franchise-002832 Franchise-002925	15	Monthly	w/in 15 days of previous month-end	248,633.06	22.21	0.06	15,128.02
38 39	NE NE	CITY OF PAWNEE CITY CITY OF PERU	Franchise-002923	25 25	Bi-Annually Bi-Annually	on or before July 31 and January 31 on or before July 31 and January 31	7,564.23 5,157.68	98.25 98.25	0.27 0.27	2,036.12 1,388.33
40	NE NE	CITY OF PIERCE	Franchise-002765	25	Annual	by April 30	15,792.93	189.50	0.52	8,199.34
41	NE	CITY OF PLATTSMOUTH		25	Annual	by April 30	54,963.19	189.50	0.52	28,535.68
42	NE	CITY OF RALSTON NE	Franchise-002381	25	Monthly	w/in 15 days of previous month-end	15,242.29	22.21	0.06	927.41
43	NE	CITY OF SCHUYLER	Franchise-002699	25	Quarterly	by 15th of month following end of Quarter	56,440.90	52.63	0.14	8,137.54
44	NE	CITY OF SEWARD	Franchise-002042	15	Monthly	w/in 15 days of previous month-end	178,140.99	22.21	0.06	10,838.94
45	NE NE	CITY OF STANTON CITY OF TECUMSEH	Franchise-002909 Franchise-002123	25	Annual Di Ammuello	by April 30	14,794.80 18,198.10	189.50 98.25	0.52 0.27	7,681.14 4,898.53
46 47	NE NE	CITY OF TEKAMAH	Franchise-002797	25 25	Bi-Annually Annual	on or before July 31 and January 31 by April 30	30,434.68	189.50	0.52	15,801.02
48	NE	CITY OF TILDEN	Franchise-002043	15	Monthly	w/in 15 days of previous month-end	9,432.03	22.21	0.06	573.89
49	NE	CITY OF ULYSEES	Franchise-002945	25	Annual	by April 30	4,118.66	189.50	0.52	2,138.32
50	NE	CITY OF VALLEY	Franchise-002592	25	Quarterly	by 15th of month following end of Quarter	33,834.82	52.63	0.14	4,878.24
51	NE	CITY OF WAKEFIELD	Franchise-002053	15	Bi-Annually	on or before July 31 and January 31	16,094.71	98.25	0.27	4,332.34
52 53	NE NE	CITY OF WAVERLY CITY OF WAYNE	Franchise-002802 Franchise-002862	25 20	Quarterly Quarterly	by 15th of month following end of Quarter by 15th of month following end of Quarter	59,622.11 95,185.63	52.63 52.63	0.14 0.14	8,596.20 13,723.68
54	NE	CITY OF WEST POINT	Franchise-002270	25	Annual	by April 30	46,077.88	189.50	0.52	23,922.63
55	NE	CITY OF WILBER	Franchise-002900	25	Annual	by April 30	17,476.08	189.50	0.52	9,073.20
56	NE	CITY OF WYMORE	Franchise-002986	25	Bi-Annually	on or before July 31 and January 31	11,305.12	98.25	0.27	3,043.09
57	NE	CITY OF YORK	Franchise-002326	25	Quarterly	by 15th of month following end of Quarter	80,687.95	52.63	0.14	11,633.43
58	NE	VILLAGE OF ADAMS	Franchise-002322	25	Annual	by April 30	4,283.32	189.50	0.52	2,223.81
59 60	NE NE	VILLAGE OF ARLINGTO! VILLAGE OF BEEMER	Franchise-003044	25 25	Annual Annual	by April 30 by April 30	10,677.56 6,092.29	189.50 189.50	0.52 0.52	5,543.56 3,162.98
61	NE	VILLAGE OF BRADSHAV	Franchise-002281	25	Annual	by April 30	3,517.64	189.50	0.52	1,826.28
62	NE	VILLAGE OF CLATONIA		25	Annual	by April 30	2,181.78	189.50	0.52	1,132.73
63	NE	VILLAGE OF DEWITT	Franchise-002876	25	Annual	by April 30	5,897.01	189.50	0.52	3,061.60
64	NE	VILLAGE OF EAGLE	Franchise-002548	25	Annual	by April 30	8,463.36	189.50	0.52	4,393.99
65	NE NE	VILLAGE OF EMERSON		25	Bi-Annually	on or before July 31 and January 31	8,552.75	98.25	0.27	2,302.21
66 67	NE NE	VILLAGE OF FAIRMONT VILLAGE OF FIRTH	Franchise-0022/1	25 25	Annual Annual	by April 30 by April 30	7,407.94 2,449.70	189.50 189.50	0.52 0.52	3,846.04 1,271.83
68	NE		Franchise-002974	25	Annual	by April 30	2,413.69	189.50	0.52	1,253.13
69	NE	VILLAGE OF GREENWOO	Franchise-002977	25	Annual	by April 30	5,282.07	189.50	0.52	2,742.33
70	NE	VILLAGE OF HALLAM	Franchise-002440	25	Annual	by April 30	1,694.36	189.50	0.52	879.67
71	NE	VILLAGE OF HOMER	Franchise-002106	25	Annual	by April 30	5,163.20	189.50	0.52	2,680.62
72	NE	VILLAGE OF LINDSAY VILLAGE OF MEAD	Franchise-002205 Franchise-002100	25	Annual	by April 30	3,113.39	189.50	0.52	1,616.40
73 74	NE NE	VILLAGE OF NICKERSO?		25 25	Annual Annual	by April 30 by April 30	5,085.81 2,572.68	189.50 189.50	0.52 0.52	2,640.44 1,335.68
75	NE	VILLAGE OF PILGER	Franchise-002487	25	Annual	by April 30	3,233.73	189.50	0.52	1,678.88
76	NE	VILLAGE OF PLYMOUTE	Franchise-002280	25	Annual	by April 30	3,829.16	189.50	0.52	1,988.02
77	NE	VILLAGE OF RISING CIT	Franchise-002277	25	Annual	by April 30	3,252.59	189.50	0.52	1,688.67
78	NE	VILLAGE OF SHELBY	Franchise-002272	25	Annual	by April 30	6,448.77	189.50	0.52	3,348.06
79	NE	VILLAGE OF STAPLEHUI	Franchise-002370 Franchise-002623	25	Annual	by April 30	2,414.99 2,785.45	189.50	0.52	1,253.81 1,446.14
80 81	NE NE	VILLAGE OF UEHLING CITY OF AINSWORTH	Franchise-002023 Franchise-002126	25 25	Annual Annual	by April 30 by February 28	2,785.45 6,800.62	189.50 221.50	0.52 0.61	4,126.95
82	NE NE	CITY OF ALBION	Franchise-002327	25	Annual	by February 28	5,544.95	221.50	0.61	3,364.95
83	NE	CITY OF ALLIANCE	Franchise-002404	25	Annual	by February 28	29,587.88	221.50	0.61	17,955.38
84	NE	CITY OF ARAPAHOE	Franchise-003011	25	Annual	by February 28	4,134.95	221.50	0.61	2,509.29
85	NE	CITY OF ATKINSON	Franchise-002278	25	Annual	by February 28	4,624.37	221.50	0.61	2,806.30
86	NE NE		Franchise-003052	25	Annual	by February 28	1,882.50	221.50	0.61	1,142.39
87 88	NE NE	CITY OF BAYARD CITY OF BEAVER CITY	Franchise-002286 Franchise-003013	25 25	Annual Annual	by February 28 by February 28	3,711.88 1,794.46	221.50 221.50	0.61 0.61	2,252.55 1,088.97
89	NE NE	CITY OF BENKELMAN	Franchise-002638	25	Annual	by February 28	3,242.30	221.50	0.61	1,967.59
90	NE	CITY OF BLOOMFIELD	Franchise-002744	25	Annual	by February 28	4,470.24	221.50	0.61	2,712.76
91	NE	CITY OF BRIDGEPORT	Franchise-002763	25	Annual	by February 28	7,797.74	221.50	0.61	4,732.05

#### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - CITY FRANCHISE TAX LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

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Line			ORDINANCE	PERIO	PMT FREQUEN	C		Exp Lag + Pmt		
No.	STATE	CITY	NO.	D (YRS)	Y	DUE DATE	Annual Amount	Days	% OF 365	DOLLAR DAYS
92	NE	CITY OF BROKEN BOW	Franchise-002400	25	Annual	by February 28	12,001.24	221.50	0.61	7,282.94
93 94	NE NE	CITY OF BURWELL CITY OF CAMBRIDGE	Franchise-002407 Franchise-002725	25 25	Annual Annual	by February 28 by February 28	3,510.53 4,632.96	221.50 221.50	0.61 0.61	2,130.36 2,811.51
95	NE	CITY OF CHADRON	Franchise-002752	25	Annual	by February 28	14,114.63	221.50	0.61	8,565.45
96	NE	CITY OF CHAPPELL	Franchise-002184	25	Annual	by February 28	3,700.09	221.50	0.61	2,245.40
97 98	NE NE	CITY OF CLAY CENTER CITY OF COZAD	Franchise-002402	25 25	Annual Annual	by February 28 by February 28	1,215.57 9,679.43	221.50 221.50	0.61 0.61	737.67 5,873.96
99	NE	CITY OF CRAWFORD	Franchise-002996	25	Annual	by February 28	4,247.05	221.50	0.61	2,577.32
100	NE	CITY OF CREIGHTON	Franchise-002730	25	Annual	by February 28	3,847.84	221.50	0.61	2,335.06
101 102	NE NE	CITY OF CROFTON CITY OF CURTIS	Franchise-002639 Franchise-003058	25 25	Annual Annual	by February 28 by February 28	1,932.62 3,789.61	221.50 221.50	0.61 0.61	1,172.81 2,299.72
102	NE	CITY OF DESHLER	Franchise-002360	25	Annual	by February 28	2,420.95	221.50	0.61	1,469.15
104	NE	CITY OF DONIPHAN	Franchise-002405	25	Annual	by February 28	2,039.83	221.50	0.61	1,237.87
105 106	NE NE	CITY OF EDGAR CITY OF ELGIN	Franchise-002777 Franchise-002187	25 25	Annual Annual	by February 28	1,413.31 2,958.79	221.50 221.50	0.61 0.61	857.67 1,795.54
107	NE NE	CITY OF EMMET	Franchise-003056	25	Annual	by February 28 by February 28	147.69	221.50	0.61	89.63
108	NE	CITY OF FAIRFIELD	Franchise-002988	25	Annual	by February 28	1,430.10	221.50	0.61	867.86
109	NE	CITY OF FRANKLIN	Franchise-003020 Franchise-002241	25	Annual	by February 28	2,676.83	221.50	0.61	1,624.43
110 111	NE NE	CITY OF FULLERTON CITY OF GENEVA - NE	Franchise-002241 Franchise-002882	25 25	Annual Annual	by February 28 by February 28	4,315.67 4,731.15	221.50 221.50	0.61 0.61	2,618.96 2,871.10
112	NE	CITY OF GENOA - NE	Franchise-002240	25	Annual	by February 28	2,513.05	221.50	0.61	1,525.04
113	NE	CITY OF GERING	Franchise-002764	25	Annual	by February 28	32,261.33	221.50	0.61	19,577.77
114 115	NE NE	CITY OF GIBBON CITY OF GORDON	Franchise-002539 Franchise-003054	25 25	Annual Annual	by February 28 by February 28	4,078.87 7,206.60	221.50 221.50	0.61 0.61	2,475.26 4,373.32
116	NE NE	CITY OF GOTHENBURG	Franchise-003060	25	Annual	by February 28	16,940.50	221.50	0.61	10,280.33
117	NE	CITY OF GRANT	Franchise-003028	25	Annual	by February 28	5,894.75	221.50	0.61	3,577.23
118	NE	CITY OF HARTINGTON	Franchise-002743	25	Annual	by February 28	5,495.17	221.50	0.61	3,334.74
119 120	NE NE	CITY OF HARVARD CITY OF HAY SPRINGS	Franchise-002827 Franchise-003004	25 25	Annual Annual	by February 28 by February 28	2,883.87 1,649.95	221.50 221.50	0.61 0.61	1,750.07 1,001.27
121	NE	CITY OF HEBRON	Franchise-002358	25	Annual	by February 28	5,299.71	221.50	0.61	3,216.13
122	NE	CITY OF HENDERSON	Franchise-002521	25	Annual	by February 28	3,833.56	221.50	0.61	2,326.39
123	NE	CITY OF HOLDREGE	Franchise-002368	25	Annual	by February 28	24,952.61	221.50	0.61	15,142.47
124 125	NE NE	CITY OF IMPERIAL CITY OF INDIANOLA	Franchise-002180	25 20	Quarterly Annual	by 15th of month following end of Quarter by February 28	7,699.56 2,951.06	53.63 221.50	0.15 0.61	1,131.20 1,790.85
126	NE	CITY OF KEARNEY	Franchise-002398	10	Monthly	by end of month following previous month	21,366.83	23.21	0.06	1,358.60
127	NE	CITY OF KIMBALL	Franchise-002665	25	Annual	by February 28	13,563.88	221.50	0.61	8,231.23
128 129	NE NE	CITY OF LAUREL CITY OF LEXINGTON	Franchise-002731 Franchise-002759	25 25	Annual Annual	by February 28 by February 28	4,110.88 21,167.27	221.50 221.50	0.61 0.61	2,494.68 12,845.34
130	NE NE	CITY OF LONG PINE	Franchise-003051	25	Annual	by February 28	1,033.20	221.50	0.61	627.00
131	NE	CITY OF LOUP CITY	Franchise-002922	25	Annual	by February 28	4,042.50	221.50	0.61	2,453.19
132	NE	CITY OF MCCOOK	Franchise-003049	25	Annual	by February 28	60,947.14	221.50	0.61	36,985.73
133 134	NE NE	CITY OF MINATARE CITY OF MINDEN	Franchise-002750 Franchise-002856	25 25	Annual Annual	by February 28 by February 28	1,926.25 20,530.59	221.50 221.50	0.61 0.61	1,168.94 12,458.97
135	NE	CITY OF MITCHELL - NE		25	Annual	by February 28	13,281.03	221.50	0.61	8,059.58
136	NE	CITY OF MOOREFIELD	Franchise-002520	25	Annual	by February 28	90.07	221.50	0.61	54.66
137	NE	CITY OF NELIGH	Franchise-002185 Franchise-002761	25	Annual	by February 28	6,799.73	221.50	0.61	4,126.41
138 139	NE NE	CITY OF NELSON CITY OF NORFOLK	Franchise-002701	25 25	Annual Annual	by February 28 by February 28	1,810.05 167.71	221.50 221.50	0.61 0.61	1,098.43 101.77
140	NE	CITY OF OGALLALA	Franchise-003025	25	Annual	by February 28	20,156.49	221.50	0.61	12,231.95
141	NE	CITY OF ONEILL	Franchise-002748	25	Annual	by February 28	14,341.49	221.50	0.61	8,703.12
142 143	NE NE	CITY OF ORD CITY OF OSHKOSH	Franchise-003061 Franchise-002920	25 25	Annual Annual	by February 28 by February 28	7,908.13 3,224.82	221.50 221.50	0.61 0.61	4,799.04 1,956.98
144	NE	CITY OF OSMOND	Franchise-002729	25	Annual	by February 28	2,237.15	221.50	0.61	1,357.61
145	NE	CITY OF PLAINVIEW	Franchise-002741	25	Annual	by February 28	6,397.26	221.50	0.61	3,882.17
146	NE NE	CITY OF POTTER CITY OF RANDOLPH	Franchise-003059 Franchise-002747	25	Annual	by February 28	2,125.45 4,300.31	221.50 221.50	0.61 0.61	1,289.83 2,609.64
147 148	NE NE	CITY OF RAVENNA	Franchise-002921	25 25	Annual Annual	by February 28 by February 28	7,488.27	221.50	0.61	4,544.25
149	NE	CITY OF RED CLOUD	Franchise-002753	25	Annual	by February 28	3,318.21	221.50	0.61	2,013.65
150	NE	CITY OF RUSHVILLE	Franchise-002993	25	Annual	by February 28	3,313.06	221.50	0.61	2,010.53
151 152	NE NE	CITY OF SARGENT CITY OF SCOTTSBLUFF	Franchise-003012 Franchise-002702	25 25	Annual Annual	by February 28 by February 28	2,094.57 46,304.45	221.50 221.50	0.61 0.61	1,271.09 28,099.82
153	NE	CITY OF SIDNEY	Franchise-002442	10	Annual	by February 28	31,249.08	221.50	0.61	18,963.48
154	NE	CITY OF ST EDWARD	Franchise-002188	25	Annual	by February 28	2,107.55	221.50	0.61	1,278.97
155	NE	CITY OF ST PAUL - NE CITY OF SUTTON	Franchise-002239 Franchise-002736	25	Annual	by February 28	8,703.76 9,034.85	221.50 221.50	0.61 0.61	5,281.87
156 157	NE NE	CITY OF VENANGO	Franchise-002555	25 25	Annual Annual	by February 28 by February 28	1,624.79	221.50	0.61	5,482.79 986.00
158	NE	CITY OF WOOD RIVER	Franchise-002850	25	Annual	by February 28	6,421.50	221.50	0.61	3,896.88
159	NE	CITY OF YORK	Franchise-002554	25	Quarterly	by 15th of month following end of Quarter	6,987.35	53.63	0.15	1,026.57
160 161	NE NE	VILLAGE OF AMHERST VILLAGE OF ANSLEY	Franchise-002178 Franchise-002179	25 25	Annual Annual	by February 28 by February 28	969.66 2,620.45	221.50 221.50	0.61 0.61	588.44 1,590.22
162	NE	VILLAGE OF ARCADIA	Franchise-002843	25	Annual	by February 28	1,039.50	221.50	0.61	630.82
163	NE	VILLAGE OF AXTELL	Franchise-002923	25	Annual	by February 28	2,089.34	221.50	0.61	1,267.91
164	NE	VILLAGE OF BARTLEY	Franchise-002359	25	Annual	by February 28	1,101.19	221.50	0.61	668.26
165 166	NE NE	VILLAGE OF BELDEN VILLAGE OF BELGRADE	Franchise-002559 Franchise-002857	25 25	Annual Annual	by February 28 by February 28	554.58 591.13	221.50 221.50	0.61 0.61	336.55 358.73
167	NE	VILLAGE OF BENEDICT		25	Annual	by February 28	805.63	221.50	0.61	488.90
168	NE	VILLAGE OF BERTRAND		20	Annual	by February 28	1,983.40	221.50	0.61	1,203.62
169	NE	VILLAGE OF BERWYN	Franchise-002991	25	Annual	by February 28	141.87	221.50	0.61	86.09
170 171	NE NE	VILLAGE OF BIG SPRING VILLAGE OF BLADEN	Franchise-002324 Franchise-002132	25 25	Annual Annual	by February 28 by February 28	2,046.72 567.75	221.50 221.50	0.61 0.61	1,242.05 344.54
172	NE	VILLAGE OF BLOOMING	Franchise-003010	25	Annual	by February 28	284.01	221.50	0.61	172.35
173	NE	VILLAGE OF BRADY	Franchise-002992	25	Annual	by February 28	1,349.03	221.50	0.61	818.66
174 175	NE NE	VILLAGE OF BROADWA' VILLAGE OF BRULE	TER Franchise-002244	25 25	Annual Annual	by February 28 by February 28	371.69 1,143.83	221.50 221.50	0.61 0.61	225.56 694.13
175	NE NE	VILLAGE OF BYRON	Franchise-002257	25 25	Annual	by February 28 by February 28	440.46	221.50	0.61	267.29
177	NE	VILLAGE OF CAIRO	Franchise-002532	25	Annual	by February 28	3,831.23	221.50	0.61	2,324.98
178	NE	VILLAGE OF CAMPBELL VILLAGE OF CEDAR RAI		25	Annual	by February 28	1,301.63	221.50	0.61	789.89 578.45
179 180	NE NE	VILLAGE OF CEDAR RAI		25 25	Annual Annual	by February 28 by February 28	953.21 1,480.32	221.50 221.50	0.61 0.61	578.45 898.33
181	NE	VILLAGE OF CHESTER	Franchise-002735	25	Annual	by February 28	1,087.28	221.50	0.61	659.82
182	NE	VILLAGE OF CLEARWAT	Franchise-002742	25	Annual	by February 28	1,350.17	221.50	0.61	819.35

#### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - CITY FRANCHISE TAX LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

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Line	COT A TEN	corre-	ORDINANCE		PMT FREQUENC			Exp Lag + Pmt	N/ OF 245	DOLL IN DIVIS
No. 183	NE NE	CITY VILLAGE OF COLERIDGE	NO. Franchise-002726	D (YRS) 25	Y Annual	DUE DATE by February 28	Annual Amount 1,699.13	Days 221.50	% OF 365 0.61	1,031.12
184	NE	VILLAGE OF COMSTOCK		25	Annual	by February 28	288.05	221.50	0.61	174.80
185	NE		Franchise-002183	25	Annual	by February 28	1,092.87	221.50	0.61	663.21
186	NE	VILLAGE OF DANBURY		25	Annual	by February 28	204.36	221.50	0.61	124.02
187	NE	VILLAGE OF DANNEBRO VILLAGE OF DAVENPOR		25	Annual	by February 28	1,039.85	221.50	0.61	631.03 999.58
188 189	NE NE	VILLAGE OF EDISON	Franchise-002530	25 25	Annual Annual	by February 28 by February 28	1,647.17 820.41	221.50 221.50	0.61 0.61	999.38 497.87
190	NE	VILLAGE OF ELM CREEK		25	Annual	by February 28	6,431.05	221.50	0.61	3,902.68
191	NE		Franchise-002760	25	Annual	by February 28	2,656.47	221.50	0.61	1,612.08
192	NE	VILLAGE OF ELYRIA	Franchise-002538	25	Annual	by February 28	78.95	221.50	0.61	47.91
193	NE	VILLAGE OF EUSTIS	Franchise-002362	25	Annual	by February 28	1,637.88	221.50	0.61	993.95
194 195	NE NE	VILLAGE OF EWING VILLAGE OF FARNAM	Franchise-002746 Franchise-003050	25 25	Annual Annual	by February 28 by February 28	1,679.95 504.71	221.50 221.50	0.61 0.61	1,019.48 306.28
196	NE	VILLAGE OF FOSTER	Franchise-002526	25	Annual	by February 28	146.98	221.50	0.61	89.19
197	NE	VILLAGE OF FUNK	Franchise-002364	25	Annual	by February 28	590.27	221.50	0.61	358.20
198	NE		Franchise-002463	25	Annual	by February 28	662.11	221.50	0.61	401.80
199	NE	VILLAGE OF GREELEY C		25	Annual	by February 28	1,830.71	221.50	0.61	1,110.97
200	NE	VILLAGE OF GUIDE ROC	Franchise-002/56 Franchise-002182	25	Annual	by February 28	502.04	221.50	0.61	304.66
201 202	NE NE	VILLAGE OF GURLEY VILLAGE OF HAZARD	Franchise-002182 Franchise-002859	25 25	Annual Annual	by February 28 by February 28	679.24 777.57	221.50 221.50	0.61 0.61	412.20 471.87
202	NE	VILLAGE OF HEARTWEI		25	Annual	by February 28	358.77	221.50	0.61	217.72
204	NE	VILLAGE OF HEMINGFO		25	Annual	by February 28	3,348.51	221.50	0.61	2,032.04
205	NE	VILLAGE OF HENRY	Franchise-002926	25	Annual	by February 28	383.18	221.50	0.61	232.53
206	NE	VILLAGE OF HERSHEY		25	Annual	by February 28	2,893.75	221.50	0.61	1,756.07
207	NE	VILLAGE OF HILDRETH		25	Annual	by February 28	1,732.15	221.50	0.61	1,051.15
208 209	NE NE	VILLAGE OF HOLBROOK VILLAGE OF HOLSTEIN		25 25	Annual Annual	by February 28 by February 28	871.05 720.92	221.50 221.50	0.61 0.61	528.60 437.49
210	NE NE		Franchise-002527	25	Annual	by February 28	81.19	221.50	0.61	49.27
211	NE	VILLAGE OF INMAN	Franchise-002601	25	Annual	by February 28	327.32	221.50	0.61	198.63
212	NE		Franchise-002852	25	Annual	by February 28	2,897.47	221.50	0.61	1,758.33
213	NE	VILLAGE OF KENESAW		25	Annual	by February 28	3,375.20	221.50	0.61	2,048.24
214	NE	VILLAGE OF LAWRENCE		25	Annual	by February 28	915.86	221.50	0.61	555.79
215	NE	VILLAGE OF LEWELLEN VILLAGE OF LITCHFIELI		25	Annual	by February 28	861.60 1,212.72	221.50 221.50	0.61	522.86
216 217	NE NE	VILLAGE OF LITCHFIELI VILLAGE OF LODGEPOL		25 25	Annual Annual	by February 28 by February 28	963.23	221.50	0.61 0.61	735.94 584.54
218	NE	VILLAGE OF LOOMIS	Franchise-002284	20	Annual	by February 28	837.39	221.50	0.61	508.17
219	NE	VILLAGE OF LYMAN	Franchise-002285	25	Quarterly	by 15th of month following end of Quarter	1,321.62	53.63	0.15	194.17
220	NE	VILLAGE OF MARQUET1		25	Annual	by February 28	883.63	221.50	0.61	536.23
221	NE	VILLAGE OF MASON CIT		25	Annual	by February 28	460.50	221.50	0.61	279.45
222	NE	VILLAGE OF MAXWELL		25	Annual	by February 28	756.65	221.50	0.61	459.17
223 224	NE NE	VILLAGE OF MILLIGAN VILLAGE OF MORRILL		25	Annual	by February 28	1,598.68 3,368.75	221.50 221.50	0.61	970.16
225	NE NE		Franchise-003034	25 25	Annual Annual	by February 28 by February 28	359.87	221.50	0.61 0.61	2,044.32 218.39
226	NE	VILLAGE OF NEWPORT		25	Annual	by February 28	202.25	221.50	0.61	122.74
227	NE	VILLAGE OF NORTH LOI		25	Annual	by February 28	799.59	221.50	0.61	485.23
228	NE	VILLAGE OF OAKDALE		25	Annual	by February 28	1,004.49	221.50	0.61	609.57
229	NE		Franchise-002354	25	Annual	by February 28	1,764.37	221.50	0.61	1,070.71
230	NE		Franchise-003017 Franchise-002989	25	Annual	by February 28	2,953.11	221.50	0.61	1,792.09
231 232	NE NE		Franchise-002403	25 25	Annual Annual	by February 28 by February 28	1,709.83 3,234.84	221.50 221.50	0.61 0.61	1,037.61 1,963.06
233	NE	VILLAGE OF PALMER	Franchise-002464	25	Annual	by February 28	1,759.96	221.50	0.61	1,068.03
234	NE		Franchise-003014	25	Annual	by February 28	2,054.47	221.50	0.61	1,246.75
235	NE	VILLAGE OF PETERSBUI		25	Annual	by February 28	1,003.41	221.50	0.61	608.92
236	NE		Franchise-002929	25	Annual	by February 28	1,994.96	221.50	0.61	1,210.64
237	NE	VILLAGE OF PLEASANTO		25	Annual	by February 28	1,651.17	221.50	0.61	1,002.01
238 239	NE NE	VILLAGE OF POLK VILLAGE OF PRIMROSE	Franchise-003024 Franchise-002641	25 25	Annual Annual	by February 28 by February 28	1,943.70 188.64	221.50 221.50	0.61 0.61	1,179.53 114.48
240	NE NE	VILLAGE OF PRIMROSE VILLAGE OF RAGAN	Franchise-002041	25	Annual	by February 28	116.28	221.50	0.61	70.56
241	NE	VILLAGE OF RIVERDALI	Franchise-002527	25	Annual	by February 28	899.37	221.50	0.61	545.78
242	NE	VILLAGE OF RIVERTON		25	Annual	by February 28	273.57	221.50	0.61	166.02
243	NE	VILLAGE OF ROSELAND		25	Annual	by February 28	943.39	221.50	0.61	572.50
244	NE	VILLAGE OF RUSKIN	Franchise-002558	25	Annual	by February 28	461.26	221.50	0.61	279.92
245	NE NE	VILLAGE OF SARONVILI VILLAGE OF SCOTIA	Franchise-002853 Franchise-002523	25 25	Annual Annual	by February 28 by February 28	166.49 888.65	221.50 221.50	0.61 0.61	101.03 539.28
246 247	NE NE	VILLAGE OF SHELTON		25 25	Annual	by February 28	4,337.75	221.50	0.61	2,632.36
248	NE	VILLAGE OF SHICKLEY		25	Annual	by February 28	480.68	221.50	0.61	291.70
249	NE	VILLAGE OF SPALDING	Franchise-002560	25	Annual	by February 28	1,301.16	221.50	0.61	789.61
250	NE	VILLAGE OF STAMFORE		25	Annual	by February 28	629.54	221.50	0.61	382.04
251	NE	VILLAGE OF SUTHERLA		25	Annual	by February 28	4,016.63	221.50	0.61	2,437.49
252	NE NE	VILLAGE OF TERRYTOW VILLAGE OF TRUMBULI		25	Annual	by February 28	3,332.35	221.50 221.50	0.61 0.61	2,022.23 231.91
253 254	NE NE		Franchise-002528	25 25	Annual Annual	by February 28 by February 28	382.16 614.88	221.50	0.61	373.14
255	NE NE		Franchise-002704	25	Annual	by February 28	3,121.91	221.50	0.61	1,894.53
256	NE		Franchise-002707	25	Annual	by February 28	1,398.22	221.50	0.61	848.51
257	NE	VILLAGE OF WAUSA	Franchise-002728	25	Annual	by February 28	2,350.24	221.50	0.61	1,426.24
258	NE	VILLAGE OF WESTERN		25	Annual	by February 28	957.24	221.50	0.61	580.90
259	NE		Franchise-002355	25	Annual	by February 28	1,198.93	221.50	0.61	727.57
260	NE	VILLAGE OF WINSIDE	Franchise-003022	25	Annual	by February 28	1,839.75	221.50 -	0.61	1,116.45
282 283							6,744,688.13 Dol	llar dave/ tote	ıl annual amount	1,215,806.48 0.18
284							Do	unyor wie	Days in Year	365.00
285								Weighted a	verage lead days	65.80
									-	

#### BLACK HILLS NEBRASKA GAS, LLC. CASH WORKING CAPITAL - SALES TAX LEAD FOR THE BASE YEAR ENDING DECEMBER 31, 2019

Exhibit No. MCC-3 Page 14 of 14

LINE		(A) NUMBER OF	<b>(B)</b>	(C) = (A) / (B)  AVERAGE DAYS	(D) = (C) / 2 MIDPOINT OF AVERAGE DAYS
NO.	DESCRIPTION	DAYS IN YEAR	MONTHS	IN MONTH	IN MONTH
1					
2	MIDPOINT	365	12	30.4167	15.2000
3	NEG REMITTANCE DATE (1)				18.0000
4	BHGD NE REMITTANCE DAT (2)				15.0000
5	NEG LLC REMITTANCE DATE(3)				20.0000
6					
7	Total Nebraska Calculated SALES TAX	LEAD			35.2000

The State of Nebraska requires sales & use tax returns to be filed on or before the 20th day of the month following the last month in the reporting period in which the sale occurred. Sales tax collected from customers are remitted along with the sales & use tax return, which is paid by the 20th of the following month.

- Note (1) Black Hills Nebraska Gas Utility Co. typically remits returns and payments on or around the 18th of each month.
- Note (2) Black Hills Gas Distribution Nebraska typically remits returns and payments on or around the 15th of each month.
- Note (3) Black Hills Nebraska Gas, LLC made it's first consolidated filing February 20, 2020. Black Hills Nebraska Gas, LLC will remit returns and payments on or around the 20th of each month.



## **2019 DEPRECIATION STUDY**

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF NOVEMBER 30, 2019

Prepared by:



Excellence Delivered As Promised

## BLACK HILLS CORPORATION Rapid City, South Dakota

2019 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION
ACCRUALS RELATED TO GAS PLANT
AS OF NOVEMBER 30, 2019



#### Excellence Delivered As Promised

February 18, 2020

Black Hills Corporation 625 9th Street Rapid City, SD 57701

Attention Mr. Robert Amdor

Director, Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the combined gas plant of Black Hills Nebraska as of November 30, 2019. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

Respectfully submitted,

**GANNETT FLEMING VALUATION** AND RATE CONSULTANTS, LLC.

JOHN J. SPANOS

President

JJS:mle

066335.000

Gannett Fleming Valuation and Rate Consultants, LLC

207 Senate Avenue • Camp Hill, PA 17011-2316 t: 717.763.7211 • f: 717.763.4590

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#### **BLACK HILLS NEBRASKA**

#### **DEPRECIATION STUDY**

#### **EXECUTIVE SUMMARY**

Pursuant to Black Hills Nebraska's ("BHN" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the combined gas plant of BHN as of November 30, 2019. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes of the consolidated companies.

The depreciation rates are based on the straight line method using the average service life ("ASL") procedure and were applied on a remaining life basis. The calculations were based on attained ages and estimated average service life and forecasted net salvage characteristics for each depreciable group of assets.

BHN's accounting policy has not changed since depreciation rates were most recently established. However, there have been changes to the plant in service due to system improvements, as well as the consolidation of two individual predecessor companies. The consolidation has produced changes in the life and salvage estimates which results in new depreciation rates as compared to what currently are utilized for the individual companies.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to gas plant in service as of November 30, 2019 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.



Black Hills Nebraska November 30, 2019 The study results set forth an annual depreciation expense of \$19.3 million when applied to depreciable plant balances as of November 30, 2019. The results are summarized at the functional level as follows:

#### SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

FUNCTION	ORIGINAL COST	PROPOSED RATE	ANNUAL ACCRUAL
INTANGIBLE PLANT TRANSMISSION PLANT	\$ 1,363,943.43 6,161,196.61	5.50 0.66	\$ 75,046 40,785
DISTRIBUTION PLANT	669,304,085.06	2.32	15,549,688
GENERAL PLANT	65,670,205.76	5.19	3,411,092
GENERAL PLANT RESERVE AMORTIZATION	<del></del>	-	<u>212,172</u>
TOTAL	<u>\$742,499,430.86</u>	2.60	<u>\$19,288,783</u>



## PART I. INTRODUCTION



#### **BLACK HILLS NEBRASKA**

#### **DEPRECIATION STUDY**

#### PART I. INTRODUCTION

#### SCOPE

This report sets forth the results of the depreciation study for Black Hills Nebraska ("Company"), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of the consolidated Black Hills Nebraska plant as of November 30, 2019. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to gas plant in service as of November 30, 2019.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through November 2019, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the gas industry, including knowledge of service lives and net salvage estimates used for other gas companies.

#### **PLAN OF REPORT**

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Net Salvage Considerations, presents the results of the net salvage study. Part V, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of



Exhibit No. MCC-4 Depreciation BH NE Page 10 of 218

group depreciation. Part VI, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VII, Service Life Statistics presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

#### **BASIS OF THE STUDY**

#### **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing gas utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight-line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line method using the average service life procedure and the remaining life basis. For certain



General Plant accounts, the annual depreciation is based on amortization accounting. Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

#### **Service Life and Net Salvage Estimates**

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the gas utility industry, and comparisons of the service life and net salvage estimates from our studies of other gas utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for gas plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated future yielded estimated survivor curves from which the average service lives were derived.



# PART II. ESTIMATION OF SURVIVOR CURVES



#### PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

#### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.



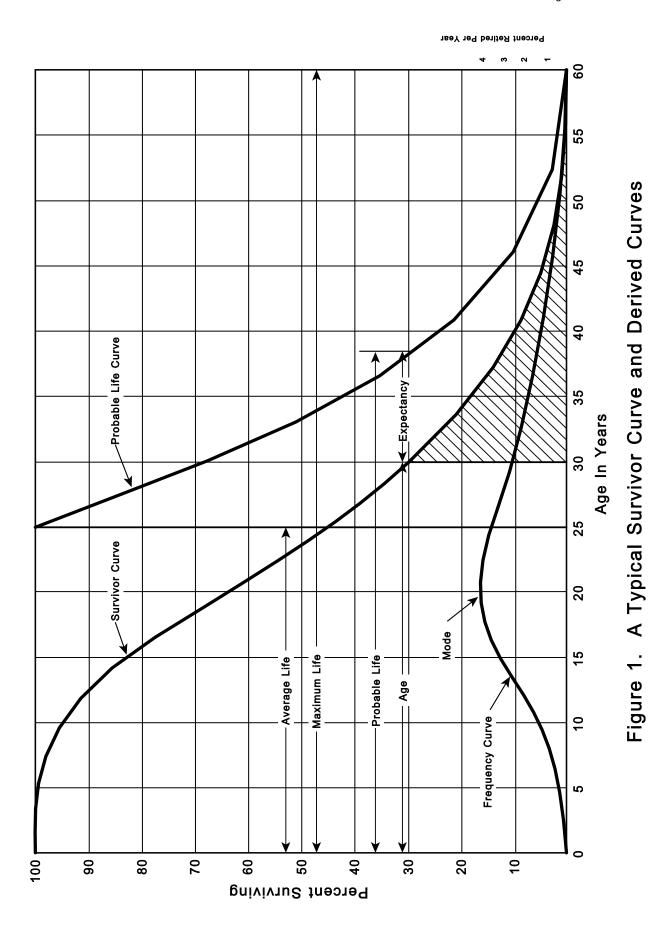
This study has incorporated the use of lowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

#### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the lowa type curves. There are four families in the lowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The lowa curves were developed at the lowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.





**Lannett Fleming** 

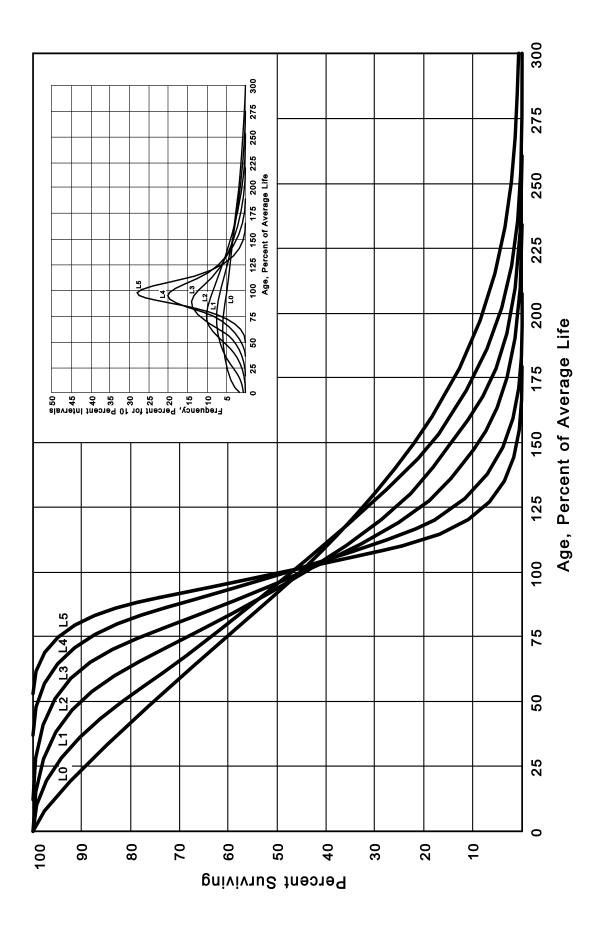


Figure 2. Left Modal or "L" lowa Type Survivor Curves

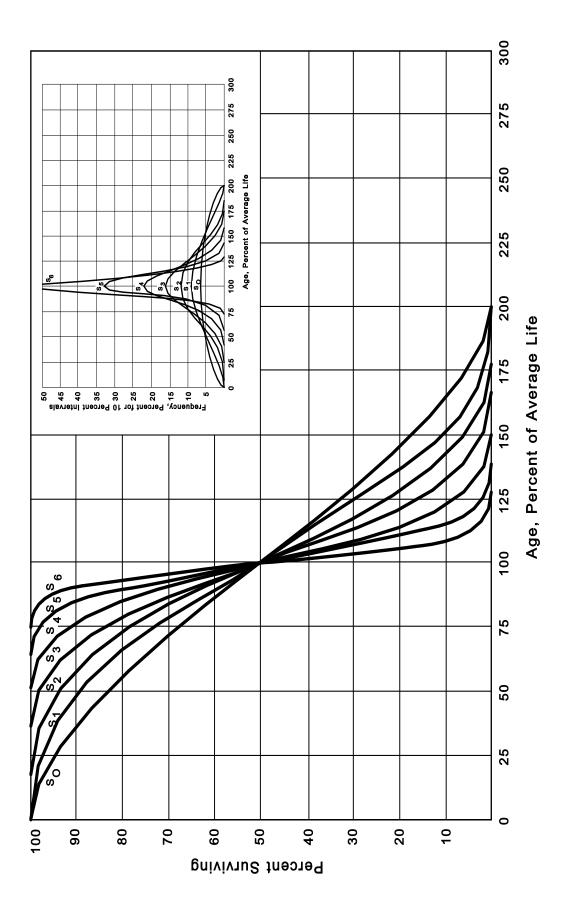


Figure 3. Symmetrical or "S" lowa Type Survivor Curves

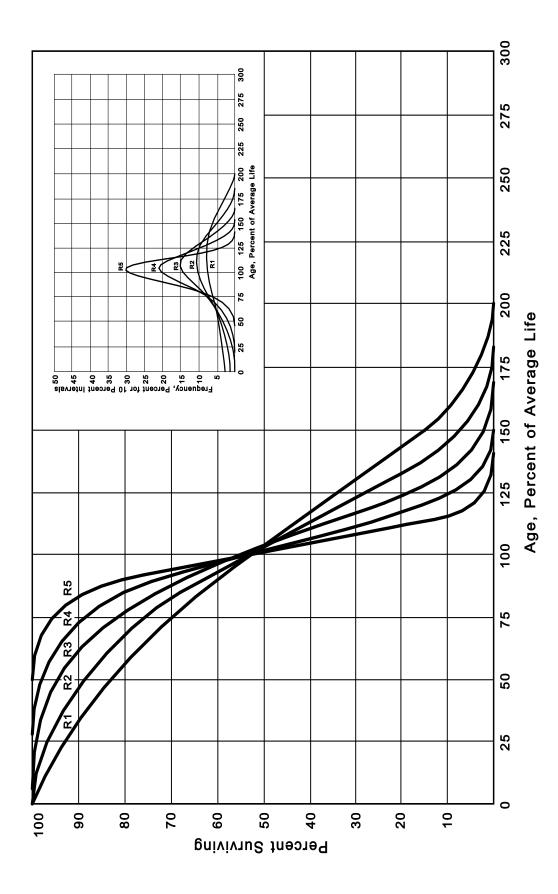
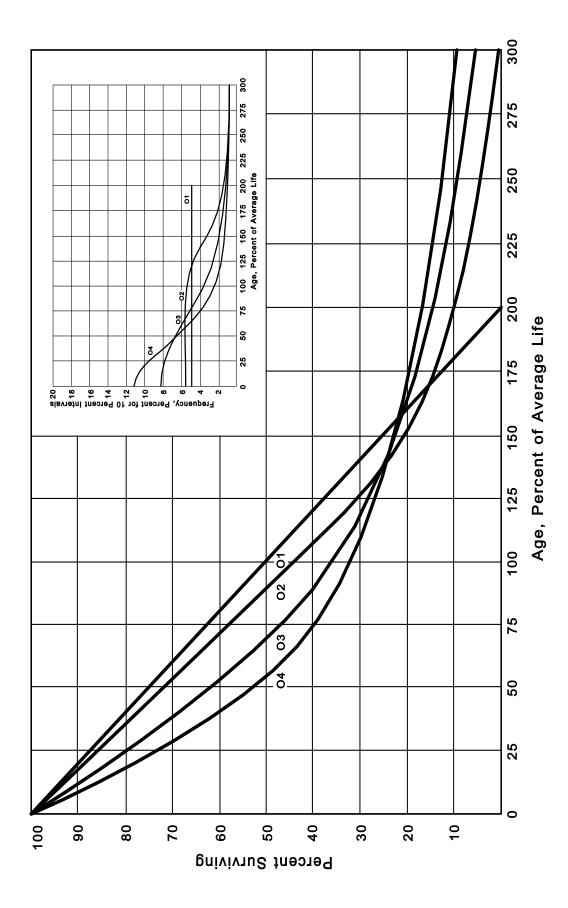


Figure 4. Right Modal or "R" lowa Type Survivor Curves



Origin Modal or "O" lowa Type Survivor Curves Figure 5.

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation." In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

#### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements," Engineering Valuation and Depreciation, and "Depreciation Systems."

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the <u>experience band</u>, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the <u>placement band</u>. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

<sup>&</sup>lt;sup>4</sup>Wolf, Frank K. and W. Chester Fitch. <u>Depreciation Systems</u>. Iowa State University Press. 1994.



<sup>&</sup>lt;sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>&</sup>lt;sup>2</sup>Winfrey, Robley, <u>Statistical Analyses of Industrial Property Retirements</u>. Iowa State College. Engineering Experiment Station, Bulletin 125. 1935.

<sup>&</sup>lt;sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

#### <u>Schedules of Annual Transactions in Plant Records</u>

The property group used to illustrate the retirement rate method is observed for the experience band 2010-2019 during which there were placements during the years 2005-2019. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2005 were retired in 2010. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval  $4\frac{1}{2}$ - $5\frac{1}{2}$  is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2010 retirements of 2005 installations and ending with the 2019 retirements of the 2014 installations. Thus, the total amount of 143 for age interval  $4\frac{1}{2}$ - $5\frac{1}{2}$  equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20$$
.

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2010-2019

	Placement Band 2005-2019		g Age	al Interval	(13)	13½-14½	12½-13½	111/2-121/2	101/2-111/2	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1%	
	Placement Ba		Total During	Age Interval	(12)	26	44	64	83	93	105	113	124	131	143	146	150	151	153	80	1,606
				2019	(11)	26	19	18	17	20	20	20	19	19	20	23	22	22	24	13	308
8102-0103				2018	(10)	25	22	22	16	19	16	18	19	19	19	22	22	23	1		273
SUMMARIZED BY AGE INTERVAL				2017	(6)	24	21	21	15	17	15	16	17	17	17	20	20	7			231
I. RETIREMENTS FOR EACH TE. SUMMARIZED BY AGE INTERVAL		Dollars		2016	(8)	23	20	19	14	16	14	15	16	16	16	18	တ				196
ARIZED BY		ousands of	During Year	2015	(7)	16	18	17	13	14	13	14	15	15	14	∞					157
SUMM		Retirements, Thousands of Dollars	Durin	2014	(9)	4	16	16	7	13	12	13	13	13	7						128
SCHEDUL		Retire		2013	(2)	13	15	14	7	12	7	12	12	9							106
	19			2012	(4)	12	13	13	10	7	10	7	9								98
	Experience Band 2010-2019			2011	(3)	7	12	12	တ	10	တ	2									89
	ience Bar			2010		10	11	7	∞	6	4										53
	Ехреі		Year	Placed	(1)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2010-2019 SUMMARIZED BY AGE INTERVAL

Experience Band 2010-2019

Placement Band 2005-2019

	Age Interval (13)	13½-14½	12½-13½	111/2-121/2	101/2-111/2	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
	Total During <u>Age Interval</u> (12)		•	ı	09	•	(5)	9		ı	ı	10		(121)	1		(20)
	<u>2019</u> (11)		•				•							$(102)^{c}$			(102)
	<u>2018</u> (10)	,	,				•	•			$22^{a}$			•			22
of Dollars	2017 (9)		,		(2) <sub>p</sub>	6 <sup>a</sup>	,	,		(12) <sup>b</sup>		(19) <sup>b</sup>		,			(30)
onsands c	<u>2016</u> (8)	<sub>e</sub> 09				•	•	•	•				•				09
s and Sales, The During Year	<u>2015</u> (7)						•	•									
Acquisitions, Transfers and Sales, Thousands of Dollars During Year	2014 (6)						•	•									
ons, Tran	<u>2013</u> (5)		ı				•										
Acquisiti	201 <u>2</u> (4)		i				•										
	$   \begin{array}{c c}     \hline     2010 & 2011 \\     \hline     (2) & (3)   \end{array} $		,				,	•									
	<u>2010</u> (2)		ı		,	,	ı										
•	Year Placed (1)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total

<sup>&</sup>lt;sup>a</sup> Transfer Affecting Exposures at Beginning of Year

Parentheses Denote Credit Amount.

<sup>&</sup>lt;sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>&</sup>lt;sup>c</sup> Sale with Continued Use

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements but are used in developing the exposures at the beginning of each age interval.

#### Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2010 through 2019 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2015 are calculated in the following manner:

Exposures at age 0 = amount of addition = \$750,000 Exposures at age  $\frac{1}{2}$  = \$750,000 - \$8,000 = \$742,000 Exposures at age  $\frac{1}{2}$  = \$742,000 - \$18,000 = \$724,000 Exposures at age  $\frac{2}{2}$  = \$724,000 - \$20,000 - \$19,000 = \$685,000 Exposures at age  $\frac{3}{2}$  = \$685,000 - \$22,000 = \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 2010-2019 SUMMARIZED BY AGE INTERVAL

Experie	Experience Band 2010-2019	2010-2019	6	Expos	ures, Thou	Exposures, Thousands of Dollars	ollars				Placement Band 2005-2019 Total at	12005-2019
Year			1	Annual Survivors at the Beginning of the Year	ivors at the	Beginning	of the Yea	١,			<ul><li>Beginning of</li></ul>	Age
Placed	2010	2011	2012	2013	2014	2015	<u>2016</u>	2017	2018	2019	Age Interval	Interval
<del>(</del> 1)	(2)	(3)	(4)	(2)	(9)	(-)	(8)	(6)	(10)	(11)	(12)	(13)
2005	255	245	234	222	209	195	239	216	192	167	167	131/2-141/2
2006	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2007	307	296		271	257	241	224	205	184	162	531	111/2-121/2
2008	338	330		311	300	289	276	262	242	226	823	10%-111%
2009	376	367	357	346	334	321	307	297	280	261	1,097	91/2-101/2
2010	420a	416		397	386	374	361	347	332	316	1,503	81/2-91/2
2011		$460^{a}$		444	432	419	405	390	374	326	1,952	71/2-81/2
2012			510a	504	492	479	464	448	431	412	2,463	61/2-71/2
2013				$580^{a}$	574	561	546	530	501	482	3,057	51/2-61/2
2014					e009	653	639	623	628	609	3,789	41/2-51/2
2015						$750^{a}$	742	724	685	663	4,332	31/2-41/2
2016							$850^{a}$	841	821	799	4,955	21/2-31/2
2017								960a	949	926	5,719	11/2-21/2
2018									$1,080^{a}$	1,069	6,579	1/2-11/2
2019										1,220a	7,490	0-1/2
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	

<sup>a</sup>Additions during the year

For the entire experience band 2010-2019, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

#### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

```
88.15
Percent surviving at age 4½
Exposures at age 4½
                                 = 3.789,000
Retirements from age 4\frac{1}{2} to 5\frac{1}{2}
                                      143,000
Retirement Ratio
                                      143,000 \div 3,789,000 = 0.0377
                                 =
Survivor Ratio
                                        1.000 -
                                                    0.0377 = 0.9623
                                 =
Percent surviving at age 5½
                                       (88.15) x
                                                  (0.9623) =
                                                                 84.83
```

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless. The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.



## SCHEDULE 4. ORIGINAL LIFE TABLE CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2010-2019

Placement Band 2005-2019

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	167	26	0.1557	0.8443	42.24
14.5					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.



#### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The lowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the lowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R lowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 lowa curve would be selected as the most representative of the plotted survivor characteristics of the group.



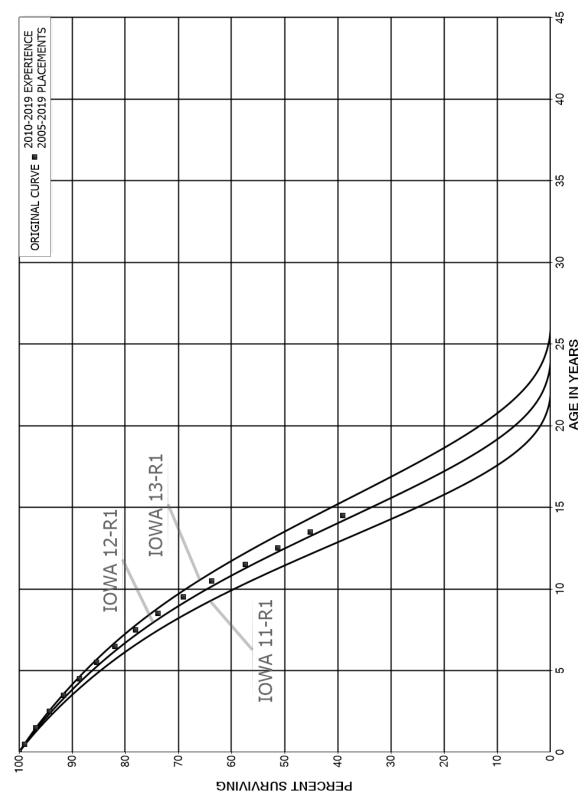
L1 IOWA TYPE CURVE 2010-2019 EXPERIENCE 2005-2019 PLACEMENTS 9 ORIGINAL CURVE ■ 35 30 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 13-L1 20 25 AGE IN YEARS 15 9 5 FIGURE <del>ا</del>ه 8 70 40 30 20 9 8 20 РЕВСЕИТ ЅИВУІУІИС

6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN

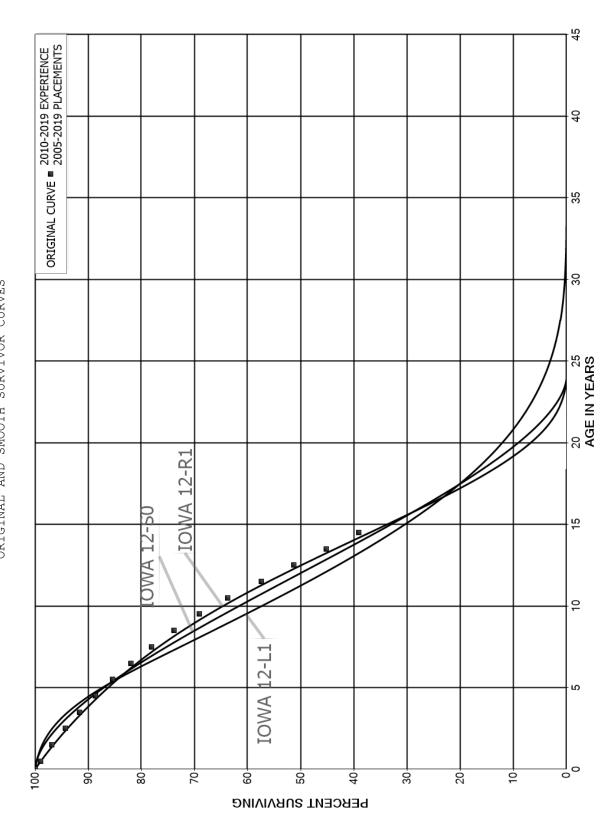
SO IOWA TYPE CURVE 2010-2019 EXPERIENCE 2005-2019 PLACEMENTS 9 ORIGINAL CURVE ■ 35 30 ORIGINAL AND SMOOTH SURVIVOR CURVES 20 25 AGE IN YEARS IOWA 13-S0 IOWA 12<del>-</del>S0 15 9 IOWA 11-S0 5 <del>ا</del>ه 8 70 50 40 30 20 9 8 РЕВСЕИТ SURVIVING

THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN FIGURE 7. ILLUSTRATION OF

R1 IOWA TYPE CURVE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN ORIGINAL AND SMOOTH SURVIVOR CURVES FIGURE



AND R1 IOWA TYPE CURVE 80 L1, FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN ORIGINAL AND SMOOTH SURVIVOR CURVES



## PART III. SERVICE LIFE CONSIDERATIONS

#### PART III. SERVICE LIFE CONSIDERATIONS

#### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, a field trip was conducted for the study. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the initial field trip.

#### December 9, 2019

Papillion Service Center

Westmont #14 Regulating Station

Westmont #12 and #15 Regulating Station

Gretna #3 and #4 Regulating Station

Gretna #1 Regulating Station

Gretna #2 Regulating Station

Gretna #5 Regulating Station

Gretna Concrete Meter Set

#### December 10, 2019

Lincoln Service Center

Lincoln 1B Town Border Station

Lincoln 1A Town Border Station

District Regulating Station #54

District Regulating Station #96

#### **SERVICE LIFE ANALYSIS**

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other gas companies.



For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 96 percent of depreciable plant. Generally, the information external to the statistics led to little to no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

#### TRANSMISSION PLANT

369.03 Measuring and Regulating Station Equipment

	DISTE	RIBU	JTION	PL/	ANT
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375.01	Structures and Improvements
376.00	Mains
378.00	Measuring and Regulating Station Equipment
380.00	Services
381.00	Meters – Small Volume and Other
381.00	Meters – ERT, AMR and AMI
382.01	Meter Installations
383.01	House Regulators
383.71	House Regulators – Farm Taps
384.01	House Regulator Installations
385.00	Industrial Measuring and Regulating Station Equipment

#### GENERAL PLANT

390.01	Structures and Improvements
392.02	Transportation Equipment – Cars
392.03	Transportation Equipment – Light Trucks
392.04	Transportation Equipment – Medium Trucks
392.05	Transportation Equipment – Heavy Trucks
396.00	Power Operated Equipment

The estimated survivor curves for most of the mass property accounts are based on statistical analyses of plant accounting data and the range of lives and type curves used for other companies in the gas industry. Account 376.00, Mains has a survivor curve estimate of 70-R2.5 which is consistent with the statistical indications for the period 1998

through 2019. The lowa 70-R2.5 is a good fit of the stub curve for Mains through age 80 and is consistent with the outlook for this account. The 70-year service life is within the typical service life range of 55 to 75 years for mains. Based on these considerations, the 70-R2.5 survivor curve is the most reasonable estimate for this account.

Account 378.00, Measuring and Regulating Station Equipment has aged plant accounting data compiled for the years 1998 through 2019. The survivor curve estimate of 45-S1 is comparable to the statistical indications for the period 1998 through 2019. The lowa 45-S1 is an excellent fit of the entire stub curve for Measuring and Regulating Station Equipment and is consistent with the company's outlook for this account. The 45-year service life is within the typical service life range of 40 to 55 years for Measuring and Regulating Station Equipment. Based on these considerations, the 45-S1 survivor curve is the most reasonable estimate for this account.

Account 380.00, Services has aged plant accounting data compiled for the years 1998 through 2019. The survivor curve estimate of 40-S0 is consistent with the statistical indications for the period 1998 through 2019. The lowa 40-S0 is a good fit of the stub curve for Services through age 67 and is consistent with the outlook for this account. The 40-year service life is at the lower end of the typical service life range of 40 to 55 years for services, however, is consistent with the Company's practices relating to assets in this account. Based on these considerations, the 40-S0 survivor curve is the most reasonable estimate for this account.

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other gas companies.



The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."



### PART IV. NET SALVAGE CONSIDERATIONS

#### PART IV. NET SALVAGE CONSIDERATIONS

#### **SALVAGE ANALYSIS**

The estimates of net salvage by account were based in part on historical data compiled for the years 2010 through 2019. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

#### **Net Salvage Considerations**

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 2010-2019 were major factors in determining net salvage estimates combined with judgment and estimates of other gas companies.

The net salvage results for Account 376.00, Mains, is used to illustrate the methods for estimating net salvage. The net salvage estimate for Mains is negative 30 percent and is based on the historical analysis of net salvage percents for the period, 2010



through 2019. The overall net salvage percent for this period is negative 28 percent with the most recent five-year average, 2015-2019, trending to negative 45 percent. The estimate of negative 30 percent is within the industry range of negative 10 percent to negative 60 percent used by other gas utilities for Mains. Based on these considerations, the negative 30 percent is the most reasonable estimate for this account.

Account 380.00, Services, is another large account used to illustrate the net salvage estimation. The net salvage estimate for Services is negative 40 percent and is based on the historical analysis of net salvage percents for the period, 2010-2019. The overall net salvage percent for this period is negative 26 percent with cost of removal trending much higher over the last five years. The most recent five-year average for net salvage is negative 47 percent which is more negative than the estimate. The estimate of negative 40 percent is within the industry average of negative 25 percent to negative 150 percent used by other gas utilities for Services. Based on these considerations, the negative 40 percent is the most reasonable estimate for this account.

Account 392.02, Transportation Equipment - Cars, is another account used to illustrate the methods of estimating net salvage. The net salvage estimate for Transportation Equipment – Cars is positive 10 percent and is based on the historical analysis of net salvage percents for the period, 2010-2019. The overall net salvage percent for this period is 9 percent with the most recent five-year average trending more positive to 12 percent. The estimate of 10 percent is within the industry average of 0 percent to 25 percent used by other gas utilities for Transportation Equipment - Cars.



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Based on these considerations, 10 percent is the most reasonable estimate for this account.

The net salvage estimates for the remaining accounts were estimated using the above-described process of historical indications, judgment and reviewing the typical range of estimates used by other gas companies. The results of the net salvage for each plant account are presented in account sequence beginning in the section titled "Net Salvage Statistics", page VIII-2.

Generally, the net salvage estimates for remaining amortized general plant accounts were zero percent, consistent with amortization accounting.



# PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION



# PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

#### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

#### Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4+6)}$$
 = \\$100 per year.

The accrued depreciation is:

$$$1,000\left(1-\frac{6}{10}\right)=$400.$$



#### Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of November 30, 2019, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of November 30, 2019, are set forth in the Results of Study section of the report.

#### **Average Service Life Procedure**

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$Ratio = 1 - \frac{Average Remaining Life}{Average Service Life}$$



#### CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable gas plant in service. The accounts and their amortization periods are as follows:

		Amortization
	<u>Account</u>	Period,
		<u>Years</u>
391.01	Office Furniture and Equipment	20
391.03	Computer Hardware	5
391.04	Software	5
391.07	iPad Hardware	5
393.00	Stores Equipment	25
394.00	Tools, Shop, and Garage Equipment	25
395.00	Laboratory Equipment	20
397.00	Communication Equipment	15
398.00	Miscellaneous Equipment	20

For the purpose of calculating annual amortization amounts as of November 30, 2019, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.



## **PART VI. RESULTS OF STUDY**



#### PART VI. RESULTS OF STUDY

#### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the gas plant in service as of November 30, 2019. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to November 30, 2019, is reasonable for a period of three to five years.

#### **DESCRIPTION OF STATISTICAL SUPPORT**

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other gas utilities. The results of the statistical analysis of service life are presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of



the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which where plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

#### **DESCRIPTION OF DETAILED TABULATIONS**

A summary of the results of the study, as applied to the original cost of gas plant at November 30, 2019, is presented on pages VI-5 through VI-7 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to gas plant.

The tables of the calculated annual depreciation applicable to depreciable assets as of November 30, 2019 are presented in account sequence starting on page IX-2 of the supporting documents. The tables indicate the estimated survivor curve and net salvage



percent for the account and set forth, for each installation year, the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.



TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF NOVEMBER 30, 2019

	TMICOOK	SURVIVOR	NET SALVAGE	ORIGINAL COST AS OF	BOOK DEPRECIATION	FUTURE	CALCULATED ANNUAL ACCRUAL	LATED CCRUAL PATE	COMPOSITE REMAINING
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(2)/(9)=(6)
	DEPRECIABLE PLANT								
	INTANGIBLE PLANT								
302.00	FRANCHISES AND CONSENTS	30-80	0	121,062.49	117,148	3,914	704	0.58	5.6
303.00 303.01	MISCELLANEOUS IN ANGIBLE PLANI MISCELLANEOUS INTANGIBLE PLANT - EASEMENTS	15-5Q 20-SQ	00	742,880.94 500,000.00	585,015 283,333	157,866 216,667	49,089 25,253	6.61 5.05	3.2 8.6
	TOTAL INTANGIBLE PLANT			1,363,943.43	985,496	378,447	75,046	5.50	
	TRANSMISSION PLANT								
365.03	LAND AND LAND RIGHTS - RIGHTS OF WAY	70-R4	0	170,272.49	116,001	54,271	1,299	0.76	41.8
366.01	STRUCTURES AND IMPROVEMENTS MAINS	60-R4 70-R3	0 0	8,173.65	6,835	1,339	40 26 467	0.49	33.5
369.03	MEASURING AND REGULATING STATION EQUIPMENT	45-R2	(2)	624,131.57	318,002	337,336	12,979	2.08	26.0
	TOTAL TRANSMISSION PLANT			6,161,196.61	4,501,766	1,690,637	40,785	0.66	
	DISTRIBUTION PLANT								
374.03	LAND AND LAND RIGHTS	75-R4	0	5,981,058.73	2,099,335	3,881,724	56,566	0.95	9.89
375.01	STRUCTURES AND IMPROVEMENTS STRUCTURES AND IMPROVEMENTS - OTHER	60-R1 45-R3	0 0	4,779,829.56	2,941,673	1,838,157	36,546	0.76	50.3
376.00	MAINS	70-R2.5	(30)	368,534,043.19	151,043,192	328,051,064	5,358,903	1.45	61.2
378.00	MEASURING AND REGULATING STATION EQUIPMENT	45-S1	(15)	20,627,024.28	4,306,617	19,414,461	558,236	2.71	34.8
380.00	MEASONING AND REGOLATING STATION EQUIPMENT - CITT GATE SERVICES	40-S0	(40)	132,537,973.28	41,999,727	3,072,301 143,553,436	4,695,090	3.54	30.6
381.00	METERS SMALL VOLLIME AND OTHER	000	c	000 000	000	40 474 506	600	2	6
	SWALL VOLUME AND OTHER ERT, AMR AND AMI	13-S1.5	00	21,057,410.09	12,404,550	8,652,860	1,349,841	6.41	6.4
	TOTAL METERS			42,451,357.41	20,626,961	21,824,396	2,031,439	4.79	
382.01	METER INSTALLATIONS	36-R2	(2)	15,027,221.02	6,768,889	8,558,876	400,767	2.67	21.4
383.01	HOUSE REGULATORS HOUSE REGULATORS - FARM TAPS	40-R2 40-R2	(15)	64,404,962.63	13,582,974	60,482,733	2,102,069 15,621	3.26	28.8
384.01	HOUSE REGULATOR INSTALLATIONS	47-R4	(2)	1,517,403.30	1,170,752	422,521	18,367	1.21	23.0
385.00	INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT	38-R0.5	0 (	8,058,395.01	956,325	7,102,070	207,519	2.58	34.2
386.00	OTHER PROPERTY ON COSTOMERS PREMISES OTHER EQUIPMENT	20-R4 25-R2.5	00	35,278.87 206,519.79	33,764 128,073	1,515 78,447	366 4,264	1.04	4.1 18.4
	TOTAL DISTRIBUTION PLANT			669,304,085.06	247,782,554	598,903,866	15,549,688	2.32	

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF NOVEMBER 30, 2019

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF NOVEMBER 30, 2019	BOOK DEPRECIATION RESERVE	FUTURE	CALCULATED ANNUAL ACCRUAL AMOUNT RAT	ATED CCRUAL RATE	COMPOSITE REMAINING LIFE
	<del>(E)</del>	(3)	ව	(4)	(2)	(9)	<u>(</u>	(8)=(7)/(4)	(2)/(9)=(6)
	GENERAL PLANT								
390.01 390.51	STRUCTURES AND IMPROVEMENTS LEASEHOLD IMPROVEMENTS	38-R2 15-S1	(5)	22,478,214.22 96,461.46	123,211 66,163	23,478,914 30,298	670,911 8,948	2.98	35.0 3.4
391.01	OFFICE FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT FULLY ACCRUED AMORTIZED	20-SQ	0	1,134.23 415,193.62	1,134 81,543	333,651	0 20,751	5.00	- 16.1
	TOTAL OFFICE FURNITURE AND EQUIPMENT			416,327.85	82,677	333,651	20,751	4.98	
391.03	COMPUTER HARDWARE FULLY ACCRUED AMORTIZED	5-SQ	0	6,175.74 544,785.01	6,176	0 374,204	0 108,941	20.00	3.4
	TOTAL COMPUTER HARDWARE			550,960.75	176,757	374,204	108,941	19.77	
391.04	SOFTWARE FULLY ACCRUED AMORTIZED	5-SQ	0	168,549.44 1,550.56	168,549 142	0,1,409	310	19.99	. 4.5
	TOTAL SOFTWARE			170,100.00	168,691	1,409	310	0.18	
391.07	IPAD HARDWARE	5-SQ	0	581,994.77	53,544	528,451	116,399	20.00	4.5
	TOTAL OFFICE FURNITURE AND EQUIPMENT			1,719,383.37	481,669	1,237,715	246,401	14.33	
392.02 392.03 392.04 392.05	TRANSPORTATION EQUIPMENT CARS LIGHT TRUCKS MEDIUM TRUCKS HEAVY TRUCKS TRAILERS	9-S3 9-L3 8-L2 11-R3	10 25 25 5	3,928,687.04 17,523,332.34 127,109,01 3,070,645,01 816,542.88	2,608,027 5,858,296 37,019 1,687,747 381,137	927,791 7,284,203 58,313 1,229,366 435,406	387,805 1,226,077 15,961 146,182 53,848	9.87 7.00 12.56 4.76 6.59	2.5.9.9.7.8.8.4.4.1.8.8.1.8.9.1.8.9.1.9.1.9.1.9.1.9.1.9.1
	TOTAL TRANSPORTATION EQUIPMENT			25,466,316.28	10,572,226	9,935,079	1,829,873	7.19	28.5
393.00	STORES EQUIPMENT	25-SQ	0	28,177.52	5,180	22,998	1,127	4.00	20.4
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT FULLY ACCRUED AMORTIZED	25-SQ	0	85,929.22 8,190,435.44	85,929 2,395,107	0 5,795,328	0 327,313	4.00	. 7.71
	TOTAL TOOLS, SHOP AND GARAGE EQUIPMENT			8,276,364.66	2,481,036	5,795,328	327,313	3.95	
395.00	LABORATORY EQUIPMENT FULLY ACCRUED AMORTIZED	20-SQ	0	6,915.47 81,887.05	6,915 49,617	0 32,270	0 4,098	5.00	6.7
	TOTAL LABORATORY EQUIPMENT			88,802.52	56,532	32,270	4,098	4.61	

BLACK HILLS NEBRASKA

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF NOVEMBER 30, 2019

	TMIOSSA	SURVIVOR	NET SALVAGE PERCENT	ORIGINAL COST AS OF	BOOK DEPRECIATION PESSEDVE	FUTURE	CALCULATED ANNUAL ACCRUAL	ATED CCRUAL PATE	COMPOSITE REMAINING
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)=(7)/(4)	(2)/(9)=(6)
396.00	) POWER OPERATED EQUIPMENT	13-L1.5	10	5,766,088.78	2,861,009	2,328,471	220,896	3.83	10.5
397.00	COMMUNICATION EQUIPMENT FULLY ACCRUED AMORTIZED	15-SQ	0	909.41 845,170.99	909 438,292	0 406,879	0 56,342	- 6.67	- 7.2
	TOTAL COMMUNICATION EQUIPMENT			846,080.40	439,201	406,879	56,342	99.9	
398.00	) MISCELLANEOUS EQUIPMENT	20-SQ	0	904,316.55	162,103	742,214	45,183	5.00	16.4
	TOTAL GENERAL PLANT			65,670,205.76	17,248,330	44,010,166	3,411,092	5.19	
	UNRECOVERED RESERVE TO BE AMORTIZED								
391.01 391.03 391.07 393.00 394.00 395.00 397.00	OFFICE FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT - COMPUTER HARDWARE OFFICE FURNITURE AND EQUIPMENT - SOFTWARE OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE STORES EQUIPMENT TOOLS, SHOP AND GARAGE EQUIPMENT LABORATORY EQUIPMENT COMMUNICATION EQUIPMENT MISCELLANEOUS EQUIPMENT				(353,919) (886,191) (804,822) (5,565) 2,321 648,385 (6,617) 224,266 121,280		70,784 177,238 160,964 1,113 (129,677) 1,323 (44,853)		
	TOTAL UNRECOVERED RESERVE TO BE AMORTIZED				(1,060,862)		212,172		
	TOTAL DEPRECIABLE GAS PLANT			742,499,430.86	269,457,284	644,983,116	19,288,783	2.60	
	NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED								
301.00				256.00	256				
374.01 374.02	LAND LAND AND LAND RIGHTS			1,540,540.48 176,100.00	(5,554) 0				
389.01 389.02				5,210,058.38 1,134,618.31	(42,203)				
	TOTAL NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED			8,061,573.17	(47,501)				
	TOTAL GAS PLANT			750,561,004.03	269,409,783	644,983,116	19,288,783		

### **PART VII. SERVICE LIFE STATISTICS**



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ORIGINAL CURVE ■ 1998-2019 EXPERIENCE 1938-1995 PLACEMENTS 9 IOWA 70-R4 ACCOUNT 365.03 LAND AND LAND RIGHTS - RIGHTS OF WAY ORIGINAL AND SMOOTH SURVIVOR CURVES 8 BLACK HILLS NEBRASKA AGE IN YEARS 9 2 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

#### ACCOUNT 365.03 LAND AND LAND RIGHTS - RIGHTS OF WAY

#### ORIGINAL LIFE TABLE

PLACEMENT I	BAND 1938-1995		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5	AGE INTERVAL	INTERVAL	NATIO	KATTO	INTERVAL
1.5 2.5	41,542		0.0000	1.0000	100.00
3.5	41,542		0.0000	1.0000	100.00
4.5	41,542		0.0000	1.0000	100.00
5.5	41,542		0.0000	1.0000	100.00
6.5	41,542		0.0000	1.0000	100.00
7.5	41,542		0.0000	1.0000	100.00
8.5	41,542		0.0000	1.0000	100.00
9.5	41,542		0.0000	1.0000	100.00
10.5	41,542		0.0000	1.0000	100.00
11.5	41,542		0.0000	1.0000	100.00
12.5	41,542		0.0000	1.0000	100.00
13.5	41,542		0.0000	1.0000	100.00
14.5	41,542		0.0000	1.0000	100.00
15.5	41,542		0.0000	1.0000	100.00
16.5	41,542		0.0000	1.0000	100.00
17.5	41,542		0.0000	1.0000	100.00
18.5	169,440		0.0000	1.0000	100.00
19.5	169,440		0.0000	1.0000	100.00
20.5	169,440		0.0000	1.0000	100.00
21.5	169,440		0.0000	1.0000	100.00
22.5	169,440		0.0000	1.0000	100.00
23.5	169,440		0.0000	1.0000	100.00
24.5	127,898		0.0000	1.0000	100.00
25.5	127,898		0.0000	1.0000	100.00
26.5	127,898		0.0000	1.0000	100.00
27.5	127,898		0.0000	1.0000	100.00
28.5	127,898		0.0000	1.0000	100.00
29.5	128,442		0.0000	1.0000	100.00
30.5	544		0.0000	1.0000	100.00
31.5	544		0.0000	1.0000	100.00
32.5	544		0.0000	1.0000	100.00
33.5	544		0.0000	1.0000	100.00
34.5	544		0.0000	1.0000	100.00
35.5	544		0.0000	1.0000	100.00
36.5	544		0.0000	1.0000	100.00
37.5	544		0.0000	1.0000	100.00
38.5	544		0.0000	1.0000	100.00

#### ACCOUNT 365.03 LAND AND LAND RIGHTS - RIGHTS OF WAY

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1938-1995		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS		GIIDII	PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	544		0.0000	1.0000	100.00
40.5	544		0.0000	1.0000	100.00
41.5	544		0.0000	1.0000	100.00
42.5	544		0.0000	1.0000	100.00
43.5	544		0.0000	1.0000	100.00
44.5	544		0.0000	1.0000	100.00
45.5	544		0.0000	1.0000	100.00
46.5	544		0.0000	1.0000	100.00
47.5	544		0.0000	1.0000	100.00
48.5	804		0.0000	1.0000	100.00
49.5	804		0.0000	1.0000	100.00
50.5	804		0.0000	1.0000	100.00
51.5	261		0.0000	1.0000	100.00
52.5	261		0.0000	1.0000	100.00
53.5	261		0.0000	1.0000	100.00
54.5	261		0.0000	1.0000	100.00
55.5	261		0.0000	1.0000	100.00
56.5	261		0.0000	1.0000	100.00
57.5	261		0.0000	1.0000	100.00
58.5	261		0.0000	1.0000	100.00
59.5	289		0.0000	1.0000	100.00
60.5	289		0.0000	1.0000	100.00
61.5	289		0.0000	1.0000	100.00
62.5	289		0.0000	1.0000	100.00
63.5	289		0.0000	1.0000	100.00
64.5	289		0.0000	1.0000	100.00
65.5	289		0.0000	1.0000	100.00
66.5	289		0.0000	1.0000	100.00
67.5	289		0.0000	1.0000	100.00
68.5	289		0.0000	1.0000	100.00
69.5	289		0.0000	1.0000	100.00
70.5	28		0.0000	1.0000	100.00
71.5	28		0.0000	1.0000	100.00
72.5	28		0.0000	1.0000	100.00
73.5	28		0.0000	1.0000	100.00
74.5	28		0.0000	1.0000	100.00
75.5	28		0.0000	1.0000	100.00
76.5	28		0.0000	1.0000	100.00
77.5	28		0.0000	1.0000	100.00
78.5	28		0.0000	1.0000	100.00

#### ACCOUNT 365.03 LAND AND LAND RIGHTS - RIGHTS OF WAY

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT :	BAND 1938-1995		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5	28 28		0.0000	1.0000	100.00 100.00 100.00



120 ORIGINAL CURVE ■ 1998-2019 EXPERIENCE 1990-1995 PLACEMENTS 8 8 **IDWA 60-R4** AGE IN YEARS 9 2 <del>ا</del>ه 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

BLACK HILLS NEBRASKA ACCOUNT 366.01 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES

#### ACCOUNT 366.01 STRUCTURES AND IMPROVEMENTS

#### ORIGINAL LIFE TABLE

PLACEMENT H	BAND 1990-1995		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5	2,147		0.0000	1.0000	100.00
3.5 4.5 5.5	2,147 2,147 2,147 2,147		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	100.00 100.00 100.00
6.5 7.5 8.5	2,147 2,147 2,147 2,147		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	100.00 100.00 100.00
9.5 10.5 11.5	2,147 2,147 2,147		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	100.00 100.00 100.00
12.5 13.5 14.5	2,147 2,147 2,147		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	100.00 100.00 100.00
15.5 16.5 17.5 18.5	2,147 2,147 8,174 8,174		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5	8,174 8,174 8,174 8,174		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00
23.5 24.5 25.5 26.5 27.5	8,174 6,027 6,027 6,027 6,027		0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00
28.5 29.5	6,027		0.0000	1.0000	100.00

120 ORIGINAL CURVE = 1930-2019 EXPERIENCE 1930-2017 PLACEMENTS 8 8 AGE IN YEARS 9 2 6 9 8 -09 40 20-9 РЕВСЕИТ ЗИВУІУІИС

🙇 Gannett Fleming

BLACK HILLS NEBRASKA ACCOUNT 367.00 MAINS ORIGINAL AND SMOOTH SURVIVOR CURVES

#### ACCOUNT 367.00 MAINS

#### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1930-2017		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	654,648 654,648 678,694 1,406,473 1,403,887 1,403,887 1,670,618 2,187,146 1,590,296		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,590,296 1,590,296 1,590,296 1,590,297 1,590,297 1,590,297 1,590,477 1,590,477 4,694,950 4,694,950		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	4,694,789 4,685,500 4,685,500 4,433,108 4,409,626 3,649,310 3,652,443 3,652,443 3,652,022 3,107,931	1,866	0.0000 0.0000 0.0004 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9996 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 99.96 99.96 99.96 99.96 99.96 99.96
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	26,249 22,717 22,717 22,849 23,354 23,492 23,547 23,547 25,889 25,889	400	0.0152 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9848 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.96 98.44 98.44 98.44 98.44 98.44 98.44 98.44 98.44

#### ACCOUNT 367.00 MAINS

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1930-2017		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5 40.5	25,889 25,889		0.0000	1.0000	98.44 98.44
41.5 42.5	25,804 25,804		0.0000	1.0000 1.0000	98.44 98.44
43.5	25,801		0.0000	1.0000	98.44
44.5	25,745		0.0000	1.0000	98.44
45.5	25,745		0.0000	1.0000	98.44
46.5	3,351		0.0000	1.0000	98.44
47.5	3,351		0.0000	1.0000	98.44
48.5	36,098		0.0000	1.0000	98.44
49.5	35,786		0.0000	1.0000	98.44
50.5	35,281		0.0000	1.0000	98.44
51.5	37,046		0.0000	1.0000	98.44
52.5	36,991		0.0000	1.0000	98.44
53.5	36,991		0.0000	1.0000	98.44
54.5	34,649		0.0000	1.0000	98.44
55.5	34,649		0.0000	1.0000	98.44
56.5	34,649		0.0000	1.0000	98.44
57.5	34,649		0.0000	1.0000	98.44
58.5	34,649		0.0000	1.0000	98.44
59.5	35,038		0.0000	1.0000	98.44
60.5	85,295		0.0000	1.0000	98.44
61.5	84,906		0.0000	1.0000	98.44
62.5	84,906		0.0000	1.0000	98.44
63.5	84,906		0.0000	1.0000	98.44
64.5	84,906		0.0000	1.0000	98.44
65.5	1,902		0.0000	1.0000	98.44
66.5	1,902		0.0000	1.0000	98.44
67.5	1,902		0.0000	1.0000	98.44
68.5					98.44
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

#### ACCOUNT 367.00 MAINS

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2017 EXPERIENCE BAND					D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5					
83.5	120,238		0.0000		
84.5	285,225		0.0000		
85.5	284,247		0.0000		
86.5	284,247		0.0000		
87.5	284,247		0.0000		
88.5	164,009		0.0000		
89.5					

9 1998-2019 EXPERIENCE 1938-2008 PLACEMENTS 8 ORIGINAL CURVE ■ 8 ACCOUNT 369.03 MEASURING AND REGULATING STATION EQUIPMENT 2 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 45-R2 9 BLACK HILLS NEBRASKA AGE IN YEARS 9 30 20 9 100 8 5 -09 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

**\_\_\_\_\_ &** Gannett Fleming

#### ACCOUNT 369.03 MEASURING AND REGULATING STATION EQUIPMENT

#### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1938-2008		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	238,460		0.0000	1.0000	100.00
0.5	250,910		0.0000	1.0000	100.00
1.5	250,910		0.0000	1.0000	100.00
2.5	297,891		0.0000	1.0000	100.00
3.5	300,681		0.0000	1.0000	100.00
4.5	304,267	9,068	0.0298	0.9702	100.00
5.5	380,427	24,606	0.0647	0.9353	97.02
6.5	343,155		0.0000	1.0000	90.74
7.5	337,910		0.0000	1.0000	90.74
8.5	358,127		0.0000	1.0000	90.74
9.5	358,127		0.0000	1.0000	90.74
10.5	359,851		0.0000	1.0000	90.74
11.5	367,065		0.0000	1.0000	90.74
12.5	364,239		0.0000	1.0000	90.74
13.5	161,258		0.0000	1.0000	90.74
14.5	168,160		0.0000	1.0000	90.74
15.5	176,148		0.0000	1.0000	90.74
16.5	176,148		0.0000	1.0000	90.74
17.5	458,038	19,975	0.0436	0.9564	90.74
18.5	445,600		0.0000	1.0000	86.79
19.5	445,600		0.0000	1.0000	86.79
20.5	443,766		0.0000	1.0000	86.79
21.5	437,525	3,281	0.0075	0.9925	86.79
22.5	420,017		0.0000	1.0000	86.14
23.5	420,017		0.0000	1.0000	86.14
24.5	388,442		0.0000	1.0000	86.14
25.5	388,059		0.0000	1.0000	86.14
26.5	374,797		0.0000	1.0000	86.14
27.5	321,234		0.0000	1.0000	86.14
28.5	321,234		0.0000	1.0000	86.14
29.5	21,057		0.0000	1.0000	86.14
30.5	21,446		0.0000	1.0000	86.14
31.5	21,694	7,538	0.3475	0.6525	86.14
32.5	14,208		0.0000	1.0000	56.21
33.5	6,749		0.0000	1.0000	56.21
34.5	1,092		0.0000	1.0000	56.21
35.5	1,103		0.0000	1.0000	56.21
36.5	1,101		0.0000	1.0000	56.21
37.5	1,352		0.0000	1.0000	56.21
38.5	1,354		0.0000	1.0000	56.21

## ACCOUNT 369.03 MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT B	AND 1938-2008		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,151 1,354 1,196 1,196 1,196 807 807 765 765 499	12	0.0000 0.0000 0.0000 0.0000 0.0000 0.0145 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 0.9855 1.0000 1.0000	56.21 56.21 56.21 56.21 56.21 56.21 56.21 55.39 55.39
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	492 486 443 384 384 213 197 178 170	57	0.0000 0.0000 0.1279 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.8721 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	55.39 55.39 55.39 48.31 48.31 48.31 48.31 48.31 48.31
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5 70.5 71.5 72.5 73.5	389 389 389 389 389 389 389 389 389 389		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		48.31

76.5

120 ORIGINAL CURVE = 1930-2019 EXPERIENCE 1930-2019 PLACEMENTS 8 IOWA 75-R4 8 AGE IN YEARS 9 2 <del>ا</del>ه 6 30 8 -09 50 40 20-9 8 РЕВСЕИТ ЗИВУІУІИС

**i** Gannett Fleming

BLACK HILLS NEBRASKA ACCOUNT 374.03 LAND AND LAND RIGHTS ORIGINAL AND SMOOTH SURVIVOR CURVES

## ACCOUNT 374.03 LAND AND LAND RIGHTS

PLACEMENT E	BAND 1930-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	3,603,721 3,665,541 2,107,285 2,114,561 1,824,826 1,654,410 1,157,242 1,013,924 663,403 675,843		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	221,640 205,079 209,673 288,933 262,418 546,484 680,878 994,467 972,623 1,009,241	1,007	0.0000 0.0049 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9951 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 99.51 99.51 99.51 99.51 99.51 99.51 99.51
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	976,283 977,250 676,302 537,975 225,980 352,327 312,267 278,015 283,686 234,001	36 5 396 25 700	0.0000 0.0000 0.0000 0.0000 0.0000 0.0013 0.0001 0.0000 0.0030	1.0000 1.0000 1.0000 1.0000 1.0000 0.9987 0.9999 1.0000 0.9970	99.51 99.51 99.51 99.50 99.50 99.50 99.38 99.37
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	244,875 253,840 100,083 106,035 95,367 66,548 69,309 55,221 42,872 42,592	160 10 51	0.0007 0.0000 0.0001 0.0005 0.0000 0.0000 0.0000 0.0000	0.9993 1.0000 0.9999 0.9995 1.0000 1.0000 1.0000 1.0000	99.07 99.01 99.00 98.95 98.95 98.95 98.95 98.95

## ACCOUNT 374.03 LAND AND LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

	OKIC	TINAL LIFE TABLE,	COIVI.		
PLACEMENT I	BAND 1930-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	47,570		0.0000	1.0000	98.95
40.5	51,735		0.0000	1.0000	98.95
41.5	54,567		0.0000	1.0000	98.95
42.5	62,831	125	0.0020	0.9980	98.95
43.5	67,706	62	0.0009	0.9991	98.75
44.5	75,848		0.0000	1.0000	98.66
45.5	90,816	14	0.0002	0.9998	98.66
46.5	117,620		0.0000	1.0000	98.65
47.5	112,512		0.0000	1.0000	98.65
48.5	112,832		0.0000	1.0000	98.65
49.5	120,935	127	0.0010	0.9990	98.65
50.5	114,479		0.0000	1.0000	98.54
51.5	110,268		0.0000	1.0000	98.54
52.5	125,810	275	0.0022	0.9978	98.54
53.5	89,046	15	0.0002	0.9998	98.33
54.5	86,499		0.0000	1.0000	98.31
55.5	80,694		0.0000	1.0000	98.31
56.5	61,752	26	0.0004	0.9996	98.31
57.5	67,650	6	0.0001	0.9999	98.27
58.5	80,641	83	0.0010	0.9990	98.26
59.5	52,328	161	0.0031	0.9969	98.16
60.5	56,652		0.0000	1.0000	97.86
61.5	72,390	18	0.0003	0.9997	97.86
62.5	77,851	36	0.0005	0.9995	97.84
63.5	83,703		0.0000	1.0000	97.79
64.5	76,614		0.0000	1.0000	97.79
65.5	56,395	5	0.0001	0.9999	97.79
66.5	47,511		0.0000	1.0000	97.78
67.5	40,468	11	0.0003	0.9997	97.78
68.5	23,770		0.0000	1.0000	97.76
69.5	22,448	3	0.0002	0.9998	97.76
70.5	15,027		0.0000	1.0000	97.74
71.5	12,331		0.0000	1.0000	97.74
72.5	12,951		0.0000	1.0000	97.74
73.5	11,927	2	0.0002	0.9998	97.74
74.5	11,389		0.0000	1.0000	97.72
75.5	11,439		0.0000	1.0000	97.72
76.5	17,103		0.0000	1.0000	97.72
77.5	23,603		0.0000	1.0000	97.72
78.5	23,454	13	0.0006	0.9994	97.72

## ACCOUNT 374.03 LAND AND LAND RIGHTS

PLACEMENT	BAND 1930-2019		EXPE	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	20,365	2	0.0001	0.9999	97.67
80.5	20,141	904	0.0449	0.9551	97.66
81.5	28,233		0.0000	1.0000	93.27
82.5	28,348		0.0000	1.0000	93.27
83.5	16,717		0.0000	1.0000	93.27
84.5	10,191		0.0000	1.0000	93.27
85.5	10,191		0.0000	1.0000	93.27
86.5	10,146		0.0000	1.0000	93.27
87.5	9,946		0.0000	1.0000	93.27
88.5	207		0.0000	1.0000	93.27
89.5					93.27

ORIGINAL CURVE = 1928-2019 EXPERIENCE 1928-2018 PLACEMENTS 9 8 **DWA 60-R1** AGE IN YEARS 9 2 <del>ا</del>ه 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

**& Gannett Fleming** 

ACCOUNT 375.01 STRUCTURES AND IMPROVEMENTS

BLACK HILLS NEBRASKA

ORIGINAL AND SMOOTH SURVIVOR CURVES

## ACCOUNT 375.01 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1928-2018		EXPEF	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	447,374		0.0000	1.0000	100.00
0.5	480,342		0.0000	1.0000	100.00
1.5	384,631		0.0000	1.0000	100.00
2.5	558,599	2,234	0.0040	0.9960	100.00
3.5	1,748,905	117	0.0001	0.9999	99.60
4.5	1,846,345	46,787	0.0253	0.9747	99.59
5.5	1,731,302		0.0000	1.0000	97.07
6.5	1,656,362	1,166	0.0007	0.9993	97.07
7.5	1,583,235	1,488	0.0009	0.9991	97.00
8.5	1,559,951	554	0.0004	0.9996	96.91
9.5	1,445,375		0.0000	1.0000	96.88
10.5	342,554	19,705	0.0575	0.9425	96.88
11.5	328,700	3,462	0.0105	0.9895	91.30
12.5	368,290		0.0000	1.0000	90.34
13.5	391,011	8,423	0.0215	0.9785	90.34
14.5	416,474	5,192	0.0125	0.9875	88.40
15.5	407,063		0.0000	1.0000	87.29
16.5	1,673,755	6,451	0.0039	0.9961	87.29
17.5	1,648,048	6,267	0.0038	0.9962	86.96
18.5	1,564,586		0.0000	1.0000	86.63
19.5	1,521,743		0.0000	1.0000	86.63
20.5	1,473,711	15,232	0.0103	0.9897	86.63
21.5	1,397,496	1,685	0.0012	0.9988	85.73
22.5	1,514,900		0.0000	1.0000	85.63
23.5	301,512	1,086	0.0036	0.9964	85.63
24.5	373,676	39	0.0001	0.9999	85.32
25.5	360,151	491	0.0014	0.9986	85.31
26.5	346,898	1,096	0.0032	0.9968	85.19
27.5	521,564		0.0000	1.0000	84.92
28.5	512,726	12,200	0.0238	0.9762	84.92
29.5	428,008	6,943	0.0162	0.9838	82.90
30.5	434,297	2,840	0.0065	0.9935	81.56
31.5	369,006	339	0.0009	0.9991	81.03
32.5	377,644	899	0.0024	0.9976	80.95
33.5	387,408		0.0000	1.0000	80.76
34.5	211,239		0.0000	1.0000	80.76
35.5	236,834	10 600	0.0000	1.0000	80.76
36.5	227,039	12,628	0.0556	0.9444	80.76
37.5	178,940	8,263	0.0462	0.9538	76.27
38.5	184,183		0.0000	1.0000	72.75

## ACCOUNT 375.01 STRUCTURES AND IMPROVEMENTS

PLACEMENT BAND	1928-2018	EXPERIENCE 1	BAND	1998-2	2019
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AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5	187,839 234,628 249,042	2,678	0.0143 0.0000 0.0000	0.9857 1.0000 1.0000	72.75 71.71 71.71
42.5	363,267	1,526	0.0000	0.9958	71.71
43.5	381,222	38,583	0.1012	0.8988	71.41
44.5	356,458	1,051	0.0029	0.9971	64.18
45.5	310,940	7,829	0.0252	0.9748	63.99
46.5	340,940	2,492	0.0073	0.9927	62.38
47.5	309,844	4,745	0.0153	0.9847	61.92
48.5	403,409	-,	0.0000	1.0000	60.98
49.5	312,183	658	0.0021	0.9979	60.98
50.5	260,832	7,139	0.0274	0.9726	60.85
51.5	244,939	17,703	0.0723	0.9277	59.18
52.5	234,644	977	0.0042	0.9958	54.90
53.5	187,448		0.0000	1.0000	54.68
54.5	186,573	83	0.0004	0.9996	54.68
55.5	59,047	745	0.0126	0.9874	54.65
56.5	60,634	661	0.0109	0.9891	53.96
57.5	60,065	3,382	0.0563	0.9437	53.37
58.5	56,490		0.0000	1.0000	50.37
59.5	38,999	503	0.0129	0.9871	50.37
60.5	38,339		0.0000	1.0000	49.72
61.5	42,203	3,127	0.0741	0.9259	49.72
62.5	42,271	1,203	0.0285	0.9715	46.03
63.5	42,768	850	0.0199	0.9801	44.72
64.5	40,860		0.0000	1.0000	43.83
65.5	38,131	2,262	0.0593	0.9407	43.83
66.5	36,940	1,939	0.0525	0.9475	41.23
67.5	30,261		0.0000	1.0000	39.07
68.5	28,622		0.0000	1.0000	39.07
69.5	31,357		0.0000	1.0000	39.07
70.5	25,740		0.0000	1.0000	39.07
71.5	17,450		0.0000	1.0000	39.07
72.5	16,884		0.0000	1.0000	39.07
73.5	16,542		0.0000	1.0000	39.07
74.5	16,542		0.0000	1.0000	39.07
75.5	16,192	230	0.0142	0.9858	39.07
76.5	16,184		0.0000	1.0000	38.51
77.5	16,184		0.0000	1.0000	38.51
78.5	14,711	203	0.0138	0.9862	38.51

19.60

19.60

19.60

#### BLACK HILLS NEBRASKA

#### ACCOUNT 375.01 STRUCTURES AND IMPROVEMENTS

#### ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1928-2018 EXPERIENCE BAND 1998-2019 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE BEGIN OF RETMT SURV INTERVAL AGE INTERVAL INTERVAL RATIO INTERVAL RATIO 79.5 14,508 2,593 0.1788 0.8212 37.98 80.5 11,914 4,121 0.3458 0.6542 31.19 81.5 7,511 297 0.0396 0.9604 20.40 82.5 7,214 0.0000 1.0000 19.60 83.5 6,992 0.0000 1.0000 19.60 84.5 6,992 0.0000 1.0000 19.60 85.5 6,449 0.0000 1.0000 19.60 86.5 6,418 0.0000 1.0000 19.60 87.5 6,418 0.0000 1.0000 19.60 88.5 6,215 0.0000 1.0000 19.60

0.0000

0.0000

1.0000

1.0000

6,215

6,215

89.5

90.5

91.5

100 ORIGINAL CURVE 

2011-2019 EXPERIENCE
2011-2014 PLACEMENTS 8 8 45-R3 IOWA 2 09 AGE IN YEARS 9 30 20 9 9 6 8 -09 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

🙇 Gannett Fleming

BLACK HILLS NEBRASKA ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS - OTHER

ORIGINAL AND SMOOTH SURVIVOR CURVES

## ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS - OTHER

PLACEMENT BAND 2011-2014 EXPERIENCE BAND 2012-2					D 2012-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5	11,707 11,707 12,119 12,119 12,119 12,119 413 413		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00
7.5 8.5	413		0.0000	1.0000	100.00 100.00

ORIGINAL CURVE = 1905-2019 EXPERIENCE 9 IOWA 70-R2.5 8 AGE IN YEARS 9 2 <del>,</del>o 5 9 8 -09 40 20-9 РЕВСЕИТ ЗИВУІУІИС

**& Gannett Fleming** 

BLACK HILLS NEBRASKA ACCOUNT 376.00 MAINS ORIGINAL AND SMOOTH SURVIVOR CURVES

## ACCOUNT 376.00 MAINS

PLACEMENT H	BAND 1905-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	228,310,735	47,994	0.0002	0.9998	100.00
0.5	201,357,505	353,429	0.0018	0.9982	99.98
1.5	178,678,433	129,216	0.0007	0.9993	99.80
2.5	163,506,317	112,507	0.0007	0.9993	99.73
3.5	148,937,485	177,175	0.0012	0.9988	99.66
4.5	122,606,256	119,779	0.0010	0.9990	99.54
5.5	107,412,395	147,826	0.0014	0.9986	99.45
6.5	103,984,431	98,397	0.0009	0.9991	99.31
7.5	99,464,038	363,329	0.0037	0.9963	99.22
8.5	91,957,495	175,793	0.0019	0.9981	98.85
9.5	86,298,444	271,233	0.0031	0.9969	98.66
10.5	81,339,892	333,371	0.0041	0.9959	98.35
11.5	75,030,999	35,696	0.0005	0.9995	97.95
12.5	70,911,051	50,407	0.0007	0.9993	97.90
13.5	63,592,490	475,171	0.0075	0.9925	97.84
14.5	63,672,764	127,373	0.0020	0.9980	97.10
15.5	65,466,248	225,303	0.0034	0.9966	96.91
16.5	66,328,186	164,176	0.0025	0.9975	96.58
17.5	65,495,807	180,660	0.0028	0.9972	96.34
18.5	64,753,868	745,236	0.0115	0.9885	96.07
19.5	62,526,564	140,029	0.0022	0.9978	94.97
20.5	61,617,282	394,707	0.0064	0.9936	94.75
21.5	55,773,983	116,538	0.0021	0.9979	94.15
22.5	48,416,712	164,163	0.0034	0.9966	93.95
23.5	44,531,983	182,339	0.0041	0.9959	93.63
24.5	45,225,419	82,328	0.0018	0.9982	93.25
25.5	42,328,916	66,566	0.0016	0.9984	93.08
26.5	41,002,249	231,978	0.0057	0.9943	92.93
27.5	39,787,307	161,621	0.0041	0.9959	92.41
28.5	37,273,663	144,413	0.0039	0.9961	92.03
29.5	36,371,093	97,768	0.0027	0.9973	91.67
30.5	35,607,308	139,933	0.0039	0.9961	91.43
31.5	32,176,297	52,696	0.0016	0.9984	91.07
32.5	32,175,441	77,944	0.0024	0.9976	90.92
33.5	30,254,738	121,602	0.0040	0.9960	90.70
34.5	27,423,479	109,618	0.0040	0.9960	90.33
35.5	26,408,988	129,263	0.0049	0.9951	89.97
36.5	25,396,624	134,399	0.0053	0.9947	89.53
37.5	23,217,945	118,194	0.0051	0.9949	89.06
38.5	21,228,218	119,240	0.0056	0.9944	88.61

## ACCOUNT 376.00 MAINS

PLACEMENT	BAND 1905-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	19,052,293 17,774,626 17,438,053 17,346,257 17,586,762 18,498,036 18,793,331 18,773,621 17,705,101	102,952 115,225 118,683 95,671 116,304 176,251 119,344 65,759 168,513	0.0054 0.0065 0.0068 0.0055 0.0066 0.0095 0.0064 0.0035 0.0095	0.9946 0.9935 0.9932 0.9945 0.9934 0.9905 0.9936 0.9965 0.9905	88.11 87.63 87.06 86.47 85.99 85.43 84.61 84.07
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5	16,556,284  15,371,832 14,147,759 11,988,080 11,736,579 10,537,158 9,931,812 9,412,790 8,440,149 7,982,032 7,631,744	279,872 141,937 125,551 109,018 58,310 54,780 68,421 240,639 84,381 83,002	0.0169 0.0092 0.0089 0.0091 0.0050 0.0052 0.0069 0.0256 0.0100 0.0104 0.0223	0.9831 0.9908 0.9911 0.9909 0.9950 0.9948 0.9931 0.9744 0.9900 0.9896 0.9777	82.98 81.58 80.83 80.11 79.38 78.99 78.58 78.03 76.04 75.28
58.5 59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	6,553,680 6,199,037 6,016,653 5,654,903 5,240,038 4,578,213 3,331,242 2,905,532 3,211,690 2,642,144	169,917 172,512 217,118 111,522 136,490 127,478 109,515 102,012 49,940 41,354 95,180	0.0263 0.0350 0.0185 0.0241 0.0243 0.0239 0.0306 0.0172 0.0129 0.0360	0.9777 0.9737 0.9650 0.9815 0.9759 0.9757 0.9761 0.9694 0.9828 0.9871 0.9640	74.50 72.84 70.92 68.44 67.17 65.55 63.95 62.42 60.51 59.47 58.70
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	2,313,354 1,957,883 1,795,438 1,640,251 1,527,187 1,465,487 1,435,408 1,438,120 1,372,856 1,326,639	40,474 39,240 70,757 71,304 50,419 48,616 55,333 71,721 53,317 34,960	0.0175 0.0200 0.0394 0.0435 0.0330 0.0332 0.0385 0.0499 0.0388 0.0264	0.9825 0.9800 0.9606 0.9565 0.9670 0.9668 0.9615 0.9501 0.9612 0.9736	56.59 55.60 54.49 52.34 50.06 48.41 46.80 45.00 42.76 41.10

## ACCOUNT 376.00 MAINS

# ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2019 EXPERIENCE BANK				D 1998-2019	
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	1,240,668	37,873	0.0305	0.9695	40.01
80.5	1,194,833	50,815	0.0425	0.9575	38.79
81.5	1,120,690	24,183	0.0216	0.9784	37.14
82.5	1,067,094	45,049	0.0422	0.9578	36.34
83.5	841,820	24,305	0.0289	0.9711	34.81
84.5	644,103	8,091	0.0126	0.9874	33.80
85.5	635,425	42,610	0.0671	0.9329	33.38
86.5	590,437	13,479	0.0228	0.9772	31.14
87.5	569,529	6,559	0.0115	0.9885	30.43
88.5	300,223	2,895	0.0096	0.9904	30.08
89.5	215	29	0.1340	0.8660	29.79
90.5	903		0.0000	1.0000	25.80
91.5	1,142		0.0000	1.0000	25.80
92.5	30,044	16,233	0.5403	0.4597	25.80
93.5	13,810	156	0.0113	0.9887	11.86
94.5	13,654	44	0.0032	0.9968	11.72
95.5	13,611		0.0000	1.0000	11.69
96.5	13,611	6,156	0.4523	0.5477	11.69
97.5	7,454	540	0.0724	0.9276	6.40
98.5	6,914	620	0.0897	0.9103	5.94
99.5	6,294	476	0.0756	0.9244	5.40
100.5	5,819	1,930	0.3316	0.6684	5.00
101.5	3,889		0.0000	1.0000	3.34
102.5	3,889		0.0000	1.0000	3.34
103.5	3,889	3,208	0.8249	0.1751	3.34
104.5	681	671	0.9852	0.0148	0.58
105.5	10	10	1.0000		0.01

106.5

120 ORIGINAL CURVE = 1930-2019 EXPERIENCE 1930-2019 PLACEMENTS 8 ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT 8 ORIGINAL AND SMOOTH SURVIVOR CURVES AGE IN YEARS 9 2 <del>,</del> % 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

🙇 Gannett Fleming

## ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

## ORIGINAL LIFE TABLE

PLACEMENT	BAND 1930-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	16,318,926	30,789	0.0019	0.9981	100.00
0.5	15,854,113	57,288	0.0036	0.9964	99.81
1.5	15,317,931	24,736	0.0016	0.9984	99.45
2.5	14,322,740	31,413	0.0022	0.9978	99.29
3.5	13,806,883	26,060	0.0019	0.9981	99.07
4.5	11,121,604	44,964	0.0040	0.9960	98.89
5.5	9,850,362	26,671	0.0027	0.9973	98.49
6.5	9,229,986	,	0.0000	1.0000	98.22
7.5	8,417,431	48,422	0.0058	0.9942	98.22
8.5	7,681,788	23,148	0.0030	0.9970	97.65
9.5	6,456,557	3,841	0.0006	0.9994	97.36
10.5	5,678,145	13,220	0.0023	0.9977	97.30
11.5	4,426,669	9,467	0.0021	0.9979	97.08
12.5	4,167,330	1,610	0.0004	0.9996	96.87
13.5	3,714,859	34,183	0.0092	0.9908	96.83
14.5	3,496,358	4,519	0.0013	0.9987	95.94
15.5	3,397,224	15,723	0.0046	0.9954	95.82
16.5	3,479,670	6,406	0.0018	0.9982	95.37
17.5	3,249,421	22,467	0.0069	0.9931	95.20
18.5	3,161,352	27,230	0.0086	0.9914	94.54
19.5	3,220,740	23,140	0.0072	0.9928	93.72
20.5	3,155,792	68,393	0.0217	0.9783	93.05
21.5	2,802,411	5,541	0.0020	0.9980	91.03
22.5	2,514,641	79,012	0.0314	0.9686	90.85
23.5	2,316,479	39,694	0.0171	0.9829	88.00
24.5	2,279,299	37,720	0.0165	0.9835	86.49
25.5	2,104,916	19,740	0.0094	0.9906	85.06
26.5	2,029,890	36,361	0.0179	0.9821	84.26
27.5	1,755,156	34,160	0.0195	0.9805	82.75
28.5	1,561,569	31,333	0.0201	0.9799	81.14
29.5	1,534,252	39,354	0.0257	0.9743	79.51
30.5	1,462,858	39,452	0.0270	0.9730	77.47
31.5	1,294,324	15,055	0.0116	0.9884	75.38
32.5	1,237,230	35,549	0.0287	0.9713	74.51
33.5	1,174,385	26,654	0.0227	0.9773	72.37
34.5	1,075,977	44,933	0.0418	0.9582	70.72
35.5	986,430	22,617	0.0229	0.9771	67.77
36.5	921,587	13,783	0.0150	0.9850	66.22
37.5	851,431	25,942	0.0305	0.9695	65.23

38.5

757,868

11,214 0.0148 0.9852 63.24

## ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2019

EXPERIENCE BAND 1998-2019

	21112 1930 2019			tidited bint	D 1000 201.
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	621,833 553,820 436,568 341,417 326,614 320,423 295,733 289,796 247,667 232,778	10,597 9,973 51,416 5,709 11,688 8,862 8,420 21,013 20,358 10,828	0.0170 0.0180 0.1178 0.0167 0.0358 0.0277 0.0285 0.0725 0.0822 0.0465	0.9830 0.9820 0.8822 0.9833 0.9642 0.9723 0.9715 0.9275 0.9178 0.9535	62.30 61.24 60.14 53.06 52.17 50.30 48.91 47.52 44.07 40.45
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	226,323 212,380 185,199 168,411 153,613 138,561 135,235 119,926 107,144 92,967	3,871 14,180 10,906 9,784 4,013 3,771 11,244 12,010 4,518 8,664	0.0171 0.0668 0.0589 0.0581 0.0261 0.0272 0.0831 0.1001 0.0422 0.0932	0.9829 0.9332 0.9411 0.9419 0.9739 0.9728 0.9169 0.8999 0.9578 0.9068	38.57 37.91 35.38 33.29 31.36 30.54 29.71 27.24 24.51 23.48
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	88,453 81,004 86,803 80,840 58,848 52,479 44,563 45,287 33,930 20,349	4,434 3,021 6,342 17,766 1,393 4,569 198 11,291 5,425 418	0.0501 0.0373 0.0731 0.2198 0.0237 0.0871 0.0044 0.2493 0.1599 0.0205	0.9499 0.9627 0.9269 0.7802 0.9763 0.9129 0.9956 0.7507 0.8401 0.9795	21.29 20.22 19.47 18.05 14.08 13.75 12.55 12.49 9.38 7.88
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	19,189 16,460 14,595 12,486 11,524 10,086 5,593 5,131 3,595 3,654	167 753 1,207 964 104 1,526	0.0087 0.0458 0.0827 0.0000 0.0836 0.0103 0.0000 0.2973 0.0000 0.0278	0.9913 0.9542 0.9173 1.0000 0.9164 0.9897 1.0000 0.7027 1.0000	7.72 7.65 7.30 6.70 6.70 6.14 6.07 6.07 4.27

## ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

URES AT	RETIREMENTS			PCT SURV
NTERVAL	DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	BEGIN OF INTERVAL
3,553 3,553 646 206 206 206 147	2,845 531 256 850	0.0000 0.8008 0.8212 0.0000 1.2403 0.0000 5.7951	1.0000 0.1992 0.1788 1.0000 0.2403-	4.15 4.15 0.83 0.15 0.15
	3,553 3,553 646 206 206 206	3,553 3,553 646 206 206 206 206	3,553       0.0000         3,553       2,845       0.8008         646       531       0.8212         206       0.0000         206       256       1.2403         206       0.0000	3,553       0.0000       1.0000         3,553       2,845       0.8008       0.1992         646       531       0.8212       0.1788         206       0.0000       1.0000         206       256       1.2403       0.2403-         206       0.0000       0.0000

120 ORIGINAL CURVE = 2012-2019 EXPERIENCE 1936-2018 PLACEMENTS ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE 9 OWA 60-R3 8 ORIGINAL AND SMOOTH SURVIVOR CURVES BLACK HILLS NEBRASKA AGE IN YEARS 9 2 <del>ا</del>ه 6 8 -09 50 40 30 2 9 8 РЕВСЕИТ ЗИВУІУІИС

🙇 Gannett Fleming

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

PLACEMENT	BAND 1936-2018		EXPERIENCE BANI	2012-2019
ACF AT	TYDOSIIRES AT	PTTTPTMTNTC		מוופעו

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5	1,836,941 1,962,508 1,566,129 1,671,793	2,452	0.0000 0.0012 0.0000 0.0000	1.0000 0.9988 1.0000 1.0000	100.00 100.00 99.88 99.88
3.5 4.5 5.5 6.5 7.5	722,755 714,945 1,014,068 737,649 671,904	1,929	0.0027 0.0000 0.0000 0.0000 0.0000	0.9973 1.0000 1.0000 1.0000 1.0000	99.88 99.61 99.61 99.61
8.5 9.5 10.5 11.5 12.5	654,911 528,804 665,022 699,779 344,279	2,448	0.0037 0.0000 0.0000 0.0000 0.0000	0.9963 1.0000 1.0000 1.0000	99.61 99.24 99.24 99.24 99.24
13.5 14.5 15.5 16.5 17.5	721,989 825,596 831,009 917,437 802,168	11,711 2,382	0.0000 0.0142 0.0000 0.0026 0.0000	1.0000 0.9858 1.0000 0.9974 1.0000	99.24 99.24 97.83 97.83 97.57
18.5 19.5 20.5 21.5 22.5	766,586 841,394 553,512 489,240 479,776	4,013	0.0052 0.0000 0.0011 0.0000 0.0000	0.9948 1.0000 0.9989 1.0000 1.0000	97.57 97.06 97.06 96.95 96.95
23.5 24.5 25.5 26.5 27.5	387,146 342,203 333,441 265,099 334,831	20 2,213	0.0000 0.0000 0.0000 0.0001 0.0066	1.0000 1.0000 1.0000 0.9999 0.9934	96.95 96.95 96.95 96.95 96.95
28.5 29.5 30.5 31.5 32.5	269,718 339,752 333,718 326,608 349,106	1,540	0.0000 0.0045 0.0000 0.0000 0.0000	1.0000 0.9955 1.0000 1.0000	96.30 96.30 95.87 95.87 95.87
33.5 34.5 35.5 36.5 37.5 38.5	342,603 200,756 193,113 126,938 170,487 183,323	1,133 5,877 4,028	0.0016 0.0000 0.0000 0.0089 0.0345 0.0220	0.9984 1.0000 1.0000 0.9911 0.9655 0.9780	95.87 95.71 95.71 95.71 94.86 91.59

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1936-2018

EXPERIENCE BAND 2012-2019

	211112 1930 2010		2111 21	CILITOR DIR.	D 2012 2017
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5	166,538 208,507 236,520	1,534 424	0.0092 0.0020 0.0000	0.9908 0.9980 1.0000	89.58 88.75 88.57
42.5 43.5	242,973 236,860	1,724	0.0071 0.0000	0.9929 1.0000	88.57 87.94
44.5	189,978	123	0.0006	0.9994	87.94
45.5 46.5	172,886 193,130		0.0000 0.0000	1.0000 1.0000	87.88 87.88
47.5 48.5	147,648 113,820	150 2,254	0.0010 0.0198	0.9990 0.9802	87.88 87.80
49.5	92,939		0.0000	1.0000	86.06
50.5 51.5	87,904 90,448	118 91	0.0013 0.0010	0.9987 0.9990	86.06 85.94
52.5	111,448	178	0.0016	0.9984	85.85
53.5	66,943	4,091	0.0611	0.9389	85.72
54.5 55.5	61,115 65,559	159	0.0026 0.0000	0.9974 1.0000	80.48 80.27
56.5	53,955	332	0.0062	0.9938	80.27
57.5 58.5	52,971 66,187	1,090	0.0206 0.0000	0.9794 1.0000	79.78 78.13
59.5	40,080		0.0000	1.0000	78.13
60.5	41,245	270	0.0065	0.9935	78.13
61.5 62.5	50,781 47,443	2,984	0.0000 0.0629	1.0000 0.9371	77.62 77.62
63.5	47,716	421	0.0029	0.9912	72.74
64.5	45,260	3,525	0.0779	0.9221	72.10
65.5	25,947		0.0000	1.0000	66.49
66.5	23,468		0.0000	1.0000	66.49
67.5 68.5	21,752 6,645		0.0000	1.0000 1.0000	66.49 66.49
69.5	3,659		0.0000	1.0000	66.49
70.5	841		0.0000	1.0000	66.49
71.5	452		0.0000	1.0000	66.49
72.5	82		0.0000	1.0000	66.49
73.5	82	82	1.0000		66.49
74.5	796		0.0000	1.0000	
75.5	1,056		0.0000		
76.5	1,278		0.0000		
77.5 78.5	1,278 1,278		0.0000		
	= , = . 3				

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1936-2018

EXPERIENCE BAND 2012-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,278		0.0000		
80.5	1,278		0.0000		
81.5	482		0.0000		
82.5	222		0.0000		
83.5					



100 ORIGINAL CURVE = 1930-2019 EXPERIENCE 1930-2019 PLACEMENTS 8 8 2 IOWA 40-SC 09 AGE IN YEARS 9 30 20 9 <del>ا</del>ه 5 9 8 -09 40 20-9 РЕВСЕИТ ЗИВУІУІИС

**& Gannett Fleming** 

ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA ACCOUNT 380.00 SERVICES

## ACCOUNT 380.00 SERVICES

PLACEMENT 1	BAND 1930-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	94,811,741	255,907	0.0027	0.9973	100.00
0.5	82,725,824	380,321	0.0046	0.9954	99.73
1.5	81,347,146	328,701	0.0040	0.9960	99.27
2.5	78,087,966	335,323	0.0043	0.9957	98.87
3.5	70,788,399	167,077	0.0024	0.9976	98.45
4.5	67,388,921	189,630	0.0028	0.9972	98.21
5.5	63,570,005	129,622	0.0020	0.9980	97.94
6.5	61,253,700	142,146	0.0023	0.9977	97.74
7.5	58,699,897	131,607	0.0022	0.9978	97.51
8.5	57,676,097	145,337	0.0025	0.9975	97.29
9.5	56,716,088	148,376	0.0026	0.9974	97.05
10.5	56,822,159	253,230	0.0045	0.9955	96.79
11.5	55,776,163	199,004	0.0036	0.9964	96.36
12.5	54,204,962	251,699	0.0046	0.9954	96.02
13.5	49,417,538	489,488	0.0099	0.9901	95.57
14.5	47,142,785	189,618	0.0040	0.9960	94.63
15.5	45,096,937	587,131	0.0130	0.9870	94.24
16.5	43,426,011	667,296	0.0154	0.9846	93.02
17.5	41,113,917	950,926	0.0231	0.9769	91.59
18.5	38,620,604	935,363	0.0242	0.9758	89.47
19.5	35,084,571	1,420,605	0.0405	0.9595	87.30
20.5	31,658,908	1,289,508	0.0407	0.9593	83.77
21.5	27,821,605	470,139	0.0169	0.9831	80.36
22.5	24,324,002	696,905	0.0287	0.9713	79.00
23.5	20,922,318	637,036	0.0304	0.9696	76.73
24.5	19,751,571	572,760	0.0290	0.9710	74.40
25.5	17,344,201	675,870	0.0390	0.9610	72.24
26.5	14,764,068	559,622	0.0379	0.9621	69.43
27.5	12,456,016	588,931	0.0473	0.9527	66.79
28.5	10,332,769	234,602	0.0227	0.9773	63.64
29.5	9,065,511	300,358	0.0331	0.9669	62.19
30.5	8,418,988	174,456	0.0207	0.9793	60.13
31.5	7,210,576	113,618	0.0158	0.9842	58.88
32.5	7,053,235	119,520	0.0169	0.9831	57.96
33.5	6,835,429	143,257	0.0210	0.9790	56.97
34.5	6,408,173	139,151	0.0217	0.9783	55.78
35.5	5,922,958	96,904	0.0164	0.9836	54.57
36.5	5,511,401	189,599	0.0344	0.9656	53.68
37.5	4,983,092	161,536	0.0324	0.9676	51.83
38.5	4,506,462	179,671	0.0399	0.9601	50.15

## ACCOUNT 380.00 SERVICES

PLACEMENT	BAND 1930-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	3,909,510	162,647	0.0416	0.9584	48.15
40.5	3,398,914	241,691	0.0711	0.9289	46.15
41.5	2,952,362	104,691	0.0355	0.9645	42.87
42.5	2,724,757	102,894	0.0378	0.9622	41.35
43.5	2,535,743	110,532	0.0436	0.9564	39.78
44.5	2,249,744	63,877	0.0284	0.9716	38.05
45.5	2,037,500	41,924	0.0206	0.9794	36.97
46.5	1,945,798	92,168	0.0474	0.9526	36.21
47.5	1,773,974	54,463	0.0307	0.9693	34.49
48.5	1,530,094	34,639	0.0226	0.9774	33.44
49.5	1,364,357	52,213	0.0383	0.9617	32.68
50.5	1,201,541	39,923	0.0332	0.9668	31.43
51.5	1,090,275	38,296	0.0351	0.9649	30.38
52.5	1,009,404	25,142	0.0249	0.9751	29.32
53.5	875,193	17,440	0.0199	0.9801	28.59
54.5	803,483	41,225	0.0513	0.9487	28.02
55.5	711,915	66,083	0.0928	0.9072	26.58
56.5	589,555	22,700	0.0385	0.9615	24.11
57.5	556,410	26,080	0.0469	0.9531	23.18
58.5	517,960	53,094	0.1025	0.8975	22.10
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	418,159 338,738 312,740 258,986 204,256 159,328 116,146 65,007 40,797 26,638	34,189 19,074 39,116 27,506 23,862 29,337 24,545 17,428 8,946 8,415	0.0818 0.0563 0.1251 0.1062 0.1168 0.1841 0.2113 0.2681 0.2193 0.3159	0.9182 0.9437 0.8749 0.8938 0.8832 0.8159 0.7887 0.7319 0.7807	19.83 18.21 17.18 15.04 13.44 11.87 9.68 7.64 5.59 4.36
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	17,720 10,580 9,631 33,225 29,441 26,086 24,136 22,238 18,900 8,060	6,792 4,307 6,653 3,784 4,066 1,950 1,898 3,338 10,840 5,279	0.3833 0.4071 0.6907 0.1139 0.1381 0.0748 0.0786 0.1501 0.5735 0.6550	0.6167 0.5929 0.3093 0.8861 0.8619 0.9252 0.9214 0.8499 0.4265 0.3450	2.99 1.84 1.09 0.34 0.30 0.26 0.24 0.22 0.19 0.08

## ACCOUNT 380.00 SERVICES

PLACEMENT I	EXPERIENCE BAND 1998-2019				
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5	2,781 100	2,681	0.9642	0.0358 0.8068	0.03
81.5 82.5 83.5	80 76	80 76	1.0000		0.00



9

ORIGINAL CURVE = 1950-2019 EXPERIENCE 20 IOWA 26-R1.5 ACCOUNT 381.00 METERS - SMALL VOLUME AND OTHER 4 ORIGINAL AND SMOOTH SURVIVOR CURVES AGE IN YEARS 2 9 <del>ا</del>ه 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

BLACK HILLS NEBRASKA

## ACCOUNT 381.00 METERS - SMALL VOLUME AND OTHER

PLACEMENT	BAND 1950-2019		EXPER	RIENCE BAN	D 1999-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	9,897,399	6,185	0.0006	0.9994	100.00
0.5	13,487,303	210,151	0.0156	0.9844	99.94
1.5	10,783,738	198,497	0.0184	0.9816	98.38
2.5	10,926,120	52,274	0.0048	0.9952	96.57
3.5	10,600,851	41,539	0.0039	0.9961	96.11
4.5	11,343,156	65,365	0.0058	0.9942	95.73
5.5	10,947,642	75,331	0.0069	0.9931	95.18
6.5	10,132,655	76,071	0.0075	0.9925	94.52
7.5	10,169,507	82,348	0.0081	0.9919	93.81
8.5	9,880,821	70,942	0.0072	0.9928	93.05
9.5	9,548,393	136,332	0.0143	0.9857	92.39
10.5	8,806,834	131,887	0.0150	0.9850	91.07
11.5	7,810,521	112,368	0.0144	0.9856	89.70
12.5	6,924,586	64,297	0.0093	0.9907	88.41
13.5	6,025,500	114,838	0.0191	0.9809	87.59
14.5	6,384,404	103,032	0.0161	0.9839	85.92
15.5	6,569,450	372,037	0.0566	0.9434	84.54
16.5	5,656,452	113,631	0.0201	0.9799	79.75
17.5	4,489,475	224,300	0.0500	0.9500	78.15
18.5	3,836,732	107,642	0.0281	0.9719	74.24
19.5	2,971,764	302,105	0.1017	0.8983	72.16
20.5	2,563,592	39,571	0.0154	0.9846	64.82
21.5	1,524,048	44,970	0.0295	0.9705	63.82
22.5	1,175,731	92,218	0.0784	0.9216	61.94
23.5	1,172,484	164,391	0.1402	0.8598	57.08
24.5	1,055,810	82,651	0.0783	0.9217	49.08
25.5	1,225,961	67,993	0.0555	0.9445	45.24
26.5	8,905,254	183,297	0.0206	0.9794	42.73
27.5	8,774,852	454,675	0.0518	0.9482	41.85
28.5	8,440,467	172,176	0.0204	0.9796	39.68
29.5	8,281,640	360,302	0.0435	0.9565	38.87
30.5	7,949,268	471,296	0.0593	0.9407	37.18
31.5	7,239,539	368,475	0.0509	0.9491	34.98
32.5	7,249,838	247,441	0.0341	0.9659	33.19
33.5	788,688	110,986	0.1407	0.8593	32.06
34.5	635,252	206,660	0.3253	0.6747	27.55
35.5	367,341	46,305	0.1261	0.8739	18.59
36.5	299,841	72,185	0.2407	0.7593	16.24
37.5	177,320	47,374	0.2672	0.7328	12.33
38.5					9.04

## ACCOUNT 381.00 METERS - SMALL VOLUME AND OTHER

PLACEMENT 1	BAND 1950-2019		EXPER	IENCE BAN	D 1999-2019
	BEGINNING OF			SURV RATIO	
39.5 40.5 41.5 42.5	2,356	2,356	1.0000		
43.5 44.5 45.5 46.5 47.5 48.5	844 188 636 5,808 7,941	1,305			
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	6,486 10,221 2,599 5,283 4,120 882	7,622 459 2,926 3,238	0.2352 0.7457 0.1766 0.5539 0.7860 1.0000		
59.5 60.5 61.5 62.5 63.5	23 66	23 168	1.0000		

ORIGINAL CURVE = 2011-2019 EXPERIENCE 1996-2019 PLACEMENTS 35 IOWA 13-S1.5 30 25 AGE IN YEARS 5 9 Ŋ <del>ا</del>ه 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

**& Gannett Fleming** 

ACCOUNT 381.00 METERS - ERT, AMR AND AMI ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

## ACCOUNT 381.00 METERS - ERT, AMR AND AMI

PLACEMENT	BAND 1996-2019		EXPER	RIENCE BAN	D 2011-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	9,316,616 10,746,949 12,779,155 12,180,271 11,729,499 10,590,158 10,710,939 8,983,597 12,147,060 11,658,748	575 3,627 166,290 190,922 49,248 387,519 1,212,004 171,273 849,323	0.0000 0.0001 0.0003 0.0137 0.0163 0.0047 0.0362 0.1349 0.0141 0.0728	1.0000 0.9999 0.9997 0.9863 0.9837 0.9953 0.9638 0.8651 0.9859	100.00 100.00 99.99 99.97 98.60 97.00 96.55 93.05 80.50 79.36
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	10,706,473 9,686,154 8,780,135 7,093,327 7,572,918 2,147,102 1,036,355 1,138,250 770,258 390,159	570,098 509,078 1,398,706 460,851 781,298 554,097 121,782 174,154 380,099 350,274	0.0532 0.0526 0.1593 0.0650 0.1032 0.2581 0.1175 0.1530 0.4935 0.8978	0.9468 0.9474 0.8407 0.9350 0.8968 0.7419 0.8825 0.8470 0.5065 0.1022	73.58 69.66 66.00 55.49 51.88 46.53 34.52 30.47 25.80 13.07
19.5					1.34

8 ORIGINAL CURVE = 1930-2019 PLACEMENTS 2 **IOWA 36-R2** 20 AGE IN YEARS 9 2 9 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

**& Gannett Fleming** 

ACCOUNT 382.01 METER INSTALLATIONS ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

## ACCOUNT 382.01 METER INSTALLATIONS

PLACEMENT I	BAND 1930-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	4,725,887	34	0.0000	1.0000	100.00
0.5	4,853,112	47,658	0.0098	0.9902	100.00
1.5	4,740,473	5,768	0.0012	0.9988	99.02
2.5	4,445,758	2,478	0.0006	0.9994	98.90
3.5	3,618,702	28,371	0.0078	0.9922	98.84
4.5	3,115,947	42,142	0.0135	0.9865	98.07
5.5	3,167,347	7,094	0.0022	0.9978	96.74
6.5	3,316,015	18,816	0.0057	0.9943	96.52
7.5	3,630,592	47,898	0.0132	0.9868	95.98
8.5	3,840,850	11,417	0.0030	0.9970	94.71
9.5	3,993,815	23,780	0.0060	0.9940	94.43
10.5	4,237,592	8,610	0.0020	0.9980	93.87
11.5	4,568,888	13,917	0.0030	0.9970	93.68
12.5	4,087,153	13,273	0.0032	0.9968	93.39
13.5	4,132,421	73,626	0.0178	0.9822	93.09
14.5	4,308,716	7,684	0.0018	0.9982	91.43
15.5	4,586,323	27,555	0.0060	0.9940	91.27
16.5	5,055,351	6,125	0.0012	0.9988	90.72
17.5	5,392,268	12,911	0.0024	0.9976	90.61
18.5	5,531,706	65,700	0.0119	0.9881	90.39
19.5	5,768,927	62,800	0.0109	0.9891	89.32
20.5	5,950,455	23,452	0.0039	0.9961	88.34
21.5	6,032,117	37,345	0.0062	0.9938	88.00
22.5	5,867,713	22,938	0.0039	0.9961	87.45
23.5	5,637,137	24,848	0.0044	0.9956	87.11
24.5	6,571,990	221,664	0.0337	0.9663	86.73
25.5	6,378,216	216,681	0.0340	0.9660	83.80
26.5	6,141,567	182,741	0.0298	0.9702	80.95
27.5	5,639,605	159,173	0.0282	0.9718	78.54
28.5	5,274,432	115,481	0.0219	0.9781	76.33
29.5	4,922,452	154,405	0.0314	0.9686	74.66
30.5	3,790,883	167,518	0.0442	0.9558	72.31
31.5	3,307,006	171,397	0.0518	0.9482	69.12
32.5	3,126,963	197,778	0.0632	0.9368	65.54
33.5	2,835,649	245,645	0.0866	0.9134	61.39
34.5	2,555,906	233,303	0.0913	0.9087	56.07
35.5	2,271,678	210,989	0.0929	0.9071	50.96
36.5	2,060,184	140,555	0.0682	0.9318	46.22
37.5	1,921,378	88,123	0.0459	0.9541	43.07
38.5	1,881,017	83,505	0.0444	0.9556	41.09

## ACCOUNT 382.01 METER INSTALLATIONS

PLACEMENT BAND	1930-2019	EXPERIENCE	BAND	1998-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,751,868	121,487	0.0693	0.9307	39.27
40.5	1,667,559	63,734	0.0382	0.9618	36.55
41.5	1,425,730	131,334	0.0921	0.9079	35.15
42.5	1,293,065	129,460	0.1001	0.8999	31.91
43.5	1,195,796	111,208	0.0930	0.9070	28.72
44.5	1,111,155	85,238	0.0767	0.9233	26.05
45.5	1,019,865	91,646	0.0899	0.9101	24.05
46.5	956,985	105,254	0.1100	0.8900	21.89
47.5	842,000	106,521	0.1265	0.8735	19.48
48.5	724,496	79,503	0.1097	0.8903	17.02
49.5	637,019	68,813	0.1080	0.8920	15.15
50.5	567,492	150,309	0.2649	0.7351	13.51
51.5	443,917	77,058	0.1736	0.8264	9.93
52.5	416,870	62,499	0.1499	0.8501	8.21
53.5	368,730	52,419	0.1422	0.8578	6.98
54.5	330,628	50,391	0.1524	0.8476	5.99
55.5	294,713	63,958	0.2170	0.7830	5.07
56.5	264,007	69,885	0.2647	0.7353	3.97
57.5	213,648	36,113	0.1690	0.8310	2.92
58.5	196,151	25,809	0.1316	0.8684	2.43
59.5	174,697	23,227	0.1330	0.8670	2.11
60.5	165,066	27,723	0.1680	0.8320	1.83
61.5	147,082	59,648	0.4055	0.5945	1.52
62.5	89,579	20,988	0.2343	0.7657	0.90
63.5	70,564	20,877	0.2959	0.7041	0.69
64.5	51,572	14,310	0.2775	0.7225	0.49
65.5	38,731	15,620	0.4033	0.5967	0.35
66.5	24,433	10,809	0.4424	0.5576	0.21
67.5	13,789	2,702	0.1960	0.8040	0.12
68.5	11,527	2,737	0.2374	0.7626	0.09
69.5	8,891	2,150	0.2418	0.7582	0.07
70.5	6,856	1,745	0.2546	0.7454	0.05
71.5	5,364	1,818	0.3389	0.6611	0.04
72.5	3,546	1,156	0.3260	0.6740	0.03
73.5	2,390	813	0.3400	0.6600	0.02
74.5	1,578	413	0.2621	0.7379	0.01
75.5	1,164	273	0.2345	0.7655	0.01
76.5	891	469	0.5261	0.4739	0.01
77.5	422	79	0.1868	0.8132	0.00
78.5	343	70	0.2036	0.7964	0.00

## ACCOUNT 382.01 METER INSTALLATIONS

## ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2019 EXPERIENCE BAND 1998-2019					D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	274	237	0.8680	0.1320	0.00
80.5	36	19	0.5259	0.4741	0.00
81.5	17	16	0.9089	0.0911	0.00
82.5	4,407	2	0.0004	0.9996	0.00
83.5	4,405		0.0000	1.0000	0.00
84.5	4,405		0.0000	1.0000	0.00
85.5	4,405		0.0000	1.0000	0.00
86.5	4,405		0.0000	1.0000	0.00
87.5	4,405	4,405	1.0000		0.00

88.5

8 ORIGINAL CURVE = 1932-2019 PLACEMENTS 2 9 **DWA 40-R**2 20 AGE IN YEARS 9 2 9 <del>ا</del>ه 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

**Sannett Fleming** 

ACCOUNTS 383.01 AND 383.71 HOUSE REGULATORS ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

## ACCOUNTS 383.01 AND 383.71 HOUSE REGULATORS

PLACEMENT	BAND 1932-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	43,533,651	67,526	0.0016	0.9984	100.00
0.5	36,664,791	74,223	0.0020	0.9980	99.84
1.5	29,167,632	106,398	0.0036	0.9964	99.64
2.5	25,802,975	107,818	0.0042	0.9958	99.28
3.5	21,946,304	115,516	0.0053	0.9947	98.86
4.5	19,634,038	109,657	0.0056	0.9944	98.34
5.5	17,299,705	96,561	0.0056	0.9944	97.79
6.5	15,395,878	78,930	0.0051	0.9949	97.25
7.5	13,893,937	104,696	0.0075	0.9925	96.75
8.5	12,968,299	66,019	0.0051	0.9949	96.02
9.5	12,247,394	38,537	0.0031	0.9969	95.53
10.5	11,470,397	51,568	0.0045	0.9955	95.23
11.5	10,403,044	35,089	0.0034	0.9966	94.80
12.5	9,675,610	35,232	0.0036	0.9964	94.48
13.5	8,945,465	55,643	0.0062	0.9938	94.14
14.5	7,761,017	50,478	0.0065	0.9935	93.55
15.5	7,271,467	38,433	0.0053	0.9947	92.95
16.5	6,354,803	40,822	0.0064	0.9936	92.45
17.5	5,500,648	58,346	0.0106	0.9894	91.86
18.5	4,694,583	43,401	0.0092	0.9908	90.89
19.5	3,926,355	24,392	0.0062	0.9938	90.05
20.5	3,423,591	14,346	0.0042	0.9958	89.49
21.5	2,726,457	27,193	0.0100	0.9900	89.11
22.5	1,978,013	26,612	0.0135	0.9865	88.22
23.5	1,847,334	26,880	0.0146	0.9854	87.04
24.5	1,763,121	126,400	0.0717	0.9283	85.77
25.5	1,645,410	60,398	0.0367	0.9633	79.62
26.5	4,815,263	11,239	0.0023	0.9977	76.70
27.5	4,723,212	18,362	0.0039	0.9961	76.52
28.5	4,628,187	10,528	0.0023	0.9977	76.22
29.5	4,568,543	12,351	0.0027	0.9973	76.05
30.5	4,522,062	45,197	0.0100	0.9900	75.84
31.5	4,442,713	27,280	0.0061	0.9939	75.08
32.5	4,396,691	20,251	0.0046	0.9954	74.62
33.5	1,114,750	15,274	0.0137	0.9863	74.28
34.5	1,061,824	68,150	0.0642	0.9358	73.26
35.5	982,571	58,889	0.0599	0.9401	68.56
36.5	934,474	24,546	0.0263	0.9737	64.45
37.5	904,725	37,821	0.0418	0.9582	62.76
38.5	829,952	26,158	0.0315	0.9685	60.13

## ACCOUNTS 383.01 AND 383.71 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

## PLACEMENT BAND 1932-2019 EXPERIENCE BAND 1998-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	764,983 707,254 660,551 634,501 624,551 585,299 564,414 532,968 531,589	32,599 18,090 28,231 16,223 23,513 11,699 23,277 31,394 43,678	0.0426 0.0256 0.0427 0.0256 0.0376 0.0200 0.0412 0.0589 0.0822	0.9574 0.9744 0.9573 0.9744 0.9624 0.9800 0.9588 0.9411	58.24 55.76 54.33 52.01 50.68 48.77 47.80 45.83 43.13
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	463,683 408,603 355,205 296,846 247,182 210,792 187,736 166,518 141,524 113,631 86,829	39,643 34,434 45,363 29,642 31,919 22,330 20,970 25,351 28,252 26,252 20,325	0.0855 0.0843 0.1277 0.0999 0.1291 0.1059 0.1117 0.1522 0.1996 0.2310 0.2341	0.9145 0.9157 0.8723 0.9001 0.8709 0.8941 0.8883 0.8478 0.8004 0.7690 0.7659	39.58 36.20 33.15 28.91 26.03 22.67 20.27 18.00 15.26 12.21 9.39
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	65,693 48,101 35,155 3,245 1,894 726 605 228 75	16,404 12,959 31,910 792 423 398 377 140 75	0.2497 0.2694 0.9077 0.2441 0.2235 0.5475 0.6239 0.6132 1.0000	0.7503 0.7306 0.0923 0.7559 0.7765 0.4525 0.3761 0.3868	7.19 5.40 3.94 0.36 0.28 0.21 0.10 0.04

9 ORIGINAL CURVE = 1929-2019 EXPERIENCE 8 8 **♦WA 47-**¶4 AGE IN YEARS 9 30 20 9 <del>ا</del>ه 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

BLACK HILLS NEBRASKA ACCOUNT 384.01 HOUSE REGULATOR INSTALLATIONS ORIGINAL AND SMOOTH SURVIVOR CURVES

## ACCOUNT 384.01 HOUSE REGULATOR INSTALLATIONS

PLACEMENT E	BAND 1929-2017		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	22,776		0.0000	1.0000	100.00
0.5	29,347		0.0000	1.0000	100.00
1.5	34,418		0.0000	1.0000	100.00
2.5	32,697		0.0000	1.0000	100.00
3.5	35,800		0.0000	1.0000	100.00
4.5	51,513		0.0000	1.0000	100.00
5.5	55,923		0.0000	1.0000	100.00
6.5	57,726		0.0000	1.0000	100.00
7.5	56,238		0.0000	1.0000	100.00
8.5	56,783		0.0000	1.0000	100.00
9.5	48,984		0.0000	1.0000	100.00
10.5	59,038		0.0000	1.0000	100.00
11.5	55,116		0.0000	1.0000	100.00
12.5	61,015		0.0000	1.0000	100.00
13.5	88,263		0.0000	1.0000	100.00
14.5	331,840		0.0000	1.0000	100.00
15.5	398,309		0.0000	1.0000	100.00
16.5	472,039		0.0000	1.0000	100.00
17.5	499,025		0.0000	1.0000	100.00
18.5	510,077		0.0000	1.0000	100.00
19.5	478,351		0.0000	1.0000	100.00
20.5	478,615	2,364	0.0049	0.9951	100.00
21.5	249,254	4,963	0.0199	0.9801	99.51
22.5	206,349	2,267	0.0110	0.9890	97.52
23.5	168,531	133	0.0008	0.9992	96.45
24.5	575,885	196	0.0003	0.9997	96.38
25.5	594,283	89	0.0001	0.9999	96.34
26.5	636,502	1,479	0.0023	0.9977	96.33
27.5	678,200	270	0.0004	0.9996	96.11
28.5	735,342	184	0.0003	0.9997	96.07
29.5	786,667	355	0.0005	0.9995	96.04
30.5	828,961	172	0.0002	0.9998	96.00
31.5	449,727	32	0.0001	0.9999	95.98
32.5	467,048		0.0000	1.0000	95.97
33.5	478,721	398	0.0008	0.9992	95.97
34.5	488,011	1,693	0.0035	0.9965	95.89
35.5	483,002	17,589	0.0364	0.9636	95.56
36.5	489,089	29,411	0.0601	0.9399	92.08
37.5	478,137	15,992	0.0334	0.9666	86.54
38.5	481,820	22,612	0.0469	0.9531	83.65

## ACCOUNT 384.01 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT E	BAND 1929-2017		EXPERI	ENCE BAN	ID 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
DECIM OF	DECIMINATIO OF	DIDING ACE	DEGMG	CIIDII	DECIM OF

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	472,199	24,903	0.0527	0.9473	79.72
40.5	467,155	20,574	0.0440	0.9560	75.52
41.5	458,179	31,052	0.0678	0.9322	72.19
42.5	443,173	29,147	0.0658	0.9342	67.30
43.5	425,052	29,048	0.0683	0.9317	62.87
44.5	411,833	10,804	0.0262	0.9738	58.58
45.5	407,215	24,229	0.0595	0.9405	57.04
46.5	387,657	42,485	0.1096	0.8904	53.65
47.5	370,201	33,709	0.0911	0.9089	47.77
48.5	343,819	25,942	0.0755	0.9245	43.42
49.5	320,868	22,334	0.0696	0.9304	40.14
50.5	296,863	34,690	0.1169	0.8831	37.35
51.5	261,084	24,918	0.0954	0.9046	32.98
52.5	239,386	24,020	0.1003	0.8997	29.84
53.5	214,858	21,961	0.1022	0.8978	26.84
54.5	192,236	19,392	0.1009	0.8991	24.10
55.5	173,331	21,866	0.1261	0.8739	21.67
56.5	157,175	23,368	0.1487	0.8513	18.93
57.5	136,367	20,851	0.1529	0.8471	16.12
58.5	116,048	18,602	0.1603	0.8397	13.65
59.5	96,192	13,320	0.1385	0.8615	11.47
60.5	84,376	9,743	0.1155	0.8845	9.88
61.5	75,661	31,180	0.4121	0.5879	8.74
62.5	42,717	11,189	0.2619	0.7381	5.14
63.5	26,584	5,295	0.1992	0.8008	3.79
64.5	19,974	2,824	0.1414	0.8586	3.04
65.5	14,362	1,713	0.1193	0.8807	2.61
66.5	10,488	1,671	0.1593	0.8407	2.30
67.5	6,758	1,768	0.2616	0.7384	1.93
68.5	3,522	444	0.1262	0.8738	1.43
69.5	2,722	270	0.0991	0.9009	1.25
70.5	2,010	303	0.1506	0.8494	1.12
71.5	1,471	369	0.2511	0.7489	0.95
72.5	922	115	0.1246	0.8754	0.71
73.5	585	126	0.2157	0.7843	0.62
74.5	245	68	0.2784	0.7216	0.49
75.5	152	33	0.2171	0.7829	0.35
76.5	119	60	0.5014	0.4986	0.28
77.5	59	59	1.0000		0.14
78.5					

## ACCOUNT 384.01 HOUSE REGULATOR INSTALLATIONS

## ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1929-2017	EXPER	IENCE BAN	D 1998-2019	
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5	1,379		0.0000		
83.5	4,071		0.0000		
84.5	4,071		0.0000		
85.5	4,071		0.0000		
86.5	4,071		0.0000		
87.5	4,071	509	0.1251		
88.5	3,562	870	0.2443		
89.5 90.5	2,692	2,098	0.7792		



9 1998-2019 EXPERIENCE 1934-2019 PLACEMENTS 8 ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT ORIGINAL CURVE ■ 8 2 ORIGINAL AND SMOOTH SURVIVOR CURVES 09 BLACK HILLS NEBRASKA IOWA 38-R0.5 AGE IN YEARS 9 30 20 9 8 5 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

## ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

PLACEMENT	BAND 1934-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5	5,838,436 7,263,522 7,845,733 7,943,423 6,769,755 5,704,708 5,604,489	13,665 134,688 307,212 181,412 87,840 50,257 31,481	0.0023 0.0185 0.0392 0.0228 0.0130 0.0088 0.0056	0.9977 0.9815 0.9608 0.9772 0.9870 0.9912	100.00 99.77 97.92 94.08 91.93 90.74 89.94
6.5	5,704,528	154,203	0.0270	0.9730	89.44
7.5	5,672,476	54,557	0.0096	0.9904	87.02
8.5	5,547,361	42,896	0.0077	0.9923	86.18
9.5	5,425,230	52,788	0.0097	0.9903	85.51
10.5	5,198,170	47,065	0.0091	0.9909	84.68
11.5	4,484,686	65,547	0.0146	0.9854	83.92
12.5	3,843,568	37,511	0.0098	0.9902	82.69
13.5	3,442,361	41,436	0.0120	0.9880	81.88
14.5	3,211,063	16,865	0.0053	0.9947	80.90
15.5	2,939,793	13,134	0.0045	0.9955	80.47
16.5	2,527,971	14,357	0.0057	0.9943	80.11
17.5	2,429,070	11,649	0.0048	0.9952	79.66
18.5	2,453,056	16,779	0.0068	0.9932	79.28
19.5	2,438,356	19,594	0.0080	0.9952	78.73
20.5	2,307,292	9,457	0.0041	0.9959	78.10
21.5	2,207,827	24,711	0.0112	0.9888	77.78
22.5	1,930,938	22,524	0.0117	0.9888	76.91
23.5	1,629,323	14,940	0.0092	0.9883	76.01
24.5	1,351,439	14,658	0.0108	0.9908	75.32
25.5	1,179,163	13,942	0.0118	0.9882	74.50
26.5	1,016,378	45,220	0.0445	0.9555	73.62
27.5	809,555	19,569	0.0242	0.9758	70.34
28.5	560,647	25,962	0.0463	0.9537	68.64
29.5	502,023	15,322	0.0305	0.9695	65.46
30.5	394,110	6,112	0.0155	0.9845	63.47
31.5	376,339	18,039	0.0479	0.9521	62.48
32.5	300,065	14,025	0.0467	0.9533	59.49
33.5	237,319	2,539	0.0107	0.9893	56.71
34.5	189,655	1,811	0.0095	0.9905	56.10
35.5	137,889	4,829	0.0350	0.9650	55.56
36.5	111,642	1,584	0.0142	0.9858	53.62
37.5	102,424	211	0.0021	0.9979	52.86
38.5	106,305	3,961	0.0373	0.9627	52.75

ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1934-2019

EXPERIENCE BAND 1998-2019

	211112 1931 2019		2111 21	tidited bint	D 1990 2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	88,620 87,950 70,814 68,628 66,883 65,275 55,797 54,955 54,854	2,649 10,626 1,547 1,469 1,528 4,246 631 468 2,147	0.0299 0.1208 0.0218 0.0214 0.0228 0.0650 0.0113 0.0085 0.0391	0.9701 0.8792 0.9782 0.9786 0.9772 0.9350 0.9887 0.9915 0.9609	50.78 49.27 43.31 42.37 41.46 40.51 37.88 37.45 37.13
48.5	56,617	3,832	0.0391	0.9323	35.68
48.5 49.5 51.5 52.5 53.5 54.5 55.5 57.5 58.5 59.5 61.5 62.5 64.5 65.5 67.5 68.5	56,617 51,925 39,423 29,792 22,102 18,507 16,481 14,217 13,007 13,561 11,747 9,497 9,493 10,262 8,492 6,634 3,841 3,467 3,248 2,518 1,175	3,832 4,884 1,305 5,771 1,511 2,133 2,264 854 678 483 2,380 683 574 1,874 393 219 197	0.0677 0.0941 0.0331 0.1937 0.0684 0.1152 0.1374 0.0601 0.0521 0.0356 0.2026 0.0719 0.0605 0.0000 0.2206 0.0000 0.1022 0.0631 0.0606 0.0000 0.0000 0.0019	0.9323 0.9059 0.9669 0.8063 0.9316 0.8848 0.8626 0.9399 0.9479 0.9644 0.7974 0.9281 0.9395 1.0000 0.7794 1.0000 0.8978 0.9369 0.9394 1.0000 0.9394 1.0000 0.9981	35.68  33.26 30.13 29.14 23.49 21.89 19.36 16.70 15.70 14.88 14.35 11.45 10.62 9.98 9.98 7.78 7.78 6.98 6.54 6.15 6.15
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	841 2,192 2,063 1,639 1,638 1,351 1,483 1,483 1,32	2 141	0.0000 0.0000 0.0000 0.0009 0.0864 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9991 0.9136 1.0000 1.0000 1.0000	6.13 6.13 6.13 6.13 5.60 5.60 5.60 5.60

# ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1934-2019

#### EXPERIENCE BAND 1998-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5	132 132 132		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	5.60 5.60 5.60 5.60

ORIGINAL CURVE = 2012-2019 EXPERIENCE 1941-2013 PLACEMENTS IOWA 20-R4 35 ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES 30 ORIGINAL AND SMOOTH SURVIVOR CURVES 25 BLACK HILLS NEBRASKA AGE IN YEARS 5 9 Ŋ <del>ا</del>ه 100 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС



## ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES

PLACEMENT E	BAND 1941-2013		EXPER	RIENCE BAN	D 2012-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	613 795 795 825 825 825 19,508 18,895 18,713		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5	18,682 18,682	18,682	0.0000	1.0000	100.00
14.5 15.5 16.5 17.5 18.5	454 454 454 454		0.0000 0.0000 0.0000 0.0000		
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	454 454 454		0.0000 0.0000 0.0000		
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5					

## ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT E	BAND 1941-2013		EXPER	IENCE BAN	D 2012-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,027 3,650 7,495 7,751 11,793 12,981 13,257 13,204 12,335		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	9,119 8,863 4,822 3,633 3,358 2,383 629		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	6,663 6,839 9,270 13,039 13,593 15,242 8,579 8,684 9,093 7,330		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	3,561 3,006 2,143 2,143 2,038 1,453 785 785		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		

9 ORIGINAL CURVE = 1919-2013 PLACEMENTS 20 IOWA 25-R2.5 AGE IN YEARS 2 9 <del>ا</del>ه 6 30 9 8 -09 50 40 20-9 РЕВСЕИТ ЗИВУІУІИС

ACCOUNT 387.00 OTHER EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

# ACCOUNT 387.00 OTHER EQUIPMENT

PLACEMENT	BAND 1919-2013		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	6,645,988		0.0000	1.0000	100.00
0.5	8,005,491	952,176	0.1189	0.8811	100.00
1.5	8,689,344	958,688	0.1103	0.8897	88.11
2.5	10,140,942	1,074,460	0.1060	0.8940	78.39
3.5	8,850,192		0.0000	1.0000	70.08
4.5	9,041,336	434,836	0.0481	0.9519	70.08
5.5	7,331,532	818,175	0.1116	0.8884	66.71
6.5	5,969,004	76,641	0.0128	0.9872	59.27
7.5	7,107,972	167,912	0.0236	0.9764	58.50
8.5	7,606,758		0.0000	1.0000	57.12
9.5	7,569,347		0.0000	1.0000	57.12
10.5	7,718,790		0.0000	1.0000	57.12
11.5	7,069,480		0.0000	1.0000	57.12
12.5	7,072,995		0.0000	1.0000	57.12
13.5	6,144,111		0.0000	1.0000	57.12
14.5	6,234,509	74,943	0.0120	0.9880	57.12
15.5	6,172,541	100,399	0.0163	0.9837	56.44
16.5	5,831,224	1,022,550	0.1754	0.8246	55.52
17.5	4,521,894	1,428,706	0.3160	0.6840	45.78
18.5	3,168,303	378,491	0.1195	0.8805	31.32
19.5	2,976,309	241,726	0.0812	0.9188	27.58
20.5	2,755,969	1,784,607	0.6475	0.3525	25.34
21.5	985,532	66,724	0.0677	0.9323	8.93
22.5	927,592	6,978	0.0075	0.9925	8.33
23.5	834,994	73,515	0.0880	0.9120	8.26
24.5	757,115	21,003	0.0277	0.9723	7.54
25.5	588,587	42,300	0.0719	0.9281	7.33
26.5	544,802	1,675	0.0031	0.9969	6.80
27.5	540,226	16,104	0.0298	0.9702	6.78
28.5	507,957	34,484	0.0679	0.9321	6.58
29.5	469,820	65,424	0.1393	0.8607	6.13
30.5	388,207	27,570	0.0710	0.9290	5.28
31.5	305,846	24,186	0.0791	0.9209	4.90
32.5	281,660	22,685	0.0805	0.9195	4.51
33.5	256,796	27,248	0.1061	0.8939	4.15
34.5	204,412	12,618	0.0617	0.9383	3.71
35.5	154,773	8,580	0.0554	0.9446	3.48
36.5	42,956	6,150	0.1432	0.8568	3.29
37.5	33,291		0.0000	1.0000	2.82
38.5	10,465	819	0.0783	0.9217	2.82

#### ACCOUNT 387.00 OTHER EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT E	BAND 1919-2013		EXPE	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	9,646 5,472 5,407 4,025 1,816 2,257 2,949 2,991 2,760 2,760	4,539 309 1,813 2,209	0.4706 0.0565 0.3353 0.5489 0.0000 0.0000 0.0000 0.0000	0.5294 0.9435 0.6647 0.4511 1.0000 1.0000 1.0000 1.0000	2.60 1.37 1.30 0.86 0.39 0.39 0.39 0.39 0.39
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	2,760 2,760 2,534 1,549 1,506 1,506 1,287 990 3,938 4,310	775 220 297 246	0.0000 0.0000 0.3059 0.0000 0.0000 0.1457 0.2305 0.2485 0.0000	1.0000 1.0000 0.6941 1.0000 1.0000 0.8543 0.7695 0.7515 1.0000	0.39 0.39 0.39 0.27 0.27 0.27 0.23 0.18 0.13
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	4,276 4,021 4,077 4,478 4,819 1,492 1,121 1,531 1,424 1,368	255 215 107	0.0596 0.0000 0.0000 0.0000 0.0000 0.1919 0.0700 0.0000	0.9404 1.0000 1.0000 1.0000 1.0000 0.8081 0.9300 1.0000	0.13 0.13 0.13 0.13 0.13 0.13 0.10 0.09
69.5 70.5 71.5 72.5	966 695 815 815		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	0.09 0.09 0.09 0.09

73.5

74.5

75.5

76.5

77.5

78.5

1,121

1,121

1,121

1,121

1,121

1,495

0.0000

0.0000

0.0000

0.0000

0.0000

70 0.0622

1.0000

1.0000

1.0000

1.0000

0.9378

1.0000

0.09

0.09

0.09

0.09

0.09

0.09

# ACCOUNT 387.00 OTHER EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT :	BAND 1919-2013		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	1,495 1,495 870 870 870 870 870 829 829	625	0.0000 0.4182 0.0000 0.0000 0.0000 0.0466 0.0000 0.0000	1.0000 0.5818 1.0000 1.0000 1.0000 0.9534 1.0000 1.0000	0.09 0.09 0.05 0.05 0.05 0.05 0.05 0.05
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	829 829 829 829 749 749 443 443 443		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05

443

0.0000 1.0000

99.5

100.5

0.05

0.05

8 ORIGINAL CURVE = 1921-2019 PLACEMENTS 2 9 IOWA 38-R2 20 AGE IN YEARS 9 2 9 <del>,</del> % 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

🙇 Gannett Fleming

ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

## ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS

PLACEMENT E	BAND 1921-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5	22,330,415 7,295,123 3,051,817 3,187,969 3,024,297 2,115,559 993,135 875,757	43,745 11,486 3,667 9,347 399	0.0000 0.0060 0.0000 0.0000 0.0038 0.0017 0.0094 0.0005	1.0000 0.9940 1.0000 1.0000 0.9962 0.9983 0.9906 0.9995	100.00 100.00 99.40 99.40 99.02 98.85 97.92
7.5 8.5	873,737 857,989 842,158	30,548 11,281	0.0003 0.0356 0.0134	0.9644	97.88 94.39
9.5 10.5 11.5 12.5 13.5 14.5	355,634 256,642 271,139 290,447 282,432 316,221 432,154	11,924 110 7,293 12,355	0.0335 0.0000 0.0000 0.0000 0.0004 0.0231 0.0286	0.9665 1.0000 1.0000 1.0000 0.9996 0.9769 0.9714	93.13 90.00 90.00 90.00 90.00 89.97 87.89
16.5 17.5 18.5	465,711 486,238 556,615	8,434 126 1,048	0.0181 0.0003 0.0019	0.9819 0.9997 0.9981	85.38 83.84 83.81
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	541,491 521,869 488,164 487,109 402,130 400,997 296,255 288,710 299,799 312,226	23,049  7,464 5,494 1,368 16,185 13,659 4,102 4,129 7,371	0.0426 0.0000 0.0153 0.0113 0.0034 0.0404 0.0461 0.0142 0.0138 0.0236	0.9574 1.0000 0.9847 0.9887 0.9966 0.9596 0.9539 0.9858 0.9862 0.9764	83.66 80.09 80.09 78.87 77.98 77.72 74.58 71.14 70.13 69.16
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	274,029 278,472 301,801 331,433 332,185 323,520 285,460 204,021 193,805 148,289	4,831 19,513 26,857 2,096 6,010 2,375 26,593 8,197 942 1,003	0.0176 0.0701 0.0890 0.0063 0.0181 0.0073 0.0932 0.0402 0.0049 0.0068	0.9824 0.9299 0.9110 0.9937 0.9819 0.9927 0.9068 0.9598 0.9951 0.9932	67.53 66.34 61.69 56.20 55.85 54.84 54.43 49.36 47.38 47.15

## ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	106,858 81,219 124,558 170,746 165,019 163,623 172,916	15,526 31,858 191 90 47,005	0.1453 0.3923 0.0000 0.0000 0.0012 0.0005 0.2718	0.8547 0.6077 1.0000 1.0000 0.9988 0.9995 0.7282	46.83 40.03 24.33 24.33 24.33 24.30 24.28
46.5 47.5 48.5	172,910 126,654 132,364 96,998	47,005	0.2718 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	17.68 17.68 17.68
49.5 50.5 51.5 52.5 53.5 54.5	100,102 99,360 98,453 86,849 81,106 81,106	742 154 11,604	0.0074 0.0016 0.1179 0.0000 0.0000	0.9926 0.9984 0.8821 1.0000 1.0000	17.68 17.55 17.52 15.46 15.46
55.5 56.5 57.5 58.5	81,106 32,718 32,388 31,233	48,541 366 386 138	0.5985 0.0112 0.0119 0.0044	0.4015 0.9888 0.9881 0.9956	15.46 6.21 6.14 6.06
59.5 60.5 61.5 62.5 63.5	31,096 28,090 23,236 18,361 17,943	2,775 5,141 14,461	0.0892 0.0000 0.2212 0.0000 0.8060	0.9108 1.0000 0.7788 1.0000 0.1940	6.04 5.50 5.50 4.28 4.28
64.5 65.5 66.5 67.5 68.5	3,482 2,911 12,097 12,097 11,936	921	0.2646 0.0000 0.0000 0.0133 0.0000	0.7354 1.0000 1.0000 0.9867 1.0000	0.83 0.61 0.61 0.61 0.60
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	11,124 20,564 19,057 19,022 18,827 18,827 18,827 47,841	1,507 35 195	0.0000 0.0733 0.0019 0.0102 0.0000 0.0000 0.0000	1.0000 0.9267 0.9981 0.9898 1.0000 1.0000 0.9945	0.60 0.60 0.56 0.55 0.55 0.55
77.5 78.5	47,576 47,286	290	0.0061	0.9939	0.55

## ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1921-2019 EXPERIENCE BAND 1998-2019

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5	47,286 46,935 37,546 37,546 37,546 37,546 29,013 29,013	350 9,389 8,533	0.0074 0.2000 0.0000 0.0000 0.0000 0.2273 0.0000 0.0000	0.9926 0.8000 1.0000 1.0000 0.7727 1.0000 1.0000	0.55 0.54 0.43 0.43 0.43 0.33 0.33
88.5 89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	29,013 29,013 29,013 29,013 29,013 29,013 29,013 29,013 29,013		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.33 0.33 0.33 0.33 0.33 0.33 0.33 0.33 0.33

ORIGINAL CURVE = 1950-2019 EXPERIENCE 35 30 25 IOWA AGE IN YEARS 5 9 Ŋ <del>,</del> % 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

**i** Gannett Fleming

ACCOUNT 390.51 LEASEHOLD IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

## ACCOUNT 390.51 LEASEHOLD IMPROVEMENTS

PLACEMENT E	BAND 1950-2014		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	259,242 268,549 285,791 86,471 136,252 211,207 285,534 286,562 313,264 404,686	68,016 55,598 106,191 29,113 11,653	0.0000 0.0000 0.0000 0.0000 0.0000 0.3220 0.1947 0.3706 0.0929 0.0288	1.0000 1.0000 1.0000 1.0000 1.0000 0.6780 0.8053 0.6294 0.9071 0.9712	100.00 100.00 100.00 100.00 100.00 67.80 54.60 34.36 31.17
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	493,191 493,191 526,090 549,311 546,625 560,124 520,438 443,419 446,317 447,594	13,475 1,508 2,686 197,955 39,686 81,494 634 3,591	0.0000 0.0273 0.0029 0.0049 0.3621 0.0709 0.1566 0.0000 0.0014 0.0080	1.0000 0.9727 0.9971 0.9951 0.6379 0.9291 0.8434 1.0000 0.9986 0.9920	30.27 30.27 29.45 29.36 29.22 18.64 17.32 14.60 14.58
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	444,003 444,003 444,003 434,523 423,638 324,382 298,274 215,809 135,468 131,513	7,107 9,480 5,541 88,686 23,827 81,615 75,670 2,714 26,702	0.0000 0.0160 0.0214 0.0128 0.2093 0.0735 0.2736 0.3506 0.0200 0.2030	1.0000 0.9840 0.9786 0.9872 0.7907 0.9265 0.7264 0.6494 0.9800 0.7970	14.47 14.47 14.24 13.93 13.75 10.87 10.08 7.32 4.75 4.66
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	104,811 25,306 25,306 17,804 11,284 11,284 11,284 11,284 11,284 6,808	77,437 7,502 6,521	0.7388 0.0000 0.2964 0.3662 0.0000 0.0000 0.0000 0.0000	0.2612 1.0000 0.7036 0.6338 1.0000 1.0000 1.0000 1.0000	3.71 0.97 0.97 0.68 0.43 0.43 0.43 0.43 0.43

## ACCOUNT 390.51 LEASEHOLD IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1950-2014		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	3,910 2,000 2,000	2,000	0.0000 0.0000 1.0000	1.0000	0.43 0.43 0.43
47.5 48.5	1,248 1,248		0.0000		
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	1,248 1,248 1,248 1,248 1,248 1,248 1,248 1,248		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		
59.5 60.5 61.5	1,248 1,248 1,248	1,248	0.0000 0.0000 1.0000		



62.5

20

1998-2019 EXPERIENCE 1971-2019 PLACEMENTS **OWA 9-53** ORIGINAL CURVE ■ 16 4 12 AGE IN YEARS 9 6 100 8 -09 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

BLACK HILLS NEBRASKA ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS

## ORIGINAL LIFE TABLE

PLACEMENT 1	BAND 1971-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	1,357,432 2,834,010 3,847,072 4,798,120 4,820,211 6,039,038 5,706,504 4,582,223 3,118,348	11,223 27,282 36,325 233,164 337,574 241,561 499,914	0.0000 0.0040 0.0071 0.0000 0.0075 0.0386 0.0592 0.0527 0.1603	1.0000 0.9960 0.9929 1.0000 0.9925 0.9614 0.9408 0.9473	100.00 100.00 99.60 98.90 98.90 98.15 94.36 88.78 84.10
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,724,673 583,776 419,182 19,882	450,509 164,594 192,900 19,882	0.2612 0.2819 0.4602 1.0000	0.7388 0.7181 0.5398	70.62 52.17 37.46 20.22
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	167 167 167	167	0.0000 0.0000 1.0000		

29.5

ORIGINAL CURVE = 1971-2019 PLACEMENTS 35 ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS ORIGINAL AND SMOOTH SURVIVOR CURVES 30 IOWA 9-L3 25 BLACK HILLS NEBRASKA AGE IN YEARS 5 9 Ŋ <del>,</del> % 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

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## ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

## ORIGINAL LIFE TABLE

PLACEMENT I	BAND 1971-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	17,041,324		0.0000	1.0000	100.00
0.5	13,393,172	81,444	0.0061	0.9939	100.00
1.5	11,405,413	69,347	0.0061	0.9939	99.39
2.5	10,564,234	66,506	0.0063	0.9937	98.79
3.5	10,610,943	148,254	0.0140	0.9860	98.17
4.5	7,846,272	365,618	0.0466	0.9534	96.79
5.5	4,621,335	475,353	0.1029	0.8971	92.28
6.5	2,851,977	558,073	0.1957	0.8043	82.79
7.5	2,012,196	565,181	0.2809	0.7191	66.59
8.5	1,671,151	236,729	0.1417	0.8583	47.89
9.5	1,726,889	313,635	0.1816	0.8184	41.10
10.5	916,101	466,446	0.5092	0.4908	33.64
11.5	399,096	184,457	0.4622	0.5378	16.51
12.5	200,350	62,678	0.3128	0.6872	8.88
13.5	111,279	11,091	0.0997	0.9003	6.10
14.5	81,246		0.0000	1.0000	5.49
15.5	81,246	21,430	0.2638	0.7362	5.49
16.5	59,816	11,121	0.1859	0.8141	4.04
17.5	99,109	21,032	0.2122	0.7878	3.29
18.5	103,613		0.0000	1.0000	2.59
19.5	103,613		0.0000	1.0000	2.59
20.5	103,613	46,634	0.4501	0.5499	2.59
21.5	75,782	57,200	0.7548	0.2452	1.43
22.5	22,583		0.0000	1.0000	0.35
23.5	22,583		0.0000	1.0000	0.35
24.5	22,583		0.0000	1.0000	0.35
25.5	22,583		0.0000	1.0000	0.35
26.5	431		0.0000	1.0000	0.35
27.5	431		0.0000	1.0000	0.35
28.5	431	431	1.0000		0.35

29.5

ORIGINAL CURVE = 1981-2017 PLACEMENTS 35 ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS 30 ORIGINAL AND SMOOTH SURVIVOR CURVES 25 -IOWA 8-L<mark>2</mark> BLACK HILLS NEBRASKA AGE IN YEARS 5 9 2 <del>ا</del>ه 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

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## ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

PLACEMENT I	BAND 1981-2017		EXPE	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	3,576,358 3,585,528 3,427,694 2,876,225 2,209,987 1,889,796 1,478,458 1,025,954 734,802	66,232 86,375 121,749 90,108 221,460 341,263 381,607 291,362	0.0000 0.0185 0.0252 0.0423 0.0408 0.1172 0.2308 0.3720 0.3965	1.0000 0.9815 0.9748 0.9577 0.9592 0.8828 0.7692 0.6280 0.6035	100.00 100.00 98.15 95.68 91.63 87.89 77.59 59.68 37.48
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	248,778 258,915 172,171 134,262 93,678 82,786 82,727 94,350 107,930 107,930 102,382	60,826 27,767 40,584 10,893 59 2,843 2,506 24,349 38,833	0.0000 0.2349 0.1613 0.3023 0.1163 0.0007 0.0344 0.0266 0.0000 0.2256 0.3793	1.0000 0.7651 0.8387 0.6977 0.8837 0.9993 0.9656 0.9734 1.0000 0.7744 0.6207	22.62 22.62 17.31 14.52 10.13 8.95 8.94 8.64 8.41 8.41 6.51
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	63,356 47,270 47,270 34,080 32,193 32,193 32,193 14,736 14,736 14,286	16,086 13,191 687 18,507 450 14,286	0.2539 0.0000 0.2791 0.0202 0.0000 0.0000 0.5749 0.0000 0.0305 1.0000	0.7461 1.0000 0.7209 0.9798 1.0000 1.0000 0.4251 1.0000 0.9695	4.04 3.02 3.02 2.17 2.13 2.13 0.91 0.91 0.88
29.5 30.5 31.5 32.5 33.5 34.5	15,851 15,851 15,851		0.0000 0.0000 0.0000		

ORIGINAL CURVE = 1982-2019 PLACEMENTS 35 ACCOUNT 392.05 TRANSPORTATION EQUIPMENT - HEAVY TRUCKS ORIGINAL AND SMOOTH SURVIVOR CURVES 30 OWA 11-R. 25 BLACK HILLS NEBRASKA AGE IN YEARS 5 9 Ŋ <del>ا</del>ه 6 8 -09 50 40 30 20-9 8 РЕВСЕИТ ЗИВУІУІИС

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## ACCOUNT 392.05 TRANSPORTATION EQUIPMENT - HEAVY TRUCKS

PLACEMENT I	BAND 1982-2019		EXPE	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	2,905,727		0.0000	1.0000	100.00
0.5	2,635,208	5,778	0.0022	0.9978	100.00
1.5	2,421,758	28,165	0.0116	0.9884	99.78
2.5	1,683,502	5,866	0.0035	0.9965	98.62
3.5	1,312,999	45,299	0.0345	0.9655	98.28
4.5	1,058,089		0.0000	1.0000	94.89
5.5	1,585,011		0.0000	1.0000	94.89
6.5	2,108,548	217,329	0.1031	0.8969	94.89
7.5	1,900,936	67,103	0.0353	0.9647	85.11
8.5	1,970,849	182,291	0.0925	0.9075	82.10
9.5	2,067,813	473,636	0.2291	0.7709	74.51
10.5	1,651,924	332,667	0.2014	0.7986	57.44
11.5	1,110,604	308,433	0.2777	0.7223	45.87
12.5	746,654	341,699	0.4576	0.5424	33.13
13.5	440,075	103,264	0.2347	0.7653	17.97
14.5	252,958	88,564	0.3501	0.6499	13.75
15.5	75,920	32,744	0.4313	0.5687	8.94
16.5	43,000		0.0000	1.0000	5.08
17.5	43,000	27,150	0.6314	0.3686	5.08
18.5	15,851		0.0000	1.0000	1.87
19.5	15,851		0.0000	1.0000	1.87
20.5	15,851		0.0000	1.0000	1.87
21.5	15,851		0.0000	1.0000	1.87
22.5	15,851		0.0000	1.0000	1.87
23.5	15,353		0.0000	1.0000	1.87
24.5	15,353		0.0000	1.0000	1.87
25.5	15,353		0.0000	1.0000	1.87
26.5	15,353		0.0000	1.0000	1.87
27.5	15,353		0.0000	1.0000	1.87
28.5	15,353		0.0000	1.0000	1.87
29.5	15,353		0.0000	1.0000	1.87
30.5	15,353		0.0000	1.0000	1.87
31.5	2,250		0.0000	1.0000	1.87
32.5	2,250		0.0000	1.0000	1.87
33.5	2,250		0.0000	1.0000	1.87
34.5					1.87

ORIGINAL CURVE = 1965-2019 PLACEMENTS 35 IOWA 12-S1 30 BLACK HILLS NEBRASKA ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS ORIGINAL AND SMOOTH SURVIVOR CURVES 25 AGE IN YEARS 5 9 Ŋ <del>,</del> % 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

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## ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS

PLACEMENT	BAND 1965-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	564,991		0.0000	1.0000	100.00
0.5	427,171	307	0.0007	0.9993	100.00
1.5	459,567	311	0.0007	0.9993	99.93
2.5	468,593	312	0.0007	0.9993	99.86
3.5	490,233	7,282	0.0149	0.9851	99.79
4.5	423,705	139,914	0.3302	0.6698	98.31
5.5	276,770	1,375	0.0050	0.9950	65.85
6.5	285,974	26,755	0.0936	0.9064	65.52
7.5	325,171	16,029	0.0493	0.9507	59.39
8.5	300,166	26,382	0.0879	0.9121	56.46
9.5	276,023	14,291	0.0518	0.9482	51.50
10.5	262,372	6,515	0.0248	0.9752	48.83
11.5	211,952	22,157	0.1045	0.8955	47.62
12.5	188,330	28,463	0.1511	0.8489	42.64
13.5	141,744	12,160	0.0858	0.9142	36.20
14.5	124,862	21,959	0.1759	0.8241	33.09
15.5	89,124	721	0.0081	0.9919	27.27
16.5	77,568	39,842	0.5136	0.4864	27.05
17.5	26,088	3,294	0.1263	0.8737	13.16
18.5	13,412		0.0000	1.0000	11.50
19.5	10,152		0.0000	1.0000	11.50
20.5	10,152		0.0000	1.0000	11.50
21.5	5,073		0.0000	1.0000	11.50
22.5	5,073		0.0000	1.0000	11.50
23.5	2,219		0.0000	1.0000	11.50
24.5	11,370		0.0000	1.0000	11.50
25.5	20,981	28	0.0014	0.9986	11.50
26.5	18,762		0.0000	1.0000	11.48
27.5	9,610		0.0000	1.0000	11.48
28.5					11.48
29.5					
30.5					
31.5					
32.5	149		0.0000		
33.5	149		0.0000		
34.5	149		0.0000		
35.5	149		0.0000		
36.5	149		0.0000		
37.5	149		0.0000		
38.5	149		0.0000		

## ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS

# ORIGINAL LIFE TABLE, CONT.

PLACEMENT 1	BAND 1965-2019		EXPER	IENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	149		0.0000		
40.5	149		0.0000		
41.5	149		0.0000		
42.5	149		0.0000		
43.5	493		0.0000		
44.5	493		0.0000		
45.5	493		0.0000		
46.5	149	149	1.0000		
47.5					

ORIGINAL CURVE = 1936-2019 EXPERIENCE 1936-2019 PLACEMENTS 35 2 25 OWA 13-L AGE IN YEARS 5 9 Ŋ <del>ا</del>ه 6 9 8 -09 50 40 30 20-9 РЕВСЕИТ ЗИВУІУІИС

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ACCOUNT 396.00 POWER OPERATED EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

BLACK HILLS NEBRASKA

#### ACCOUNT 396.00 POWER OPERATED EQUIPMENT

#### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1936-2019		EXPER	RIENCE BAN	D 1998-2019
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	4,653,874		0.0000	1.0000	100.00
0.5	3,800,616	104,640	0.0275	0.9725	100.00
1.5	3,609,633	156,313	0.0433	0.9567	97.25
2.5	3,567,490	136,498	0.0383	0.9617	93.04
3.5	3,668,858	111,626	0.0304	0.9696	89.48
4.5	2,692,170	14,129	0.0052	0.9948	86.75
5.5	2,693,162	52	0.0000	1.0000	86.30
6.5	2,789,102	193,132	0.0692	0.9308	86.30
7.5	2,815,489	162,480	0.0577	0.9423	80.32
8.5	2,676,083	152,562	0.0570	0.9430	75.69
9.5	2,429,815	327,115	0.1346	0.8654	71.37
10.5	1,841,958	158,307	0.0859	0.9141	61.76
11.5	1,641,595	236,402	0.1440	0.8560	56.45
12.5	1,481,769	279,410	0.1886	0.8114	48.32
13.5	1,156,981	85,616	0.0740	0.9260	39.21
14.5	965,833	146,505	0.1517	0.8483	36.31
15.5	737,444	154,654	0.2097	0.7903	30.80
16.5	579,122	55,710	0.0962	0.9038	24.34
17.5	535,935	12,696	0.0237	0.9763	22.00
18.5	523,449	39,267	0.0750	0.9250	21.48
19.5	494,806	170,786	0.3452	0.6548	19.87
20.5	342,688	77,204	0.2253	0.7747	13.01
21.5	295,338	98,616	0.3339	0.6661	10.08
22.5	196,722	10,720	0.0545	0.9455	6.71
23.5	190,141	38,336	0.2016	0.7984	6.35
24.5	143,252	10,187	0.0711	0.9289	5.07
25.5	135,723		0.0000	1.0000	4.71
26.5	136,326	3,879	0.0285	0.9715	4.71
27.5	143,063	341	0.0024	0.9976	4.57
28.5	153,179	12,089	0.0789	0.9211	4.56
29.5	141,446	32,827	0.2321	0.7679	4.20
30.5	108,619	39,497	0.3636	0.6364	3.23
31.5	69,889	40,782	0.5835	0.4165	2.05
32.5	29,448	432	0.0147	0.9853	0.86
33.5	34,003	18,965	0.5577	0.4423	0.84
34.5	15,568	365	0.0234	0.9766	0.37
35.5	15,203		0.0000	1.0000	0.36
36.5	15,199	4,742	0.3120	0.6880	0.36
37.5	10,458	530	0.0506	0.9494	0.25
38.5	9,928	927	0.0933	0.9067	0.24

#### ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT E	BAND 1936-2019		EXPE	RIENCE BAN	D 1998-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	9,531 9,531 1,288 1,832 1,080 1,080 2,397 5,376	530 335 122	0.0000 0.0000 0.0000 0.2892 0.0000 0.0000 0.1398 0.0227	1.0000 1.0000 1.0000 0.7108 1.0000 1.0000 0.8602 0.9773	0.22 0.22 0.22 0.22 0.15 0.15 0.15
47.5 48.5	5,254 4,840	414 245	0.0788 0.0505	0.9212 0.9495	0.13 0.12
49.5 50.5 51.5 52.5 53.5 54.5	4,402 1,089 1,089 1,089 1,089	3,314	0.7527 0.0000 0.0000 0.0000 0.0000 0.4185	0.2473 1.0000 1.0000 1.0000 1.0000 0.5815	0.11 0.03 0.03 0.03 0.03 0.03
55.5 56.5 57.5 58.5	633 633 633 633		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	0.02 0.02 0.02 0.02
59.5 60.5 61.5 62.5	633 263 273 273	370	0.5852 0.0000 0.0000 0.0000	0.4148 1.0000 1.0000 1.0000	0.02 0.01 0.01 0.01
63.5 64.5 65.5 66.5 67.5 68.5	273 11 11 11 11 11	263	0.9607 0.0000 0.0000 0.0000 0.0000	0.0393 1.0000 1.0000 1.0000 1.0000	0.01 0.00 0.00 0.00 0.00 0.00
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	11 11 11 11 11 11 11 11		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
79.5 80.5	11	11	1.0000		0.00

### PART VIII. NET SALVAGE STATISTICS



#### ACCOUNT 369.03 MEASURING AND REGULATING STATION EQUIPMENT

#### SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVAL		GROSS SALVAGE	NET SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PC	
2010	19,975		0		0 0
2011					
2012	68		0		0 0
2013	9,006	11,620	129		0 11,620- 129-
2014	10,818		0		0 0
2015					
2016					
2017					
2018					
2019					
TOTAL	39,868	11,620	29		0 11,620- 29-
THREE-YE	AR MOVING AVERAGES				
10-12	6,681		0		0 0
11-13	3,025	3 <b>,</b> 873	128		0 3,873- 128-
12-14	6,631	3 <b>,</b> 873	58		0 3,873- 58-
13-15	6,608	3 <b>,</b> 873	59		0 3,873- 59-
14-16	3,606		0		0 0
15-17					
16-18					
17-19					

FIVE-YEAR AVERAGE

15-19

#### ACCOUNT 375.01 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	3,921		0		0		0
2010	3,921		U		U		U
2012	36,793	2	0		0	2-	0
2013	4,220	_	0		0	_	0
2014	101,449		0		0		0
2015							
2016							
2017	78,774		0		0		0
2018							
2019	21,683		0	5,000	23	5,000	23
TOTAL	246,840	2	0	5,000	2	4,998	2
THREE-YE	AR MOVING AVERAGE	S					
10-12	13,571	1	0		0	1-	0
11-13	13,671	1	0		0	1-	0
12-14	47,487	1	0		0	1-	0
13-15	35,223		0		0		0
14-16	33,816		0		0		0
15-17	26,258		0		0		0
16-18	26,258		0		0		0
17-19	33,485		0	1,667	5	1,667	5
FTVE-YEAI	R AVERAGE						
			0	1 000	_	1 000	_
15-19	20,091		0	1,000	5	1,000	5



#### ACCOUNT 376.00 MAINS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	2,519,602	69 <b>,</b> 912	3	48	0	69,864-	3-
2011	357,205	309,248	87		0	309,248-	87-
2012	660 <b>,</b> 075	67 <b>,</b> 133	10	5	0	67,128-	10-
2013	637,051	852	0		0	852-	0
2014	904,226	31,656	4		0	31,656-	4 –
2015	947,249	53,040	6		0	53,040-	6-
2016	1,623,440	411,321	25	123	0	411,197-	25-
2017	2,127,789	438,910	21		0	438,910-	21-
2018	245,551	1,076,794	439		0	1,076,794-	439-
2019	478,512	481,011	101		0	481,011-	101-
TOTAL	10,500,701	2,939,877	28	176	0	2,939,700-	28-
THREE-YE	AR MOVING AVERAG	ES					
10-12	1,178,961	148,764	13	18	0	148,747-	13-
11-13	551,444	125,744	23	2	0	125,743-	23-
12-14	733,784	33,214	5	2	0	33,212-	5-
13-15	829 <b>,</b> 509	28,516	3		0	28,516-	3-
14-16	1,158,305	165,339	14	41	0	165,298-	14-
15-17	1,566,159	301,090	19	41	0	301,049-	19-
16-18	1,332,260	642,341	48	41	0	642,300-	48-
17-19	950,618	665 <b>,</b> 572	70		0	665,572-	70-
FIVE-YEA	R AVERAGE						
		400 015	4 E	٥٢	0	400 100	4 =
15-19	1,084,508	492,215	45	25	0	492,190-	45-

#### ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	162,403	27,713	17		0	27,713-	17-
2011	39,636	6 <b>,</b> 765	17	460	1	6 <b>,</b> 305-	16-
2012	570,467	8,453	1		0	8,453-	1-
2013	8,337	34,662	416		0	34,662-	416-
2014	49,233	29,681	60		0	29,681-	60-
2015	50,059	34,627	69		0	34,627-	69-
2016	173,216	92,439	53		0	92,439-	53-
2017	783 <b>,</b> 032	1,675	0		0	1,675-	0
2018	788	15 <b>,</b> 907			0	15,907-	
2019	69,216	36,426	53		0	36,426-	53-
TOTAL	1,906,388	288,349	15	460	0	287 <b>,</b> 889-	15-
THREE-YE	AR MOVING AVERA	GES					
10-12	257 <b>,</b> 502	14,310	6	153	0	14,157-	5-
11-13	206,147	16,627	8	153	0	16,473-	8-
12-14	209,346	24,266	12		0	24,266-	12-
13-15	35 <b>,</b> 876	32,990	92		0	32,990-	
14-16	90,836	52,249	58		0	52,249-	58-
15-17	335,436	42,914	13		0	42,914-	13-
16-18	319,012	36,674	11		0	36,674-	11-
17-19	284,346	18,003	6		0	18,003-	6-
	R AVERAGE						
	_						
15-19	215,262	36,215	17		0	36,215-	17-

#### ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
ILAK	KEIIKEMENIS	AMOUNI	PCI	AMOUNI	PCI	AMOUNI	PCI
2014	38 <b>,</b> 522		0		0		0
2015							
2016	10,711	825	8		0	825-	8 –
2017	317,630	46,171	15	521	0	45,650-	14-
2018	6 <b>,</b> 700	5 <b>,</b> 853	87		0	5 <b>,</b> 853-	87-
2019	3,185	62	2		0	62-	2-
TOTAL	376,748	52,911	14	521	0	52,390-	14-
THREE-YE	AR MOVING AVERAGE	ES					
14-16	16,411	275	2		0	275-	2-
15-17	109,447	15,665	14	174	0	15,492-	14-
16-18	111,680	17,616	16	174	0	17,443-	16-
17-19	109,172	17,362	16	174	0	17,188-	16-
FIVE-YEA	R AVERAGE						
15-19	67,645	10,582	16	104	0	10,478-	15-



#### ACCOUNT 380.00 SERVICES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PO	СТ	NET SALVAGE AMOUNT	PCT
2010	1,888,026	84,057	4	1	0	84,055-	4 –
2011	406,405	5,002	1		0	5 <b>,</b> 002-	1-
2012	1,069,324	127,568	12		0	127,568-	12-
2013	343,700	170	0		0	170-	0
2014	775 <b>,</b> 644	22,292	3		0	22,292-	3-
2015	764,541	104,516	14		0	104,516-	14-
2016	1,030,845	246,065	24		0	246,065-	24-
2017	1,170,574	371,710	32		0	371,710-	32-
2018	753 <b>,</b> 645	1,261,669	167		0	1,261,669-	167-
2019	670 <b>,</b> 772	96,454	14		0	96,454-	14-
TOTAL	8,873,477	2,319,504	26	1	0	2,319,503-	26-
THREE-YE	AR MOVING AVERAG	ES					
10-12	1,121,252	72,209	6		0	72,208-	6-
11-13	606,477	44,247	7		0	44,247-	7-
12-14	729 <b>,</b> 556	50,010	7		0	50,010-	7-
13-15	627 <b>,</b> 962	42,326	7		0	42,326-	7 –
14-16	857 <b>,</b> 010	124,291	15		0	124,291-	15-
15-17	988 <b>,</b> 653	240,764	24		0	240,764-	24-
16-18	985 <b>,</b> 021	626 <b>,</b> 482	64		0	626,482-	64-
17-19	864,997	576,611	67		0	576,611-	67-
FIVE-YEA	R AVERAGE						
15-19	878 <b>,</b> 075	416,083	47		0	416,083-	47-
	,	-,			-	-,	

#### ACCOUNT 381.00 METERS - SMALL VOLUME AND OTHER

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013	436,250		0		0		0
2014	413,465		0		0		0
2015	103,082	1,660	2		0	1,660-	2-
2016	301,336	2,541	1	9,041	3	6,500	2
2017	747 <b>,</b> 091	39	0		0	39-	0
2018	428,681		0		0		0
2019	733,272		0		0		0
TOTAL	3,163,175	4,241	0	9,041	0	4,800	0
THREE-YE.	AR MOVING AVERAG	ES					
13-15	317,599	553	0		0	553-	0
14-16	272,628	1,400	1	3,014	1	1,613	1
15-17	383,836	1,414	0	3,014	1	1,600	0
16-18	492,369	860	0	3,014	1	2,154	0
17-19	636,348	13	0		0	13-	0
FIVE-YEA	R AVERAGE						
15-19	462,692	848	0	1,808	0	960	0



#### ACCOUNT 381.00 METERS - ERT, AMR AND AMI

	REGULAR	COST 03 REMOVA		GROSS SALVAG		NET SALVAGE	1
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013	431,788		0		0		0
2014	2,295,615		0		0		0
2015	1,390,560		0		0		0
2016	549 <b>,</b> 889		0		0		0
2017	342,345		0		0		0
2018	831 <b>,</b> 937		0		0		0
2019	2,489,082		0		0		0
TOTAL	8,331,216		0		0		0
THREE-YE	CAR MOVING AVERAG	ES					
13-15	1,372,654		0		0		0
14-16	1,412,021		0		0		0
15-17	760 <b>,</b> 931		0		0		0
16-18	574 <b>,</b> 724		0		0		0
17-19	1,221,121		0		0		0
FIVE-YEA	AR AVERAGE						
15-19	1,120,763		0		0		0



#### ACCOUNT 382.01 METER INSTALLATIONS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PO	CT
2010	45,263		0	0		0
2011						
2012	2,782,714	354	0	0	354-	0
2013	112,943		0	0		0
2014	90,998		0	0		0
2015	3,699	9,328		0	9,328- 25	
2016	56 <b>,</b> 829	9,575	17	0	- /	17-
2017	426,211	•	10	0	•	10-
2018	721 <b>,</b> 612	2 <b>,</b> 667-	. 0	0	2 <b>,</b> 667	0
2019	683,412	661	0	0	661-	0
TOTAL	4,923,682	60,296	1	0	60,296-	1-
THREE-YE	AR MOVING AVERAGE	ES				
10-12	942,659	118	0	0	118-	0
11-13	965,219	118	0	0	118-	0
12-14	995 <b>,</b> 552	118	0	0	118-	0
13-15	69,213	3,109	4	0	3,109-	4 –
14-16	50,509	6,301	12	0	6,301-	12-
15-17	162,246	20,649	13	0	20,649-	13-
16-18	401,551	16,651	4	0	16,651-	4-
17-19	610,412	13,680	2	0	13,680-	2-
FIVE-YEA	R AVERAGE					
15-19	378,353	11,988	3	0	11,988-	3-

#### ACCOUNT 383.01 HOUSE REGULATORS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	313,183	25,402	8	79-	0	25,480-	8-
2011	38 <b>,</b> 965	1,351	3		0	1,351-	3-
2012	907,034	31,494	3		0	31,494-	3-
2013	29,171	37	0		0	37-	0
2014	50,549	7,054	14		0	7,054-	14-
2015	74,464	16,985	23		0	16,985-	23-
2016	164,740	49,960	30		0	49,960-	30-
2017	110,895	108,641	98		0	108,641-	98-
2018	79 <b>,</b> 503		0		0		0
2019	190,117	12,638	7		0	12,638-	7 –
TOTAL	1,958,620	253,561	13	79-	0	253,640-	13-
THREE-YE	AR MOVING AVERAG	ES					
10-12	419,727	19,416	5	26-	0	19,442-	5-
11-13	325,056	10,961	3		0	10,961-	3-
12-14	328,918	12,862	4		0	12,862-	4 –
13-15	51,394	8,025	16		0	8,025-	16-
14-16	96,584	24,666	26		0	24,666-	26-
15-17	116,699	58 <b>,</b> 529	50		0	58 <b>,</b> 529-	50 <b>-</b>
16-18	118,379	52 <b>,</b> 867	45		0	52,867-	45-
17-19	126,838	40,426	32		0	40,426-	32-
FIVE-YEA	R AVERAGE						
15-19	123,944	37,645	30		0	37,645-	30-

#### ACCOUNT 384.01 HOUSE REGULATOR INSTALLATIONS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL	DCIII	GROSS SALVAG	E	NET SALVAGE	DOM
IEAR	KETIKEMENIS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2012	439,485		0		0		0
2013	156		0		0		0
2014	77,306		0		0		0
2015							
2016							
2017	242		0		0		0
2018	4,242	93	2		0	93-	2-
2019	165,512	95,428	58		0	95,428-	58-
TOTAL	686,942	95,521	14		0	95,521-	14-
THREE-YE	AR MOVING AVERAG	ES					
12-14	172,316		0		0		0
13-15	25,821		0		0		0
14-16	25 <b>,</b> 769		0		0		0
15-17	81		0		0		0
16-18	1,494	31	2		0	31-	2-
17-19	56,665	31,840	56		0	31,840-	56-
FIVE-YEA	R AVERAGE						
15-19	33,999	19,104	56		0	19,104-	56-



#### ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	38,672	6 <b>,</b> 752	17		0	6 <b>,</b> 752-	17-
2011	4,887	3	0	21,000	430	20,997	430
2012	48,854	2,671	5		0	2,671-	5-
2013	96,457	37	0		0	37-	0
2014	140,784	57	0		0	57-	0
2015	185,259	583	0		0	583-	0
2016	161,304		0		0		0
2017	141,502		0		0		0
2018	548,149	1,769-	0		0	1,769	0
2019	263 <b>,</b> 982		0		0		0
TOTAL	1,629,850	8,334	1	21,000	1	12,666	1
THREE-YEA	AR MOVING AVERAGE	IS					
10-12	30,804	3,142	10	7,000	23	3,858	13
11-13	50,066	904	2	7,000	14	6,096	12
12-14	95 <b>,</b> 365	922	1		0	922-	1-
13-15	140,833	226	0		0	226-	0
14-16	162,449	213	0		0	213-	0
15-17	162,688	194	0		0	194-	0
16-18	283,652	590-	0		0	590	0
17-19	317,878	590-	0		0	590	0
FIVE-YEAR	R AVERAGE						
	-	0.5-				0.0-	•
15-19	260,039	237-	0		0	237	0

#### ACCOUNT 387.00 OTHER EQUIPMENT

#### SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OI REMOVAI AMOUNT		GROSS SALVAG AMOUNT		NET SALVAGE AMOUNT	PCT
2011 2012 2013 2014 2015 2016 2017 2018 2019	1,593,977 1,434,420 328,819		0 0 0		0 0 0		0 0 0
TOTAL	3,357,217		0		0		0
THREE-YE	AR MOVING AVERAGE	ES					
11-13 12-14 13-15 14-16 15-17 16-18 17-19	1,119,072 587,747 109,606		0 0 0		0 0 0		0 0 0

FIVE-YEAR AVERAGE

15-19

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2012	80,199		0		0		0
2012	3,109		0		0		0
2014	321		0		0		0
2015	9,594	5,642	59		0	5,642-	59 <b>-</b>
2016	596,753	17,562	3		0	17,562-	3-
2017	3,580	355	10		0	355-	10-
2018	183,143		0		0		0
2019	206,252	3,341	2	26,554	13	23,213	11
TOTAL	1,082,952	26,900	2	26,554	2	346-	0
THREE-YE	AR MOVING AVERAG	ES					
12-14	27,876		0		0		0
13-15	4,342	1,881	43		0	1,881-	43-
14-16	202,223	7 <b>,</b> 735	4		0	7,735-	4 –
15-17	203,309	7,853	4		0	7,853-	4 –
16-18	261,159	5 <b>,</b> 972	2		0	5 <b>,</b> 972-	2-
17-19	130,992	1,232	1	8,851	7	7,619	6
FIVE-YEA	R AVERAGE						
	_	F 200	2	F 011	2	60	0
15-19	199,864	5,380	3	5,311	3	69-	0



#### ACCOUNT 390.51 STRUCTURES AND IMPROVEMENTS - LEASEHOLD

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAG AMOUNT		NET SALVAGE AMOUNT	PCT
2012	226,252		0		0		0
2013							
2014							
2015							
2016							
2017	10 700		0		0		0
2018	12,799		0		0		0
2019	779,958		0		0		0
TOTAL	1,019,009		0		0		0
THREE-YEA	R MOVING AVERAGE	ES					
12-14	75,417		0		0		0
13-15							
14-16							
15-17							
16-18	4,266		0		0		0
17-19	264,252		0		0		0
FIVE-YEAR	AVERAGE						
15-19	158,551		0		0		0

#### ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	27 <b>,</b> 282		0	52,139-	191-	52 <b>,</b> 139-	191-
2011							
2012							
2013	160,510		0	17,275	11	17,275	11
2014	85 <b>,</b> 568		0	5 <b>,</b> 780	7	5,780	7
2015	121,341		0		0		0
2016	394 <b>,</b> 582		0	33,816	9	33,816	9
2017	330,054		0	39 <b>,</b> 590	12	39,590	12
2018	314,056		0	60,185	19	60,185	19
2019	749,665		0	99,434	13	99,434	13
TOTAL	2,183,059		0	203,942	9	203,942	9
THREE-YEA	AR MOVING AVERAG	ES					
10-12	9,094		0	17,380-	191-	17,380-	191-
11-13	53 <b>,</b> 503		0	5 <b>,</b> 758	11	5 <b>,</b> 758	11
12-14	82 <b>,</b> 026		0	7 <b>,</b> 685	9	7 <b>,</b> 685	9
13-15	122,473		0	7 <b>,</b> 685	6	7 <b>,</b> 685	6
14-16	200,497		0	13,199	7	13,199	7
15-17	281 <b>,</b> 992		0	24,469	9	24,469	9
16-18	346,231		0	44,530	13	44,530	13
17-19	464,592		0	66,403	14	66,403	14
ETVE-YEA	R AVERAGE						
15-19	381,940		0	46,605	12	46,605	12



#### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

		COST OF		GROSS		NET	
YEAR	REGULAR RETIREMENTS	REMOVAI AMOUNT	PCT	SALVAGE AMOUNT	PCT	SALVAGE AMOUNT	PCT
ILAN		AMOUNT	rCı		FCI		rcı
2010	68,021		0	30,062	44	30,062	44
2011	17,436		0	4,755	27	4 <b>,</b> 755	27
2012	105,816		0	46,842	44	46,842	44
2013	149,644		0	34,478	23	34,478	23
2014	363 <b>,</b> 961		0	69 <b>,</b> 425	19	69 <b>,</b> 425	19
2015	433,205		0	284,818	66	284,818	66
2016	1,002,764		0	161,121	16	161,121	16
2017	438,563		0	85 <b>,</b> 187	19	85 <b>,</b> 187	19
2018	253,763		0	41,101	16	41,101	16
2019	636,390		0	93,589	15	93,589	15
TOTAL	3,469,563		0	851 <b>,</b> 377	25	851 <b>,</b> 377	25
THREE-YE	AR MOVING AVERAGE	ES					
10-12	63,758		0	27,220	43	27,220	43
11-13	90,965		0	28,692	32	28,692	32
12-14	206,474		0	50,248	24	50,248	24
13-15	315,603		0	129,574	41	129,574	41
14-16	599 <b>,</b> 977		0	171,788	29	171,788	29
15-17	624,844		0	177,042	28	177,042	28
16-18	565,030		0	95 <b>,</b> 803	17	95 <b>,</b> 803	17
17-19	442,905		0	73 <b>,</b> 292	17	73,292	17
FIVE-YEA	R AVERAGE						
15-19	552 <b>,</b> 937		0	133,163	24	133,163	24

#### ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	78,142		0	37,446	48	37,446	48
2011	111,967		0	58 <b>,</b> 705	52	58 <b>,</b> 705	52
2012	103,646		0	26,445	26	26,445	26
2013	162,294		0	63,989	39	63,989	39
2014	290,002		0	90,766	31	90,766	31
2015	259,038		0	104,479	40	104,479	40
2016	524 <b>,</b> 986		0	144,588	28	144,588	28
2017							
2018	450		0		0		0
2019	61,652		0	13,052	21	13,052	21
TOTAL	1,592,176		0	539,470	34	539,470	34
THREE-Y	EAR MOVING AVERAG	ES					
10-12	97 <b>,</b> 918		0	40,865	42	40,865	42
11-13	125,969		0	49,713	39	49,713	39
12-14	185,314		0	60,400	33	60,400	33
13-15	237,112		0	86,411	36	86,411	36
14-16	358,009		0	113,278	32	113,278	32
15-17	261,341		0	83 <b>,</b> 022	32	83,022	32
16-18	175,145		0	48,196	28	48,196	28
17-19	20,701		0	4,351	21	4,351	21
FIVE-YE	AR AVERAGE						
	_		0	FO 404	2.1	FO 404	21
15-19	169,225		0	52,424	31	52,424	31

#### ACCOUNT 392.05 TRANSPORTATION EQUIPMENT - HEAVY TRUCKS

YEAR	REGULAR RETIREMENTS	COST OI REMOVAI AMOUNT		GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	22,649		0	5,938	26	5,938	26
2011							
2012	45 <b>,</b> 299		0	12,745	28	12,745	28
2013	113,685		0		0		0
2014	301,696		0		0		0
2015	522,311		0		0		0
2016	243,254		0		0		0
2017	281,941		0	25 <b>,</b> 458	9	25 <b>,</b> 458	9
2018	222,909		0	17 <b>,</b> 534	8	17,534	8
2019	358 <b>,</b> 863		0	18,968	5	18,968	5
TOTAL	2,112,607		0	80,642	4	80,642	4
THREE-YE	AR MOVING AVERAGE	IS					
10-12	22,649		0	6,228	27	6,228	27
11-13	52 <b>,</b> 995		0	4,248	8	4,248	8
12-14	153,560		0	4,248	3	4,248	3
13-15	312,564		0		0		0
14-16	355 <b>,</b> 754		0		0		0
15-17	349,169		0	8,486	2	8,486	2
16-18	249,368		0	14,331	6	14,331	6
17-19	287,904		0	20,653	7	20,653	7
FIVE-YEA	R AVERAGE						
15-19	325,856		0	12,392	4	12,392	4

#### ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS

	REGULAR	COST OF		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2010	18		0	2,180		2,180	
2011							
2012	166		0		0		0
2013	13,952		0		0		0
2014	50		0	1,300		1,300	
2015	121,670		0		0		0
2016	48,978		0		0		0
2017							
2018	14,314		0	900	6	900	6
2019	1,165		0	1,332	114	1,332	114
TOTAL	200,314		0	5,712	3	5,712	3
THREE-YE	AR MOVING AVERAG	ES					
10-12	61		0	727		727	
11-13	4,706		0		0		0
12-14	4,723		0	433	9	433	9
13-15	45,224		0	433	1	433	1
14-16	56 <b>,</b> 899		0	433	1	433	1
15-17	56,883		0		0		0
16-18	21,097		0	300	1	300	1
17-19	5,160		0	744	14	744	14
FIVE-YEA	.R AVERAGE						
			0	110	1	116	1
15-19	37,226		0	446	Т	446	1



#### ACCOUNT 396.00 POWER OPERATED EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST O REMOVA AMOUNT		GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	39,936		0	9,654	24	9,654	24
2011							
2012	315,564		0	18,466	6	18,466	6
2013	97 <b>,</b> 207		0		0		0
2014	41,664		0	465	1	465	1
2015	159,580		0	18,000	11	18,000	11
2016	515,441		0	6,019	1	6,019	1
2017				1		1	
2018	106,567		0	63,400	59	63,400	59
2019	154,363		0	9,500	6	9,500	6
TOTAL	1,430,321		0	125,505	9	125,505	9
THREE-YE	EAR MOVING AVERAG	ES					
10-12	118,500		0	9,373	8	9,373	8
11-13	137,590		0	6,155	4	6,155	4
12-14	151,478		0	6,310	4	6,310	4
13-15	99,483		0	6,155	6	6,155	6
14-16	238,895		0	8,161	3	8,161	3
15-17	225,007		0	8,007	4	8,007	4
16-18	207,336		0	23,140	11	23,140	11
17-19	86,977		0	24,300	28	24,300	28
FIVE-YEA	AR AVERAGE						
15-19	187,190		0	19,384	10	19,384	10

# PART IX. DETAILED DEPRECIATION CALCULATIONS



#### ACCOUNT 302.00 - FRANCHISES AND CONSENTS

### CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
			,	( - /	, ,	, ,
	R CURVE 30-S VAGE PERCENT					
1931	951.63	952	952			
1950	100.00	100	100			
1951	4,738.31	4,738	4,738			
1952	574.79	575	575			
1953	605.30	605	605			
1954	5,123.98	5,124	5,124			
1955	6,852.80	6,853	6,853			
1956	1,976.09	1,976	1,976			
1957	317.11	317	317			
1959	95.30	95	95			
1960	1,596.11	1,596	1,596			
1961	224.60	225	225			
1962	315.60	316	316			
1963	54.61	55	55			
1964	177.83	178	178			
1965	1,548.85	1,549	1,549			
1966	2,679.83	2,680	2,680			
1967	405.55	406	406			
1968	1,110.35	1,110	1,110			
1969	82.47	82	82			
1970	164.94	165	165			
1971	125.17	125	125			
1974	5,466.59	5,467	5,467			
1975	1,935.59	1,936	1,936			
1978	311.09	311	311			
1979	132.96	133	133			
1980	1,230.17	1,230	1,230			
1981	330.27	330	330			
1982	284.48	284	284			
1983	119.97	120	120			
1984	1,389.01	1,389	1,389			
1985	13.27	13	13			
1986	149.83	150	150			
1987	485.07	485	485			
1988	1,358.82	1,359	1,359			
1993	185.98	164	186			
1994	6,887.19	5,836	6,788	99	4.58	22
1995	69,993.85	56 <b>,</b> 975	66,267	3,727	5.58	668
1996	967.13	755	878	89	6.58	14
	121,062.49	106,759	117,148	3,914		704

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.6 0.58

#### ACCOUNT 303.00 - MISCELLANEOUS INTANGIBLE PLANT

### CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE 15-S	QUARE				
NET SALV	VAGE PERCENT	0				
1060	2 010 00	2 010	2 010			
1960 1961	3,819.08 1,092.00	3,819 1,092	3,819 1,092			
1965	21,497.90	21,498	21,498			
1966	2,345.49	2,345	2,345			
1966	·					
	3,211.30	3,211	3,211			
1968	2,659.24	2,659	2,659			
1969	11,541.56	11,542	11,542			
1970	17,827.80	17,828	17,828			
1971	10,443.51	10,444	10,444			
1972	11,176.52	11,177	11,177			
1973	103.61	104	104			
1974	11,935.85	11,936	11,936			
1975	9,326.78	9,327	9,327			
1977	619.78	620	620			
1978	915.91	916	916			
1979	572.75	573	573			
1980	4,061.70	4,062	4,062			
1981	27,577.12	27,577	27,577			
1982	3,658.45	3,658	3,658			
1986	286.00	286	286			
1987	693.00	693	693			
1990	9,866.00	9,866	9,866			
1996	93,646.00	93,646	93,646			
1997	30,500.00	30,500	30,500			
2006	96,569.46	86,398	73,947	22,622	1.58	14,318
2008	302,000.00	229,922	196,787	105,213	3.58	29,389
2010	64,934.13	40,779	34,902	30,032	5.58	5,382
	742,880.94	636,478	585,015	157,866		49,089

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.2 6.61

#### ACCOUNT 303.01 - MISCELLANEOUS INTANGIBLE PLANT - EASEMENTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE 20-SÇ ALVAGE PERCENT	•				
2008	500,000.00	285,500	283,333	216,667	8.58	25,253
	500,000.00	285,500	283,333	216,667		25,253
	COMPOSITE REMAIN:	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	8.6	5.05



#### ACCOUNT 365.03 - LAND AND LAND RIGHTS - RIGHTS OF WAY

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	C CURVE IOWA VAGE PERCENT					
1938	28.07	26	28			
1949	260.55	223	261			
1968	543.93	372	544			
1989	127,897.94	54,650	91,216	36,682	40.09	915
1995	41,542.00	14,350	23,952	17,590	45.82	384
	170,272.49	69,621	116,001	54,271		1,299

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 41.8 0.76

#### ACCOUNT 366.01 - STRUCTURES AND IMPROVEMENTS

### CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA /AGE PERCENT					
1990 1995	6,026.65 2,147.00	2,888 861	5,265 1,570	762 577	31.25 35.93	24 16
	8,173.65	3,749	6,835	1,339		40

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.5 0.49

#### ACCOUNT 367.00 - MAINS

### CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	DR CURVE IOWA LVAGE PERCENT	-				
1930	164,008.85	147,045	164,009			
1931	120,238.09	107,338	120,238			
1954	50,256.97	38,468	50,257			
1989	3,132.62	1,274	2,710	423	41.53	10
1990	3,104,473.49	1,224,497	2,604,891	499,582	42.39	11,785
1991	517,090.75	197,529	420,206	96,885	43.26	2,240
1992	27,480.35	10,152	21,597	5,883	44.14	133
1995	760,400.00	251,913	535,898	224,502	46.81	4,796
1996	24,045.56	7,657	16,289	7,757	47.71	163
2012	556,358.97	57,622	122,580	433,779	62.75	6,913
2017	31,133.25	1,059	2,253	28,880	67.62	427
	5,358,618.90	2,044,554	4,060,928	1,297,691		26,467

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 49.0 0.49

#### ACCOUNT 369.03 - MEASURING AND REGULATING STATION EQUIPMENT

### CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR	CURVE IOWA	45-R2				
NET SALV	AGE PERCENT	-5				
1960	170.26	152	172	7	6.85	1
1962	7.61	7	8			
1963	19.54	17	19	2	7.83	
1964	15.14	13	15	1	8.18	
1965	14.40	12	14	1	8.53	
1968	35.31	29	33	4	9.66	
1982	138.36	92	104	41	16.43	2
1985	5,943.26	3,714	4,203	2,037	18.22	112
1986	7,214.07	4,405	4,984	2,591	18.83	138
1990	299,540.29	164,807	186,487	128,030	21.42	5,977
1992	52,387.75	27,161	30,734	24,273	22.78	1,066
1993	13,103.29	6,580	7,446	6,312	23.48	269
1994	383.37	186	210	193	24.19	8
1995	31,733.07	14,883	16,841	16,479	24.90	662
1997	2,336.93	1,016	1,150	1,304	26.37	49
1998	6,241.02	2,605	2,948	3,605	27.11	133
2006	197,489.55	53,500	60,537	146,827	33.39	4,397
2007	7,358.35	1,853	2,097	5,629	34.21	165
	624,131.57	281,032	318,002	337,336		12,979

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 26.0 2.08

#### ACCOUNT 374.03 - LAND AND LAND RIGHTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SIIBATAOR	CURVE IOWA	75-R4				
	AGE PERCENT					
1930	207.38	191	207			
1931	9,738.82	8,934	9,739			
1932	200.09	183	200			
1933	44.43	40	44			
1935	6,526.15	5,883	6,526			
1936	11,630.74	10,435	11,631			
1937	93.21	83	93			
1939	221.96	196	222			
1940	3,076.24	2,703	3,076			
1941	148.09	129	148			
1942	24.84	22	25			
1943	5,966.28	5,144	5,966			
1944	9.37	8	9			
1945	535.79	455	536			
1946	1,024.56	864	1,025			
1947	2,447.67	2,048	2,448			
1948	2,843.44	2,359	2,843			
1949	7,441.31	6,118	7,441			
1950	7,288.26	5,937	7,288			
1951	16,691.28	13,462	16,691			
1952	7,578.01	6,050	7,578			
1953	11,561.80	9,134	11,562			
1954	22,632.31	17,683	22,632			
1955	9,937.89	7,677	9,938			
1956	703.64	537	704			
1957	1,487.41	1,123	1,487			
1958	641.48	478	641			
1959	2,258.35	1,662	2,258			
1960	39,747.31	28,883	39,747			
1961	9,108.15	6,532	9,108			
1962	3,928.32	2,779	3,928			
1963	19,638.59	13,702	19,639			
1964	7,296.77	5,018	7,297			
1965	3,173.74	2,151	3,174			
1966	38,539.93	25,724	38,540			
1967	24,034.46	15,792	24,034			
1968	11,594.51	7,498	11,595			
1969	10,113.36	6,432	10,113			
1970	11,450.24	7,160	11,450			
1971	4,824.94	2,964	4,825			
1972	8,623.90	5,204	8,624			
1973	12,036.08	7,129	12,036			
1974	10,096.35	5,867	10,096			

#### ACCOUNT 374.03 - LAND AND LAND RIGHTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
QIIDVIIVOE	CURVE IOWA	75_P4				
	AGE PERCENT					
1975	3,503.45	1,996	3,503			
1976	1,668.93	931	1,669			
1977	3,316.55	1,813	3,317			
1978	2,000.57	1,070	2,001			
1979	4,458.52	2,332	4,459			
1980	7,073.69	3,615	7,074			
1981	10,863.43	5,422	10,863			
1982	16,022.84	7,802	16,023			
1983	17,480.98	8,300	17,481			
1984	900.40	416	900			
1985	30,951.16	13,932	30,951			
1986	15,618.84	6,835	15,619			
1987	1,104.81	470	1,105			
1988	163,598.88	67,489	161,442	2,157	44.06	49
1989	4,010.81	1,604	3,837	174	45.01	4
1990	5,959.43	2,307	5,519	440	45.96	10
1991	54,691.33	20,476	48,981	5,710	46.92	122
1992	24,996.02	9,039	21,622	3,374	47.88	70
1993	49,454.71	17,243	41,247	8,208	48.85	168
1994	41,123.99	13,807	33,028	8,096	49.82	163
1995	37,251.85	12,025	28,765	8,487	50.79	167
1996	316,005.83	97,921	234,239	81,767	51.76	1,580
1997	141,006.31	41,851	100,113	40,893	52.74	775
1998	352,929.90	100,137	239,540	113,390	53.72	2,111
1999	23,776.95	6,436	15,396	8,381	54.70	153
2000	82,422.72	21,221	50,763	31,660	55.69	569
2001 2002	7,176.17 54,604.72	1,754 12,625	4,196 30,201	2,980	56.67 57.66	53
2002	3,452.78	753	1,801	24,404 1,652	58.65	423 28
2003	9,658.16	1,978	4,732	4,926	59.64	83
2004	69,564.21	13,329	31,885	37,679	60.63	621
2005	50,527.01	9,014	21,563	28,964	61.62	470
2007	3,446.69	569	1,361	2,086	62.62	33
2007	1,991.73	302	722	1,270	63.61	20
2009	72,213.41	10,004	23,931	48,282	64.61	747
2010	457,655.90	57,358	137,207	320,449	65.60	4,885
2011	69,308.42	7,763	18,570	50,738	66.60	762
2012	423,364.81	41,773	99,926	323,439	67.60	4,785
2013	196,554.97	16,800	40,187	156,368	68.59	2,280
2013	500,903.31	36,130	86,427	414,476	69.59	5,956
2015	172,407.59	10,138	24,251	148,157	70.59	2,099
2016	289,858.04	13,180	31,528	258,330	71.59	3,608
	,	_3, _50	51,525	_30,330		3,000

#### ACCOUNT 374.03 - LAND AND LAND RIGHTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT	-				
2017 2018 2019	454,887.53 1,272,630.65 111,492.28	14,616 24,091 683	34,963 57,629 1,634	419,925 1,215,002 109,858	72.59 73.58 74.54	5,785 16,513 1,474
	5,981,058.73	991,723	2,099,335	3,881,724		56,566

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 68.6 0.95

## ACCOUNT 375.01 - STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CIIDIIII	OTIDATE TOMA	60 D1				
	R CURVE IOWA  /AGE PERCENT					
NEI SALV	AGE PERCENI	U				
1928	6,214.54	5,254	6,215			
1931	203.93	169	204			
1933	30.82	25	31			
1934	542.50	440	542			
1936	222.12	177	222			
1938	282.87	222	283			
1941	2,015.22	1,545	2,015			
1944	350.00	261	350			
1946	341.75	251	342			
1947	566.85	412	567			
1948	8,289.65	5,963	8,290			
1949	5,617.33	4,000	5,617			
1950	3,479.20	2,453	3,479			
1951	1,988.87	1,388	1,989			
1952	5,037.06	3,477	5,037			
1953	3,797.71	2,593	3,798			
1954	5,362.68	3,622	5,363			
1955	1,769.55	1,181	1,770			
1956	635.62	419	636			
1957	788.91	514	789			
1959	1,685.10	1,072	1,685			
1960	19,003.40	11,934	19,003			
1961	1,941.33	1,203	1,941			
1963	318.67	192	319			
1964	127,858.89	76,034	127,859			
1965	875.48	513	875			
1966	46,261.81	26,708	46,262			
1967	3,977.53	2,261	3,978			
1968	10,275.02	5,751	10,275			
1969	51,219.36	28,205	51,219			
1970	100,004.40	54,169	100,004			
1971	31,273.17	16,653	31,273			
1972	51,231.28	26,803	51,231			
1973	14,107.09	7,249	14,107			
1974	53,529.69	26,997	53,530			
1975	4,394.12	2,174	4,394			
1976	38,493.13	18,676	38,493			
1977	24,640.85	11,717	24,641			
1978	17,425.75	8,115	17,426			
1979	1,581.41	721	1,581			
1980	5,451.12	2,429	5,451			
1981	36,066.30	15,713	36,066			
1982	45,834.94	19,495	45,835			
		•	·			

## ACCOUNT 375.01 - STRUCTURES AND IMPROVEMENTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE IOWA	60-R1				
	VAGE PERCENT					
1983	47,790.14	19,841	47,790			
1984	2,621.21	1,061	2,621			
1985	186,328.30	73,475	186,328			
1986	4,301.12	1,651	4,301			
1987	2,724.10	1,017	2,679	45	37.61	1
1988	72,000.34	26,100	68,758	3,242	38.25	85
1989	30,895.74	10,870	28,636	2,260	38.89	58
1990	124,613.42	42,493	111,944	12,669	39.54	320
1991	14,137.41	4,668	12,297	1,840	40.19	46
1992	13,896.06	4,435	11,684	2,212	40.85	54
1993	18,175.08	5,601	14,755	3,420	41.51	82
1994	23,187.73	6,891	18,154	5,034	42.17	119
1995	16,062.94	4,594	12,103	3,960	42.84	92
1996	1,237,276.73	340,041	895,810	341,467	43.51	7,848
1997	9,849.68	2,597	6,842	3,008	44.18	68
1998	75,429.54	19,046	50,175	25,255	44.85	563
1999	55,686.09	13,430	35,380	20,306	45.53	446
2000	66,620.01	15,311	40,336	26,284	46.21	569
2001	103,188.53	22,529	59,351	43,838	46.90	935
2002	44,348.93	9,180	24,184	20,165	47.58	424
2003	3,618.67	707	1,863	1,756	48.27	36
2004	16,253.68	2,991	7,880	8,374	48.96	171
2005	39,683.95	6,845	18,033	21,651	49.65	436
2006	33,456.40	5,381	14,176	19,280	50.35	383
2007	24,568.99	3,665	9,655	14,914	51.05	292
2008	97,003.29	13,338	35,138	61,865	51.75	1,195
2009	1,142,383.01	143,563	378,203	764,180	52.46	14,567
2010	107,706.29	12,279	32,348	75,358	53.16	1,418
2011	67,174.80	6,863	18,080	49,095	53.87	911
2012	50,536.64	4,557	12,005	38,532	54.59	706
2013	114,921.62	8,983	23,665	91,257	55.31	1,650
2014	94,798.78	6,273	16,525	78,274	56.03	1,397
2017	6,491.98	194	511	5,981	58.21	103
2018	97,111.34	1,699	4,476	92,635	58.95	1,571
	4,779,829.56	1,241,319	2,941,673	1,838,157		36,546

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 50.3 0.76

### ACCOUNT 375.20 - STRUCTURES AND IMPROVEMENTS - OTHER

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT					
2011 2014	412.80 11,706.64	75 1,376	96 1,765	317 9,942	36.83 39.71	9 250
	12,119.44	1,451	1,861	10,258		259

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.6 2.14

## ACCOUNT 376.00 - MAINS

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	OR CURVE IOWA					
1927	30.18	34	39			
1930	297,113.22	331,346	386,247			
1931	262,747.38	291,750	341,572			
1932	7,585.05	8,384	9,861			
1933	1,529.21	1,682	1,988			
1934	1,564.70	1,713	2,034			
1935	8,169.35	8,900	10,620			
1936	59,986.31	65,015	77,982			
1937	21,366.38	23,030	27,776			
1938	24,842.27	26,629	32,295			
1939	8,277.09	8,822	10,760			
1940	51,010.68	54,046	66,314			
1941	6,597.93	6,948	8,577			
1942	2,321.47	2,429	3,018			
1943	753.79	783	980			
1944	891.54	920	1,159			
1945	23,641.74	24,228	30,734			
1946	53,823.24	54,747	69,970			
1947	99,337.55	100,267	129,139			
1948	130,962.79	131,118	170,252			
1949	334,395.95	331,996	434,715			
1950	262,739.11	258,609	341,561			
1951	535,976.49	522,877	696,769			
1952	533,813.26	516,006	693,957			
1953	964,678.80	923,544	1,254,082			
1954	1,254,956.08	1,189,550	1,631,443 882,453			
1955	678,809.96 541,923.51	636,875 503,013	704,501			
1956 1957	498,624.89	457,826	648,212			
1958	427,680.18	388,238	555,984			
1959	438,054.22	393,014	569,470			
1960	1,566,136.83	1,388,252	2,035,978			
1961	946,578.51	828,691	1,230,552			
1962	655,286.82	566,376	851,873			
1963	942,978.31	804,344	1,225,872			
1964	703,129.43	591,667	914,068			
1965	673,435.13	558,801	875,466			
1966	1,272,162.10	1,040,478	1,653,811			
1967	1,535,468.43	1,237,308	1,996,109			
1968	2,400,678.14	1,905,080	3,120,882			
1969	1,334,081.78	1,042,075	1,734,306			
1970	1,381,003.46	1,061,276	1,795,304			
1971	1,425,676.74	1,077,611	1,824,184	29,196	29.30	996

## ACCOUNT 376.00 - MAINS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
1972	1,466,901.25	1,089,968	1,845,102	61,870	29.99	2,063
1973	1,075,262.88	784,790	1,328,495	69,347	30.70	2,259
1974	1,325,696.51	950,096	1,608,326	115,079	31.41	3,664
1975	1,177,921.68	828,647	1,402,737	128,561	32.12	4,003
1976	1,326,124.28	914,924	1,548,787	175,175	32.85	5,333
1977	1,386,987.32	938,126	1,588,063	215,021	33.58	6,403
1978	1,550,282.33	1,027,253	1,738,938	276,429	34.32	8,054
1979	2,032,079.21	1,318,210	2,231,471	410,232	35.07	11,698
1980	2,785,601.63	1,768,236	2,993,276	628,006	35.82	17,532
1981	2,764,716.21	1,715,443	2,903,908	690,223	36.59	18,864
1982	2,894,750.65	1,755,258	2,971,307	791,869	37.35	21,201
1983	2,136,308.54	1,264,432	2,140,435	636,766	38.13	16,700
1984	2,142,109.09	1,236,815	2,093,685	691,057	38.91	17,760
1985	4,027,482.86	2,266,337	3,836,464	1,399,264	39.70	35,246
1986	3,211,656.96	1,760,120	2,979,538	1,195,616	40.49	29,529
1987	1,491,594.19	795,291	1,346,272	592,800	41.29	14,357
1988	5,121,175.62	2,653,491	4,491,839	2,165,689	42.10	51,442
1989	2,885,331.95	1,451,085	2,456,402	1,294,530	42.92	30,161
1990	3,192,501.80	1,557,548	2,636,623	1,513,629	43.73	34,613
1991	4,284,395.92	2,024,201	3,426,575	2,143,140	44.56	48,096
1992	4,206,856.33	1,922,706	3,254,764	2,214,149	45.39	48,781
1993	3,905,337.78 4,354,751.21	1,723,976	2,918,353	2,158,586 2,521,988	46.23	46,692
1994 1995	3,743,176.04	1,854,432 1,534,923	3,139,189 2,598,323	2,321,986	47.07	53,580 47,325
1996	5,118,826.22	2,018,235	3,416,476	3,237,998	47.92 48.77	66,393
1997	9,081,664.81	3,435,594	5,815,786	5,237,338	49.63	120,701
1998	8,487,321.04	3,073,607	5,203,013	5,830,504	50.50	115,456
1999	2,756,205.10	954,135	1,615,163	1,967,904	51.36	38,316
2000	4,242,936.26	1,399,418	2,368,940	3,146,877	52.24	60,239
2001	4,065,756.00	1,274,541	2,157,548	3,127,935	53.12	58,884
2002	4,719,655.25	1,402,403	2,373,993	3,761,559	54.00	69,658
2003	3,643,626.06	1,022,467	1,730,836	3,005,878	54.89	54,762
2004	4,475,130.26	1,181,801	2,000,557	3,817,112	55.78	68,432
2005	6,648,207.75	1,644,614	2,784,009	5,858,661	56.68	103,364
2006	8,598,028.46	1,983,213	3,357,190	7,820,247	57.58	135,815
2007	6,992,672.63	1,496,019	2,532,467	6,558,007	58.48	112,141
2008	8,617,005.66	1,697,903	2,874,217	8,327,890	59.39	140,224
2009	6,809,530.19	1,226,676	2,076,522	6,775,867	60.30	112,369
2010	8,472,577.94	1,381,530	2,338,659	8,675,692	61.22	141,713
2011	10,760,865.86	1,570,839	2,659,122	11,330,004	62.14	182,330
2012	10,975,987.73	1,414,607	2,394,652	11,874,132	63.06	188,299
2013	11,118,180.59	1,240,989	2,100,751	12,352,884	63.99	193,044
2014	21,944,202.44	2,070,238	3,504,506	25,022,957	64.92	385,443

### ACCOUNT 376.00 - MAINS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2015	30,725,344.15	2,368,217	4,008,926	35,934,021	65.85	545,695
2016	18,548,662.31	1,109,210	1,877,675	22,235,586	66.78	332,968
2017	22,275,313.66	943,159	1,596,583	27,361,325	67.72	404,036
2018	30,692,293.23	763,686	1,292,771	38,607,210	68.66	562,296
2019	31,904,227.35	254,660	431,089	41,044,407	69.57	589,973
	368,534,043.19	91,430,367	151,043,192	328,051,064		5,358,903
	COMPOSITE REMAIN	TNG LIFE AND	ANNUAL ACCRUAL	RATE PERCENT	61.2	1.45



## ACCOUNT 378.00 - MEASURING AND REGULATING STATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA					
NEI SALV	AGE TERCENT	13				
1933	146.67	165	139	30	0.96	31
1934	59.66	67	56	13	1.22	11
1938	61.68	67	56	15	2.31	6
1942	11.12	12	10	3	3.43	1
1943	461.47	487	410	121	3.72	33
1944	4,388.43	4,597	3,873	1,174	4.01	293
1945	474.78	494	416	130	4.30	30
1946 1947	962.20 901.72	993 924	837 779	270 258	4.60 4.89	59 53
1947	1,111.20	1,131	953	325	5.19	63
1949	2,573.94	2,599	2,190	770	5.49	140
1950	1,203.09	1,205	1,015	369	5.80	64
1951	8,156.52	8,106	6,830	2,550	6.11	417
1952	505.02	498	420	161	6.42	25
1953	7,608.38	7,441	6,269	2,481	6.73	369
1954	4,548.09	4,411	3,717	1,513	7.05	215
1955	5,791.88	5,570	4,693	1,968	7.37	267
1956	6,821.00	6,504	5,480	2,364	7.69	307
1957	4,285.10	4,050	3,412	1,516	8.02	189
1958	2,353.72	2,205	1,858	849	8.35	102
1959	3,138.36	2,912	2,454	1,155	8.69	133
1960	2,072.12	1,905	1,605	778	9.03	86
1961	11,922.42	10,856	9,147	4,564	9.37	487
1962	2,296.51	2,071	1,745	896	9.72	92
1963	5,782.46	5,162	4,349	2,301	10.07	229
1964	4,433.43	3,917	3,300	1,798	10.43	172
1965	13,182.72	11,525	9,710	5,450	10.79	505
1966	11,994.31	10,376	8,742	5,051	11.15	453
1967	16,233.70	13,890	11,703	6,966	11.52	605
1968	24,497.00	20,722	17,459	10,713	11.90	900
1969 1970	13,096.52 10,386.42	10,951	9,227	5,834	12.28 12.67	475 372
1970	15,871.49	8,581 12,955	7,230 10,915	4,714	13.06	562
1971	40,531.74	32,670	27,526	7,337 19,086	13.46	1,418
1973	9,282.03	7,387	6,224	4,450	13.46	321
1974	32,777.12	25,741	21,688	16,006	14.27	1,122
1975	24,454.15	18,942	15,960	12,162	14.69	828
1976	31,829.84	24,305	20,478	16,126	15.12	1,067
1977	63,786.41	48,006	40,448	32,906	15.55	2,116
1978	134,841.73	99,968	84,228	70,840	15.99	4,430
1979	99,968.56	72,989	61,497	53,467	16.43	3,254
1980	130,778.64	93,948	79,156	71,239	16.89	4,218
1981	100,622.52	71,100	59,906	55,810	17.35	3,217

### ACCOUNT 378.00 - MEASURING AND REGULATING STATION EQUIPMENT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVI	OR CURVE IOWA	45-S1				
NET SA	ALVAGE PERCENT	-15				
1982	81,392.25	56,535	47,634	45,967	17.82	2,580
1983	75,291.35	51,374	43,285	43,300	18.30	2,366
1984	75,145.32	50,333	42,408	44,009	18.79	2,342
1985	82,283.81	54,063	45,551	49,075	19.29	2,544
1986	56,830.85	36,599	30,837	34,518	19.80	1,743
1987	72,871.46	45,960	38,724	45,078	20.32	2,218
1988	151,738.01	93,648	78,903	95,596	20.85	4,585
1989	75,863.54	45,774	38,567	48,676	21.39	2,276
1990	42,674.09	25,148	21,189	27,886	21.94	1,271
1991	175,253.23	100,771	84,905	116,636	22.50	5,184
1992	275,802.76	154,498	130,173	187,000	23.08	8,102
1993	85,526.72	46,621	39,281	59,075	23.67	2,496
1994	164,856.52	87,336	73,585	116,000	24.27	4,780
1995	153,512.37	78,932	66,504	110,035	24.88	4,423
1996	161,282.79	80,331	67,683	117,792	25.51	4,617
1997	305,725.23	147,198	124,022	227,562	26.16	8,699
1998	367,435.41	170,803	143,911	278,640	26.81	10,393
1999	173,256.31	77,528	65,321	133,924	27.49	4,872
2000	107,629.21	46,264	38,980	84,794	28.18	3,009
2001	272,113.32	112,098	94,448	218,482	28.88	7,565
2002	438,542.98	172,479	145,323	359,001	29.61	12,124
2003	85,297.68	31,935	26,907	71,185	30.35	2,345
2004	277,376.25	98,460 152 147	82,958	236,025	31.11 31.88	7,587
2005	456,754.98	153,147	129,034	396,234	32.68	12,429
2006 2007	641,102.67 419,271.75	201,849 123,328	170,068 103,910	567,200 378,253	33.49	17,356 11,295
2007	1,314,642.84	358,805	302,312	1,209,527	34.32	35,243
2008	877,944.13	220,545	185,821	823,815	35.17	23,424
2010	1,326,644.96	303,771	255,943	1,269,699	36.04	35,230
2010	949,872.92	195,892	165,050	927,304	36.93	25,110
2011	1,087,462.25	199,255	167,883	1,082,699	37.83	28,620
2012	1,144,190.39	182,754	153,980	1,161,839	38.75	29,983
2013	817,551.02	110,942	93,475	846,709	39.69	21,333
2014	3,100,377.32	344,670	290,402	3,275,032	40.65	80,567
2015	636,772.76	55,002	46,342	685,947	41.62	16,481
2017	1,492,052.96	91,507	77,100	1,638,761	42.60	38,469
2017	917,849.88	33,070	27,863	1,038,701	43.59	23,576
2019	830,626.12	9,762	8,225	946,995	44.54	21,262
2010	050,020.12	5,102	0,223	210,223	11.51	21,202
	20,627,024.28	5,111,392	4,306,617	19,414,461		558,236

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.8 2.71

## ACCOUNT 379.00 - MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			( - /	(3)	(0)	( , ,
	R CURVE IOWA					
NET SAL	VAGE PERCENT	-15				
1936	222.29	237	256			
1937	259.68	275	299			
1938	796.29	840	916			
1947	452.23	456	520			
1948	389.04	390	447			
1949	2,817.68	2,807	3,240			
1950	2,985.94	2,956	3,434			
1951	15,107.40	14,857	17,374			
1952	1,715.90	1,676	1,973			
1953	2,478.59	2,403	2,850			
1954	16,240.93	15,630	18,677			
1955	2,424.65	2,315	2,788			
1956	231.62	219	266			
1957	6,323.49	5,936	7,272			
1958	8,285.84	7,709	9,529			
1959	550.60	508	633			
1960	29,005.90	26,474	33,357			
1961	4,789.69	4,327	5,508			
1962	3,076.67	2,750	3,538			
1963	11,835.51	10,460	13,611			
1964	1,720.54	1,503	1,979			
1965	10,292.66	8,883	11,837			
1966	45,036.68	38,378	51,792			
1967	13,094.82	11,013	15,059			
1968	2,576.63	2,138	2,963			
1969	8,263.94	6,760	9,504			
1970	30,581.01	24,647	35,168			
1971	35,398.17	28,102	40,708			
1972	55,774.50	43,584	64,141			
1973 1974	24,942.63	19,175	28,684	ГГ.	20 57	27
	30,063.76	22,721	34,017	556	20.57	27
1975	50,385.70	37,422	56,026	1,918	21.25	90
1976 1977	14,103.43 24,127.08	10,286 17,267	15,400	819	21.95	37
1978	8,685.96	6,096	25,851 9,127	1,895 862	22.66 23.38	84 37
1979	12,271.15	8,441	12,637	1,475	24.11	61
1979	38,124.15	25,684	38,453	5,390	24.11	217
1981	12,884.77	8,495	12,718	2,099	25.60	82
1982	9,731.22	6,274	9,393	1,798	26.36	68
1983	88,597.15	55,817	83,566	18,321	27.13	675
1984	32,902.86	20,243	30,307	7,531	27.13	270
1985	155,853.58	93,528	140,024	39,208	28.69	1,367
1986	18,774.41	10,979	16,437	5,154	29.49	175
1700	10,//1.11	±0,719	10,137	J, 1J4	47.47	113

ACCOUNT 379.00 - MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SIIRVIV	OR CURVE IOWA	60-R3				
	LVAGE PERCENT					
1987	16,183.21	9,215	13,796	4,815	30.29	159
1988	19,994.54	11,071	16,575	6,419	31.11	206
1989	14,225.01	7,653	11,458	4,901	31.93	153
1990	10,244.62	5,349	8,008	3,773	32.76	115
1991	97,342.34	49,255	73,742	38,202	33.60	1,137
1992	86,101.74	42,164	63,125	35,892	34.45	1,042
1993	89,329.55	42,290	63,314	39,415	35.30	1,117
1994	24,944.91	11,398	17,064	11,623	36.16	321
1995	64,937.96	28,589	42,802	31,877	37.03	861
1996	106,854.37	45,242	67,734	55,149	37.91	1,455
1997	19,728.97	8,020	12,007	10,681	38.79	275
1998	160,981.93	62,698	93,868	91,261	39.68	2,300
1999	373,983.14	139,204	208,408	221,673	40.58	5,463
2000	11,141.73	3,953	5,918	6,895	41.49	166
2001	60,526.68	20,417	30,567	39,039	42.40	921
2002	177,824.95	56,885	85,165	119,334	43.31	2,755
2003	20,426.52	6,174	9,243	14,247	44.23	322
2004	2,604.45	741	1,109	1,886	45.16	42
2005	57,374.68	15,286	22,885	43,096	46.10	935
2006	14,380.44	3,575	5,352	11,186	47.03	238
2007	366,641.08	84,467	126,459	295,178	47.98	6,152
2008	25,770.10	5,473	8,194	21,442	48.92	438
2009	41,607.19	8,071	12,083	35,765	49.88	717
2010	144,084.81	25,324	37,914	127,784	50.83	2,514
2011	19,597.85	3,084	4,617	17,921	51.79	346
2012	125,567.16	17,425	26,088	118,314	52.76	2,242
2013	290,799.61	34,947	52,321	282,099	53.73	5,250
2014	67,518.46	6,858	10,267	67,379	54.70	1,232
2015	31,650.98	2,627	3,933	32,466	55.67	583
2016	990,645.42	63,604	95,224	1,044,018	56.65	18,429
2017	40,350.01	1,833	2,744	43,659	57.63	758
2018	97,262.94	2,592	3,881	107,971	58.61	1,842
	4,504,804.09	1,436,145	2,108,144	3,072,381		63,676

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 48.3 1.41

## ACCOUNT 380.00 - SERVICES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA					
1949	347.54	443	430	57	3.55	16
1949	503.17	635	616	88	3.92	22
1951	5,275.12	6,591	6,391	994	4.30	231
1952	6,805.50	8,413	8,158	1,370	4.68	293
1953	28,546.45	34,909	33,850	6,115	5.06	1,208
1954	20,310.13	24,557	23,812	4,619	5.45	848
1955	26,005.53	31,101	30,157	6,251	5.83	1,072
1956	30,566.79	36,139	35,042	7,752	6.22	1,246
1957	17,314.42	20,234	19,620	4,620	6.61	699
1958	20,607.22	23,801	23,079	5,771	7.00	824
1959	48,717.26	55,603	53,916	14,288	7.39	1,933
1960	66,595.49	75,100	72,821	20,413	7.78	2,624
1961	39,334.73	43,807	42,478	12,591	8.18	1,539
1962	40,325.84	44,360	43,014	13,442	8.57	1,568
1963	94,332.14	102,449	99,340	32,725	8.97	3,648
1964	70,709.31	75,779	73,480	25,513	9.38	2,720
1965	65,018.80	68,770	66,683	24,343	9.78	2,489
1966	124,557.75	129,957	126,014	48,367	10.19	4,747
1967	100,467.96	103,382	100,245	40,410	10.60	3,812
1968	104,447.55	105,978	102,762	43,465	11.01	3,948
1969	156,011.93	156,059	151,324	67,093	11.42	5,875
1970	188,817.78	186,099	180,452	83,893	11.84	7,086
1971	237,798.65	230,879	223,873	109,045	12.26	8,894
1972	128,229.30	122,613	118,892	60,629	12.68	4,781
1973	147,093.73	138,489	134,287	71,644	13.10	5,469
1974	210,432.69	194,955	189,039	105,567	13.53	7,802
1975	281,415.70	256,482	248,699	145,283	13.96	10,407
1976	224,181.37	200,867	194,772	119,082	14.40	8,270
1977	243,268.30	214,307	207,804	132,772	14.83	8,953
1978	309,109.66	267,550	259,431	173,323	15.27	11,351
1979	440,733.52	374,535	363,170	253,857	15.72	16,149
1980	545,788.58	455,215	441,402	322,702	16.17	19,957
1981	486,321.38	397,957	385,881	294,969	16.62	17,748
1982	496,024.89	398,085	386,005	308,430	17.07	18,069
1983	503,515.83	395,990	383,974	320,948	17.53	18,308
1984	616,074.30	474,593	460,192	402,312	17.99	22,363
1985	589,653.12	444,539	431,050	394,464	18.46	21,369
1986	420,350.73	309,988	300,582	287,909	18.93	15,209
1987	391,826.53	282,370	273,802	274,755	19.41	14,155
1988	1,403,552.01	987,890	957,913	1,007,060	19.89	50,631
1989	835,846.32	573,976	556,559	613,626	20.38	30,109
1990	1,432,470.57	959,111	930,008	1,075,451	20.87	51,531
1991	2,125,011.08	1,385,613	1,343,568	1,631,448	21.37	76,343

### ACCOUNT 380.00 - SERVICES

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
( 1 )	( 2 )	(3)	( 4 )	(3)	(0)	( / )
	VOR CURVE IOWA					
NET S	ALVAGE PERCENT	-40				
1000	0 045 605 00	1 100 155	1 110 000	1 0 1 0 6 7 0	01 00	04.464
1992	2,345,685.29	1,488,455	1,443,289	1,840,670	21.87	84,164
1993	2,510,089.35	1,547,972	1,501,000	2,013,125	22.38	89,952
1994	2,307,799.19	1,381,218	1,339,306	1,891,613	22.90	82,603
1995	2,224,895.72	1,291,107	1,251,930	1,862,924	23.42	79,544
1996 1997	3,437,878.96	1,930,025	1,871,460	2,941,571	23.96 24.49	122,770
1997	3,772,816.64 3,084,118.48	2,048,074 1,614,844	1,985,927 1,565,843	3,296,016 2,751,923	25.04	134,586 109,901
1999	2,746,481.89	1,385,188	1,343,156	2,751,923	25.59	97,769
2000	3,425,273.08	1,660,401	1,610,018	3,185,364	26.15	121,811
2001	2,604,107.40	1,209,478	1,172,777	2,472,973	26.73	92,517
2001	2,911,246.59	1,293,030	1,253,794	2,821,951	27.31	103,330
2002	2,811,010.87	1,190,463	1,154,339	2,781,076	27.91	99,680
2003	3,272,413.91	1,317,147	1,277,179	3,304,200	28.50	115,937
2005	3,579,133.13	1,364,187	1,322,792	3,687,994	29.11	126,692
2006	5,608,833.88	2,014,132	1,953,015	5,899,352	29.74	198,364
2007	3,458,038.87	1,164,322	1,128,992	3,712,262	30.38	122,194
2008	2,943,992.79	924,267	896,221	3,225,369	31.03	103,944
2009	2,214,153.93	643,212	623,694	2,476,122	31.70	78,111
2010	3,222,356.22	858,275	832,231	3,679,068	32.39	113,587
2011	3,611,466.15	873,433	846,930	4,209,123	33.09	127,202
2012	4,441,800.94	962,316	933,115	5,285,406	33.81	156,327
2013	5,204,677.14	992,792	962,667	6,323,881	34.55	183,036
2014	6,496,023.94	1,066,322	1,033,965	8,060,469	35.31	228,277
2015	5,493,827.87	749,908	727,153	6,964,206	36.10	192,914
2016	9,520,035.82	1,026,260	995,119	12,332,931	36.92	334,045
2017	5,953,932.96	464,704	450,603	7,884,903	37.77	208,761
2018	4,403,471.20	206,523	200,256	5,964,604	38.66	154,284
2019	15,608,096.86	245,828	238,369	21,612,967	39.55	546,472
	132,537,973.28	43,314,053	41,999,727	143,553,436		4,695,090

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.6 3.54

### ACCOUNT 381.00 - METERS - SMALL VOLUME AND OTHER

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIV	OR CURVE IOWA	26-R1.5				
	LVAGE PERCENT					
1981	129,946.16	110,654	129,946			
1982	51,568.73	43,337	51,569			
1983	26,402.00	21,893	26,402			
1984	67,723.38	55,351	67,723			
1985	147,559.67	118,786	147,560			
1986	20,936.88	16,588	20,937			
1987	7,158.52	5,578	7,126	33	5.74	6
1988	295,521.99	226,187	288,972	6,550	6.10	1,074
1990	92,337.70	67,939	86,798	5,540	6.87	806
1991	102,237.44	73,611	94,044	8,193	7.28	1,125
1992	263,821.50	185,588	237,104	26,718	7.71	3,465
1993	172,554.50	118,398	151,263	21,292	8.16	2,609
1994	201,749.68	134,706	172,098	29,652	8.64	3,432
1995	19,897.08	12,910	16,494	3,403	9.13	373
1996	76,523.70	48,151	61,517	15,007	9.64	1,557
1997	115,822.80	70,519	90,094	25,729	10.17	2,530
1999	8,894.66	5,032	6,429	2,466	11.29	218
2000	491,246.72	266,786	340,841	150,406	11.88	12,660
2001	517,721.53	269,018	343,692	174,030	12.49	13,934
2002	1,144,248.37	567,284	724,751	419,497	13.11	31,998
2003	673,890.19	317,503	405,636	268,254	13.75	19,509
2004	223,234.04	99,596	127,242	95,992	14.40	6,666
2005	1,023,331.69	429,799	549,103	474,229	15.08	31,448
2006	1,128,706.44	444,541	567,937	560,769	15.76	35,582
2007	1,678,900.31	616,022	787,018	891,882	16.46	54,185
2008	1,524,995.34	517,919	661,684	863,311	17.17	50,280
2009	1,299,804.12	405,435	517,976	781,828	17.89	43,702
2010	316,092.63	89,600	114,471	201,622	18.63	10,822
2011	778,678.10	198,563	253,681	524,997	19.37	27,104
2012	680,978.54	154,003	196,751	484,228	20.12	24,067
2013	1,435,607.97	282,154	360,475	1,075,133	20.89	51,466
2014	653,062.25	109,009	139,268	513,794	21.66	23,721
2015	919,634.09	125,916	160,868	758,766	22.44	33,813
2016	667,012.63	71,064	90,790	576,223	23.23	24,805
2017	974,779.55	73,859	94,361	880,419	24.03	36,638
2018	1,699,478.53	75,831	96,881	1,602,598	24.84	64,517
2019	1,761,887.89	25,759	32,909	1,728,979	25.62	67,486
	21,393,947.32	6,454,889	8,222,411	13,171,536		681,598

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.3 3.19

### ACCOUNT 381.00 - METERS - ERT, AMR AND AMI

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
2000	596,316.39	518,795	569,906	26,410	1.69	15,627
2002	429,501.92	355,164	390,154	39,348	2.25	17,488
2004	556,649.88	434,187	476,962	79,688	2.86	27,863
2005	4,644,517.64	3,501,270	3,846,208	798,310	3.20	249,472
2006	30,297.92	21,978	24,143	6,155	3.57	1,724
2007	288,102.42	200,122	219,838	68,264	3.97	17,195
2008	1,075,841.28	710,884	780,919	294,922	4.41	66,876
2009	385,414.97	240,738	264,455	120,960	4.88	24,787
2010	939,863.65	548,739	602,800	337,064	5.41	62,304
2011	1,229,961.04	664,179	729,613	500,348	5.98	83,670
2012	2,260,132.65	1,110,946	1,220,394	1,039,739	6.61	157,298
2013	4,347,294.45	1,906,115	2,093,901	2,253,393	7.30	308,684
2014	1,286,704.46	490,929	539,294	747,410	8.04	92,961
2015	548,874.49	175,217	192,479	356,395	8.85	40,271
2016	650,074.42	164,020	180,179	469,895	9.72	48,343
2017	1,029,232.83	186,847	205,255	823,978	10.64	77,442
2018	485,490.96	52,283	57,434	428,057	11.60	36,901
2019	273,138.72	9,664	10,616	262,523	12.54	20,935
	21,057,410.09	11,292,077	12,404,550	8,652,860		1,349,841

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.4 6.41

## ACCOUNT 382.01 - METER INSTALLATIONS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CIIDVITVO	R CURVE IOWA	36_D2				
	VAGE PERCENT					
1050	F.C.1 . 0.F.	5.50	5.00			
1952 1956	561.95 300.15	573 299	573 306			
1958	17.67	299 17	18			
1960	8,332.03	8,031	8,434	65	1.98	33
1961	0.75	1	1	03	1.00	33
1968	325.86	293	308	24	4.30	6
1969	21,982.94	19,557	20,539	1,884	4.60	410
1970	51,684.51	45,543	47,830	4,888	4.90	998
1971	60,662.01	52,938	55,597	6,278	5.20	1,207
1972	68,772.50	59,392	62,375	7,773	5.52	1,408
1973	47,981.64	41,002	43,061	5,880	5.84	1,007
1974	84,558.87	71,468	75,057	11,193	6.17	1,814
1975	75,972.35	63,479	66,667	10,825	6.51	1,663
1976	46,841.86	38,661	40,603	7,176	6.87	1,045
1977	81,171.31	66,144	69,466	13,329	7.24	1,841
1978	266,589.39	214,364	225,130	46,791	7.62	6,141
1979	125,403.08	99,415	104,408	23,503	8.02	2,931
1980	185,921.35	145,232	152,526	37,114	8.43	4,403
1981	150,451.27	115,692	121,502	31,958	8.86	3,607
1982	164,425.25	124,388	130,635	37,079	9.30	3,987
1983	190,704.96	141,783	148,903	45,616	9.76	4,674
1984	226,876.11	165,590	173,906	57,508	10.24	5,616
1985	217,923.16	156,028	163,864	58,418	10.73	5,444
1986	294,976.12	206,936	217,329	83,547	11.24	7,433
1987	234,385.66	160,911	168,992	70,081	11.77	5,954
1988	541,792.99	363,663	381,926	170,703	12.31	13,867
1989	387,436.26	253,906	266,657	128,528	12.87	9,987
1990	462,931.64	295,775	310,629	161,561	13.45	12,012
1991	566,279.72	352,339	370,034	207,571	14.04	14,784
1992	592,959.28	358,857	376,879	227,939	14.64	15,570
1993	243,822.95	143,209	150,401	98,298	15.27	6,437
1994	254,916.33	145,174	152,465	107,550	15.90	6,764
1995	424,397.54	233,879	245,625	187,260	16.55	11,315
1996	564,885.39	300,577	315,672	260,511	17.22	15,128
1997	451,930.58	231,895	243,541	217,428	17.89	12,154
1998	45,286.03	22,339	23,461	22,731	18.59	1,223
1999	41,326.03 64,230.56	19,566 29,100	20,549	21,604	19.29	1,120
2000	206,444.81	89,260	30,561	34,954 116,831	20.01	1,747
2001 2002	189,387.05	77,913	93,743	111,349	20.74 21.48	5,633 5,194
2002	499,861.68	195,021	81,826 204,815	305,044	21.48	5,184 13,722
2003	212,931.73	78,490	82,432	134,758	22.23	5,862
2004	282,778.55	97,987	102,908	185,526	23.77	7,805
2005	202,110.33	21,201	102,700	100,020	49.11	7,005

## ACCOUNT 382.01 - METER INSTALLATIONS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
2006	514,097.31	166,784	175,160	349,219	24.55	14,225
2007	1,177,595.24	355,335	373,180	827,967	25.35	32,661
2008	530,851.87	148,000	155,433	386,036	26.16	14,757
2009	146,216.43	37,409	39,288	109,853	26.97	4,073
2010	226,808.05	52,696	55,342	176,002	27.80	6,331
2011	126,355.23	26,349	27,672	101,210	28.64	3,534
2012	175,172.26	32,360	33,985	144,691	29.48	4,908
2013	473,948.96	76,140	79,964	403,464	30.33	13,302
2014	416,549.51	56,768	59,619	365,262	31.19	11,711
2015	692,946.83	77,162	81,037	625,769	32.07	19,513
2016	982,575.91	85,189	89,467	912,760	32.94	27,710
2017	527,681.87	32,445	34,075	504,161	33.83	14,903
2018	296,676.65	10,761	11,301	291,309	34.72	8,390
2019	99,323.03	1,154	1,212	100,097	35.59	2,813
	15,027,221.02	6,445,239	6,768,889	8,558,876		400,767

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.4 2.67

## ACCOUNT 383.01 - HOUSE REGULATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
	LVAGE PERCENT					
1952	12.78	14	11	4	1.81	2
1954	29.37	32	24	10	2.37	4
1955	828.36	889	672	281	2.66	106
1956	559.49	596	451	192	2.94	65
1958	44.53	47	36	15	3.52	4
1959	1,187.99	1,236	935	431	3.82	113
1960	811.76	838	634	300	4.10	73
1961	549.10	562	425	206	4.40	47
1964	279.60	279	211	111	5.29	21
1965	777.12	769	582	312	5.59	56
1966	4,581.99	4,492	3,397	1,872	5.90	317
1967	20,609.64	20,016	15,138	8,563	6.22	1,377
1968	13,730.12	13,208	9,989	5,801	6.54	887
1969	19,964.45	19,016	14,382	8,577	6.87	1,248
1970	18,638.50	17,571	13,289	8,145	7.21	1,130
1971	26,074.36	24,311	18,386	11,600	7.57	1,532
1972	20,937.62	19,305	14,600	9,478	7.93	1,195
1973	23,751.73	21,640	16,366	10,948	8.31	1,317
1974	26,756.48	24,077	18,209	12,561	8.70	1,444
1975	37,637.27	33,425	25,279	18,004	9.11	1,976
1976	318,316.69	278,849	210,891	155,173	9.53	16,283
1977	404,113.35	349,012	263,955	200,775	9.96	20,158
1978	778,673.82	662,428	500,989	394,486	10.41	37,895
1979	657,005.44	550,234	416,137	339,419	10.87	31,225
1980	884,676.44	728,697	551,107	466,271	11.35	41,081
1981	1,065,052.10	862,266	652,125	572,685	11.84	48,369
1982	476,951.06	379,283	286,849	261,645	12.34	21,203
1983	506,548.02	395,101	298,812	283,718	12.87	22,045
1984	628,809.64	480,882	363,687	359,444	13.40	26,824
1985	1,034,201.96	774,553	585,788	603,544	13.95	43,265
1986	3,300,344.84	2,417,668	1,828,462	1,966,935	14.52	135,464
1987	49,340.61	35,322	26,714	30,028	15.10	1,989
1988	64,670.01	45,199	34,184	40,187	15.69	2,561
1989	68,039.26	46,360	35,062	43,183	16.30	2,649
1990	86,460.59	57,371	43,389	56,041	16.92	3,312
1991	116,420.67	75,142	56,829	77,055	17.55	4,391
1992	126,218.04	79,107	59,828	85,323	18.20	4,688
1993 1994	82,412.11 45,072.62	50,088 26,526	37,881 20,061	56,893 31,773	18.86	3,017
	116,485.75	66,243			19.53	1,627
1995 1996	168,216.72	92,275	50,099 69,787	83,860 123,662	20.22 20.92	4,147 5,911
1996	1,206,630.17	637,614	482,222	905,403	20.92	41,878
1997	2,102,419.83	1,067,451	807,304	1,610,479	22.34	72,089
± > > 0	2,102,117.03	1,007,401	007,304	1,010,119	44.JI	12,009

### ACCOUNT 383.01 - HOUSE REGULATORS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA ALVAGE PERCENT					
1999	917,523.01	446,593	337,755	717,396	23.07	31,096
2000	799,817.92	372,285	281,556	638,235	23.81	26,805
2001	809,249.49	358,993	271,503	659,134	24.57	26,827
2002	903,635.01	381,119	288,237	750,943	25.33	29,646
2003	984,851.15	393,571	297,654	834,925	26.10	31,989
2004	1,548,542.30	584,110	441,757	1,339,067	26.88	49,816
2005	1,370,990.40	485,999	367,557	1,209,082	27.67	43,696
2006	866,145.11	287,116	217,143	778,924	28.47	27,359
2007	915,645.17	282,202	213,427	839,565	29.28	28,674
2008	1,521,204.36	432,973	327,454	1,421,931	30.10	47,240
2009	1,089,593.63	284,125	214,881	1,038,152	30.93	33,565
2010	1,317,211.45	312,047	235,999	1,278,794	31.76	40,264
2011	1,544,823.13	328,217	248,228	1,528,319	32.61	46,867
2012	2,430,550.69	457,004	345,628	2,449,505	33.46	73,207
2013	2,951,119.71	481,918	364,471	3,029,317	34.32	88,267
2014	3,161,427.39	438,095	331,328	3,304,313	35.18	93,926
2015	2,358,065.11	267,110	202,013	2,509,762	36.06	69,600
2016	3,911,311.84	344,098	260,238	4,237,771	36.94	114,720
2017	3,613,443.35	225,434	170,494	3,984,966	37.83	105,339
2018	9,512,541.66	350,062	264,749	10,674,674	38.72	275,689
2019	7,372,428.75	86,903	65,724	8,412,569	39.59	212,492
	64,404,962.63	17,959,968	13,582,974	60,482,733		2,102,069

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 28.8 3.26

### ACCOUNT 383.71 - HOUSE REGULATORS - FARM TAPS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	C CURVE IOWA VAGE PERCENT	40-R2 0				
2018 2019	305,732.78 320,361.68	9,783 3,284	10,681 3,586	295,052 316,776	38.72 39.59	7,620 8,001
	626,094.46	13,067	14,267	611,827		15,621

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.2 2.49

## ACCOUNT 384.01 - HOUSE REGULATOR INSTALLATIONS

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE IOWA	47-R4				
	VAGE PERCENT					
1929	594.22	624	624			
1944	24.44	26	26			
1945	214.42	225	225			
1946	222.06	233	233			
1947	179.24	188	188			
1948	321.09	336	337			
1949	480.27	501	504			
1950	389.40	405	409			
1951	1,614.75	1,671	1,695			
1952	2,393.09	2,466	2,513			
1953	2,634.28	2,701	2,766			
1954	3,061.05	3,124	3,214			
1955	1,822.44	1,850	1,914			
1956	5,736.53	5,794	6,023			
1957	2,616.15	2,628	2,747			
1958	2,222.64	2,221	2,334			
1959	2,584.64	2,568	2,714			
1960	5,642.73	5,573	5,925			
1961	5,251.79	5,155	5,514			
1962	2,211.59	2,158	2,322			
1963	5,323.99	5,162	5,590			
1964	4,139.64	3,988	4,347			
1965	4,242.54	4,059	4,455			
1966	4,225.99	4,015	4,437			
1967	4,569.50	4,310	4,798			
1968	8,031.20	7,514	8,433			
1969	5,347.62	4,962	5,615			
1970	6,818.48	6,268	7,159			
1971	5,920.53	5,390	6,217			
1972	12,586.64	11,335	13,216			
1973	12,934.97	11,513	13,582			
1974 1975	20,195.13	17,749	21,205			
	14,914.00 16,662.20	12,928 14,231	15,660 17,405			
1976 1977	16,908.11	14,231	17,495			
1978	15,589.61	12,886	17,754 16,313	E.6	10.00	6
1978	13,739.83	11,155	14,121	56 306	10.66	6 29
1980	21,330.79	16,998	21,518	879	11.33	78
1981	22,646.60	17,703	22,411	1,368	12.01	114
1982	21,464.16	16,438	20,809	1,728	12.72	136
1982	27,500.30	20,624	26,108	2,767	13.43	206
1984	44,972.18	32,994	41,768	5,453	14.16	385
1985	31,287.72	22,430	28,395	4,457	14.10	299
1700	J± , ZU 1 • 1 Z	22,730	20,373	7,737	<b>エ</b> 1 • ノ 1	299

### ACCOUNT 384.01 - HOUSE REGULATOR INSTALLATIONS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO:	R CURVE IOWA	47-R4				
NET SAL	VAGE PERCENT	-5				
1986	35,118.64	24,581	31,118	5,757	15.67	367
1987	26,775.80	18,274	23,134	4,981	16.45	303
1988	427,656.47	284,233	359,818	89,221	17.25	5,172
1989	22,131.04	14,308	18,113	5,125	18.06	284
1990	10,500.84	6,594	8,348	2,678	18.89	142
1991	9,356.25	5,700	7,216	2,608	19.73	132
1992	9,522.29	5,618	7,112	2,886	20.59	140
1993	10,266.75	5,858	7,416	3,364	21.46	157
1994	22,060.94	12,154	15,386	7,778	22.34	348
1995	40,010.16	21,246	26,896	15,115	23.23	651
1996	74,159.46	37,873	47,944	29,923	24.14	1,240
1997	61,285.91	30,039	38,027	26,323	25.06	1,050
1998	241,433.88	113,322	143,457	110,049	25.99	4,234
1999	12,629.57	5,666	7,173	6,088	26.92	226
2000	20,869.27	8,919	11,291	10,622	27.87	381
2001	11,204.86	4,551	5,761	6,004	28.82	208
2002	13,156.95	5,061	6,407	7,408	29.78	249
2003	2,696.45	980	1,241	1,590	30.74	52
2006	6,885.95	2,051	2,596	4,634	33.67	138
2007	14,970.66	4,131	5,229	10,490	34.65	303
2008	15,126.46	3,839	4,860	11,023	35.64	309
2009	3,103.19	719	910	2,348	36.63	64
2010	10,494.95	2,199	2,784	8,236	37.62	219
2011	5,070.95	950	1,202	4,122	38.61	107
2012	1,487.45	246	311	1,251	39.60	32
2013	5,083.71	727	920	4,418	40.60	109
2014	10,559.87	1,276	1,616	9,472	41.59	228
2017	12,216.03	658	833	11,994	44.59	269
	1,517,403.30	941,086	1,170,752	422,521		18,367

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.0 1.21

## ACCOUNT 385.00 - INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
1954	32.24	28	32			
1962	49.10	39	45	4	8.06	
1963	47.18	37	42	5	8.46	1
1965	116.06	88	101	15	9.25	2
1966	166.64	124	142	25	9.66	3
1967	208.92	154	176	33	10.06	3
1968	423.65	307	351	73	10.47	7
1969	655.91	468	535	121	10.88	11
1970	308.34	217	248	60	11.30	5
1971	102.83	71	81	22	11.72	2
1972	154.72	105	120	35	12.15	3
1973	44.55	30	34	11	12.58	1
1975	9,952.56	6,430	7,351	2,602	13.45	193
1976	194.76	124	142	53	13.90	4
1978	243.82	149	170	74	14.80	5
1979	685.57	410	469	217	15.27	14
1980	1,476.03	865	989	487	15.73	31
1981	665.58	382	437	229	16.21	14
1982	3,040.53	1,705	1,949	1,092	16.69	65
1983	6,788.09	3,721	4,254	2,534	17.17	148
1984	5,102.31	2,730	3,121	1,981	17.67	112
1985	14,521.90	7,582	8,668	5,854	18.16	322
1986	20,331.20	10,342	11,824	8,507	18.67	456
1987	37,952.26	18,796	21,489	16,463	19.18	858
1988	5,651.43	2,722	3,112	2,539	19.70	129
1989	71,115.69	33,274	38,041	33,075	20.22	1,636
1990	17,962.35	8,154	9,322	8,640	20.75	416
1991	48,450.96	21,318	24,372	24,079	21.28	1,132
1992	59,629.26	25,390	29,027	30,602	21.82	1,402
1993	45,530.70	18,728	21,411	24,120	22.37	1,078
1994	58,938.70	23,389	26,740	32,199	22.92	1,405
1995	95,313.05	36,445	41,666	53,647	23.47	2,286
1996	144,619.43	53,166	60,782	83,837	24.03	3,489
1997	151,026.78	53,257	60,886	90,141	24.60	3,664
1998	2,746.86	927	1,060	1,687	25.17	67
1999	182,856.65	58,995	67,446	115,411	25.74	4,484
2000	85,822.28	26,379	30,158	55,664	26.32	2,115
2001	9,381.39	2,740	3,133	6,248	26.90	232
2002	65,756.76	18,204	20,812	44,945	27.48	1,636
2002	28,710.01	7,502	8,577	20,133	28.07	717
2003	71,729.81	17,630	20,156	51,574	28.66	1,800
2005	139,056.90	32,019	36,606	102,451	29.25	3,503
2005	133,030.30	28,726	32,841	101,100	29.85	3,387
2000	100,011.01	20,720	52,011	101,100	27.03	5,507

### ACCOUNT 385.00 - INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA					
2007	196,122.32	39,019	44,609	151,513	30.44	4,977
2008	243,771.79	44,649	51,045	192,727	31.04	6,209
2009	191,987.69	32,133	36,736	155,252	31.64	4,907
2010	159,323.22	24,150	27,610	131,713	32.24	4,085
2011	152,381.37	20,652	23,610	128,771	32.85	3,920
2012	49,006.17	5,868	6,709	42,297	33.45	1,264
2013	153,813.96	15,947	18,231	135,583	34.06	3,981
2014	306,951.35	26,898	30,751	276,200	34.67	7,967
2015	484,818.90	34,703	39,674	445,145	35.28	12,617
2016	110,547.78	6,139	7,018	103,530	35.89	2,885
2017	569,276.12	22,469	25,688	543,588	36.50	14,893
2018	703,823.02	16,301	18,636	685,187	37.12	18,459
2019	3,215,066.22	23,695	27,090	3,187,976	37.72	84,517
	8,058,395.01	836,492	956,325	7,102,070		207,519

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.2 2.58

## ACCOUNT 386.00 - OTHER PROPERTY ON CUSTOMERS' PREMISES

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT					
1941	785.27	785	785			
1944	667.24	667	667			
1945	585.69	586	586			
1946	104.71	105	105			
1948	1,648.60	1,649	1,649			
1949	554.42	554	554			
1950	3,768.98	3,769	3,769			
1951	2,430.84	2,431	2,431			
1952	175.99	176	176			
1954	6,663.00	6,663	6,663			
1963	629.34	629	629			
1964	1,754.10	1,754	1,754			
1965	974.34	974	974			
1966	275.66	276	276			
1967	1,188.18	1,188	1,188			
1968	4,041.85	4,042	4,042			
1969	255.92	256	256			
1970	3,845.44	3,845	3,845			
1971	2,623.02	2,623	2,623			
1972	1,026.76	1,027	1,027			
1997	454.10	409	140-	594	2.00	297
2010	30.24	14	5-	35	10.78	3
2012	182.07	67	23-	205	12.67	16
2013	613.11	195	67-	680	13.64	50
	35,278.87	34,684	33,764	1,515		366

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.1 1.04

## ACCOUNT 387.00 - OTHER EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE IOWA	25-R2.5				
NET SALV	AGE PERCENT	0				
1919	443.46	443	443			
1924	305.90	306	306			
1926	79.85	80	80			
1949	271.10	271	271			
1950	401.69	402	402			
1951	56.05	56	56			
1954	371.35	371	371			
1955	3,327.12	3,327	3,327			
1960	34.03	34	34			
1966	42.27	42	42			
1967	351.63	352	352			
1968	440.98	441	441			
1972	230.56	231	231			
1981	16,003.34	14,697	16,003			
1988	9,426.50	8,035	9,426			
1991	14,009.14	11,426	14,009			
1996	13,571.17	9,912	13,571			
2008	22,502.95	9,109	15,547	6,956	14.88	467
2009	9,764.28	3,636	6,206	3,558	15.69	227
2010	2,965.67	1,005	1,715	1,251	16.53	76
2011	1,482.54	452	771	712	17.37	41
2012	987.88	267	456	532	18.24	29
2013	109,450.33	25,786	44,013	65,437	19.11	3,424
	206,519.79	90,681	128,073	78,447		4,264

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.4 2.06

## ACCOUNT 390.01 - STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA					
	AGE PERCENT					
1921	29,013.39	30,464	30,464			
1949	446.16	467	44	424	0.13	3,262
1950	812.35	846	79	774	0.30	2,580
1953	493.06	503	47	471	1.08	436
1956	417.83	417	39	400	1.90	211
1958	4,854.07	4,767	444	4,653	2.46	1,891
1959	230.67	225	21	221	2.75	80
1961	963.38	923	86	926	3.33	278
1966	5,742.71	5,270	491	5,539	4.79	1,156
1968	751.88	677	63	726	5.40	134
1970	6,734.80	5,949	554	6,518	6.03	1,081
1971	35,812.59	31,319	2,918	34,685	6.35	5,462
1972	242.08	209	19	235	6.69	35
1973	179.38	153	14	174	7.04	25
1974	7,635.96	6,456	601	7,417	7.40	1,002
1975	1,925.67	1,609	150	1,872	7.77	241
1976	6,112.73	5,040	470	5,948	8.16	729
1977	1,055.00	858	80	1,028	8.56	120
1978	7,081.50	5,678	529	6,907	8.98	769
1979	13,005.63	10,274	957	12,699	9.41	1,350
1980	45,282.10	35,222	3,281	44,265	9.85	4,494
1981	45,064.69	34,467	3,211	44,107	10.32	4,274
1982	4,638.96	3,488	325	4,546	10.79	421
1984	1,844.74	1,336	124	1,813	11.79	154
1985	3,596.93	2,552	238	3,539	12.32	287
1989	25,763.36	16,679	1,554	25,498	14.57	1,750
1990	33,673.26	21,242	1,979	33,378	15.17	2,200
1991	4,657.99	2,860	266	4,625	15.78	293
1992	3,124.66	1,864	174	3,107	16.41	189
1993	860.00	498	46	857	17.05	50
1994	61,802.44	34,649	3,228	61,665	17.71	3,482
1995	573.53	311	29	573	18.37	31
1996	2,503.57	1,310	122	2,507	19.06	132
1998	95,204.47	46,142	4,299	95,666	20.46	4,676
2001	21,121.87	8,959	835	21,343	22.65	942
2003	4,160.11	1,591	148	4,220	24.16	175
2005	53,570.17	18,177	1,693	54,556	25.72	2,121
2006	9,859.20	3,130	292	10,060	26.51	379
2008	14,926.57	4,071	379	15,294	28.13	544
2009	25,940.11	6,487	604	26,633	28.95	920
2010	304,540.68	69,172	6,445	313,323	29.78	10,521
2011	10,403.05	2,121	198	10,725	30.62	350
2012	48,856.46	8,815	821	50,478	31.47	1,604

## ACCOUNT 390.01 - STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2013	235,699.42	36,991	3,446	244,038	32.32	7,551
2014	996,366.73	132,426	12,338	1,033,847	33.19	31,149
2015	835,968.02	91,007	8,479	869,287	34.06	25,522
2016	50,616.60	4,280	399	52,748	34.94	1,510
2017	17,000.04	1,019	95	17,755	35.83	496
2018	4,296,103.09	151,927	14,154	4,496,754	36.72	122,461
2019	15,100,980.56	171,087	15,939	15,840,091	37.59	421,391
	22,478,214.22	1,025,984	123,211	23,478,914		670,911
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCEN	T 35.0	2.98

## ACCOUNT 390.51 - LEASEHOLD IMPROVEMENTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA					
1979	1,910.44	1,910	1,910			
1980	2,897.85	2,898	2,898			
1981	4,475.22	4,475	4,475			
1989	2,068.44	2,068	2,068			
1991	1,240.96	1,206	1,080	161	0.42	383
1992	6,671.55	6,365	5,698	974	0.69	1,412
1993	850.48	795	712	138	0.97	142
1994	2,280.42	2,089	1,870	410	1.26	325
1995	10,569.67	9,478	8,485	2,085	1.55	1,345
1996	5,344.12	4,685	4,194	1,150	1.85	622
2000	12,842.14	10,154	9,090	3,752	3.14	1,195
2002	2,080.14	1,545	1,383	697	3.86	181
2005	27,138.75	17,984	16,100	11,039	5.06	2,182
2008	1,404.86	800	716	689	6.46	107
2011	3,800.45	1,743	1,560	2,240	8.12	276
2012	7,515.83	3,132	2,804	4,712	8.75	539
2013	3,370.14	1,251	1,120	2,250	9.43	239
	96,461.46	72,578	66,163	30,298		8,948

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.4 9.28

## ACCOUNT 391.01 - OFFICE FURNITURE AND EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY A	CCRUED					
1994 1995	645.00 489.23	645 489	645 489			
AMODEL D	1,134.23	1,134	1,134			
	ED R CURVE 20-SO VAGE PERCENT	~				
2011	1,638.11	690	691	947	11.58	82
2014	70,472.45	19,098	19,131	51,342	14.58	3,521
2015	98,660.49	21,804	21,841	76,819	15.58	4,931
2016	224,574.05	38,402	38,468	186,106	16.58	11,225
2018	19,848.52	1,409	1,411	18,437	18.58	992
	415,193.62	81,403	81,543	333,651		20,751
	416,327.85	82,537	82,677	333,651		20,751

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.1 4.98

## ACCOUNT 391.03 - OFFICE FURNITURE AND EQUIPMENT - COMPUTER HARDWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
2014	6,175.74	6,176	6,176			
	6,175.74	6,176	6,176			
	IZED VOR CURVE 5-SQU ALVAGE PERCENT					
2015	33,400.17	29,526	29,530	3,870	0.58	6,672
2016	66,495.40	45,483	45,490	21,006	1.58	13,295
2018	284,459.92	80,787	80,799	203,661	3.58	56,889
2019	160,429.52	14,760	14,762	145,667	4.54	32,085
	544,785.01	170,556	170,581	374,204		108,941
	550,960.75	176,732	176,757	374,204		108,941
	COMPOSITE REMAINI	NG LIFE AND	ANNUAL ACCRUA	L RATE, PERCENT	3.4	19.77

## ACCOUNT 391.04 - OFFICE FURNITURE AND EQUIPMENT - SOFTWARE

YEAR (1)		ALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
2005 2009	60,716.04 107,833.40 168,549.44	60,716 107,833 168,549	60,716 107,833 168,549			
	IZED VOR CURVE 5-SQUAR ALVAGE PERCENT 0	E				
2019	1,550.56	143	142	1,409	4.54	310
	1,550.56	143	142	1,409		310
	170,100.00	168,692	168,691	1,409		310
	COMPOSITE REMAINING	LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	4.5	0.18



## ACCOUNT 391.07 - OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE 5-SQU ALVAGE PERCENT					
2019	581,994.77	53,544	53,544	528,451	4.54	116,399
	581,994.77	53,544	53,544	528,451		116,399
	COMPOSITE REMAIN:	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	г 4.5	20.00

### ACCOUNT 392.02 - TRANSPORTATION EQUIPMENT - CARS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
2008	206,596.12	164,450	165,116	20,821	1.04	20,020
2010	723,476.06	533,203	535,362	115,766	1.63	71,022
2011	774,063.51	540,299	542,486	154,171	2.02	76,322
2012	1,241,999.94	807,297	810,565	307,235	2.50	122,894
2013	849,059.93	500,949	502,977	261,177	3.10	84,251
2014	95,704.69	49,575	49,776	36,358	3.82	9,518
2019	37,786.79	1,738	1,745	32,263	8.54	3,778
	3,928,687.04	2,597,511	2,608,027	927,791		387,805

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.4 9.87

## ACCOUNT 392.03 - TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
NET SA	LVAGE PERCENT	+25				
2001	27,663.47	19,364	20,748			
2005	18,942.09	11,902	14,176	31	1.46	21
2006	26,393.44	16,034	19,097	698	1.71	408
2007	36,259.95	21,242	25,300	1,895	1.97	962
2008	110,375.03	62,362	74,277	8,504	2.22	3,831
2009	509,714.42	278,220	331,377	50,909	2.45	20,779
2010	63,891.73	33,916	40,396	7,523	2.63	2,860
2011	130,548.01	67,341	80,207	17,704	2.81	6,300
2012	528,257.39	261,927	311,971	84,222	3.05	27,614
2013	1,479,740.12	684,384	815,142	294,663	3.45	85,410
2014	3,494,819.80	1,444,523	1,720,513	900,602	4.04	222,921
2015	2,967,357.58	1,038,583	1,237,014	988,504	4.80	205,938
2016	1,358,597.60	377,011	449,043	569,905	5.67	100,512
2017	1,213,364.04	241,666	287,838	622,185	6.61	94,128
2018	1,862,421.98	220,390	262,498	1,134,318	7.58	149,646
2019	3,694,985.69	141,638	168,699	2,602,540	8.54	304,747
	17,523,332.34	4,920,503	5,858,296	7,284,203		1,226,077

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.9 7.00

## ACCOUNT 392.04 - TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	C CURVE IOWA VAGE PERCENT					
1985	15,850.68	11,888	11,888			
2008	10,758.04	5,779	3,516	4,553	2.27	2,006
2009	47,137.97	24,217	14,736	20,617	2.52	8,181
2017	53,362.32	11,306	6,879	33,143	5.74	5,774
	127,109.01	53,190	37,019	58,313		15,961

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.7 12.56

## ACCOUNT 392.05 - TRANSPORTATION EQUIPMENT - HEAVY TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA					
NET SALV	AGE PERCENT	+5				
2004	90,724.01	80,076	86,188			
2005	83,852.82	72,128	79,660			
2006	524.97	439	499			
2007	68,619.01	55,469	65,188			
2008	222,166.34	172,107	211,058			
2010	132,714.23	90,891	126,079			
2011	140,872.30	88,692	133,409	420	3.71	113
2012	457,934.60	260,627	392,030	43,008	4.41	9,752
2014	77,103.20	33,361	50,181	23,067	5.99	3,851
2015	212,170.33	76,227	114,659	86,903	6.84	12,705
2016	364,142.16	102,521	154,210	191,725	7.74	24,771
2017	715,957.06	144,690	217,639	462,520	8.66	53,409
2018	227,566.63	27,121	40,795	175,393	9.62	18,232
2019	276,297.35	10,738	16,152	246,330	10.55	23,349
	3,070,645.01	1,215,087	1,687,747	1,229,366		146,182

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.4 4.76

#### ACCOUNT 392.06 - TRANSPORTATION EQUIPMENT - TRAILERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE IOWA	12-S1				
NET SAL	VAGE PERCENT	0				
1973	344.02	344	344			
1991	9,610.42	9,610	9,610			
1992	9,151.46	9,151	9,151			
1993	2,190.50	2,190	2,190			
1996	2,882.25	2,844	2,882			
1998	7,961.03	7,497	7,961			
2000	3,260.00	2,915	3,260			
2001	9,382.40	8,147	9,366	16	1.58	10
2002	11,638.00	9,805	11,272	366	1.89	194
2003	10,802.82	8,813	10,132	671	2.21	304
2004	13,779.64	10,851	12,475	1,305	2.55	512
2005	52,524.55	39,787	45,741	6,784	2.91	2,331
2006	18,123.00	13,154	15,123	3,000	3.29	912
2007	25,819.20	17,901	20,580	5,239	3.68	1,424
2008	77,372.70	50,937	58,560	18,813	4.10	4,589
2009	41,340.42	25,665	29,506	11,834	4.55	2,601
2010	28,192.16	16,399	18,853	9,339	5.02	1,860
2011	27,944.20	15,043	17,294	10,650	5.54	1,922
2013	7,044.24	3,117	3,583	3,461	6.69	517
2014	42,941.98	16,640	19,130	23,812	7.35	3,240
2015	121,418.57	39,865	45,831	75,588	8.06	9,378
2016	4,788.18	1,261	1,450	3,338	8.84	378
2017	14,417.68	2,775	3,190	11,228	9.69	1,159
2018	130,146.12	15,075	17,331	112,815	10.61	10,633
2019	143,467.34	5,499	6,322	137,145	11.54	11,884
	816,542.88	335,285	381,137	435,406		53,848

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.1 6.59

#### ACCOUNT 393.00 - STORES EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 25-S VAGE PERCENT	~				
2009 2016	4,778.48 23,399.04	1,992 3,201	1,987 3,193	2,791 20,206	14.58 21.58	191 936
	28,177.52	5,193	5,180	22,998		1,127

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.4 4.00

#### ACCOUNT 394.00 - TOOLS, SHOP AND GARAGE EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
FULLY	ACCRUED							
1976	280.76	281	281					
1977	552.05	552	552					
1979	376.80	377	377					
1981	1,997.74	1,998	1,998					
1982	1,047.71	1,048	1,048					
1988	5,245.04	5,245	5,245					
1989	2,635.45	2,635	2,635					
1990	3,842.01	3,842	3,842					
1992	9,036.41	9,036	9,036					
1993	52,559.38	52,559	52,559					
1994	8,355.87	8,356	8,356					
	85,929.22	85,929	85,929					
AMORTI								
	OR CURVE 25-S LVAGE PERCENT	~						
1995	2,281.18	2,228	2,232	49	0.58	84		
1996	3,199.00	2,997	3,002	197	1.58	125		
2000	5,505.59	4,277	4,284	1,221	5.58	219		
2001	94,339.10	69,509	69,628	24,711	6.58	3,755		
2002	31,223.27	21,756	21,793	9,430	7.58	1,244		
2003	39,699.28	26,074	26,119	13,581	8.58	1,583		
2004	132,760.94	81,887	82,027	50,734	9.58	5,296		
2005	462,672.58	266,870	267,327	195,346	10.58	18,464		
2006	194,624.09	104,474	104,653	89,971	11.58	7,770		
2007	504,455.32	250,613	251,042	253,413	12.58	20,144		
2008	525,877.79	240,221	240,632	285,246	13.58	21,005		
2009	446,894.63	186,266	186,585	260,310	14.58	17,854		
2010	586,917.76	221,151	221,530	365,388	15.58	23,452		
2011	600,491.93	202,246	202,592	397,900	16.58	23,999		
2012	331,210.73	98,303	98,471	232,739	17.58	13,239		
2013	552,650.50	141,921	142,164	410,487	18.58	22,093		
2014	794,264.77	172,197	172,492	621,773	19.58	31,756		
2015	1,159,321.69	204,968	205,319	954,003	20.58	46,356		
2016	301,722.59	41,276	41,347	260,376	21.58	12,066		

#### ACCOUNT 394.00 - TOOLS, SHOP AND GARAGE EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
AMORTIZED SURVIVOR CURVE 25-SQUARE NET SALVAGE PERCENT 0								
2017 2018 2019	290,788.23	17,878 16,517 17,385	17,909 16,545 17,415	166,780 274,243 927,432	22.58 23.58 24.54	7,386 11,630 37,793		
	8,190,435.44	2,391,014	2,395,107	5,795,328		327,313		
	8,276,364.66	2,476,943	2,481,036	5,795,328		327,313		
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	г 17.7	3.95		

#### ACCOUNT 395.00 - LABORATORY EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY A	CCRUED					
1998	6,915.47	6,915	6,915			
	6,915.47	6,915	6,915			
	ED R CURVE 20-S VAGE PERCENT	~				
2000 2004 2005 2009 2010 2011	12,262.33 9,631.71 11,459.70 4,179.78 23,590.19 20,763.34	11,907 7,426 8,262 2,178 11,111 8,741	11,905 7,425 8,261 2,178 11,109 8,740	357 2,207 3,199 2,002 12,481 12,024	4.58	616 482 573 209 1,180 1,038
	81,887.05	49,625	49,617	32,270		4,098
	88,802.52	56,540	56,532	32,270		4,098

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.9 4.61

#### ACCOUNT 396.00 - POWER OPERATED EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	OR CURVE IOWA LVAGE PERCENT						
1978	8,240.00	7,416	7,416				
2003	17,671.25	10,179	15,904				
2004	105,142.01	58,669	94,628				
2005	118,807.10	64,074	106,926				
2006	84,986.79	44,304	76,488				
2007	198,588.78	99,814	178,730				
2008	206,032.71	99,561	184,151	1,278	6.02	212	
2009	385,206.99	178,145	329,503	17,183	6.32	2,719	
2010	327,021.54	143,990	266,328	27,991	6.64	4,216	
2011	352,771.06	146,292	270,586	46,908	7.01	6,692	
2012	12,235.71	4,710	8,712	2,300	7.44	309	
2013	440,826.84	154,425	285,629	111,115	7.94	13,994	
2014	382,556.52	118,388	218,974	125,327	8.53	14,692	
2015	1,143,055.89	299,922	554,745	474,005	9.21	51,466	
2016	157,947.25	33,242	61,485	80,668	9.96	8,099	
2017	119,497.39	18,449	34,124	73,424	10.77	6,817	
2018	612,408.10	56,814	105,085	446,082	11.66	38,257	
2019	1,093,092.85	33,301	61,595	922,189	12.56	73,423	
	5,766,088.78	1,571,695	2,861,009	2,328,471		220,896	

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.5 3.83

#### ACCOUNT 397.00 - COMMUNICATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY A	CCRUED					
2004	909.41	909	909			
	909.41	909	909			
	ED R CURVE 15-S VAGE PERCENT					
2008	61,900.73	47,127	47,129	14,772	3.58	4,126
2009	54,795.81	38,065	38,066	16,730	4.58	3,653
2010	125,192.89	78,621	78,624	46,569	5.58	8,346
2011	241,495.33	135,559	135,564	105,932		16,099
2012	145,751.76	72,099	72,101	73,650	7.58	9,716
2013	39,590.21	16,945	16,946	22,645	8.58	2,639
2014	51,482.58	18,602	18,603	32,880	9.58	3,432
2015	89,157.02	26,272	26,273	62,884	10.58	5,944
2016	10,947.96	2,496	2,496	8,452	11.58	730
2017	13,225.39	2,134	2,134	11,091	12.58	882
2019	11,631.31	357	357	11,274	14.54	775
	845,170.99	438,277	438,292	406,879		56,342
	846,080.40	439,186	439,201	406,879		56,342

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.2 6.66

#### ACCOUNT 398.00 - MISCELLANEOUS EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF NOVEMBER 30, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 20-SO VAGE PERCENT	QUARE 0				
2006 2007 2018	42,857.49 130,712.38 730,746.68	28,757 81,172 51,883	28,809 81,318 51,976	14,048 49,394 678,771	6.58 7.58 18.58	2,135 6,516 36,532
	904,316.55	161,812	162,103	742,214		45,183

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.4 5.00



## **2018 DEPRECIATION STUDY**

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF OCTOBER 31, 2018

Prepared by:



Excellence Delivered As Promised

# BLACK HILLS SERVICE COMPANY Rapid City, South Dakota

2018 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION
ACCRUALS RELATED TO UTILITY PLANT
AS OF OCTOBER 31, 2018



#### Excellence Delivered As Promised

February 4, 2019

Black Hills Service Company 7001 Mr. Rushmore Road Rapid City, SD 57702

Attention Mr. Frederic C. Stoffel

Director, Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the utility plant of Black Hills Service Company as of October 31, 2018. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

Respectfully submitted,

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC.

JOHN J. SPANOS

President

JJS:mle

064663.000



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**BLACK HILLS SERVICE COMPANY** 

**DEPRECIATION STUDY** 

**EXECUTIVE SUMMARY** 

Pursuant to Black Hills Service Company ("BHSC" or "Company") request, Gannett

Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a

depreciation study related to the utility plant of BHSC as of October 31, 2018. The purpose

of this study was to determine the annual depreciation accrual rates and amounts for book

and ratemaking purposes of the consolidated companies.

The depreciation rates are based on the straight line method using the average

service life ("ASL") procedure and were applied on a remaining life basis. The calculations

were based on attained ages and estimated average service life and forecasted net

salvage characteristics for each depreciable group of assets.

BHSC's accounting policy has not changed since the last study and depreciation

rates were most recently established. However, there have been changes to the plant in

service due to system improvements, as well as the consolidation of the service company

and utility holdings assets. The consolidation has produced some changes in the life and

salvage estimates which creates new depreciation rates as compared to what currently

are utilized for the individual entities.

Gannett Fleming recommends the calculated annual depreciation accrual rates set

forth herein apply specifically to utility plant in service as of October 31, 2018 as

summarized by Table 1 of the study. Supporting analysis and calculations are provided

within the study.

🙇 Gannett Fleming

Black Hills Service Company October 31, 2018

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The study results set forth an annual depreciation expense of \$21.7 million when applied to depreciable plant balances as of October 31, 2018. The results are summarized at the functional level as follows:

#### SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

FUNCTION	ORIGINAL COST	PROPOSED RATE	ANNUAL ACCRUAL
ELECTRIC PLANT DISTRIBUTION GENERAL	\$ 2,838,926.62 _16,928,411.69	5.55 12.06	\$ 157,682 _2,041,599
TOTAL ELECTRIC PLANT	\$19,767,338.31	11.13	\$2,199,281
GAS PLANT DISTRIBUTION GENERAL	\$ 7,705,095.06 	5.66 8.89	\$ 436,087 <u>685,599</u>
TOTAL GAS PLANT	\$15,417,791.35	7.28	\$1,121,686
COMMON PLANT	\$183,654,382.02	7.94	\$14,574,450
UNRECOVERED RESERVE ELECTRIC PLANT GAS PLANT COMMON PLANT	- - -		\$ 272,138 423,409 3,117,661
TOTAL UNRECOVERED RESERVE			\$3,813,208
TOTAL	<u>\$218,839,511.68</u>	9.92	<u>\$21,708,625</u>



### PART I. INTRODUCTION



# BLACK HILLS SERVICE COMPANY

#### **DEPRECIATION STUDY**

#### PART I. INTRODUCTION

#### SCOPE

This report sets forth the results of the depreciation study for Black Hills Service Company ("Company"), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of utility plant as of October 31, 2018. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to utility plant in service as of October 31, 2018.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through October 2018, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the gas and electric industries, including knowledge of service lives and net salvage estimates used for other gas and electric companies.

#### PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Net Salvage Considerations, presents the results of the net salvage study. Part V, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents summaries by depreciable group



Exhibit No. MCC-5 Depreciation BHSC Page 10 of 148

of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VII, Service Life Statistics presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

#### **BASIS OF THE STUDY**

#### **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing gas and electric utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight-line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line method using the average service life procedure and the remaining life basis. For certain General Plant accounts, the annual depreciation is based on amortization accounting.



Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

#### Service Life and Net Salvage Estimates

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the gas and electric utility industries, and comparisons of the service life and net salvage estimates from our studies of other gas and electric utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for gas and electric plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated future yielded estimated survivor curves from which the average service lives were derived.



# PART II. ESTIMATION OF SURVIVOR CURVES



#### PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

#### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.



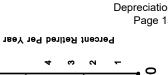
This study has incorporated the use of lowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

#### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the lowa type curves. There are four families in the lowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The lowa curves were developed at the lowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.





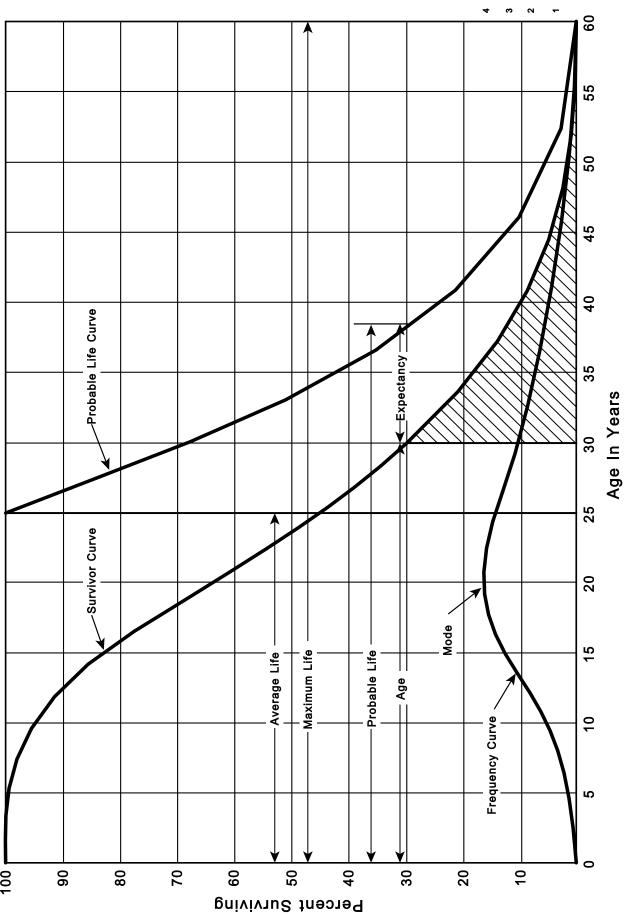
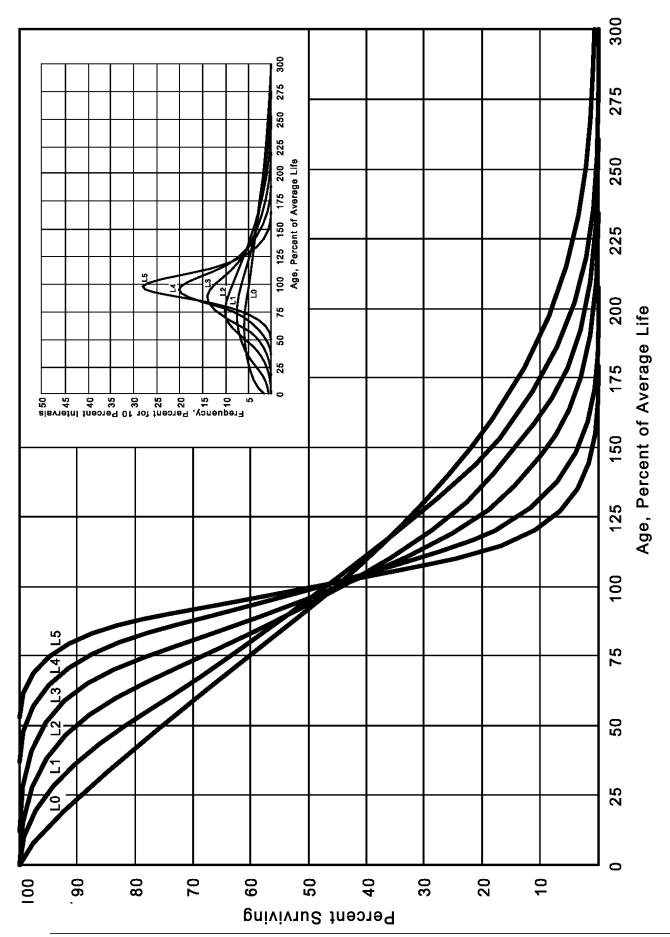
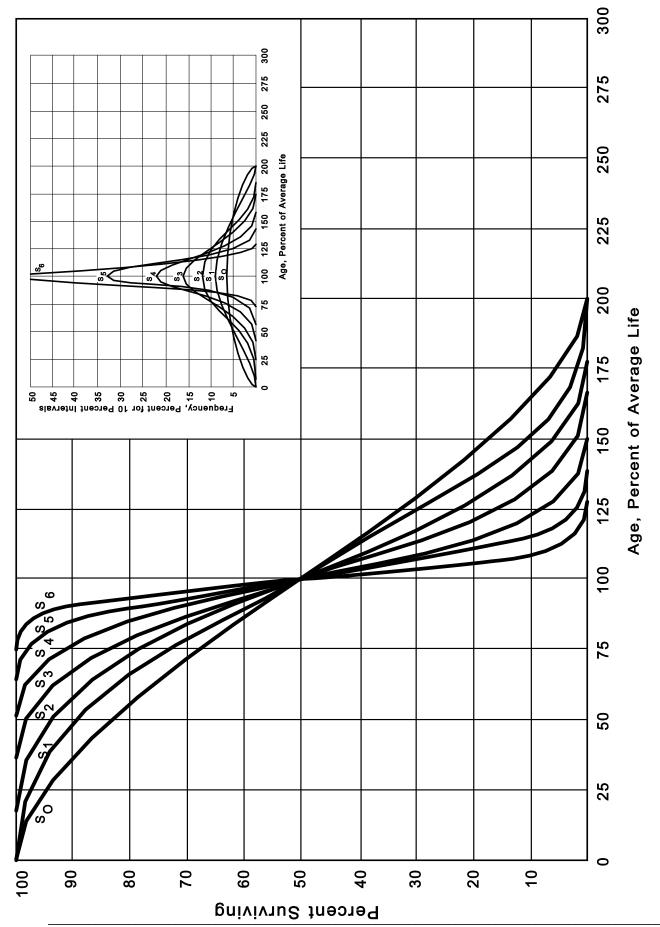
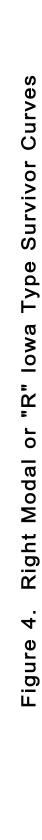


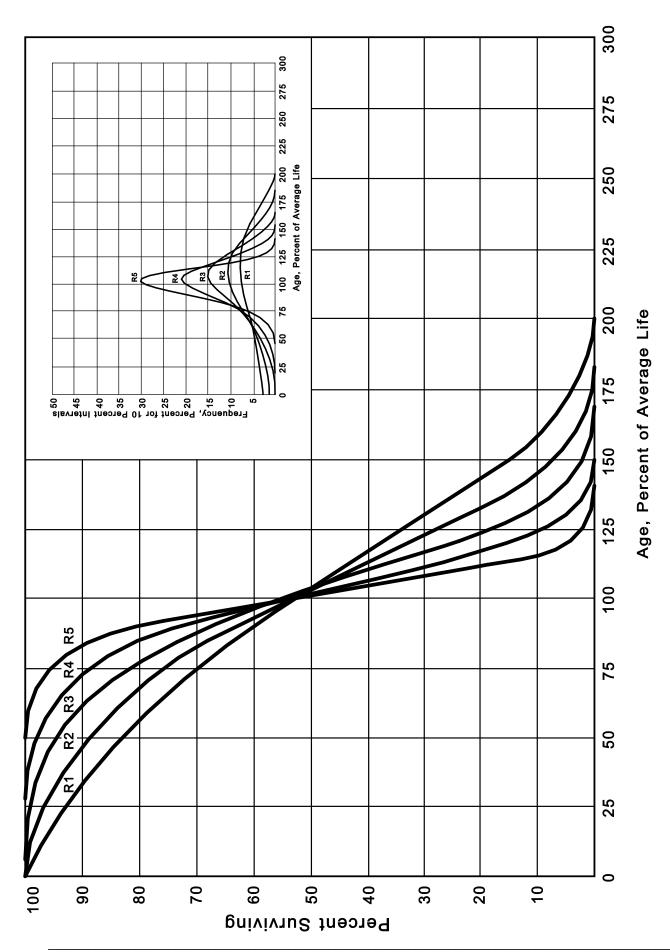
Figure 1. A Typical Survivor Curve and Derived Curves





Symmetrical or "S" lowa Type Survivor Curves Figure 3.





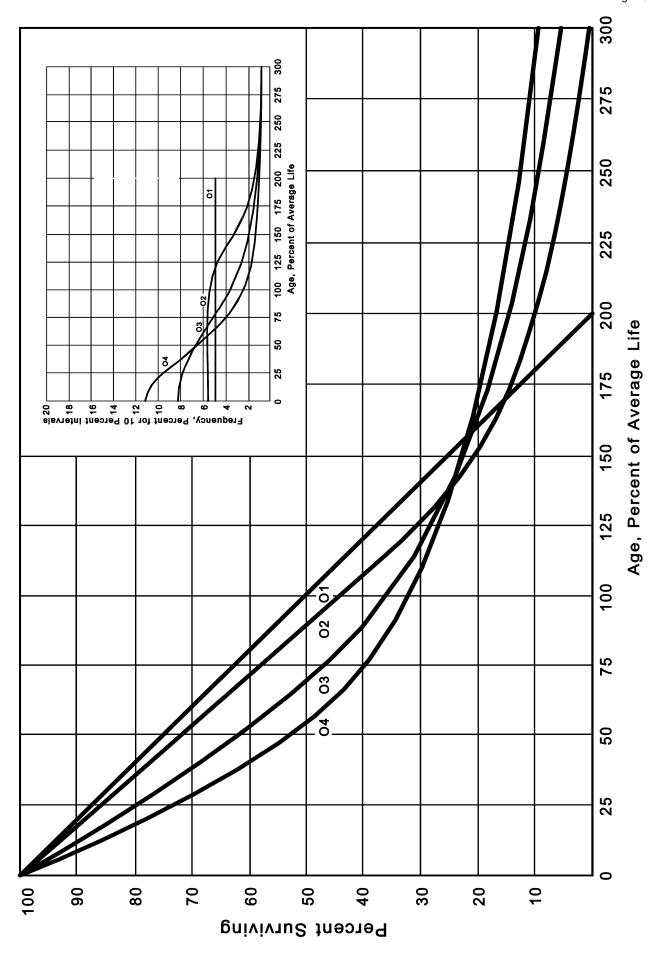


Figure 5. Origin Modal or "O" lowa Type Survivor Curves

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation." In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

#### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements," Engineering Valuation and Depreciation, and "Depreciation Systems."

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

<sup>&</sup>lt;sup>4</sup>Wolf, Frank K. and W. Chester Fitch. <u>Depreciation Systems</u>. Iowa State University Press. 1994.



Black Hills Service Company October 31, 2018

<sup>&</sup>lt;sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>&</sup>lt;sup>2</sup>Winfrey, Robley, <u>Statistical Analyses of Industrial Property Retirements</u>. Iowa State College. Engineering Experiment Station, Bulletin 125. 1935.

<sup>&</sup>lt;sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

#### **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2009-2018 during which there were placements during the years 2004-2018. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2004 were retired in 2009. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval  $4\frac{1}{2}$ - $5\frac{1}{2}$  is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2009 retirements of 2004 installations and ending with the 2018 retirements of the 2013 installations. Thus, the total amount of 143 for age interval  $4\frac{1}{2}$ - $5\frac{1}{2}$  equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20$$
.



SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2009-2018 SUMMARIZED BY AGE INTERVAL

Placement Band 2004-2018		Age	Interval	(13)	13½-14½	12½-13½	11½-12½	10½-11½	91/2-101/2	81/2-91/2	7½-8½	61/2-71/2	51/2-61/2	4½-5½	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
		Total During	Age Interval	(12)	26	44	64	83	93	105	113	124	131	143	146	150	151	153	80	1,606
N.			2018	(11)	26	19	18	17	20	20	20	19	19	20	23	22	22	24	13	308
			2017	(10)	25	22	22	16	19	16	18	19	19	19	22	22	23	7		273
			2016	(6)	24	21	21	15	17	15	16	17	17	17	20	20	7			231
	Dollars		2015	(8)	23	20	19	14	16	14	15	16	16	16	18	တ				196
	usands of	usands of Pear	2014	(-)	16	18	17	13	14	13	14	15	15	14	∞					157
	Retirements, Thousands of Dollars	During Year	2013	(9)	4	16	16	7	13	12	13	13	13	7						128
	Retiren		2012	(2)	13	15	14	11	12	7	12	12	9							106
<sub>∞</sub>			2011	<del>(</del> 4)	12	13	13	10	7	10	=	9								98
Experience Band 2009-2018			2010	(3)	7	12	12	တ	10	တ	2									89
ence Ban			2009	(2)	10	11	7	∞	ဝ	4										53
Experi		Year	Placed	Ξ	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total

# SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2009-2018 SUMMARIZED BY AGE INTERVAL

Placement Band 2004-2018

Experience Band 2009-2018

		Age	Interval	(13)	13½-14½	12½-13½	11½-12½	10½-11½	9½-10½	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
		<b>Total During</b>	Age Interval	(12)	,	1	ı	09	1	(5)	9	1	ı	ı	10	ı	(121)		1	(20)
Acquisitions, Transfers and Sales, Thousands of Dollars			2018	(11)	ı	•		•	•	ı		•		•	•	ı	$(102)^{c}$			(102)
	During Year		2017	(10)	ı									22 <sup>a</sup>						22
			2016	(6)	ı			(2) <sub>p</sub>	е <sub>в</sub>	,			(12) <sup>b</sup>		(19) <sup>b</sup>	,				(30)
			2015	(8)	e0 <sub>a</sub>	•		•	•	ı	•	•		•	•	ı				09
Sales, Tho			2014	(/	ı															•
sfers and			2013	(9)	ı															
ons, Trans			2012	(2)	ı					,										•
Acquisitic			2011	(4)	ı					,										•
			2010	(3)	ı					,										·
				(2)	ı					,										
		Year	Placed	<u>(</u>	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total

<sup>&</sup>lt;sup>a</sup> Transfer Affecting Exposures at Beginning of Year

Parentheses Denote Credit Amount.

<sup>&</sup>lt;sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>&</sup>lt;sup>c</sup> Sale with Continued Use

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements but are used in developing the exposures at the beginning of each age interval.

#### **Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2009 through 2018 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2014 are calculated in the following manner:

```
Exposures at age 0 = amount of addition = $750,000 

Exposures at age \frac{1}{2} = $750,000 - $8,000 = $742,000 

Exposures at age \frac{1}{2} = $742,000 - $18,000 = $724,000 

Exposures at age \frac{2}{2} = $724,000 - $20,000 - $19,000 = $685,000 

Exposures at age \frac{3}{2} = $685,000 - $22,000 = $663,000
```

For the entire experience band 2009-2018, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 2009-2018 SUMMARIZED BY AGE INTERVAL

-2018	Φ	Interval	3)	.141/2	-131/2	11½-12½	-111/2	91/2-101/2	81/2-91/2	7½-8½	-71/2	51/2-61/2	-51/2	3½-4½	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	g- <b></b> g	
d 2004.	Age	Inte	(13)	131/2	121/2	111/2	101/2.	91/2.	81/2-	71/2	61/2.	51/2.	41/2	31/2	21/2.	11/2.	7,27	Ö		
Placement Band 2004-2018	Total at Beginning of	Age Interval	(12)	167	323	531	823	1,097	1,503	1,952	2,463	3,057	3,789	4,332	4,955	5,719	6,579	7,490	44,780	
		2018	(11)	167	131	162	226	261	316	356	412	482	609	693	799	926	1,069	1,220ª	7,799	
		2017	(10)	192	153	184	242	280	332	374	431	501	628	685	821	949	$1,080^{a}$		6,852	
	är	2016	(6)	216	174	205	262	297	347	390	448	530	623	724	841	960a			6,017	
	ollars of the Yea	2015	(8)	239	194	224	276	307	361	405	464	546	639	742	850a				5,247	
	sands of E	2014	(2)	195	212	241	289	321	374	419	479	561	653	750a					4,494	
	Exposures, Thousands of Dollars I Survivors at the Beginning of the	2013	(9)	209	228	257	300	334	386	432	492	574	e099						3,872	
	Exposures, Thousands of Dollars Annual Survivors at the Beginning of the Year	2012	(5)	222	243	271	311	346	397	444	504	$580^a$							3,318	
		2011	(4)	234	256	284	321	357	407	455	$510^{a}$								2,824	
2009-2018		2010	(3)	245	268	296	330	367	416	$460^{a}$									2,382	ring the veal
Experience Band 2009-2018		2009	(2)	255	279	307	338	376	420a										1,975	<sup>a</sup> Additions during the vear
Experie	Year -	Placed	<u></u>	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total	

of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

#### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

```
Percent surviving at age 4½
                                        88.15
Exposures at age 4½
                                 = 3.789,000
Retirements from age 4\frac{1}{2} to 5\frac{1}{2}
                                      143.000
Retirement Ratio
                                 =
                                      143,000 \div 3,789,000 = 0.0377
Survivor Ratio
                                         1.000 -
                                                     0.0377 = 0.9623
                                 =
Percent surviving at age 5½
                                       (88.15) \times (0.9623) =
                                                                 84.83
```

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless. The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

# SCHEDULE 4. ORIGINAL LIFE TABLE CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2009-2018

Placement Band 2004-2018

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	167	26	0.1557	0.8443	42.24
14.5					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.



#### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The lowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the lowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R lowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 lowa curve would be selected as the most representative of the plotted survivor characteristics of the group.



FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE 2009-2018 EXPERIENCE 2004-2018 PLACEMENTS 4 ORIGINAL CURVE ■ 35 30 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 12-L IOWA 13-L1 20 25 AGE IN YEARS 15 9 D. <del>ا</del>ه 8 70 40 30 20 9 8 20 РЕВСЕИТ SURVIVING

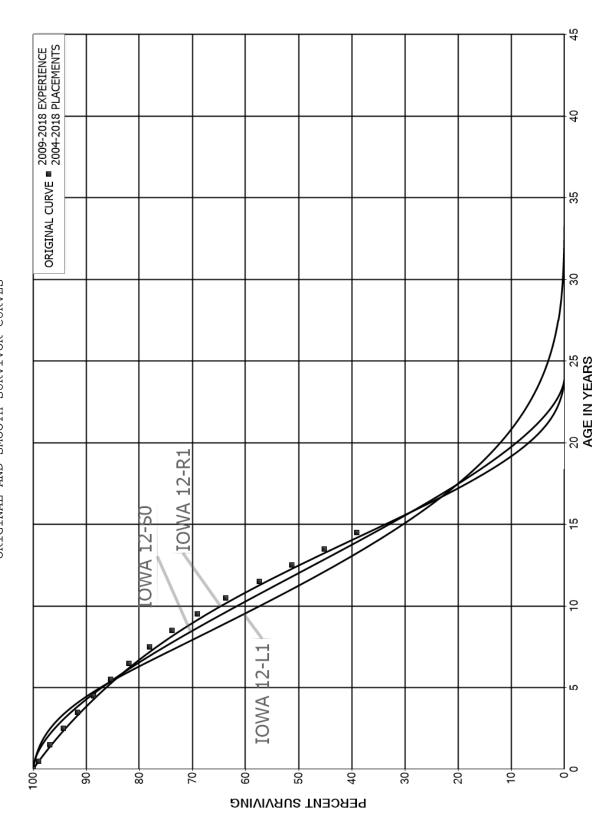
<u>Š</u> Gannett Fleming

FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO IOWA TYPE CURVE 2009-2018 EXPERIENCE 2004-2018 PLACEMENTS 4 ORIGINAL CURVE ■ 35 30 ORIGINAL AND SMOOTH SURVIVOR CURVES 20 25 AGE IN YEARS IOWA 13-S0 IOWA 12<del>-</del>S0 15 9 IOWA 11-S0 D. <del>ا</del>ه 8 70 50 40 30 20 9 8 РЕВСЕИТ SURVIVING

FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE 2009-2018 EXPERIENCE 2004-2018 PLACEMENTS 4 ORIGINAL CURVE ■ 35 30 ORIGINAL AND SMOOTH SURVIVOR CURVES 20 25 AGE IN YEARS IOWA 13-R1 15 IOWA 12-R1 9 IOWA 11-R1 D. <del>ا</del>ه 100 9 8 70 50 40 30 20 9 РЕВСЕИТ SURVIVING

**&** Gannett Fleming

FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



### **PART III. SERVICE LIFE CONSIDERATIONS**

### PART III. SERVICE LIFE CONSIDERATIONS

### **SERVICE LIFE ANALYSIS**

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other gas and electric companies.

For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

### **DISTRIBUTION PLANT**

378.00	Measuring and Regulating Station Equipment
381.00	Meters
381.01	Meters – ERTs
385.01	Industrial Measuring and Regulating Station Equipment
385.02	Industrial Measuring and Regulating Station Equipment – Industrial Meters
387.00	Other Equipment

# GENERAL PLANT

000.0.	endotaree and improvemente
392.02	Transportation Equipment – Cars
392.03	Transportation Equipment – Light Trucks
392.04	Transportation Equipment – Medium Trucks
392.06	Transportation Equipment – Trailers

Structures and Improvements – Owned



The estimated survivor curves for most of the mass property accounts are based on statistical analyses of plant accounting data and the range of lives and type curves used for other companies in the utility industry. The combined Account 390.01, Structures and Improvements – Owned, is one of the largest asset classification and is used to illustrate the manner in which the study was conducted for the groups using the retirement rate method. Aged retirement and other plant accounting data were compiled for the years 1986 through 2018. These data were coded in the course of the Company's normal recordkeeping according to plant account or subaccount, type of transaction, year in which the transaction took place, and year in which the utility plant was placed in service. The data were analyzed by the retirement rate method of life analysis. The survivor curve chart for the account is presented on page VII-25 and the life table for the experience band plotted on the chart follows it.

Typical service lives for the structures of this type for other utility companies range from 35 to 55 years. The lowa 50-R2.5 survivor curve is estimated to represent the future, inasmuch as it is a reasonable interpretation of the significant portion of the stub survivor curve, reflects the outlook of management and is within the typical range of lives for this account.

The estimate for the combined Account 392.03, Transportation Equipment – Light Trucks, is based on the 2003-2018 experience band. The 9-L3 survivor curve is supported by the statistical analyses on page VII-30. The 9-year average service life is within the range of 7-12 years for other utility companies.

Another large account is gas Account 381, Meters. The estimate of survivor characteristics is based on the 1986-2018 experience band. As the survivor curve chart illustrates, the experience band represents life characteristics supported by the 31-R2



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survivor curve. The 31-year average life is within the typical range of lives used by others in the industry.

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other gas and electric companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

### PART IV. NET SALVAGE CONSIDERATIONS



### PART IV. NET SALVAGE CONSIDERATIONS

### **SALVAGE ANALYSIS**

The estimates of net salvage by account were based in part on historical data compiled for the years 2005 and 2018. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

### Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 2005 through 2018 was a major factor in determining net salvage estimates along with judgment and estimates of other gas and electric companies as the primary basis for each estimate.

The net salvage results for Account 381.00, Meters, will be used to illustrate the methods for estimating net salvage. The net salvage estimate for Account 381.00, Meters, is positive 2 percent and is based on the historical analysis of salvage percents



as shown in the tabulation on page VIII-4 and the typical range of net salvage estimates used by other gas utilities for meters. The historical indication for the period 2005 through 2018 is positive 2 percent. The range of estimates for other utility companies is positive 5 to negative 20 percent. Based on the statistical analysis and the range of estimates used by others, positive 2 percent net salvage is estimated for meters.

The net salvage estimates for the remaining accounts were estimated using the above-described process of historical indications, judgment and reviewing the typical range of estimates used by other gas and electric companies. The results of the net salvage for each plant account are presented in account sequence beginning in the section titled "Net Salvage Statistics", page VIII-2.

Generally, the net salvage estimates for remaining general plant accounts were zero percent, consistent with amortization accounting.

# PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION



# PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

### Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4+6)}$$
 = \\$100 per year.

The accrued depreciation is:

$$$1,000\left(1-\frac{6}{10}\right)=$400.$$



### Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of October 31, 2018, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of October 31, 2018, are set forth in the Results of Study section of the report.

### Average Service Life Procedure

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$Ratio = 1 - \frac{Average Remaining Life}{Average Service Life}$$
.



### CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable utility plant in service. The accounts and their amortization periods are as follows:

Electric Plant	Account	Amortization Period, <u>Years</u>
391,	Office Furniture and Equipment	
	Furniture and Equipment	20
	Hardware	5
	Software	7
	IPad Hardware	5
395,	Laboratory Equipment	20
397,	Communication Equipment	15
397.1,	Communication Equipment - Towers	25

		<u>Account</u>	Amortization Period, <u>Years</u>
Gas I	Plant		
	391,	Office Furniture and Equipment	
		Furniture	20
		Hardware	5
		Software	7
	394,	Tools, Shop and Garage Equipment	25
	395,	Laboratory Equipment	20
	397,	Communication Equipment	15
Comr	non Plai	nt	
	391,	Office Furniture and Equipment	
		Furniture and Equipment	20
		Hardware	5
		Software	7
		IPad Hardware	5
		Platform Systems	10
		Other Software	10
	394,	Tools, Shop and Garage Equipment	25
	397,	Communication Equipment	15
	398,	Miscellaneous Equipment	20

For the purpose of calculating annual amortization amounts as of October 31, 2018, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.



### **PART VI. RESULTS OF STUDY**

### PART VI. RESULTS OF STUDY

### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the gas and electric plant in service as of October 31, 2018. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to October 31, 2018, is reasonable for a period of three to five years.

### **DESCRIPTION OF STATISTICAL SUPPORT**

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other gas and electric utilities. The results of the statistical analysis of service life are presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of



the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which where plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

### **DESCRIPTION OF DETAILED TABULATIONS**

A summary of the results of the study, as applied to the original cost of electric, gas and common plant at October 31, 2018, is presented on pages VI-5 through VI-8 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to electric, gas and common plant.

The tables of the calculated annual depreciation applicable to depreciable assets as of October 31, 2018 are presented in account sequence starting on page IX-2 of the supporting documents. The tables indicate the estimated survivor curve and net salvage



percent for the account and set forth, for each installation year, the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.



TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF OCTOBER 31, 2018

	RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF OCTOBER 31, 2018	ATED ANNUAL D	EPRECIATION R	ATES AS OF OCTOB	ER 31, 2018				
		SIIRVIVOR	SALVAGE	OBIGINAL	BOOK	HHIL	CALCULATED ANNUAL	ANNUAL	COMPOSITE
	ACCOUNT (1)	CURVE (2)	PERCENT (3)	COST (4)	RESERVE (5)	ACCRUALS (6)	AMOUNT (7)	RATE (8)=(7)/(4)	(9)=(6)/(7)
	ELECTRIC PLANT								
	DISTRIBUTION PLANT								
370.01 370.04	METERS METERS - AMI	25-R2.5 15-S2.5	0 0	170,254.51 2,668,672.11	12,290 664,841	157,965 2,003,831	6,995 150,687	4.11	22.6 13.3
	TOTAL DISTRIBUTION PLANT			2,838,926.62	677,131	2,161,796	157,682	5.55	
	GENERAL PLANT								
390.01	STRUCTURES AND IMPROVEMENTS - OWINED	50-R2.5	0	351,570.87	36,167	315,404	7,007	1.99	45.0
391.01	OFFICE FURNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT	20-SQ	0	34,267.54	10,725	23,543	1,713	5.00	13.7
391.03	OFFICE FURNITURE AND EQUIPMENT - HARDWARE FULLY ACCRUED AMORTIZED	5-SQ	0	49,687.50 1,799,613.38	49,688 868,540	0 931,073	359,932	20.00	2.6
	TOTAL ACCOUNT 391.03			1,849,300.88	918,228	931,073	359,932	19.46	
391.04	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE FULLY ACCRUED AMORTIZED	7-SQ	0	2,720,054.41 11,413,950.38	2,720,054 6,975,530	0 4,438,420	0 1,631,608	14.29	2.7
	TOTAL ACCOUNT 391.04			14,134,004.79	9,695,584	4,438,420	1,631,608	11.54	
391.07	OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE	5-SQ	0	10,790.04	905	9,885	2,158	20.00	4.6
	TOTAL ACCOUNT 391			16,028,363.25	10,625,442	5,402,921	1,995,411	12.45	
392.03 395.00 397.00 397.10	TRANSPORTATION EQUIPMENT - LIGHT TRUCKS LABORATORY EQUIPMENT COMMUNICATION EQUIPMENT COMMUNICATION EQUIPMENT - TOWERS	9-L3 20-SQ 15-SQ 25-SQ	0 0 0 0	320,383.96 43,123.50 72,585.43 112,384.68	85,995 6,410 16,115 29,015	170,312 36,714 56,470 83,370	27,690 2,157 4,839 4,495	8.64 5.00 6.67 4.00	6.2 17.0 11.7 18.5
	TOTAL GENERAL PLANT			16,928,411.69	10,799,144	6,065,191	2,041,599	12.06	
	TOTAL ELECTRIC PLANT			19,767,338.31	11,476,275	8,226,987	2,199,281	11.13	
	GAS PLANT								
	DISTRIBUTION PLANT								
378.00	MEASURING AND REGULATING STATION EQUIPMENT METERS M	10-L0.5 31-R2	(5)	130,774.05	7,980 (310,940)	129,333	15,550 136,384	11.89	8.3 23.2
385.01 385.02 387.00	METERNAL MEASURING AND REGULATING STATION EQUIPMENT INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - INDUSTRIAL METERS OTHER EQUIPMENT - INDUSTRIAL METERS	30-R1.5 20-S0.5 12-R3	(2)	2,199,410.90 2,378,105.48 52,440.31 39,125.38	74,950 223,981 17,151 25,353	2,273,030 2,273,030 35,289 13,772	107,230 93,643 1,794 1,486	3.94 3.42 3.80	24.3 24.3 19.7 9.3
	TOTAL DISTRIBUTION PLANT			7,705,095.06	38,483	7,733,951	436,087	99.5	

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF OCTOBER 31, 2018

Comparison		ACCOUNT	SURVIVOR	NET SALVAGE PERCENT	ORIGINAL COST	BOOK DEPRECIATION RESERVE	FUTURE	CALCULATED ANNUAL ACCRUAL ACCRU AMOUNT RATE	D ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
FE AND EQUIPMENT 20-SQ 0 2669-97 1755,590-70 1,403.015 19.25.55 10.251 10.251 10.251 10.251 10.251 10.251 10.251 10.251 10.251 10.252 10.253-14.42 10.275 11.565 11.151 10.151 10.151 10.151 10.251 10		(1)	(3)	(3)	<b>(</b> 4)	(2)	(9)	<b>(</b> 2)	(8)=(7)/(4)	(2)/(9)=(6)
TE AND EQUIPMENT  TE TO SO TO SO TO SO TO SO TO SO SO TO SO	STRUCTUI	GENERAL PLANT RES AND IMPROVEMENTS - OWNED	50-R2.5	0	1.755,599.70	1,403,015	352.585	10.251	0.58	34.4
FE 580 0 1086,044.07 14670 11,566 100 11,567 11,561	OFFICE FU FULLY AC AMORTIZ	JRNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT CCRUED IIED	20-SQ	0	4,674.85 23,639.57	4,675 12,075	0 11,565	0,1,181	5.00	. 8.9
FE SSO 0 1086,94.97 644.26 461.77 61.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL AC	COUNT 391.01			28,314.42	16,750	11,565	1,181	4.17	
1.101.946.80 640,177 461,770 219.186  7.50 7.50 0 2413.404.55 1.653.610 849.80 344.991  2.998.666.49 2.149.772 849.895 344.991  4.129.927.71 2.966.699 1.323.299 65.369  2.5.50 0 620.928.3 22.666 699 1.323.299 65.369  2.5.50 0 620.928.3 77.701.299 7.70.895 1.684.181 3.80.65  2.5.50 0 7.701.299 7.70.89 7.808.201.69  2.5.50 0 7.701.299 7.70.89 7.808.201.69  2.5.50 0 7.701.299 7.70.895 1.684.99 1.1910  2.5.50 0 7.701.299 7.70.89 7.808.201.69  2.5.60 1918.72  2.5.70 1918.72  2.5.70 1918.72  2.5.70 1918.72  2.5.70 1918.72  2.5.70 1918.72  2.5.70 1918.72  2.5	OFFICE FI FULLY A	RRNITURE AND EQUIPMENT - HARDWARE CCRUED ZIED	5-SQ	0	5,751.83 1,096,194.97	5,752 634,425	0 461,770	0 219,186	20.00	2.1
FE 586.281 4 586.282 4 1,563.510 8.49.865 344.981    7-50	TOTAL A	CCOUNT 391.03			1,101,946.80	640,177	461,770	219,186	19.89	
### Span	OFFICE FU FULLY AC AMORTIZ	RRNITURE AND EQUIPMENT - SOFTWARE SCRUED :IED	7-SQ	0	586,261.94 2,413,404.55	586,262 1,563,510	0 849,895	0 344,991	- 14.29	2.5
## ALTO BOLIFMENT 2.0.6 6.0.9 S. 2.2.6 6.0 6.9 6.0 6.0 6.0 6.0 6.0.1 6.0	TOTAL A	CCOUNT 391.04			2,999,666.49	2,149,772	849,895	344,991	11.50	
9-L3 20 620,928.32 108,121 388,622 18,206  20-S2 10 47,167.33 22,266 20,195 1,933  25-SQ 0 877,701.29 333,520 544,181 35,065  20-SQ 0 238,244,7 70,085 168,149 11,910  15-SQ 0 243,147,77 1,266.29 4,763,526 2,820,270 665,599  15-SQ 0 5,861,918,72 1,932 20,832  20-RQ 0 5,861,918,72 1,361,2 10,081 118,338  20-RQ 0 5,861,918,72 1,361,2 10,081 118,338  20-RQ 0 6,833,874,80 3,403,625 3,180,280 1,49,918  RE AND EQUIPMENT 20-SQ 0 6,833,874,80 3,403,625 3,180,280 4,624,800	TOTAL A	CCOUNT 391			4,129,927.71	2,806,699	1,323,230	565,358	13.69	
25-SQ 0 877,701.29 333.520 544,181 35,065 20-SQ 0 238,224,17 70,085 168,149 11,910 15-SQ 0 238,224,17 70,085 23,316 20-SQ 0 43,137,77 19,820 23,316 20-SQ 0 43,137,77 19,820 23,318 20-SQ 0 43,137,77 19,820 23,318 20-R2,5 0 5,881,918,72 752,838 5,109,081 118,338 20-SQ 0 5,841,918,72 752,838 5,109,081 118,338 20-SQ 0 6,583,874,80 34,03,625 3,180,250 329,154 AARE AARE AARE AARE A 13,927,283 9,455,104 4,624,800	TRANSPO TRANSPO	RTATION EQUIPMENT - LIGHT TRUCKS RTATION EQUIPMENT - TRAILERS	9-L3 20-S2	20	620,928.32 47,167.33	108,121 22,266	388,622 20,185	58,206 1,933	9.37	6.7
25-SQ         0         877.701.29 (238.24.17) (238.24.17)         333.520 (168.149) (168.149) (169.149) (	TOTAL A	DCOUNT 392			668,095.65	130,387	408,807	60,139	9.00	
17,112,696.29         4,763,526         2,820,270         688,699           15,417,791.35         4,802,009         10,554,221         1,121,686           50-R2,5         0         5,861,918.72         752,838         5,109,081         118,338           20-S3         0         579,623.29         213,812         365,811         26,580           NARE         20-SQ         0         6,441,542.01         966,650         5,474,892         144,918           NARE         20-SQ         0         6,583,874.80         3,403,625         3,403,625         329,154           NARE         5-SQ         0         23,124,733.99         13,669,630         9,455,104         4,624,800           23,382,386.74         13,927,283         9,455,104         4,624,800	TOOLS, SI LABORAT COMMUNI	HOP AND GARAGE EQUIPMENT ORY EQUIPMENT ICATION EQUIPMENT	25-SQ 20-SQ 15-SQ	000	877,701.29 238,234.17 43,137.77	333,520 70,085 19,820	544,181 168,149 23,318	35,065 11,910 2,876	4.00 5.00 6.67	15.5 14.1 8.1
15,417,791.35         4,802,009         10,554,221         1,121,686           50-R2.53         0         5,861,918.72         752,838         5,109,081         118,338           20-S3         0         5,79,623.29         213,812         365,811         26,580           VARE         20-SQ         0         6,583,874.80         3,403,625         3,180,250         329,154           VARE         5-SQ         0         23,124,733.99         13,699,630         9,455,104         4,624,800           5-SQ         0         23,124,733.99         13,699,630         9,455,104         4,624,800	TOTAL	GENERAL PLANT			7,712,696.29	4,763,526	2,820,270	685,599	8.89	
FURE AND EQUIPMENT         5.509.0R1         752.838         5.109.0R1         118.338           FURE AND EQUIPMENT         20-S3         0         5.881.918.72         752.838         5.109.0R1         118.338           FURE AND EQUIPMENT         20-SQ         0         6.583.874.80         3.403.625         5.474.892         144.918           VARE         257.662.75         257.662.75         257.663         0         23.124.733.99         13.669.630         9.455.104         4.624.800           23.382.386.74         13.927.283         9.455.104         4.624.800	TOTAL GA	S PLANT			15,417,791.35	4,802,009	10,554,221	1,121,686	7.28	
SO.R2.5         0         5.861.918.72         752.838         5.109.081         118.338           20-S3         0         579.623.29         213.812         365.811         26.580           FUNE AND EQUIPMENT         20-SQ         0         6,583.874.80         3,403,625         5,474.892         144,918           VARE         25.5         0         257.662.75         257.662.76         3,180,250         329,154           S-SQ         0         23,124,733.99         13,669,630         9,455,104         4,624,800           23,382,386.74         13,927,283         9,455,104         4,624,800	COMMON	PLANT								
20-SQ 0 6.583.874.80 3,403,625 5,474.892 144,918 20-SQ 0 0.583.874.80 3,403,625 3,180,250 329,154 5-SQ 0 23,124,733.99 13,669,630 9,455,104 4,624,800	STRUCTU	RES AND IMPROVEMENTS - OWNED RES AND IMPROVEMENTS - LEASED	50-R2.5 20-S3	0 0	5,861,918.72 579,623.29	752,838 213,812	5,109,081 365,811	118,338 26,580	2.02	43.2 13.8
20-SQ 0 6,583,874.80 3,403,625 3,180,250 329,154  257,652,75 257,653  5-SQ 0 23,124,733.99 13,669,630 9,455,104 4,624,800	TOTAL A	CCOUNT 390			6,441,542.01	966,650	5,474,892	144,918	2.25	
5-SQ 0 $\frac{257,652.75}{23,382,386.74}$ $\frac{257,653}{13,669,630}$ $\frac{0}{9,455,104}$ $\frac{4,624,800}{4,624,800}$	OFFICE FU	JRNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT	20-SQ	0	6,583,874.80	3,403,625	3,180,250	329,154	5.00	9.7
23,382,386.74 13,927,283 9,455,104 4,624,800	FULLY ACCF AMORTIZED	ONNI ONE CAUTIVIENT TRACTORY	5-80	0	257,652.75 23,124,733.99	257,653 13,669,630	0 9,455,104	0 4,624,800	20.00	2.0
	TOTAL A	(CCOUNT 391.03			23,382,386.74	13,927,283	9,455,104	4,624,800	19.78	

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF OCTOBER 31, 2018

	REDERVE AL	ND CALCOLAI ED ANNOAL DETRECIATION KATES AS OT OCTOBER 51, 2019 NET	NET NET	AIES AS OF OCIOE	3ER 31, 2010		LALINANA CITTA ILICIA D	IAIIMNA	TISOMOO
	ACCOUNT	SURVIVOR	SALVAGE	ORIGINAL	DEPRECIATION RESERVE	FUTURE	ACCRUAL	ACCRUAL	REMAINING
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)=(7)/(4)	(2)/(9)=(6)
391.04	OFFICE FURNITURE AND EQUIPMENT - SOFTWARE FULLY ACCRUED AMORTIZED	7-SQ	0	3,712,528.21 143,074.94	3,712,528 106,605	0 36,470	0 20,444	- 14.29	' <del>6</del>
	TOTAL ACCOUNT 391.04			3,855,603.15	3,819,133	36,470	20,444	0.53	
391.07	OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE	5-SQ	0	18,447.49	4,905	13,542	3,690	20.00	3.7
2	OTTOLOGNI ON A MAD EGGI MENT TEAT ONN STOLEMS FULLY ACCRUED AMORTIZED	10-SQ	0	47,463,579.95 32,506,271.70	47,463,580 8,652,655	0 23,853,617	0 3,250,628	10.00	7.3
	TOTAL ACCOUNT 391.13			79,969,851.65	56,116,235	23,853,617	3,250,628	4.06	
391.18	OFFICE FURNITURE AND EQUIPMENT - OTHER SOFTWARE FULLY ACCRUED AMORTIZED	10-SQ	0	168,318.74 21,909,609.34	168,319 9,843,010	0 12,066,599	0 2,191,590	10.00	. 5.5
	TOTAL ACCOUNT 391.18			22,077,928.08	10,011,329	12,066,599	2,191,590	9.93	
391.23	OFFICE FURNITURE AND EQUIPMENT - PLATFORM SYSTEMS	10-SQ	0	19,422,764.92	11,983,320	7,439,445	1,942,461	10.00	3.8
391.28	OFFICE FORMITURE AND EQUIPMENT - OTHER SOFTWARE FULLY ACCRUED AMORTIZED	10-SQ	0	963,168.70 16,335,530.27	963,169 6,243,575	0 10,091,955	0 1,634,059	10.00	6.2
	TOTAL ACCOUNT 391.28			17,298,698.97	7,206,744	10,091,955	1,634,059	9.45	
	TOTAL ACCOUNT 391			172,609,555.80	106,472,574	66,136,982	13,996,826	8.11	
392.02 392.03 392.04	TRANSPORTATION EQUIPMENT - CARS TRANSPORTATION EQUIPMENT - LIGHT TRUCKS TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS	8-S2 9-L3 8-L4	5 20 20	16,016.60 2,868,229.34 1,165,497.06	9,909 553,991 555,502	5,307 1,740,592 376,896	3,424 266,732 127,976	21.38 9.30 10.98	1.5 6.5 2.9
	TOTAL ACCOUNT 392			4,049,743.00	1,119,402	2,122,795	398,132	9.83	
394.00 397.00 398.00	TOOLS. SHOP AND GARAGE EQUIPMENT COMMUNICATION EQUIPMENT MISCELLANEOUS EQUIPMENT	25-SQ 15-SQ 20-SQ	000	67,088.99 454,128.04 32,324.18	15,485 102,590 8,070	51,604 351,538 24,254	2,683 30,275 1,616	4.00 6.67 5.00	19.2 11.6 15.0
	TOTAL COMMON PLANT			183,654,382.02	108,684,771	74,162,065	14,574,450	7.94	
	RESERVE ADJUSTMENT FOR AMORTIZATION								
391.01 391.03 391.04 391.07 395.00 397.00	ELECTRIC PLANT OFFICE FURNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT - HARDWARE OFFICE FURNITURE AND EQUIPMENT - SOFTWARE OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE LABORATORY EQUIPMENT COMMUNICATION EQUIPMENT COMMUNICATION EQUIPMENT				247 (764,749) (1,813,388) 444 279 6,977 (151,187)		(25) * 76,475 * 181,339 * (28) * (28) * (698) * (11) 9 * (21) 4 * (28) *		
	TOTAL ELECTRIC PLANT				(2,721,377)		272,138		

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF OCTOBER 31, 2018

		RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF OCTOBER 31, 2018	TED ANNUAL D	EPRECIATION R	ATES AS OF OCTOI	3ER 31, 2018				
יחח		ACCOUNT	SURVIVOR	NET SALVAGE PERCENT	ORIGINAL COST	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	ACCRUAL ACCRU AMOUNT RATE	ACCRUAL RATE	COMPOSITE REMAINING LIFE
oi		(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)=(7)/(4)	(2)/(9)=(6)
tt Flomi	391.01 391.03 391.04 394.00 395.00	GAS PLANT OFFICE FURNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT - HARDWARE OFFICE FURNITURE AND EQUIPMENT - SOFTWARE TOOLS, SHOP AND GARAGE EQUIPMENT LABORATORY EQUIPMENT COMMUNICATION EQUIPMENT				40,157 (626,791) (2,501,030) (976,171) (142,244) (28,006)		(4,016) * 62,679 * 250,103 * 97,617 * 14,224 * 2,801 * *		
		TOTAL GAS PLANT				(4,234,085)		423,409		
VI-8	391.01 391.03 391.04 391.05 391.06 391.13 391.13 391.23 391.23 391.28	COMMON PLANT OFFICE FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT - HARDWARE OFFICE FURNITURE AND EQUIPMENT - SOFTWARE OFFICE FURNITURE AND EQUIPMENT - SOFTWARE OFFICE FURNITURE AND EQUIPMENT - COMPUTER HARDWARD/COMMUNICATION EQUIPMENT OFFICE FURNITURE AND EQUIPMENT - PAD HARDWARE OFFICE FURNITURE AND EQUIPMENT - PATFORM SYSTEMS OFFICE FURNITURE AND EQUIPMENT - PATFORM SYSTEMS OFFICE FURNITURE AND EQUIPMENT - PATFORM SYSTEMS OFFICE FURNITURE AND EQUIPMENT - OTHER SOFTWARE TOOLS, SHOP AND GARAGE EQUIPMENT - OTHER SOFTWARE COMMUNICATION EQUIPMENT MISCELLANEOUS EQUIPMENT				(163,525) (18,265,991) 1,141,382 (1,881,335) (7,278,577) (9,71,237) (5,063,049) (2,064,048) 2,486,040 951,679 2,145 2,145 (36,520) 7,828		16,353 1,828,599 (114,138) 184,184 727,858 97,124 506,405 (248,604) (95,168) (215) (215)		
		TOTAL COMMON PLANT				(31,176,613)		3,117,661		
		TOTAL RESERVE ADJUSTMENT FOR AMORTIZATION				(38,132,075)		3,813,208		
		TOTAL DEPRECIABLE PLANT			218,839,511.68	86,830,980	92,943,273	21,708,625	9.92	
		NONDEPRECIABLE PLANT								
	374.01	LAND			76,939.63					
		TOTAL GAS PLANT			76,939.63					
Bla		COMMON PLANT								
ıck	389.01	LAND			646,323.58					
Hills		TOTAL COMMON PLANT			646,323.58					
Se		TOTAL NONDEPRECIABLE PLANT			646,323.58					
rvice		TOTAL UTILITY PLANT			219,562,774.89	86,830,980	92,943,273	21,708,625		

 $^{\star}$  10-year Amortization of Unrecovered Reserve related to Amortization Accounting.

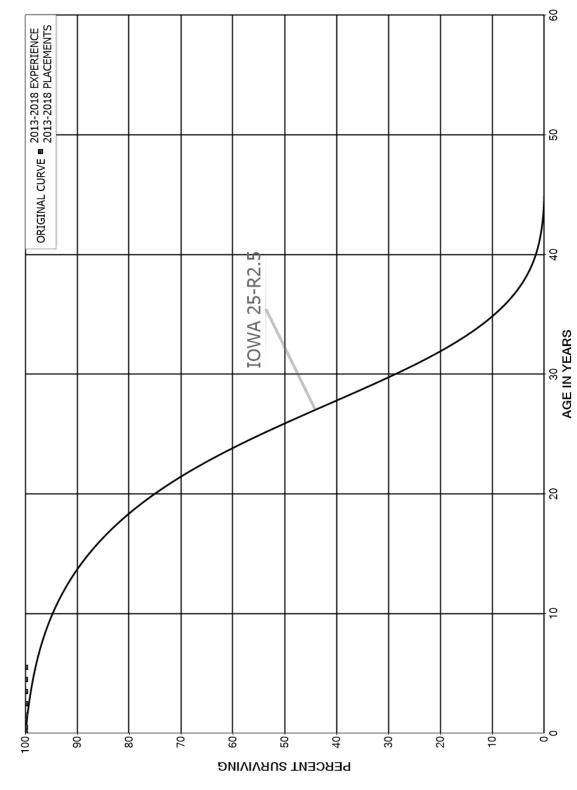
### **PART VII. SERVICE LIFE STATISTICS**



**ELECTRIC PLANT** 



BLACK HILLS SERVICE COMPANY
ELECTRIC PLANT
ACCOUNT 370.01 METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



# BLACK HILLS SERVICE COMPANY ELECTRIC PLANT

### ACCOUNT 370.01 METERS

### ORIGINAL LIFE TABLE

PLACEMENT I	BAND 2013-2018		EXPER	RIENCE BAN	D 2013-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5	4,641,209 425,507 266,746 98,314 88,133 43,345		0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00

8

AGE IN YEARS

ORIGINAL CURVE = 2010-2018 EXPERIENCE 2010-2018 PLACEMENTS 20 40 ORIGINAL AND SMOOTH SURVIVOR CURVES ACCOUNT 370.04 METERS - AMI BLACK HILLS SERVICE COMPANY ELECTRIC PLANT IOWA 15-S2. 2 9 001 9 80 70 -09 50 40 30 20 10



РЕВСЕИТ SURVIVING

# BLACK HILLS SERVICE COMPANY ELECTRIC PLANT

### ACCOUNT 370.04 METERS - AMI

### ORIGINAL LIFE TABLE

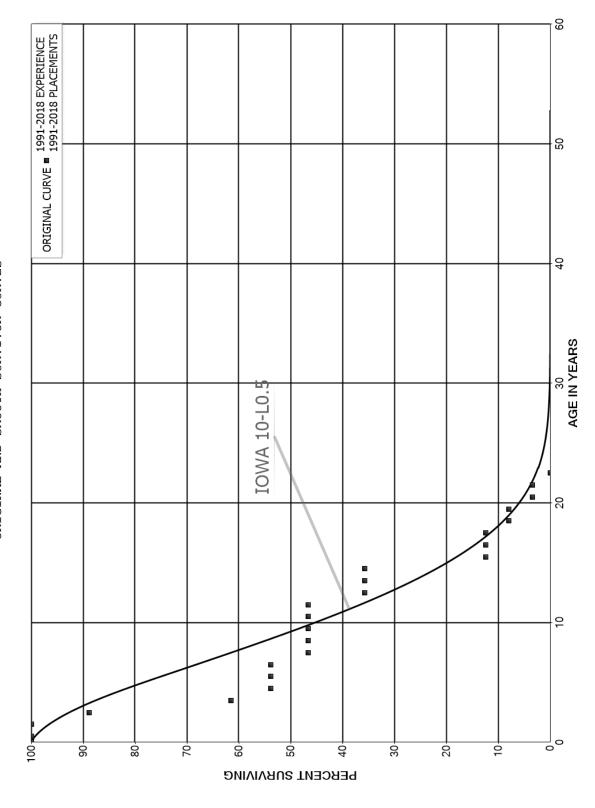
PLACEMENT I	BAND 2010-2018		EXPER	RIENCE BAN	D 2013-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	7,235,965 4,301,081 1,200,066 748,096 546,715 364,944 8,944 25,303 25,303		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00



**GAS PLANT** 



BLACK HILLS SERVICE COMPANY
GAS PLANT
ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



# BLACK HILLS SERVICE COMPANY GAS PLANT

### ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1991-2018		EXPER	RIENCE BAN	D 1991-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	241,104 218,264 163,083 127,132 87,935 72,759 60,187 45,754 39,670 40,763	18,137 39,197 10,974	0.0000 0.0000 0.1112 0.3083 0.1248 0.0000 0.0000 0.1330 0.0000 0.0000	1.0000 1.0000 0.8888 0.6917 0.8752 1.0000 1.0000 0.8670 1.0000	100.00 100.00 100.00 88.88 61.48 53.80 53.80 53.80 46.65 46.65
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	40,763 43,984 43,984 33,720 33,720 11,737 11,737 11,737 7,535	10,264 21,983 4,202	0.0000 0.0000 0.2333 0.0000 0.0000 0.6519 0.0000 0.0000 0.3580 0.0000	1.0000 1.0000 0.7667 1.0000 1.0000 0.3481 1.0000 1.0000 0.6420 1.0000	46.65 46.65 46.65 35.76 35.76 35.76 12.45 12.45 7.99
19.5 20.5 21.5	7,535 3,221 3,221	4,314 3,221	0.5725 0.0000 1.0000	0.4275 1.0000	7.99 3.42 3.42

22.5

8 ORIGINAL CURVE = 1920-2018 PLACEMENTS 2 IOWA 31-R2 9 AGE IN YEARS 8 20 9 <del>\_</del>0 80 70 -09 50 40 30 20 10 8 РЕВСЕИТ ЗИВУІУІИС

BLACK HILLS SERVICE COMPANY
GAS PLANT
ACCOUNT 381.00 METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES

# BLACK HILLS SERVICE COMPANY GAS PLANT

### ACCOUNT 381.00 METERS

### ORIGINAL LIFE TABLE

PLACEMENT I	BAND 1920-2018		EXPEF	RIENCE BAN	D 1986-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	66,174,624 57,826,973 47,630,760 42,776,500 40,053,866 38,812,483 36,607,458 33,718,913 32,669,533 31,803,271	49,011 771,881 947,702 161,078 170,093 422,569 1,068,216 916,424 276,949 53,440	0.0007 0.0133 0.0199 0.0038 0.0042 0.0109 0.0292 0.0272 0.0085 0.0017	0.9993 0.9867 0.9801 0.9962 0.9958 0.9891 0.9708 0.9728 0.9915 0.9983	100.00 99.93 98.59 96.63 96.27 95.86 94.81 92.05 89.55 88.79
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	30,935,627 30,231,982 29,386,343 29,233,648 28,632,525 27,967,764 28,080,179 27,515,641 28,062,747 26,774,038	128,569 36,121 66,817 147,253 32,561 137,479 84,839 482,413 693,145 348,587	0.0042 0.0012 0.0023 0.0050 0.0011 0.0049 0.0030 0.0175 0.0247 0.0130	0.9958 0.9988 0.9977 0.9950 0.9989 0.9951 0.9970 0.9825 0.9753 0.9870	88.64 88.27 88.16 87.96 87.52 87.42 86.99 86.73 85.21
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	25,801,378 24,868,368 23,911,610 23,015,993 22,473,505 22,729,712 21,818,090 20,586,297 19,382,903 18,493,809	476,177 331,737 209,000 264,815 231,720 261,724 534,317 319,108 214,878 169,150	0.0185 0.0133 0.0087 0.0115 0.0103 0.0115 0.0245 0.0155 0.0111 0.0091	0.9815 0.9867 0.9913 0.9885 0.9897 0.9885 0.9755 0.9845 0.9889	82.02 80.51 79.43 78.74 77.83 77.03 76.14 74.28 73.13 72.32
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	18,095,738 17,499,867 17,144,840 13,757,352 10,943,558 7,892,973 7,356,778 6,378,091 5,774,017 5,223,751	228,718 183,348 2,061,977 1,842,234 1,811,151 462,919 931,187 592,412 276,560 247,167	0.0126 0.0105 0.1203 0.1339 0.1655 0.0586 0.1266 0.0929 0.0479 0.0473	0.9874 0.9895 0.8797 0.8661 0.8345 0.9414 0.8734 0.9071 0.9521 0.9527	71.66 70.75 70.01 61.59 53.34 44.51 41.90 36.60 33.20 31.61

# BLACK HILLS SERVICE COMPANY GAS PLANT

### ACCOUNT 381.00 METERS

### ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1920-2018		EXPERIENCE BAND 1986-2018			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	4,653,204 3,979,825 3,121,291 2,454,105 1,355,317 888,725 768,463 631,424 510,510 350,240	439,599 898,873 738,161 1,148,811 496,308 152,921 137,945 121,568 161,988 36,253	0.0945 0.2259 0.2365 0.4681 0.3662 0.1721 0.1795 0.1925 0.3173 0.1035	0.9055 0.7741 0.7635 0.5319 0.6338 0.8279 0.8205 0.8075 0.6827 0.8965	30.11 27.27 21.11 16.12 8.57 5.43 4.50 3.69 2.98 2.03
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	313,631 156,867 63,670 3,032 2,379 13,908 13,908 13,908 13,858 13,646	156,527 90,468 60,589 90 101 51	0.4991 0.5767 0.9516 0.0297 0.0426 0.0000 0.0000 0.0036 0.0000 1.0000	0.5009 0.4233 0.0484 0.9703 0.9574 1.0000 1.0000 0.9964 1.0000	1.82 0.91 0.39 0.02 0.02 0.02 0.02 0.02 0.02
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	140 140 140 140 140 140	140	0.0000 0.0000 0.0000 0.0000 0.0000 1.0000		
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	58,336 58,336 58,336 58,336 58,336	58,336	0.0000 0.0000 0.0000 0.0000 1.0000		

ORIGINAL CURVE ■ 2011-2018 EXPERIENCE 2011-2018 PLACEMENTS 8 IOWA 12-R1.5 ORIGINAL AND SMOOTH SURVIVOR CURVES ACCOUNT 381.01 METERS - ERTS 25 BLACK HILLS SERVICE COMPANY AGE IN YEARS GAS PLANT 5 9 Ŋ 001 9 80 70 -09 50 40 30 20 10 РЕВСЕИТ SURVIVING



#### ACCOUNT 381.01 METERS - ERTs

PLACEMENT E	BAND 2011-2018		EXPER	RIENCE BAN	D 2011-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5	11,301,357 9,547,738 2,807,144 1,379,814 598,664 391,047 241,180	101 4,735 366,681 1,092 2,880	0.0000 0.0005 0.1306 0.0008 0.0048 0.0000	1.0000 0.9995 0.8694 0.9992 0.9952 1.0000	100.00 100.00 99.95 86.89 86.82 86.41 86.41



AGE IN YEARS

ORIGINAL CURVE = 1929-2018 PLACEMENTS 2 ACCOUNT 385.01 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT IOWA 30-R1.5 9 ORIGINAL AND SMOOTH SURVIVOR CURVES BLACK HILLS SERVICE COMPANY GAS PLANT 8 20 9 <del>ا</del>ه **1**00 **1**1 9 80 70 -09 50 40 30 20 10

**i** Gannett Fleming

РЕВСЕИТ ЗИВУІУІИ

#### ACCOUNT 385.01 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

PLACEMENT BA	AND 1929-2018		EXPER	RIENCE BANI	1986-2018
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0 0.5 1.5	18,127,265 15,829,749 13,238,694	6,637 61,004 115,308	0.0004 0.0039 0.0087	0.9996 0.9961 0.9913	100.00 99.96 99.58
2.5	11,272,639	97,690	0.0087	0.9913	98.71
3.5	11,008,168	89,414	0.0081	0.9919	97.86
4.5	11,103,952	113,497	0.0102	0.9898	97.06
5.5 6.5	10,587,097 10,267,778	75,534 109,972	0.0071 0.0107	0.9929 0.9893	96.07 95.38
7.5	9,899,831	149,876	0.0107	0.9849	94.36
8.5	9,450,069	227,083	0.0240	0.9760	92.93
9.5	8,879,951	363,952	0.0410	0.9590	90.70
10.5	8,707,103	81,731	0.0094	0.9906	86.98
11.5	8,561,142	5,914	0.0007	0.9993	86.17
12.5	8,450,377	130,334	0.0154	0.9846	86.11
13.5 14.5	8,227,496 7,930,042	1,516 21,541	0.0002 0.0027	0.9998 0.9973	84.78 84.76
15.5	7,764,342	62,943	0.0027	0.9919	84.53
16.5	7,558,758	179,922	0.0238	0.9762	83.85
17.5	7,337,386	138,265	0.0188	0.9812	81.85
18.5	7,198,992	97,095	0.0135	0.9865	80.31
19.5	7,127,181	149,571	0.0210	0.9790	79.23
20.5	6,812,829	210,981	0.0310	0.9690	77.56
21.5 22.5	6,373,700	262,963	0.0413 0.0110	0.9587	75.16
23.5	5,876,338 5,796,204	64,433 153,318	0.0110	0.9890 0.9735	72.06 71.27
24.5	5,343,907	97,257	0.0203	0.9818	69.38
25.5	4,955,340	343,262	0.0693	0.9307	68.12
26.5	4,455,323	548,253	0.1231	0.8769	63.40
27.5	3,690,605	251,548	0.0682	0.9318	55.60
28.5	3,401,589	215,448	0.0633	0.9367	51.81
29.5	3,122,440	172,315	0.0552	0.9448	48.53
30.5	2,925,055	174,336	0.0596	0.9404	45.85
31.5 32.5	2,644,505 2,298,810	116,908 89,010	0.0442 0.0387	0.9558 0.9613	43.12 41.21
33.5	2,298,810	70,504	0.0367	0.9613	39.62
34.5	1,910,395	95,057	0.0341	0.9502	38.27
35.5	1,738,867	156,912	0.0902	0.9098	36.36
36.5	1,538,630	81,880	0.0532	0.9468	33.08
37.5	1,439,481	44,016	0.0306	0.9694	31.32
38.5	1,237,483	87,489	0.0707	0.9293	30.36

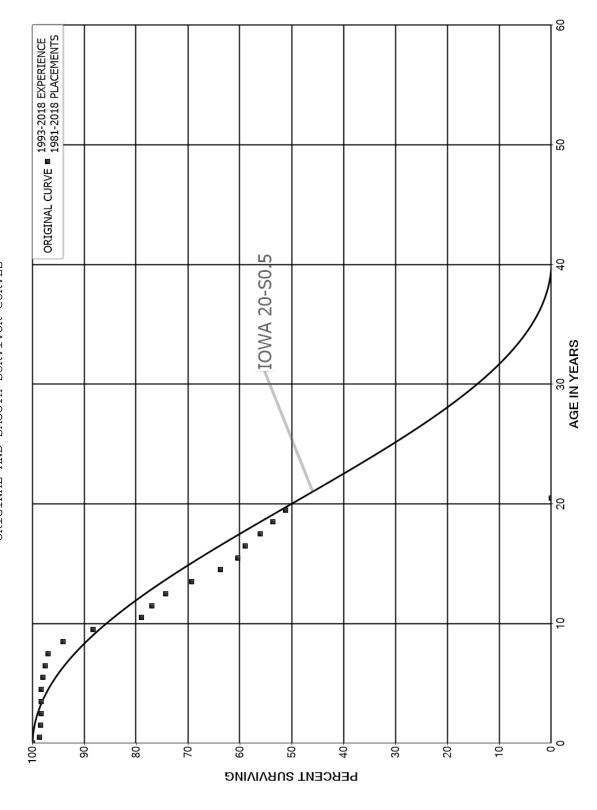
ACCOUNT 385.01 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2018

EXPERIENCE BAND 1986-2018

	B1110 1929 2010		1221 11	KILIKEL DIL	D 1700 2010
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,081,729 896,189 808,793 716,345 595,326 487,781 406,379 349,047 258,397 205,510	171,624 82,915 82,514 110,831 106,259 74,049 61,601 69,983 39,005 41,088	0.1587 0.0925 0.1020 0.1547 0.1785 0.1518 0.1516 0.2005 0.1510 0.1999	0.8413 0.9075 0.8980 0.8453 0.8215 0.8482 0.8484 0.7995 0.8490 0.8001	28.22 23.74 21.54 19.35 16.35 13.43 11.39 9.67 7.73 6.56
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	163,554 116,965 96,279 78,159 59,293 40,651 34,522 25,830 18,046 15,332	43,244 20,345 13,609 14,890 10,539 3,280 8,160 6,213 2,927 4,332	0.2644 0.1739 0.1413 0.1905 0.1777 0.0807 0.2364 0.2405 0.1622 0.2826	0.7356 0.8261 0.8587 0.8095 0.8223 0.9193 0.7636 0.7595 0.8378 0.7174	5.25 3.86 3.19 2.74 2.22 1.82 1.68 1.28 0.97 0.81
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	9,664 9,377 8,291 7,027 6,890 4,879 4,350 2,655 1,801 1,344	287 1,086 739 137 1,190 529 1,696 853 458 1,272	0.0297 0.1158 0.0892 0.0195 0.1728 0.1085 0.3898 0.3214 0.2540 0.9469	0.9703 0.8842 0.9108 0.9805 0.8272 0.8915 0.6102 0.6786 0.7460 0.0531	0.58 0.57 0.50 0.46 0.45 0.37 0.33 0.20 0.14
69.5 70.5	71	71	1.0000		0.01

ACCOUNT 385.02 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - INDUSTRIAL METERS ORIGINAL AND SMOOTH SURVIVOR CURVES BLACK HILLS SERVICE COMPANY GAS PLANT



# ACCOUNT 385.02 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - INDUSTRIAL METERS

#### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1981-2018		EXPER	RIENCE BAN	D 1993-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	4,531,185 4,064,893 3,995,903 3,870,471 3,860,816 3,707,002 3,559,969 2,718,751 2,704,843	64,824 8,521 2,396 1,888 11,994 16,308 13,907 81,794	0.0143 0.0021 0.0006 0.0005 0.0000 0.0032 0.0046 0.0051 0.0302	0.9857 0.9979 0.9994 0.9995 1.0000 0.9968 0.9954 0.9949	100.00 98.57 98.36 98.30 98.26 98.26 97.94 97.49 96.99
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	2,567,944 2,196,225 1,732,786 1,355,621 1,229,511 1,000,899 920,543 871,086 493,709 229,477 25,970	158,502 230,291 44,937 47,228 81,777 80,356 48,056 21,051 24,803 9,736 1,175	0.0617 0.1049 0.0259 0.0348 0.0665 0.0803 0.0522 0.0242 0.0502 0.0424 0.0453	0.9383 0.8951 0.9741 0.9652 0.9335 0.9197 0.9478 0.9758 0.9498 0.9576 0.9547	94.06 88.25 79.00 76.95 74.27 69.33 63.76 60.43 58.97 56.01 53.63
19.5	5,198	5,198	1.0000		51.21

20.5

ORIGINAL CURVE = 1978-2018 PLACEMENTS 8 ORIGINAL AND SMOOTH SURVIVOR CURVES ACCOUNT 387.00 OTHER EQUIPMENT IOWA 12-R3 AGE IN YEARS 5 9 Ŋ <del>ا</del>ه 001 9 80 70 -09 50 40 30 20 10 РЕВСЕИТ SURVIVING

**i** Gannett Fleming

BLACK HILLS SERVICE COMPANY

GAS PLANT

#### ACCOUNT 387.00 OTHER EQUIPMENT

#### ORIGINAL LIFE TABLE

PLACEMENT E	BAND 1978-2018		EXPEF	RIENCE BAN	D 1986-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	244,282 258,209 102,315 89,079 87,093 73,212 75,625 75,219 75,149 66,442	519 1,856 2,908 454 1,237 1,229 1,842 7,162	0.0000 0.0000 0.0051 0.0208 0.0334 0.0062 0.0164 0.0163 0.0245 0.1078	1.0000 1.0000 0.9949 0.9792 0.9666 0.9938 0.9836 0.9837 0.9755 0.8922	100.00 100.00 100.00 99.49 97.42 94.17 93.58 92.05 90.55 88.33
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	66,442 61,336 61,336 38,145 27,539 24,117 36,453 39,876 27,539 27,539	7,048 421 28,595 1,001 10,606 27,135 15,124	0.1061 0.0069 0.4662 0.0262 0.0000 0.4398 0.7444 0.3793 0.0000 0.4245	0.8939 0.9931 0.5338 0.9738 1.0000 0.5602 0.2556 0.6207 1.0000 0.5755	78.81 70.45 69.96 37.35 36.37 36.37 20.37 5.21 3.23 3.23
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	13,437 9,220 9,220 9,220 3,423 3,423 3,423 3,423 3,423	6,630 5,797 3,423	0.0000 0.7192 0.0000 0.6288 0.0000 0.0000 0.0000 1.0000	1.0000 0.2808 1.0000 0.3712 1.0000 1.0000 1.0000	1.86 1.86 0.52 0.52 0.19 0.19 0.19 0.19

28.5

**COMMON PLANT** 



20 ACCOUNT 390.51 STRUCTURES AND IMPROVEMENTS - LEASED 40 **IOWA 20-S3** BLACK HILLS SERVICE COMPANY SMOOTH SURVIVOR CURVE AGE IN YEARS COMMON PLANT 2 으 1001 9 80 70 -09 50 40 30 20 10 РЕВСЕИТ ЗИВУІУІИС



**ELECTRIC, GAS AND COMMON PLANT** 



9

8

AGE IN YEARS

9

2

ORIGINAL CURVE ■ 1986-2018 EXPERIENCE 1964-2017 PLACEMENTS ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED IOWA 50-R2.5 ORIGINAL AND SMOOTH SURVIVOR CURVES ELECTRIC, GAS AND COMMON PLANT BLACK HILLS SERVICE COMPANY

**& Gannett Fleming** 

9

80

70

-09

50

РЕВСЕИТ SURVIVING

40

30-

20

10

# BLACK HILLS SERVICE COMPANY ELECTRIC, GAS AND COMMON PLANT

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

PLACEMENT E	BAND 1964-2017		EXPER	RIENCE BAN	D 1986-2018
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	11,244,400 11,244,400 11,343,658 10,430,346 11,477,779 11,422,883 10,827,579 10,739,492 4,762,631 4,291,799	301,249 7,736 50,325 21,291 17,634 17	0.0000 0.0000 0.0266 0.0000 0.0007 0.0044 0.0020 0.0016 0.0000	1.0000 1.0000 0.9734 1.0000 0.9993 0.9956 0.9980 0.9984 1.0000	100.00 100.00 100.00 97.34 97.34 97.28 96.85 96.66 96.50
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,622,677 1,620,364 1,446,770 1,456,171 1,310,571 1,312,006 1,542,498 1,528,371 438,311 449,606	1,175 1,804	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0008 0.0000 0.0041 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 0.9992 1.0000 0.9959 1.0000	96.50 96.50 96.50 96.50 96.50 96.50 96.43 96.43 96.03
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	1,564,206 1,599,799 1,584,690 1,580,645 1,582,282 1,549,581 1,478,197 1,483,466 1,469,530 1,461,102	489 732 470 15,785 62,463 1,435 13,918	0.0003 0.0005 0.0000 0.0003 0.0100 0.0403 0.0010 0.0094 0.0000	0.9997 0.9995 1.0000 0.9997 0.9900 0.9597 0.9990 0.9906 1.0000	96.03 96.00 95.96 95.96 95.93 94.97 91.14 91.05 90.20
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,461,102 1,416,103 1,416,103 1,184,219 1,179,659 1,129,449 1,125,809 57,597 57,597 40,681	4,874 108 329 16,916	0.0069 0.0000 0.0000 0.0000 0.0000 0.0043 0.0001 0.0057 0.2937 0.0000	0.9931 1.0000 1.0000 1.0000 0.9957 0.9999 0.9943 0.7063 1.0000	90.20 89.58 89.58 89.58 89.58 89.19 89.18 88.67 62.63

# BLACK HILLS SERVICE COMPANY ELECTRIC, GAS AND COMMON PLANT

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT :	BAND 1964-2017		EXPER	RIENCE BAN	D 1986-2018
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	40,681		0.0000	1.0000	62.63
40.5	40,681		0.0000	1.0000	62.63
41.5	40,681		0.0000	1.0000	62.63
42.5	40,681	743	0.0183	0.9817	62.63
43.5	39,939	146	0.0037	0.9963	61.49
44.5	39,792		0.0000	1.0000	61.26
45.5	39,792		0.0000	1.0000	61.26
46.5	39,792	4,560	0.1146	0.8854	61.26
47.5	35,232	35,232	1.0000		54.24

48.5

ORIGINAL CURVE ■ 2003-2018 EXPERIENCE 2003-2016 PLACEMENTS 8 ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS ORIGINAL AND SMOOTH SURVIVOR CURVES ELECTRIC, GAS AND COMMON PLANT 25 BLACK HILLS SERVICE COMPANY AGE IN YEARS IOWA 8-S<mark>2</mark> 5 9 Ŋ ٦° 9 9 80 70 -09 50 40 30 20 10

**i** Gannett Fleming

РЕВСЕИТ ЗИВУІУІИ

# BLACK HILLS SERVICE COMPANY ELECTRIC, GAS AND COMMON PLANT

#### ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS

PLACEMENT	BAND 2003-2016		EXPER	RIENCE BAN	D 2003-2018
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	246,593		0.0000	1.0000	100.00
0.5	329,339		0.0000	1.0000	100.00
1.5	325,490		0.0000	1.0000	100.00
2.5	356,927	2,450	0.0069	0.9931	100.00
3.5	426,813	62,738	0.1470	0.8530	99.31
4.5	409,973	46,504	0.1134	0.8866	84.72
5.5	412,599	61,785	0.1497	0.8503	75.11
6.5	141,911	17,109	0.1206	0.8794	63.86
7.5	105,019	18,995	0.1809	0.8191	56.16
8.5	86,024	19,825	0.2305	0.7695	46.00
9.5 10.5	51,013	51,013	1.0000		35.40

ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS ORIGINAL AND SMOOTH SURVIVOR CURVES ELECTRIC, GAS AND COMMON PLANT BLACK HILLS SERVICE COMPANY IOWA 9-L

ORIGINAL CURVE ■ 2003-2018 EXPERIENCE 1998-2018 PLACEMENTS 8 25 AGE IN YEARS 5 9 Ŋ <del>ا</del>ه 100₽ 9 80 70 -09 50 40 30 20 10 РЕВСЕИТ ЗИВУІУІИ

# BLACK HILLS SERVICE COMPANY ELECTRIC, GAS AND COMMON PLANT

#### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

PLACEMENT	BAND 1998-2018		EXPER	RIENCE BAN	D 2003-2018
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	3,937,369		0.0000	1.0000	100.00
0.5	3,445,357	25,188	0.0073	0.9927	100.00
1.5	2,734,615		0.0000	1.0000	99.27
2.5	1,827,988		0.0000	1.0000	99.27
3.5	976,674	44,884	0.0460	0.9540	99.27
4.5	816,101		0.0000	1.0000	94.71
5.5	589,131	70,507	0.1197	0.8803	94.71
6.5	280,022	62,739	0.2241	0.7759	83.37
7.5	152,146	29,449	0.1936	0.8064	64.69
8.5	196,211	91,970	0.4687	0.5313	52.17
9.5	41,262		0.0000	1.0000	27.72
10.5	41,262		0.0000	1.0000	27.72
11.5					27.72
12.5					
13.5	22,243	22,243	1.0000		
14.5					



AGE IN YEARS

ORIGINAL CURVE ■ 2002-2018 EXPERIENCE 2002-2015 PLACEMENTS ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS ORIGINAL AND SMOOTH SURVIVOR CURVES 8 ELECTRIC, GAS AND COMMON PLANT 25 BLACK HILLS SERVICE COMPANY IOWA 8-L 5 9 Ŋ ٦° 9 9 80 70 -09 50 40 30-20 10 РЕВСЕИТ ЗИВУІУІИ

**&** Gannett Fleming

# BLACK HILLS SERVICE COMPANY ELECTRIC, GAS AND COMMON PLANT

#### ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

PLACEMENT BAND 2002-2015 EXPERIENCE				RIENCE BAN	D 2002-2018
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,968,285		0.0000	1.0000	100.00
0.5	1,968,285	8,147	0.0041	0.9959	100.00
1.5	2,007,580		0.0000	1.0000	99.59
2.5	2,007,580	21,319	0.0106	0.9894	99.59
3.5	2,051,542	10,761	0.0052	0.9948	98.53
4.5	1,549,824	76,497	0.0494	0.9506	98.01
5.5	1,169,973	117,298	0.1003	0.8997	93.17
6.5	1,063,743	245,342	0.2306	0.7694	83.83
7.5	605,081	203,228	0.3359	0.6641	64.50
8.5	417,097	181,041	0.4340	0.5660	42.83
9.5	235,226	72,937	0.3101	0.6899	24.24
10.5	88,641	88,097	0.9939	0.0061	16.73
11.5	41,806	15,514	0.3711	0.6289	0.10
12.5	12,777		0.0000	1.0000	0.06
13.5	12,777		0.0000	1.0000	0.06
14.5	12,777	12,777	1.0000		0.06
15.5					

ORIGINAL CURVE ■ 2008-2018 EXPERIENCE 2008-2008 PLACEMENTS IOWA 20-\$2 8 ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS ORIGINAL AND SMOOTH SURVIVOR CURVES ELECTRIC, GAS AND COMMON PLANT 25 BLACK HILLS SERVICE COMPANY AGE IN YEARS 9 Ŋ ٦° 1001 9 80 70 -09 50 40 30 20 10 РЕВСЕИТ ЗИВУІУІИ

# BLACK HILLS SERVICE COMPANY ELECTRIC, GAS AND COMMON PLANT

#### ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS

PLACEMENT	BAND 2008-2008		EXPER	RIENCE BAN	D 2008-2018
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	42,990		0.0000	1.0000	100.00
0.5	42,990		0.0000	1.0000	100.00
1.5	42,990		0.0000	1.0000	100.00
2.5	42,990		0.0000	1.0000	100.00
3.5	47,167		0.0000	1.0000	100.00
4.5	47,167		0.0000	1.0000	100.00
5.5	47,167		0.0000	1.0000	100.00
6.5	47,167		0.0000	1.0000	100.00
7.5	47,167		0.0000	1.0000	100.00
8.5	47,167		0.0000	1.0000	100.00
9.5 10.5	47,167		0.0000	1.0000	100.00



### **PART VIII. NET SALVAGE STATISTICS**

**GAS PLANT** 



#### ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

#### SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013 2014 2015 2016 2017 2018	118,376		0		0		0
TOTAL	118,376		0		0		0
THREE-YE.	AR MOVING AVERAGES						
13-15 14-16 15-17 16-18	39,459		0		0		0

FIVE-YEAR AVERAGE

14-18

#### ACCOUNT 381.00 METERS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2005	1,162,308	30,568	3		0	30,568-	3 –
2005	1,735,263	40,683	2		0	40,683-	2-
2007	1,338,077	25,333	2	21,627	2	3,706-	0
2008	1,577,062	50,262	3	550	0	49,712-	3-
2009	1,404,297	21,967	2	330	0	21,967-	2-
2010	1,470,046	365	0		0	365-	0
2011	2,003,753	47,373	2	21,446	1	25,927-	1-
2012	2,029,962	2,786	0	66,940	3	64,154	3
2013	1,679,470	•	0	63,171	4	63,171	4
2014	4,003,458		0	105,238	3	105,238	3
2015	16,922		0	58,731	347	58,731	347
2016	18,795		0	32,301	172	32,301	172
2017							
2018	224,294	366	0	175,943	78	175,577	78
TOTAL	18,663,707	219,703	1	545,948	3	326,244	2
THREE-YE	AR MOVING AVERAG	ES					
05-07	1,411,883	32,195	2	7,209	1	24,986-	2-
06-08	1,550,134	38,759	3	7,392	0	31,367-	2-
07-09	1,439,812	32,521	2	7,392	1	25,128-	2-
08-10	1,483,802	24,198	2	183	0	24,014-	2-
09-11	1,626,032	23,235	1	7,149	0	16,086-	1-
10-12	1,834,587	16,841	1	29,462	2	12,621	1
11-13	1,904,395	16,720	1	50,519	3	33,799	2
12-14	2,570,964	929	0	78,450	3	77,521	3
13-15	1,899,950		0	75,713	4	75,713	4
14-16	1,346,392		0	65,424	5	65,424	5
15-17	11,906		0	30,344	255	30,344	255
16-18	81,030	122	0	69,415	86	69,293	86
FIVE-YFA	R AVERAGE						
14-18	852,694	73	0	74,443	9	74,369	9



#### ACCOUNT 381.01 METERS - ERTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2013	431,722	466	0		0	466-	0
2014	1,203	20,783		3,277	272	17,506-	
2015	4,580	27,706	605	1,956	43	25,749-	562-
2016	2,829		0	3,544	125	3,544	125
2017							
2018	569	68,080		16,026-		84,106-	
TOTAL	440,904	117,035	27	7,249-	2-	124,284-	28-
THREE-YEA	AR MOVING AVERAGE	IS					
13-15	145,835	16,318	11	1,744	1	14,574-	10-
14-16	2,871	16,163	563	2,926	102	13,237-	461-
15-17	2,470	9,235	374	1,833	74	7,402-	300-
16-18	1,133	22,693		4,161-	367-	26,854-	
FIVE-YEAR	R AVERAGE						
14-18	1,836	23,314		1,450-	79-	24,764-	



#### ACCOUNT 385.01 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2005	370,842		0		0		0
2005	383,009	2,089	1		0	2,089-	1-
2007	295,783	2,834	1	2,138	1	697-	0
2007	1,530,815	604	0	2,130	0	604-	0
2009	388,324	42-			0	42	0
2010	510,219	467	0		0	467-	0
2011	150,232	479	0	207	0	272-	0
2012	549,895	14	0	2,318	0	2,304	0
2013	583,796		0	23,325	4	23,325	4
2014	242,724		0	•	0	,	0
2015	28,048		0	273	1	273	1
2016	2,133		0		0		0
2017							
2018	74		0		0		0
TOTAL	5,035,895	6,445	0	28,260	1	21,816	0
THREE-YE	AR MOVING AVERAG	ES					
05-07	349,878	1,641	0	713	0	929-	0
06-08	736,536	1,843	0	713	0	1,130-	0
07-09	738,307	1,132	0	713	0	419-	0
08-10	809,786	343	0		0	343-	0
09-11	349,592	301	0	69	0	232-	0
10-12	403,449	320	0	841	0	522	0
11-13	427,974	164	0	8,616	2	8,452	2
12-14	458,805	5	0	8,548	2	8,543	2
13-15	284,856		0	7,866	3	7,866	3
14-16	90,969		0	91	0	91	0
15-17	10,061		0	91	1	91	1
16-18	736		0		0		0
FIVE-YEA	R AVERAGE						
14-18	54,596		0	55	0	55	0



# ACCOUNT 385.02 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - INDUSTRIAL METERS

#### SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT		CT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2008	8,236			0		0		0
2009	379,542	90	_	0		0	90	0
2010	296,120			0		0		0
2011	70,464			0		0		0
2012	120,810			0	67	0	67	0
2013	13,431			0	2,212	16	2,212	16
2014								
2015								
2016								
2017								
2018								
TOTAL	888,604	90	_	0	2,279	0	2,368	0
THREE-YE	AR MOVING AVERAGES							
08-10	227,966	30	_	0		0	30	0
09-11	248,709	30	_	0		0	30	0
10-12	162,465			0	22	0	22	0
11-13	68,235			0	760	1	760	1
12-14	44,747			0	760	2	760	2
13-15	4,477			0	737	16	737	16
14-16								
15-17								
16-18								

FIVE-YEAR AVERAGE

14-18



#### ACCOUNT 387.00 OTHER EQUIPMENT

#### SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013 2014 2015 2016 2017 2018	81,624	1,802	2	4,903	6	3,101	4
TOTAL	81,624	1,802	2	4,903	6	3,101	4
THREE-YEA	AR MOVING AVERAGES						
13-15 14-16 15-17 16-18	27,208	601	2	1,634	6	1,034	4

FIVE-YEAR AVERAGE

14-18

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2006	1,804		0		0		0
2007	13,246		0		0		0
2008	743		0		0		0
2009							
2010							
2011							
2012							
2013	177,066		0	100	0	100	0
2014	470		0		0		0
2015	19,791		0		0		0
2016							
2017	87,441		0		0		0
2018	3,141		0		0		0
TOTAL	303,702		0	100	0	100	0
THREE-YE	AR MOVING AVERAG	ES					
06-08	5,264		0		0		0
07-09	4,663		0		0		0
08-10	248		0		0		0
09-11							
10-12							
11-13	59,022		0	33	0	33	0
12-14	59,179		0	33	0	33	0
13-15	65,776		0	33	0	33	0
14-16	6,754		0		0		0
15-17	35,744		0		0		0
16-18	30,194		0		0		0
F.TAE-AEV	R AVERAGE						
14-18	22,169		0		0		0

#### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

	REGULAR	COST O REMOVA		GROSS SALVAGE		NET SALVAGE	
YEAR	REGULAR RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2015	36,229		0	2,233	6	2,233	6
2016							
2017							
2018							
TOTAL	36,229		0	2,233	6	2,233	6
THREE-YE	CAR MOVING AVERAGE	S					
15-17 16-18	12,076		0	744	6	744	6



**COMMON PLANT** 



# BLACK HILLS SERVICE COMPANY COMMON PLANT

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013		1,000-				1,000	
2014	10,000	5,000	50		0	5,000-	50-
2015	1,500	1,000	67		0	1,000-	67-
2016							
2017	252,630		0		0		0
2018	3,342,591	188,209	6	2,663,478	80	2,475,269	74
TOTAL	3,606,722	193,209	5	2,663,478	74	2,470,269	68
THREE-YE	AR MOVING AVERAGE	ES					
13-15	3,833	1,667	43		0	1,667-	43-
14-16	3,833	2,000	52		0	2,000-	52-
15-17	84,710	333	0		0	333-	0
16-18	1,198,407	62,736	5	887,826	74	825,090	69
FIVE-YEA	R AVERAGE						
14-18	721,344	38,842	5	532,696	74	493,854	68



# BLACK HILLS SERVICE COMPANY COMMON PLANT

### ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS

		COST O		GROSS		NET	
MAD	REGULAR	REMOVA		SALVAGE	ъсш	SALVAGE	ъсш
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2012	11,575		0	1,845	16	1,845	16
2013	52,561		0	1,833	3	1,833	3
2014	62,738		0	1,855	3	1,855	3
2015	25,911		0	3,060	12	3,060	12
2016	58,624		0	3,595	6	3,595	6
2017	18,995		0	2,960	16	2,960	16
2018							
TOTAL	230,405		0	15,148	7	15,148	7
THREE-YE	CAR MOVING AVERAG	ES					
12-14	42,292		0	1,844	4	1,844	4
13-15	47,070		0	2,249	5	2,249	5
14-16	49,091		0	2,837	6	2,837	6
15-17	34,510		0	3,205	9	3,205	9
16-18	25,873		0	2,185	8	2,185	8
FIVE-YEA	AR AVERAGE						
14-18	33,254		0	2,294	7	2,294	7

### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

### SUMMARY OF BOOK SALVAGE

		COST O		GROSS		NET	
YEAR	REGULAR RETIREMENTS	REMOVA AMOUNT		SALVAGE AMOUNT	DOT	SALVAGE AMOUNT	DOT
ILAK	KEIIKEMENIS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2012	36,243		0	2,973	8	2,973	8
2013	13,600		0	1,795	13	1,795	13
2014							
2015	34,278		0	6,818	20	6,818	20
2016	29,449		0	2,900	10	2,900	10
2017	104,469		0	19,219	18	19,219	18
2018	67,523		0	26,003	39	26,003	39
TOTAL	285,562		0	59,708	21	59,708	21
THREE-YE	CAR MOVING AVERAGE	ES					
12-14	16,614		0	1,589	10	1,589	10
13-15	15,959		0	2,871	18	2,871	18
14-16	21,242		0	3,239	15	3,239	15
15-17	56,065		0	9,646	17	9,646	17
16-18	67,147		0	16,041	24	16,041	24
FIVE-YEA	AR AVERAGE						
14-18	47,144		0	10,988	23	10,988	23
	·			•		•	

### ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

### SUMMARY OF BOOK SALVAGE

		COST O		GROSS		NET	
	REGULAR	REMOVA	L	SALVAGE		SALVAGE	
YEAR	RETIREMENTS	TRUOMA	PCT	AMOUNT	PCT	AMOUNT	PCT
2011	33,388		0	4,464	13	4,464	13
2012	82,003		0	56,261	69	56,261	69
2013	36,876		0	12,977	35	12,977	35
2014	240,998		0	20,428	8	20,428	8
2015	133,466		0	41,771	31	41,771	31
2016	130,446		0	34,312	26	34,312	26
2017	261,450		0	42,265	16	42,265	16
2018	123,569		0	27,529	22	27,529	22
TOTAL	1,042,197		0	240,007	23	240,007	23
THREE-YE	AR MOVING AVERAGE	ES					
11-13	50,756		0	24,567	48	24,567	48
12-14	119,959		0	29,889	25	29,889	25
13-15	137,113		0	25,059	18	25,059	18
14-16	168,303		0	32,170	19	32,170	19
15-17	175,121		0	39,449	23	39,449	23
16-18	171,822		0	34,702	20	34,702	20
FIVE-YEA	R AVERAGE						
			0	22 261	1.0	22 061	1.0
14-18	177,986		0	33,261	19	33,261	19

# PART IX. DETAILED DEPRECIATION CALCULATIONS



**ELECTRIC PLANT** 



#### ACCOUNT 370.01 METERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA					
2013	19,891.29	3,915	2,943	16,948	20.08	844
2014	7,049.75	1,134	852	6,198	20.98	295
2015	9,657.47	1,201	903	8,754	21.89	400
2016	111,318.85	9,752	7,330	103,989	22.81	4,559
2018	22,337.15	348	262	22,075	24.61	897
	170,254.51	16,350	12,290	157,965		6,995

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.6 4.11

#### ACCOUNT 370.04 METERS - AMI

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIV	OR CURVE IOWA	15-S2.5				
NET SA	LVAGE PERCENT	0				
0010	05 202 15	12 005	0.4.420	0.71	п 16	100
2010	25,303.17	13,225	24,432	871	7.16	122
2013	368,356.66	128,925	238,182	130,175	9.75	13,351
2014	84,598.89	24,252	44,804	39,795	10.70	3,719
2015	163,161.54	36,113	66,717	96,445	11.68	8,257
2016	306,041.70	47,537	87,822	218,220	12.67	17,223
2017	1,015,737.01	90,065	166,391	849,346	13.67	62,132
2018	705,473.14	19,753	36,493	668,980	14.58	45,883
	2,668,672.11	359,870	664,841	2,003,831		150,687

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.3 5.65

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2013	351,570.87	35,087	36,167	315,404	45.01	7,007
	351,570.87	35,087	36,167	315,404		7,007
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	3 45.0	1.99



### ACCOUNT 391.01 OFFICE FURNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 20-S /AGE PERCENT	~				
2012 2013	31,800.16 2,467.38	10,065 658	10,067 658	21,733 1,809	13.67 14.67	1,590 123
	34,267.54	10,723	10,725	23,543		1,713

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.7 5.00

### ACCOUNT 391.03 OFFICE FURNITURE AND EQUIPMENT - HARDWARE

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY A	ACCRUED LVAGE PERCENT	0				
2012	49,687.50	49,688	49,688			
	49,687.50	49,688	49,688			
	ZED DR CURVE 5-SQI LVAGE PERCENT					
2013	277,198.23	277,198	277,198			
2014	578,181.10	500,705	420,137	158,044	0.67	158,044
2015	103,086.98	68,656	57,609	45,478	1.67	27,232
2016	123,536.42	57,568	48,305	75,232	2.67	28,177
2017	96,332.74	25,625	21,502	74,831	3.67	20,390
2018	621,277.91	52,187	43,790	577,488	4.58	126,089
	1,799,613.38	981,939	868,540	931,073		359,932
	1,849,300.88	1,031,627	918,228	931,073		359,932

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.6 19.46

### ACCOUNT 391.04 OFFICE FURNITURE AND EQUIPMENT - SOFTWARE

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	ACCRUED LVAGE PERCENT	0				
2006 2008 2009 2010	126,582.97 84,083.47 5,500.00 2,503,887.97 2,720,054.41	126,583 84,083 5,500 2,503,888 2,720,054	126,583 84,083 5,500 2,503,888 2,720,054			
	ZED OR CURVE 7-SQ LVAGE PERCENT					
2011 2012 2013 2014 2015 2016 2017 2018	286,164.54 5,731,500.24 235,368.33 505,160.79 777,131.75 2,599,643.12 684,521.36 594,460.25	286,165 5,182,938 179,217 312,477 369,689 865,317 130,059 35,668	286,165 4,900,181 169,440 295,430 349,520 818,109 122,964 33,722	831,320 65,929 209,731 427,611 1,781,534 561,558 560,738	0.67 1.67 2.67 3.67 4.67 5.67 6.58	831,320 39,478 78,551 116,515 381,485 99,040 85,219
	11,413,950.38	7,361,530 10,081,584	6,975,530 9,695,584	4,438,420		1,631,608

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.7 11.54



### ACCOUNT 391.07 OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE 5-SQU ALVAGE PERCENT					
2018	10,790.04	906	905	9,885	4.58	2,158
	10,790.04	906	905	9,885		2,158
	COMPOSITE REMAIN:	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	4.6	20.00



### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVO	R CURVE IOWA	9-L3				
NET SALV	/AGE PERCENT	+20				
2009	17,985.84	10,152	10,622	3,767	2.65	1,422
2013	46,830.85	20,397	21,341	16,124	4.10	3,933
2015	84,965.27	24,545	25,681	42,291	5.75	7,355
2016	125,526.58	25,775	26,968	73,453	6.69	10,980
2018	45,075.42	1,322	1,383	34,677	8.67	4,000
	320,383.96	82,191	85,995	170,312		27,690

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.2 8.64

### ACCOUNT 395.00 LABORATORY EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 20-S /AGE PERCENT	~				
2015 2016	27,774.25 15,349.25	4,624 1,788	4,623 1,787	23,151 13,562	16.67 17.67	1,389 768
	43,123.50	6,412	6,410	36,714		2,157

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.0 5.00



### ACCOUNT 397.00 COMMUNICATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 15-SQ LVAGE PERCENT					
2015	72,585.43	16,114	16,115	56,470	11.67	4,839
	72,585.43	16,114	16,115	56,470		4,839
(	COMPOSITE REMAINI	NG LIFE AND	ANNUAL ACCRUAL	RATE, PERCEN	г 11.7	6.67



### ACCOUNT 397.10 COMMUNICATION EQUIPMENT - TOWERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR	CURVE 25-S	QUARE				
NET SALV	AGE PERCENT	0				
2010	45,194.16	15,059	15,058	30,136	16.67	1,808
2012	4,168.62	1,055	1,055	3,114	18.67	167
2013	49,658.62	10,587	10,587	39,072	19.67	1,986
2014	13,363.28	2,315	2,315	11,048	20.67	534
	112,384.68	29,016	29,015	83,370		4,495

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.5 4.00

**GAS PLANT** 



### ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA /AGE PERCENT					
2012 2013 2016 2017 2018	18,634.80 12,571.60 17,814.70 55,180.34 26,572.61	6,985 4,224 3,217 6,142 1,004	2,584 1,563 1,190 2,272 371	16,983 11,637 17,515 55,667 27,530	6.43 6.80 8.28 8.94 9.64	2,641 1,711 2,115 6,227 2,856
	130,774.05	21,572	7,980	129,333		15,550

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.3 11.89

#### ACCOUNT 381.00 METERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT					
1979	38,393.92	31,266	62,582-	100,208	5.24	19,124
1980	3,975.56	3,195	6,395-	10,291	5.58	1,844
1981	4,443.79	3,522	7,050-	11,405	5.93	1,923
1982	248.60	194	388-	632	6.30	100
1983	570.92	439	879-	1,439	6.69	215
1984	3,479.00	2,629	5,262-	8,671	7.10	1,221
1985	1,069.52	794	1,589-	2,637	7.52	351
1986	6,071.33	4,422	8,851-	14,801	7.96	1,859
1987	2,038.06	1,455	2,912-	4,909	8.42	583
1988	5,757.17	4,022	8,050-	13,692	8.90	1,538
1989	3,455.32	2,359	4,722-	8,108	9.40	863
1990	4,174.84	2,783	5,570-	9,661	9.91	975
1991	6,948.42	4,514	9,035-	15,844	10.45	1,516
1992	4,946.84	3,128	6,261-	11,109	11.00	1,010
1993	3,646.02	2,238	4,480-	8,053	11.58	695
1994	3,416.98	2,034	4,071-	7,420	12.17	610
1996	2,773.90	1,542	3,086-	5,804	13.41	433
1997	62,092.62	33,271	66,596-	127,447	14.05	9,071
1998	3,002.12	1,546	3,094-	6,036	14.71	410
1999	801.33	395	791-	1,576	15.39	102
2000	51.44	24	48-	98	16.08	6
2001	586.28	263	526-	1,101	16.79	66
2002	1,804.40	769	1,539-	3,307	17.51	189
2003	104.38	42	84-	186	18.24	10
2004	2,074.41	788	1,577-	3,610	18.99	190
2005	2,005.46	713	1,427-	3,392	19.76	172
2006	2,105.90	697	1,395-	3,459	20.53	168
2008	520.20	146	292-	802	22.12	36
2013	29,526.34	4,397	8,801-	37,737	26.29	1,435
2016	29,097.11	1,922	3,847-	32,362	28.91	1,119
2017	507,954.32	19,270	38,572-	536,367	29.80	17,999
2018	2,168,102.44	20,567	41,168-	2,165,908	30.70	70,551
	2,905,238.94	155,346	310,940-	3,158,074		136,384

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.2 4.69



### ACCOUNT 381.01 METERS - ERTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA CALVAGE PERCENT					
2017 2018	1,025,684.05 1,173,726.85	92,312 26,409	58,284 16,674	967,400 1,157,053	10.92 11.73	88,590 98,640
	2,199,410.90	118,721	74,958	2,124,453		187,230
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	г 11.3	8.51



### ACCOUNT 385.01 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIV	OR CURVE IOWA	30-R1.5				
	LVAGE PERCENT					
1954	820.16	861	861			
1956	788.44	828	828			
1963	2,043.47	2,028	1,096	1,050	1.65	636
1964	977.20	960	519	507	1.94	261
1973	599.21	542	293	336	4.16	81
1975	985.28	871	471	564	4.74	119
1980	1,729.33	1,434	775	1,041	6.31	165
1982	73.75	59	32	45	7.01	6
1986	2,255.19	1,689	912	1,456	8.60	169
1989	1,347.03	945	510	904	9.96	91
1990	4,739.61	3,243	1,752	3,225	10.45	309
1991	8,279.20	5,517	2,980	5,713	10.96	521
1992	6,244.01	4,047	2,186	4,370	11.48	381
1993	2,999.67	1,888	1,020	2,130	12.02	177
1994	1,808.84	1,103	596	1,303	12.58	104
1995	3,118.14	1,838	993	2,281	13.16	173
1996	4,705.75	2,676	1,446	3,495	13.75	254
1997	1,969.45	1,078	582	1,486	14.36	103
2002	209,753.55	91,032	49,176	171,065	17.60	9,720
2003	3,520.08	1,443	780	2,916	18.29	159
2004	122,403.75	47,168	25,480	103,044	18.99	5,426
2005	43,979.03	15,854	8,564	37,614	19.70	1,909
2006	73,791.12	24,742	13,366	64,115	20.42	3,140
2007	170,113.07	52,693	28,465	150,154	21.15	7,099
2008	70,183.44	19,921	10,761	62,932	21.89	2,875
2009	82,929.73	21,362	11,540	75,536	22.64	3,336
2010	153,183.04	35,438	19,144	141,698	23.39	6,058
2011	115,502.52	23,609	12,753	108,525	24.16	4,492
2012	93,948.55	16,671	9,006	89,640	24.93	3,596
2013	55,707.06	8,364	4,518	53,974	25.71	2,099
2015	7,057.74	669	361	7,050	27.29	258
2016	52,320.14	3,479	1,879	53,057	28.10	1,888
2017	240,211.44	9,163	4,950	247,272	28.91	8,553
2018	838,017.49	9,969	5,386	874,532	29.66	29,485
	2,378,105.48	413,184	223,981	2,273,030		93,643

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.3 3.94



### ACCOUNT 385.02 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - INDUSTRIAL METERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA ALVAGE PERCENT					
2018	52,440.31	865	17,151	35,289	19.67	1,794
	52,440.31	865	17,151	35,289		1,794
(	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	г 19.7	3.42



### ACCOUNT 387.00 OTHER EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA	-				
NEI SALV	AGE PERCENT	U				
2014	13,881.53	4,754	11,754	2,128	7.89	270
2015	13,377.67	3,567	8,820	4,558	8.80	518
2016	9,989.70	1,881	4,650	5,340	9.74	548
2018	1,876.48	52	129	1,747	11.67	150
	39,125.38	10,254	25,353	13,772		1,486

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.3 3.80

#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1982	1,104,186.68	668,254	1,059,655	44,532	19.74	2,256
1983	2,996.98	1,773	2,811	186	20.42	. 9
1984	14,127.12	8,165	12,947	1,180	21.10	56
1986	232,030.43	127,570	202,289	29,741	22.51	1,321
1988	34,751.95	18,099	28,700	6,052	23.96	253
1990	8,428.04	4,138	6,562	1,866	25.45	73
1991	17.05	8	13	4	26.21	
1992	11,542.50	5,312	8,423	3,120	26.99	116
1993	8,920.00	3,966	6,289	2,631	27.77	95
1995	2,767.58	1,143	1,812	956	29.35	33
1996	4,045.00	1,605	2,545	1,500	30.16	50
1997	9,832.45	3,740	5,931	3,901	30.98	126
1999	3,979.16	1,382	2,191	1,788	32.63	55
2006	4,950.27	1,122	1,779	3,171	38.67	82
2007	68,366.22	14,275	22,636	45,730	39.56	1,156
2008	3,426.47	654	1,037	2,389	40.45	59
2009	6,384.00	1,104	1,751	4,633	41.35	112
2011	74,337.32	10,154	16,101	58,236	43.17	1,349
2012	40,917.11	4,836	7,669	33,248	44.09	754
2013	42,214.91	4,213	6,681	35,534	45.01	789
2014	11,913.69	967	1,533	10,381	45.94	226
2015	17,582.65	1,101	1,746	15,837	46.87	338
2017	47,882.12	1,207	1,914	45,968	48.74	943
	1,755,599.70	884,788	1,403,015	352,585		10,251

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.4 0.58

### ACCOUNT 391.01 OFFICE FURNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY AC	CCRUED VAGE PERCENT	0				
1981	4,674.85	4,675	4,675			
	4,674.85	4,675	4,675			
	ED R CURVE 20-S VAGE PERCENT	~				
1998	746.74	747	747			
2004	2,149.64		1,500	649		114
2007	17,716.83	10,037	9,779	· · · · · · · · · · · · · · · · · · ·	8.67	916
2018	3,026.36	50	49	2,978	19.67	151
	23,639.57	12,374	12,075	11,565		1,181
	28,314.42	17,049	16,750	11,565		1,181

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.8 4.17

### ACCOUNT 391.03 OFFICE FURNITURE AND EQUIPMENT - HARDWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
-	ACCRUED SALVAGE PERCENT	0				
2012	5,751.83	5,752	5,752			
	5,751.83	5,752	5,752			
	IZED VOR CURVE 5-SQU BALVAGE PERCENT					
2014	,	60,924	60,165	10,186	0.67	10,186
2015	•	412,736	407,595	212,129		127,023
2016	•	141,523	139,760	163,937		61,400
2017	102,422.57	27,244	26,905	75,518	3.67	20,577
	1,096,194.97	642,427	634,425	461,770		219,186
	1,101,946.80	648,179	640,177	461,770		219,186
	COMPOSITE REMAINI	NG LIFE AND	ANNUAL ACCRUAI	L RATE, PERCENT	2.1	19.89

### ACCOUNT 391.04 OFFICE FURNITURE AND EQUIPMENT - SOFTWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
-	ACCRUED SALVAGE PERCENT	0				
2002 2004 2005 2006 2008	212,896.28 133,714.95 87,992.74	144,658 212,896 133,715 87,993 7,000	144,658 212,896 133,715 87,993 7,000			
	TIZED VOR CURVE 7-SQ SALVAGE PERCENT					
2012 2013 2014 2015	422,457.96 1,823,156.74	96,573 321,672 1,127,750 29,016	95,868 319,323 1,119,515 28,804	10,926 103,135 703,642 32,192		10,926 61,757 263,536 8,772
	2,413,404.55	1,575,011	1,563,510	849,895		344,991
	2,999,666.49	2,161,273	2,149,772	849,895		344,991
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUA	L RATE, PERCENT	2.5	11.50

### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR	CURVE IOWA	9-L3				
NET SALV	AGE PERCENT	+20				
0011	05 216 01	12 200	11 501	0 502	2 00	0.020
2011	25,316.91	13,322	11,531	8,723	3.08	2,832
2014	46,517.75	17,077	14,781	22,433	4.87	4,606
2015	149,301.20	43,131	37,334	82,107	5.75	14,279
2016	107,167.19	22,005	19,047	66,687	6.69	9,968
2017	228,109.35	26,968	23,343	159,144	7.67	20,749
2018	64,515.92	2,409	2,085	49,528	8.58	5,772
	620,928.32	124,912	108,121	388,622		58,206

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.7 9.37

### ACCOUNT 392.06 TRANSPORTATION EQUIPMENT - TRAILERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA /AGE PERCENT					
2008	47,167.33	20,291	22,266	20,185	10.44	1,933
	47,167.33	20,291	22,266	20,185		1,933

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.4 4.10



ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 25-SQ VAGE PERCENT	-				
1994	21,602.34	21,023	20,945	657	0.67	657
1995	14,996.68	13,995	13,943	1,054	1.67	631
1996	18,381.90	16,419	16,358	2,024	2.67	758
1997	44,610.01	38,061	37,920	6,690	3.67	1,823
1998	12,408.51	10,091	10,054	2,355	4.67	504
2000	13,150.28	9,642	9,606	3,544	6.67	531
2001	30,254.00	20,972	20,894	9,360	7.67	1,220
2006	42,448.19	20,935	20,857	21,591	12.67	1,704
2008	190,126.55	78,560	78,269	111,858	14.67	7,625
2009	34,573.64	12,903	12,855	21,719	15.67	1,386
2010	114,641.84	38,199	38,058	76,584	16.67	4,594
2011	99,995.98	29,319	29,210	70,786	17.67	4,006
2012	25,762.04	6,523	6,499	19,263	18.67	1,032
2014	61,365.17	10,628	10,589	50,776	20.67	2,457
2016	43,786.37	4,081	4,066	39,720	22.67	1,752
2017	43,108.15	2,293	2,284	40,824	23.67	1,725
2018	66,489.64	1,117	1,113	65,377	24.58	2,660
	877,701.29	334,761	333,520	544,181		35,065

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.5 4.00

### ACCOUNT 395.00 LABORARTORY EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	C CURVE 20-SO VAGE PERCENT	~				
2005	21,531.26	14,351	14,351	7,180	6.67	1,076
2006	41,664.10	25,686	25,686	15,978	7.67	2,083
2007	16,347.12	9,261	9,261	7,086	8.67	817
2009	742.18	346	346	396	10.67	37
2010	1,248.14	520	520	728	11.67	62
2012	56,274.36	17,811	17,812	38,462	13.67	2,814
2018	100,427.01	2,109	2,109	98,318	19.58	5,021
	238,234.17	70,084	70,085	168,149		11,910

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.1 5.00

### ACOCUNT 397.00 COMMUNICATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE 15-S	~				
NET SALV	AGE PERCENT	0				
2007	9,854.34	7,443	7,442	2,412	3.67	657
2010	2,182.47	1,212	1,212	970	6.67	145
2011	14,976.66	7,319	7,318	7,659	7.67	999
2014	13,097.94	3,781	3,781	9,317	10.67	873
2018	3,026.36	67	67	2,959	14.67	202
	43,137.77	19,822	19,820	23,318		2,876

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.1 6.67

**COMMON PLANT** 



#### ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - OWNED

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
2009	30,769.92	5,323	5,007	25,763	41.35	623
2010	11,076.25	1,715	1,613	9,463	42.26	224
2011	5,754,336.65	786,042	739,427	5,014,910	43.17	116,167
2012	35,775.20	4,229	3,978	31,797	44.09	721
2013	29,960.70	2,990	2,813	27,148	45.01	603
	5,861,918.72	800,299	752,838	5,109,081		118,338

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 43.2 2.02

#### ACCOUNT 390.51 STRUCTURES AND IMPROVEMENTS - LEASED

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA /AGE PERCENT					
1998	7,106.72	5,746	6,328	779	3.83	203
2005	197,839.96	123,452	135,963	61,877	7.52	8,228
2007	65,212.86	35,671	39,286	25,927	9.06	2,862
2011	29,112.60	10,626	11,703	17,410	12.70	1,371
2017	280,351.15	18,643	20,532	259,819	18.67	13,916
	579,623.29	194,138	213,812	365,811		26,580

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.8 4.59

### ACCOUNT 391.01 OFFICE FURNITURE AND EQUIPMENT - FURNITURE AND EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 20-S LVAGE PERCENT	~				
1999	487,028.25	470,713	466,872	20,156	0.67	20,156
2000	45,872.91	42,043	41,700	4,173	1.67	2,499
2001	667,931.26	578,762	574,039	93,892	2.67	35,166
2002	319,167.11	260,600	258,474	60,693	3.67	16,538
2003	28,309.77	21,699	21,522	6,788	4.67	1,454
2004	6,960.35	4,987	4,946	2,014	5.67	355
2005	91,315.73	60,862	60,365	30,951	6.67	4,640
2006	11,333.60	6,987	6,930	4,404	7.67	574
2007	214,872.03	121,725	120,732	94,140	8.67	10,858
2008	845,328.55	436,612	433,049	412,280	9.67	42,635
2009	1,449,600.17	676,238	670,720	778,880	10.67	72,997
2010	829,209.81	345,366	342,548	486,662	11.67	41,702
2011	352,220.99	129,089	128,036	224,185	12.67	17,694
2012	279,501.28	88,462	87,740	191,761	13.67	14,028
2013	237,400.19	63,267	62,751	174,649	14.67	11,905
2014	119,207.55	25,808	25,597	93,611	15.67	5,974
2015	573,365.39	95,465	94,686	478,679	16.67	28,715
2016	25,249.86	2,942	2,918	22,332	17.67	1,264
	6,583,874.80	3,431,627	3,403,625	3,180,250		329,154

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.7 5.00

### ACCOUNT 391.03 OFFICE FURNITURE AND EQUIPMENT - COMPUTER HARDWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
_	ACCRUED ALVAGE PERCENT	0				
2006 2009 2010 2012	8,740.51 15,818.86 28,476.82 204,616.56	8,741 15,819 28,477 204,617	8,741 15,819 28,477 204,617			
	IZED VOR CURVE 5-SQ ALVAGE PERCENT					
2013 2014 2015 2016 2017 2018	2,397,670.58 5,033,641.04 6,629,937.12 6,525,963.41 2,531,070.90 6,450.94	2,397,671 4,359,133 4,415,538 3,041,099 673,265 426	2,397,671 3,934,195 3,985,101 2,744,646 607,634 384	1,099,446 2,644,836 3,781,318 1,923,437 6,066	0.67 1.67 2.67 3.67 4.67	1,099,446 1,583,734 1,416,224 524,097 1,299
	23,124,733.99 23,382,386.74 COMPOSITE REMAIN	14,887,132 15,144,786 ING LIFE AND	13,669,630 13,927,283 ANNUAL ACCRUAI	9,455,104 9,455,104 L RATE, PERCENT	2.0	4,624,800 4,624,800 19.78

## ACCOUNT 391.04 OFFICE FURNITURE AND EQUIPMENT - SOFTWARE

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
-	ACCRUED LVAGE PERCENT	0				
2000 2004 2006 2007 2008 2009 2010	3,275,849.35 93,353.21 5,496.11 11,109.97 292,757.62 3,697.55 30,264.40	3,275,849 93,353 5,496 11,110 292,758 3,698 30,264	3,275,849 93,353 5,496 11,110 292,758 3,698 30,264			
	3,712,528.21 ZED OR CURVE 7-SQ LVAGE PERCENT	UARE	3,712,528			
2011 2012 2015 2017	108,233.09 14,573.32 11,400.06 8,868.47	108,233 13,179 5,423 1,685	108,233 1,058- 435- 135-	15,631 11,835 9,004		15,631 3,225 1,588
	143,074.94 3,855,603.15	128,520	106,605 3,819,133	36,470 36,470		20,444

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.8 0.53

## ACCOUNT 391.07 OFFICE FURNITURE AND EQUIPMENT - IPAD HARDWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 5-SÇ VAGE PERCENT					
2017	18,447.49	4,907	4,905	13,542	3.67	3,690
	18,447.49	4,907	4,905	13,542		3,690
CC	MPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	г 3.7	20.00



## ACCOUNT 391.13 OFFICE FURNITURE AND EQUIPMENT - PLATFORM SYSTEMS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	ACCRUED	(3)	(1)		(0)	( ' /
NET SA	ALVAGE PERCENT	0				
1998	47,463,579.95	47,463,580	47,463,580			
	47,463,579.95	47,463,580	47,463,580			
	ZED 70R CURVE 10-S ALVAGE PERCENT	~				
2014	3,934,825.34	1,703,779	1,703,779	2,231,046	5.67	393,483
2015	14,298,029.50	4,761,244	4,761,245	9,536,785	6.67	1,429,803
2016	3,165,958.72	737,668	737,668	2,428,291	7.67	316,596
2017	10,807,140.27	1,437,350	1,437,350	9,369,790	8.67	1,080,714
2018	300,317.87	12,613	12,613	287,705	9.58	30,032
	32,506,271.70	8,652,654	8,652,655	23,853,617		3,250,628
	79,969,851.65	56,116,234	56,116,235	23,853,617		3,250,628
(	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAI	L RATE, PERCENT	7.3	4.06

## ACCOUNT 391.18 OFFICE FURNITURE AND EQUIPMENT - OTHER SOFTWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	ACCRUED SALVAGE PERCENT	0				
2006 2007	88,793.20 79,525.54	88,793 79,526	88,793 79,526			
	168,318.74	168,319	168,319			
	IZED VOR CURVE 10-S ALVAGE PERCENT	• •				
2008	-,,-	5,010,018	5,010,018			
2009	900,778.13	840,426	628,466	272,312	0.67	272,312
2010	868,137.12	723,158	540,774	327,363	1.67	196,026
2011	381,427.33	279,586	209,073	172,354	2.67	64,552
2012	271,078.33	171,593	128,316	142,762	3.67	38,900
2013	971,798.15	517,968	387,334	584,464	4.67	125,153
2014	•	77,405	57,883	120,880	5.67	21,319
2015	8,694,055.21	2,895,120	2,164,956	6,529,099	6.67	978,875
2016		863,553	645,761	3,060,475	7.67	399,019
2017	•	80,728	60,368	546,613	8.67	63,046
2018	320,337.43	13,454	10,061	310,277	9.58	32,388
	21,909,609.34	11,473,009	9,843,010	12,066,599		2,191,590
	22,077,928.08	11,641,328	10,011,329	12,066,599		2,191,590
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUA	L RATE, PERCENT	5.5	9.93

## ACCOUNT 391.23 OFFICE FURNITURE AND EQUIPMENT - PLATFORM SYSTEMS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 10-S ALVAGE PERCENT	~				
2008	3,422,954.04	3,422,954	3,422,954			
2009	2,027,010.82	1,891,201	1,747,300	279,711	0.67	279,711
2010	6,366,773.49	5,303,522	4,899,977	1,466,796	1.67	878,321
2014	2,164,610.55	937,276	865,959	1,298,652	5.67	229,039
2015	477,931.34	159,151	147,041	330,890	6.67	49,609
2016	3,339,455.73	778,093	718,888	2,620,568	7.67	341,665
2017	1,405,653.88	186,952	172,727	1,232,927	8.67	142,206
2018	218,375.07	9,172	8,474	209,901	9.58	21,910
	19,422,764.92	12,688,321	11,983,320	7,439,445		1,942,461

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.8 10.00



## ACCOUNT 391.28 OFFICE FURNITURE AND EQUIPMENT - OTHER SOFTWARE

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	ACCRUED ALVAGE PERCENT	0				
2007	963,168.70	963,169	963,169			
	963,168.70	963,169	963,169			
	IZED VOR CURVE 10-S ALVAGE PERCENT					
2008	841,802.21	841,802	841,802			
2009	153,127.92	142,868	133,640	19,488	0.67	19,488
2010	8,612.50	7,174	6,711	1,902	1.67	1,139
2011	677,984.57	496,963	464,864	213,121	2.67	79,821
2012	3,047,692.78	1,929,190	1,804,581	1,243,111	3.67	338,722
2013	1,994,153.74	1,062,884	994,231	999,923	4.67	214,116
2014	765,074.62	331,277	309,879	455,195	5.67	80,281
2015	2,074,258.69	690,728	646,113	1,428,146	6.67	214,115
2016	3,763,202.44	876,826	820,191	2,943,012	7.67	383,704
2017	1,213,821.36	161,438	151,011	1,062,811	8.67	122,585
2018	1,795,799.44	75,424	70,552	1,725,247	9.58	180,088
	16,335,530.27	6,616,574	6,243,575	10,091,955		1,634,059
	17,298,698.97	7,579,743	7,206,744	10,091,955		1,634,059
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAI	L RATE, PERCENT	6.2	9.45

## ACCOUNT 392.02 TRANSPORTATION EQUIPMENT - CARS

YEAR	ORIGINAL ( COST (2)	ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA 8 ALVAGE PERCENT +					
2009	16,016.60	12,268	9,909	5,307	1.55	3,424
	16,016.60	12,268	9,909	5,307		3,424
	COMPOSITE REMAININ	G LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	1.5	21.38



#### ACCOUNT 392.03 TRANSPORTATION EQUIPMENT - LIGHT TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA	9-L3 +20				
2009	44,993.06	25,396	22,931	13,063	2.65	4,929
2011	90,150.50	47,439	42,834	29,286	3.08	9,508
2012	90,643.72	44,395	40,086	32,429	3.49	9,292
2013	123,351.47	53,726	48,511	50,170	4.10	12,237
2014	140,833.43	51,702	46,684	65,983	4.87	13,549
2015	493,622.19	142,602	128,760	266,138	5.75	46,285
2016	752,525.82	154,521	139,523	462,498	6.69	69,133
2017	681,205.26	80,535	72,718	472,246	7.67	61,571
2018	450,903.89	13,228	11,944	348,779	8.67	40,228
:	2,868,229.34	613,544	553,991	1,740,592		266,732

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.5 9.30

## ACCOUNT 392.04 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT	-				
2008 2011 2012 2013 2014 2015	37,422.05 141,471.89 196,525.81 317,840.84 400,969.82 71,266.65	25,597 88,703 114,181 161,781 170,412 23,661	24,334 84,326 108,547 153,798 162,003 22,494	5,604 28,852 48,674 100,475 158,773 34,519	1.16 1.73 2.19 2.91 3.75 4.68	4,831 16,677 22,226 34,527 42,339 7,376
	1,165,497.06	584,335	555,502	376,896		127,976

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.9 10.98

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE 25-SC AGE PERCENT	~				
2012 2013	29,553.46 37,535.53	7,483 8,003	7,483 8,002	22,070 29,534	18.67 19.67	1,182 1,501
	67,088.99	15,486	15,485	51,604		2,683

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.2 4.00

## ACCOUNT 397.00 COMMUNICATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 15-SO VAGE PERCENT	~				
2010	27,122.74	15,062	15,062	12,061	6.67	1,808
2015	317,990.18	70,594	70,595	247,395	11.67	21,199
2016	109,015.12	16,933	16,933	92,082	12.67	7,268
	454,128.04	102,589	102,590	351,538		30,275

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.6 6.67

## ACCOUNT 398.00 MISCELLANEOUS EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF OCTOBER 31, 2018

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 20-9 AGE PERCENT.	~				
2006 2014	2,675.13 29,649.05	1,649 6,419	1,649 6,421	1,026 23,228	7.67 15.67	134 1,482
	32,324.18	8,068	8,070	24,254		1,616

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.0 5.00

# Black Hills Service Company

# Cost Allocation Manual

Effective Date: July 14, 2008

Amended: January 1, 2010

Amended: August 1, 2010

Amended: December 1, 2013

Amended: December 1, 2014

Amended: December 1, 2015

Amended: December 1, 2016

Amended: December 1, 2017

Amended: November 7, 2018

Amended: December 20, 2018

## **Black Hills Service Company Cost Allocation Manual**

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#### Introduction

The purpose of this cost allocation manual is to document the allocation processes of Black Hills Service Company, from recording the original transaction through the allocation of costs to Black Hills Corporation subsidiaries. Various topics to be addressed include the organization of the Service Company, the recording of transactions, calculating and assigning allocation factors, and recording allocation transactions.

Black Hills Service Company (Service Company) was formed on December 30, 2004, and was fully implemented and operational as of January 1, 2006. The Service Company was formed as required by the Public Utility Holding Company Act of 1935, which was administered by the Securities and Exchange Commission (SEC). Service companies were required of all registered holding companies under this law. Service companies coordinate corporate support functions and distribute costs to registered holding company subsidiaries using pre-defined allocation methodologies that had to be approved by the SEC.

Black Hills Corporation became a registered holding company at the end of 2004, and through a transition period and various amendments to the registered holding company filings, established the date of January 1, 2006 to fully implement the Service Company. In August of 2005, this law was repealed and replaced by the Public Utility Holding Company Act of 2005, which is administered by the Federal Energy Regulatory Commission (FERC). This new law was effective in February of 2006. Although certain administrative and reporting requirements changed as a result of the repeal, Black Hills Corporation did not change its implementation plan.

In 2018, BHC made a strategic business decision to divest its oil and gas division and transition from a diversified energy company to a utility-centered energy company. The divestiture of the oil and gas division followed BHC's earlier decision in 2014 to divest of its energy trading division, all steps in furtherance of its transition to a utility company. As a result of this strategic shift, BHC no longer needed two service companies, the Service Company and Black Hills Utility Holding (BHUH). On January 1, 2019, BHUH will transfer its departments including employees and assets to the Service Company. The process improvement results in one Service Company instead of two, eliminating unnecessary complexity and improved visibility for our regulators.

The Service Company is a wholly owned subsidiary of Black Hills Corporation (the Holding Company or BHC), and is a separate legal entity. The majority of operations and all employees were transferred out of the Holding Company on the effective date of implementation. The only transactions that remain at the Holding Company are transactions pertaining to long-term debt and related deferred finance costs, short-term financing (corporate credit facility and commercial paper program) and related deferred finance costs, and the administration of money pool transactions for both the utility money pool and the non-utility money pool. In addition, as will be discussed in greater detail later, certain corporate costs are charged directly to the Holding Company. The most notable of these types of costs are corporate development project costs.

## **Service Company Organization**

The Service Company is organized into operating departments based upon the services that those departments provide to Black Hills Corporation subsidiaries. A list of each department, as well as a brief description of the services they provide, is attached as Appendix 2.

**Direct Costs versus Indirect Costs** 

BHSC CAM as of December 31, 2018
Page 4 of 23

A key issue in distributing Service Company costs is distinguishing between direct and indirect costs. The account coding will change depending on whether the cost is a direct or indirect cost. Costs for shared services are distributed to affiliates within Black Hills through *direct* costs (direct assignable or direct distributed) or *indirect* allocation. Costs are direct charged to the extent possible. Costs that cannot be directly assigned nor distributed reasonably to the applicable business units receive the benefit using indirect allocation. Below is a summary of each of these types of costs and examples of these costs.

*Direct costs* are those costs that are specifically associated with an identified subsidiary or collection of subsidiaries.

## Methods of Direct Charges include:

- Direct Cost Assignable: Costs which can be directly identified to support a subsidiary.
- Direct Cost Distributed: Costs that benefit all subsidiaries within a business line (e.g. gas utilities or electric utilities) and are allocated to business lines based on a designated percentage.

## Here are some examples:

- A Facilities employee is supporting the facilities management for Black Hills Power. The labor costs incurred in supporting facilities are specifically associated with an identified subsidiary. Therefore, this would be a Direct Cost Assignable.
- A Regulatory employee whom directly supports one jurisdiction travels to Rapid City to attend a BHC strategic conference. The time and travel associated with attending the conference shall be Direct Cost Assignable to that employees business unit they directly support.
- A Gas Engineer is reviewing the Distribution Integrity Management Program for all the gas utilities. This charge cannot be directly attributable to any specific individual business, but can be identified to support multiple businesses within the gas utilities. Therefore, this charge would be considered a Direct Cost Distributed.

#### Methods of Direct Cost Distributed:

Regulated Electric - Blended	Direct Cost Distributed
Regulated Electric - Customers	Direct Cost Distributed
Regulated Electric - Transmission/Distribution	Direct Cost Distributed
Regulated Natural Gas - Blended	Direct Cost Distributed
Regulated Natural Gas - Customers	Direct Cost Distributed
Non-Regulated- Blended	Direct Cost Distributed
GDPM	Direct Cost Distributed
Nameplate Generation Capacity	Direct Cost Distributed
Power Generation Capacity	Direct Cost Distributed

*Indirect costs* are those costs that are not associated with an identified subsidiary. This means that the costs indirectly support all companies or directly support the operation of the Service Company, or all the gas and electric Utilities. In other words, costs that would be directly charged to the Service Company using the definition and examples above would be classified as indirect costs. Here are some examples:

• The Internal Audit department is completing a BHC consolidated financial statement audit. Since all entities indirectly affect the financial statements of BHC consolidated, this charge would be considered an indirect cost.

- A Human Resources representative attends an industry training event. This charge cannot be directly
  attributable to any specifically identified company; therefore, this charge would be considered an indirect
  cost.
- The Corporate Accounting department is completing monthly close of the BHC financials. Since the Corporate Accounting department is supporting the enterprise and all of its subsidiaries, it is impractical to direct code, this charge would be considered an indirect cost.
- A Help Desk technician orders a replacement computer monitor for an employee of the Service Company. This hardware cost incurred is specifically associated with the Service Company. Therefore, this would be an indirect cost.

## Methods of Indirect Charges:

SC All – Blended	Indirect
SC All – Employee	Indirect
SC All – Asset Cost	Indirect
SC All – Regulated Customers	Indirect
SC All – Customers (Regulated and Non-Regulated)	Indirect
SC Utility - Blended	Indirect

It is important to consider two things when determining if a cost is a direct cost or an indirect cost: (1) Can the costs that are coded to a specific company or group of companies be substantiated; and (2) Can it be substantiated that a utility-based entity is not subsidizing the operations of non-utility based company with the time and expenses that have been charged to them. A certain level of judgment will be involved when deciding whether a particular cost should be directly charged or indirectly allocated.

There are certain costs that will always be considered either direct or indirect costs. Below is a list of significant Service Company expenses that follow these rules:

Always considered direct costs:

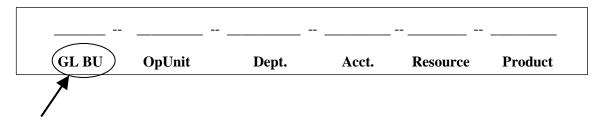
- Capitalized costs for non-Service Company projects (including capitalized labor)
- Corporate development project costs
- Retiree healthcare costs

Always considered indirect costs:

- Board of Directors' fees and expenses
- Horizon Point rent
- Depreciation of Service Company assets
- Directors' and officers' insurance
- Investor relations expenses
- Shareholder expenses
- Intercompany interest expense and income

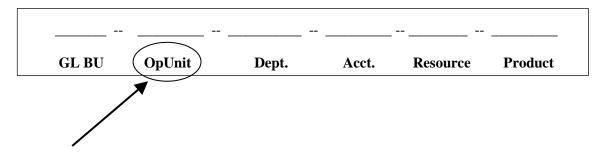
## **Transaction Coding**

The Service Company uses an accounting software system to accumulate and distribute both direct costs and indirect costs. It is important to have costs properly classified as direct or indirect. Direct costs will be directly charged to the subsidiaries, while indirect costs will be allocated to the subsidiaries using pre-defined allocation factors. Below is a description of the coding.



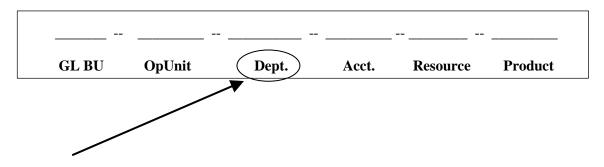
## **General Ledger Business Unit (GLBU):**

- Five (5) character numeric field.
- The GLBU field is used to identify the company that will be receiving the charges, either as a direct cost or an indirect cost.
- The GLBU field is required on all accounting transactions.
- The GLBU field will default based on the operating unit (Op Unit), as described below.



## **Operating Unit (OpUnit):**

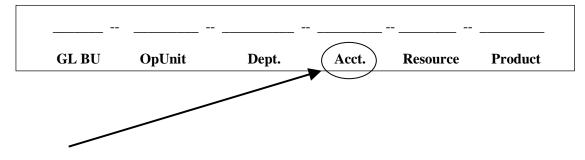
- Six (6) character numeric field.
- The OpUnit field is used to identify the code block as either a direct cost or an indirect cost.
- If the cost is a direct cost, the OpUnit field will be populated using the OpUnit code for the company being directly charged.
- The Op Unit field will be populated using one of the Service Company Op Units for indirect costs. Indirect costs also include costs from other areas of the company that are directly related to the Utility Holding Company.



## **Department (Dept):**

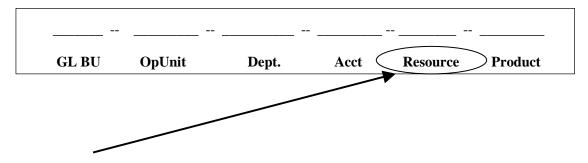
- Four (4) character numeric field.
- The Department field is used to identify where the cost(s) originated.

- The Department field is required on all income statement and capital transactions.
- Every Department is assigned to a GLBU.



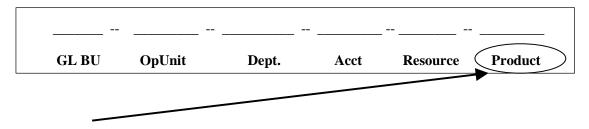
## Account (Acct)

- Six (6) character numeric field.
- The Account field is required on all accounting transactions.
- All companies will generally use the same Chart of Accounts although some values will be specific to certain companies.



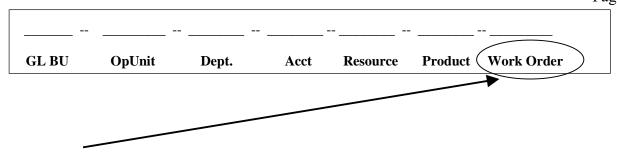
#### **Resource:**

- Four (4) character numeric field.
- A Resource is used to identify types of costs.
- The Resource field is required for operating expenses and capital accounting transactions.



#### **Product:**

- Three (3) character numeric field.
- A Product code is used to identify business lines.
- Examples of the product line include electric, gas, and non-regulated



#### Work Order:

- Alpha or numeric field.
- Represents the collection of costs to allow the monitoring of a job or group of costs.
- The Work Order field is required on all construction work in progress transactions

## **Timekeeping**

All Service Company employees are required to complete a timesheet for each two week pay period. Timesheets of appropriate employees must be approved by a supervisor.

Employees must complete the code block, as previously discussed, for each time record. The timesheet will default the department and resource. However, the employee is responsible for providing the remainder of the code block. Employees are encouraged to enter their time in one half hour increments, although they may use smaller increments if they so choose.

## Loadings

Certain benefits that are provided to employees become an inherent cost of labor. To account for these benefits and allow for them to be charged to the appropriate subsidiary, they become part of a loading rate that is added on to each payroll dollar.

The loading rates are calculated at the beginning of the year based on budgeted benefit expenses and budgeted labor. Benefit costs and loading rates are reviewed, and updated as needed. Below is a list of components of the loading rates:

## General labor loadings:

- Compensated Absences: including but not limited to paid time off (PTO), Holiday, Jury duty, Funeral pay, United Way day, Short-term Disability and Annual Physical appointment.
- Payroll Taxes: including but not limited to FICA, FUTA SUTA and city taxes
- Employee Benefits: including but not limited to health and medical, 401K match and fees, Pension, Retiree healthcare and associated fees
- Incentives: including but not limited to Non-officer incentive plans, Restricted Stock and Stock Option expense

## Supplemental loadings:

- Officer short term incentive plans
- Officer supplemental retirement

Officer performance plan

Loadings calculated on payroll are based on estimated benefit costs, therefore, differences between actual benefits will be inherent to this process.

#### **Allocation Ratios**

As previously stated, the Service Company costs are either directly charged to a subsidiary or businesses line, or indirectly allocated when they support all companies. Indirect and Direct Cost Distributed are allocated using one of several pre-defined allocation ratios. Each department has been assigned one of these allocation ratios. All indirect and Direct Cost Distributed costs of that department are then allocated using that ratio. When determining which allocation ratio should be assigned to each department, a ratio is selected based on the specific cost driver of that department. For instance, the expenses incurred by a Human Resources department are primarily related to their support of all company employees. In this example, the cost driver for the Human Resources department indirect costs is employees. Therefore, their indirect costs will be allocated based upon the Employee Ratio.

For certain departments, a specific cost driver may not be clearly identifiable or the driver may not be cost effective to compute on a continuing basis. In these instances, a three-factor general allocation ratio is used, which is referred to as the Blended Ratio. This ratio equally weights three different general ratios: Gross Margin, Asset Cost, and Payroll Dollars. These factors were chosen to be included in the Blended Ratio because they best allocate costs based on the diverse nature of BHC operations.

One additional item to note is that pooled benefits, primarily health care costs, are allocated differently due to the pooling method for benefits such as self-insured health care. BHC has chosen to pool certain benefit costs and spread the risk amongst all subsidiaries equally. All pooled benefit costs of BHC are paid by the Service Company and allocated to subsidiaries based on employee counts.

A list of all allocation ratios, including a brief description of the ratio, the basis for the calculation of the ratio, and the department to which that ratio has been assigned, is attached hereto as Appendix 1.

## **Changing Allocation Ratios**

Allocation ratios are set at the first of the year, based upon financial information from the trailing twelve months ending September 30<sup>th</sup> for prior year. Assets, utility assets, employee counts, and power generation capacity are based on values as of previous period ending September 30<sup>th</sup>. Gross margin, utility gross margin, payroll dollars, and utility payroll dollars are based on values for the trailing twelve months ending September 30<sup>th</sup>.

The Service Company maintains certain departments (reflected as Centralized Utility Departments) that are used by and benefit only the Utilities. These departments include employees and assets that support the utility functions of: regulatory, engineering, customer service, gas supply, etc. Because these costs only support utility subsidiaries; their respected assets, payroll and employee count are allocated to only the utility subsidiaries before arriving at the allocation ratios.

Certain events may occur during the year that are deemed to be significant to BHC that will require corresponding adjustments be made to the allocation ratios. A significant change is any singular event at any individual entity that changes the value of any of the three-factors denominators from the Blended Ratio by more than 3%. Any

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change would take effect the month following the singular event. Examples of these types of events include acquisitions, divestitures, new generation, significant change in asset base, significant staffing changes or new, significant revenue streams. Less significant events that may require a change include complete divestiture of a business unit or acquisition of a new business unit. A certain level of judgment is required to determine whether an event is significant enough to require an adjustment to the allocations.

When these events occur, indirect allocation ratios will be adjusted. When adjusting allocation ratios, it is the policy of the Service Company to not recalculate all allocation ratios. Rather, allocation ratios will be adjusted with pro forma adjustments for the subsidiary with a significant change in a specific allocation ratio base. For example, if an acquisition occurs during the middle of the year, pro forma values will be loaded. Asset values at the time of the acquisition would be used, as well as pro forma gross margin and payroll dollars for a 12 month period. It should be noted that estimations may be required, especially when significant additions or changes are expected as a result of the acquisition.

It should also be noted that asset values, gross margin, and payroll dollars for the other companies will not be changed. However, the ratios will change because the base against which the ratios are calculated will change. Subsidiary companies would see decreased ratio values with acquisitions, and increased ratio values with divestitures. Changes will be effective as of the beginning of the month following the significant event, and will apply to all transactions for the month.

## **Subsidiary Payment for Direct and Indirect Charges**

It is the policy of the Service Company to insure payments are made by the subsidiary companies for direct and indirect charges. All payments for direct and indirect charges must be remitted to the Service Company by the end of the following month. The Service Company will monitor payments received during the month to insure that all subsidiary companies make payment in a timely manner.

## **Allocating Fixed Assets**

The Service Company maintains certain fixed assets that are used by and benefit multiple BHC subsidiaries. These fixed assets primarily consist of computer hardware and software that form the corporate-wide information technology network. Because these fixed assets support multiple BHC subsidiaries, they are allocated to the appropriate subsidiaries monthly as part of the month-end close process, along with the allocation of these assets' accumulated depreciation. Construction Work in Process balances are not allocated.

Allocated assets and accumulated depreciation are maintained in separate general ledger accounts at the subsidiary level so that they are not intermingled with regular subsidiary fixed assets, and for ease of reconciliation.

The allocation ratio used for fixed assets and accumulated depreciation follows the appropriate cost driver.

## **Allocating Capitalized Inventory**

The gas and electric meter shops are Centralized Utility Departments serving the utility operating companies. As meters are purchased, they are recorded as capitalized inventory (charged to plant-in-service) by the Service

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Company, as the meters are issued out of inventory to the specific operating company those assets are transferred from the Service Company to the specific utility operating companies. All unassigned gas and electric meter investment and accumulated depreciation reserve is held at the Service Company, and is allocated to the applicable utilities monthly. The Customer Count Ratio is used for this allocation.

## **Appendix 1 – Allocation Ratios**

Asset Cost Ratio – Based on the net cost of assets as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Assets are limited to the direct property, plant, and equipment, and include construction or work in process less accumulated depreciation, depletion and amortization (compliance with GAAP). In addition to the BHC subsidiaries cost, the Assets shall also include the cost of any third party assets or minority interests in assets the subsidiaries operate. The Asset Cost Ratio measures the level of investment in the businesses.

Gross Margin Ratio – Based on the total gross margin for the trailing twelve months ending September 30<sup>th</sup>, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Gross margin is defined as revenue less cost of sales. Certain intercompany transactions may be excluded from gross margin if they would not have occurred if the revenue relationship was with a third party instead of a related party. The Gross Margin Ratio measures where the businesses makes their money.

Payroll Dollars Ratio – Based on the total payroll dollars for the trailing twelve months ending September 30<sup>th</sup>, the numerator of which is the direct payroll charges from all BHC subsidiaries charging the applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Payroll dollars include all bonuses and compensation paid to employees, but do not include items that are only included on an employee's W-2 for gross-up and income tax purposes, such as life insurance premiums over \$50,000. The Payroll Dollar Ratio measures where the businesses employees spend their time.

Blended Ratio (SC All) – A composite ratio comprised of an average of the Asset Cost Ratio, the Payroll Dollars Ratio, and the Gross Margin Ratio. These ratios are equally weighted. This ratio is sometimes referred to as the three-factor blended ratio.

The Service Company is utilizing the following segment variations and additional variations may be added if additional product lines are added or in the event that additional segmentation is deemed appropriate to most effectively allocate costs from a specific department

SC All-Blended (No BHES)

Blended Ratio (SC Utility) – A composite ratio comprised of an average of the Asset Cost Ratio, Payroll Dollar Ratio and the Gross Margin Ratio. These factors are equally weighted. This factor is sometimes referred to as the three-factor blended ratio.

There are currently several variations of the Utility Blended Ratio that are specific to the segment that are appropriate for which charges are being allocated. For example, charges for electric engineering department labor would utilize an electric blended ratio whereby no allocations would be charged to a gas utility.

The Service Company is utilizing the following segment variations and additional variations may be added if additional product lines are added or in the event that additional segmentation is deemed appropriate to most effectively allocate costs from a specific department

Regulated Utilities Regulated Electric Regulated Natural Gas Regulated Natural Gas (No BHEA)

*Employee Ratio* – Based on the number of employees as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries.

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*Power Generation Capacity Ratio* – Based on the total power generation capacity as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Power generation includes capacity in service and capacity under construction.

Nameplate Generation Capacity Ratio – Based on the total facility's power generation capacity at the end of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Nameplate generation includes capacity in service and capacity under construction at the facility.

Square Footage Ratio – The total square footage of a given facility, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries.

Regulated Electric Transmission/Distribution Ratio – Based on a simple average of a multiple of cross-sectional drivers for the transmission function as of September 30<sup>th</sup> for the prior year that includes customer counts, peak load, number of substations, number of feeders, number of distribution and transmission miles, and number of remote terminal units. The numerator of which is for an applicable operating company and the denominator of which is for all applicable operating companies.

Customer Count Ratio – Based on the number of customers as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable operating company and the denominator of which is for all applicable operating companies.

There are currently several variations of the Customer Count ratio that are specific to the type of customers that are appropriate to the department for which charges are being allocated. For example a department that supports gas engineering would be allocated based on gas customers only whereas a general customer service department would be allocated based on total customers.

The Service Company is utilizing the following customer counts to calculate customer count ratios additional variations may be added if additional product lines are added or in the event that additional segmentation of customers are deemed appropriate to most effectively allocate costs from a specific department

All Customers
Regulated Electric Customers
Regulated Natural Gas Customers
Regulated Natural Gas Customers (No NEGD)
Products and Services Customers (Non-Regulated)

*GDPM*–Allocates Generation Dispatch & Power Marketing based on Generating Capacity Managed per the GDEMA (Generation Dispatch and Energy Management Agreement).

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4700	SC-ACCOUNTING SYSTEMS	SC All-Blended	Maintains the corporate- wide accounting systems of Black Hills Corporation, most notably the general ledger and financial statement preparation systems.		Yes	Yes	Yes	Yes	Yes	Yes
4702	SC-CORP DEVELOPMENT	SC All-Blended	Facilitates the development of the corporate strategy, prepares strategic plans, and evaluates potential business opportunities. Department also assists various subsidiaries with financial analysis and special projects.		Yes	Yes	Yes	Yes	Yes	Yes
4704	SC-TAX	SC All-Blended	Prepares quarterly and annual tax provisions of all Black Hills Corporation subsidiaries. Maintains and reconciles all current and deferred income tax general ledger accounts. Prepares tax filings and ensures compliance with applicable laws and regulations. Oversees various tax planning projects.		Yes	Yes	Yes	Yes	Yes	Yes
4705	SC-CREDIT AND RISK	SC All-Blended	Provides risk management, risk evaluation, and risk analysis services. Provides support to the Executive Risk Committee. Evaluates contract risks		Yes	Yes	Yes	Yes	Yes	Yes
4706	SC-LEGAL - CORPORATE	SC All-Blended	Provides legal counsel and services related to general business operations, including labor and employment law, finance, litigation, contracts, utility rates and regulation, financial reporting, Securities and Exchange Commission, Federal Energy Regulatory Commission and other state and federal compliance, environmental matters, real estate and other legal matters. Oversees the hiring and administration of external counsel. Provides legal support to various corporate development projects. Facilitates physical risk management strategies through the purchase and evaluation of various types of insurance coverage. Provides claims management services. Develops and enforces corporate governance policies and procedures in accordance with applicable laws and regulations. Provides oversight of compliance with Securities and Exchange Commission rules and regulations. Provides various recordkeeping and administrative services related to shareholder services. Assists in the administration of equity-based compensation plans.		Yes	Yes	Yes	Yes	Yes	Yes
4709	SC-ENVIRONMENTAL SERVICES	Asset Cost	Establishes policies and procedures for compliance with environmental laws and regulations. Researches emerging environmental issues and monitors compliance with environmental requirements. Oversees environmental clean-up projects. Obtains permits to support the business operations of Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4710	SC-EXECUTIVE MGMT	SC All-Blended	Provides overall oversight of Black Hills Corporation and its subsidiaries. Provides the Board of Directors information for decision making purposes.		Yes	Yes	Yes	Yes	Yes	Yes
4711	SC-SAFETY	Employee Ratio	Develops and implements safety planning activities and provides employee safety education. Administers the corporate safety program. Assists with compliance with DOT, OSHA, and MSHA regulations.		Yes	Yes	Yes	Yes	Yes	Yes
4712	SC-TREASURY	SC All-Blended	Coordinates activities related to securities issuance, including maintaining relationships with financial institutions, debt holders, rating agencies, equity analysts and equity investors. Performs accounting, cash management, debt compliance, and investing activities. Monitors capital markets to support financial planning for all subsidiaries. Oversees the administration of corporate pension and 401(k) plans.		Yes	Yes	Yes	Yes	Yes	Yes
4715	SC-F&A LEADERSHIP	SC All-Blended	Provides management and administrative support for accounting and finance functions of the Company's regulated and non-regulated businesses including external audit coordination. Responsible for closing the general ledger for the Company's regulated and non-regulated businesses. Oversees the corporate consolidation of subsidiary financial statements. Prepares monthly internal financial reports for management. Prepares quarterly and annual financial reports to the Securities and Exchange Commission, financial statements to banks and quarterly and annual financial statements filed with FERC. Researches emerging accounting issues and assists with the compliance of new accounting rules and regulations.		Yes	Yes	Yes	Yes	Yes	Yes
4720	SC-HUMAN RESOURCES	Employee Ratio	Provides general Human Resources support services to the subsidiaries through the administration of policies and labor contracts for all facets of Human Resources, including employee relations, labor relations, talent management, recruiting and employment staffing, compensation and benefits administration. Processes payroll including but not limited to time reporting, calculation of salaries and wages, payroll tax reporting and compliance reports for Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4721	SC-HR TOTAL REWARDS	Employee Ratio	Administers policies related to compensation and benefits. Oversees the self-insured medical benefits plans and other pooled benefits and provides support to the third party administrators of the plans		Yes	Yes	Yes	Yes	Yes	Yes
4722	SC-HR TALENT MANAGEMENT	Employee Ratio	Provides for employee and leadership development, succession planning, performance management, goal alignment, employee engagement, strategic workforce planning, talent assessment and general HR support for Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4725	SC-INTERNAL AUDIT	SC All-Blended	Reviews internal controls and procedures to ensure assets are safeguarded and transactions are properly authorized and recorded. Oversees the Sarbanes Oxley compliance efforts.		Yes	Yes	Yes	Yes	Yes	Yes

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4726	SC-IN-HOUSE CORPORATE SOLUTIONS (Communications)		Develops strategies and implements programs for effective communication with internal and external stakeholders. Develops and manages measured, and coordinated advertising. Designs and develops communication strategies and materials for the company.		Yes	Yes	Yes	Yes	Yes	Yes
4728	SC-POWER DELIVERY MGMT	Power Generation Capacity	Performs resource planning, power delivery management, strategic planning, and construction management for the corporation's power generation assets.		Yes					Yes
4729	SC-PROPERTY ACCOUNTING	Asset Cost	Maintains the accounting records for property, plant and equipment for the majority of subsidiaries of the corporation. Assists in compliance with regulatory accounting requirements as it relates to property. Prepares various operating and financial reports for management.		Yes	Yes	Yes	Yes	Yes	Yes
4730	SC-RECORDS MGMT	SC All-Blended	Administers and maintains the records retention policies and procedures of the corporation. Manages and maintains the content management software.		Yes	Yes	Yes	Yes	Yes	Yes
4731	SC-SUPPLY CHAIN MGMT		Manages contracts, including drafting, negotiating, reviewing and interpreting contracts. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. Manages inventory, obsolescence and scrap. Ensure availability of proper materials.		Yes	Yes	Yes		Yes	Yes
4732	SC-SUPPLY CHAIN	Brico	Manages contracts, including drafting, negotiating, reviewing and interpreting contracts. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. Manages inventory, obsolescence and scrap. Ensure availability of proper materials. Pull, restock and stage materials. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders.		Yes	Yes	Yes		Yes	Yes
4734	SC-FLEET SERV	SC All-Blended	Manages fleet expense cards, fleet contracts, vehicle purchasing, replacement, disposal, licensing/registration and titling. Advises on vehicle maintenance and repairs, alternative fuel selections and implementations.		Yes	Yes	Yes	Yes	Yes	Yes
4736	SC-REAL ESTATE & FACILITIES	SC All-Blended	Provides facility, construction, and real estate management services for corporate-wide facilities. Supports disaster recovery and business continuation planning.		Yes	Yes	Yes	Yes	Yes	Yes
4741	SC-GOVERNMENTAL AFFAIRS	SC All-Blended	Advances corporate objectives by initiating, influencing, monitoring, and researching government legislation and policies. Acts as a liaison with legislators and other governmental officials. Maintains relationships with federal, state and other governmental bodies.		Yes	Yes	Yes	Yes	Yes	Yes
4742	SC-IT ADMINISTRATION	SC All-Blended	Provides guidance, governance, and strategic planning to the overall information technology operations.		Yes	Yes	Yes	Yes	Yes	Yes
4743	SC-IT BUSINESS APPLICATIONS FIN & HR SYSTEMS	00 / 111 210114104	Manages, maintains, and enhances the finance, human resource, web-based service and enterprise wide business applications.		Yes	Yes	Yes	Yes	Yes	Yes
4744	SC-IT BUS APPLICATIONS REG CUSTOMER SYSTEMS	All Customers	Manages, maintains, and enhances the customer service enterprise wide business applications.		Yes	Yes				
4745	SC-IT BUS APPS-WEB & ECM	SC All-Blended	Manages, maintains, and enhances the internal (intranet) and external web applications.		Yes	Yes	Yes	Yes	Yes	Yes
4746	SC-IT BUS APPS-WHLSLE&ENTPRISE.Dpt	Regulated Utilities- Blended	Manages, maintains, and enhances the electric and natural gas utility enterprise wide business applications.		Yes	Yes	Yes			
4747	SC-IT INFRASTRUCTURE		Manages, maintains, and enhances data center operations, infrastructure servers, storage, system software, enterprise architecture and corporate databases. Supports the data and voice communication needs for the company and provides telecommunication expense management services as well as technology support services and field service support for the company.		Yes	Yes	Yes	Yes	Yes	Yes
4749	SC-IT USER SERVICES.Dpt	SC All-Blended	Manages, maintains, and enhances the analytics and integration enterprise wide business applications.		Yes	Yes	Yes	Yes	Yes	Yes
4751	SC-IT COMPLIANCE/SECURITY		Responsible for internal and external audit compliance, disaster recovery, change management and legal compliance related to technology		Yes	Yes	Yes	Yes	Yes	Yes
4754	SC-GENERATION PLANT OPERATIONS		Operates and manages the generation for BHCOE and BHCIPP		Yes					Yes
4755	SC-IT PMO / HELPDESK	SC All-Blended	Manages, maintains, and enhances the governance, project management, IT asset/service management, and enterprise content management business applications.		Yes	Yes	Yes	Yes	Yes	Yes
4756	SC-CPGS PLANT OPERATIONS		Operates and manages the new generation for the Cheyenne Prairie Generation Station.		Yes					Yes

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4770- 4781, 4796	SC-BENEFIT LOADINGS	By Function	Records overhead benefit costs loaded to labor costs dependent on assigned allocation ratio		Yes	Yes	Yes	Yes	Yes	Yes
4791	SC-ASSET TRANSMISSION	Regulated Electric Transmission/ Distribution	Allocates property assets (transmission)	Yes	Yes					
4792	SC- ASSET CUSTOMER	All Customers	Allocates property assets (customer)	Yes	Yes	Yes				
4793	SC – ASSET BLENDED	Blended Regulated Natural Gas (No BHEA)	Allocates property assets (service company)		Yes	Yes	Yes	Yes	Yes	Yes
4794	SC-BENEFIT POOLED	Employee Ratio	Records pooled benefit costs, primarily related to health and welfare for Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4795	SC-ACCOUNTING ACCRUAL ENTRIES	SC All-Blended	Records accrual of certain charges not related to specific departments or not significant enough to allocate to each department		Yes	Yes	Yes	Yes	Yes	Yes
4803	SC- PIPELINE AND SYSTEM INTEGRITY	Regulated Natural Gas Blended	Provides management support to gas engineering and metering activities with emphasis on reliability, customer service, compliance and safety.	Yes		Yes	Yes			
4804	SC-COMPLIANCE GAS	Regulated Natural Gas Blended	Provides engineering support of gas transmission and distribution facilities including planning, monitoring, and analyses.	Yes		Yes	Yes			
4805	SC-ASSET PLANNING & DATA MANA	Regulated Natural Gas Blended	Provides engineering support of gas transmission and distribution facilities including planning, monitoring, and analyses.	Yes		Yes	Yes			
4806	SC-PIPELINE SAFETY AND COMPLIANCE GAS	Regulated Natural Gas Blended	Responsible for implementing and reporting DOT regulatory requirements, maintaining standards, and supporting GIS Smallworld mapping.	Yes		Yes	Yes			
4810	SC- RELIABILITY CENTER	Regulated Electric Transmission/ Distribution	Operates the Company's transmission and distribution systems on a 24/7 basis; and plans and directs switching and outage restoration efforts for both emergency and planned outages.	Yes	Yes					
4811	SC-OPERATIONAL SERVICES	Regulated Electric Transmission/ Distribution	Develops, coordinates and oversees the technical support piece of the Electric Utilities Group's compliance with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, which standards are enforceable through financial sanctions and are intended to ensure a reliable Bulk Electric System.	Yes	Yes					
4812	SC-TRANSMISSION SERVICES MGMT	Regulated Electric Transmission/ Distribution	For all three electric utilities, transmission Services directs the 24/7 Reliability Centers in Rapid City and Pueblo, Transmission Planning, NERC Compliance, FERC Compliance, Vegetation Management, and Transmission Tariff Administration.	Yes	Yes					
4813	SC-T&D ENGINEERING	Regulated Electric Transmission/ Distribution	For all three electric utilities, T&D Engineering provides engineering support of electric transmission and distribution facilities including planning, monitoring, and analyses.	Yes	Yes					
4814	SC-SUBSTATION/PROTECTION ENGINEERING	Regulated Electric Transmission/ Distribution	For all three electric utilities, designs, coordinates, and oversees the electric substation infrastructure for all Black Hills Energy electric utilities. This includes substation designs, standards, protective relaying, and NERC compliance associated with the same. Will include work with Transmission and Distribution assets.	Yes	Yes					
4815	SC-ENGINEERING RESOURCES	Regulated Electric Transmission/ Distribution	For all three electric utilities, Working with other departments coordinates talent development of engineers responsible for all Black Hills Energy electric utilities. Includes identifying project assignments in other groups, training opportunities, and rotational positions.	Yes	Yes					
4816	SC-GENERATION DISPATCH POWER MARKETING	GDPM	Manages the three electric utilities and others generation units dispatch and energy management services to generating resources on a system wide, least-cost basis.		Yes					Yes
4817	SC-ELEC OPS COMMUNICATIONS	Regulated Electric Blended	Manages and supports the Electric Utilities radio, fiber and microwave based communication needs for the electric operating companies. Provides telecommunication expense management for the electric operating companies.	Yes	Yes					
4818	SC-MAINTENANCE	Regulated Electric Transmission/ Distribution	For all three electric utilities, Maintenance Services supports the maintenance of the substation and lines within the Electric Utilities.	Yes	Yes					

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4819	SC-VEGETATION MANAGEMENT	Regulated Electric Transmission/ Distribution	For all three electric utilities, Vegetation Management supports the vegetation management programs across all Electric Utilities.	Yes	Yes					
4820	SC- ELECTRIC ASSET MANAGEMENT	Regulated Electric Blended	Engineering Services supports transmission and distribution activities within the Electric Utilities group including engineering, distribution planning, T and D asset management, metering, substation maintenance, , GIS/drafting and outage management systems.	Yes	Yes					
4821	SC-PWR SUPPLY AND RENEWABLES	Regulated Electric Blended	Provides for the planning, development, and management of power supply and renewable strategies for electric operating companies.	Yes	Yes					
4822	SC-REGULATORY AND FINANCIAL MANAGEMENT	SC All-Blended	Provides regulatory financial support for all electric and gas utility regulatory filings including: rates cases, class cost of service, rate design, reporting, adjustment clauses, riders, trackers and other regulatory issues. Additionally, provides financial management to the Company's regulated and non-regulated businesses. Oversees the accumulation of subsidiary financial budgets and forecasts. Provides the consolidation of the corporate wide- budget and forecast. Guides the preparation of strategic plans.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4823	SC-RELIABILITY AND CONTROL	Regulated Electric Transmission/ Distribution	For all three electric utilities, supports the maintenance of control and protective relaying equipment within the Electric Utilities.	Yes	Yes					
4824	SC-GAS METERING SERV	Regulated Natural Gas Customers	Manages and provides gas measurement support to field operations located in gas service states.	Yes		Yes	Yes			
4825	SC-ASSET PROGRAMS	All Customers	Researches, builds and implements utility software solutions for the benefit of electric and gas operations. This department supports Smallworld GIS, Click, STORMS work management, PowerOn outage management, Korterra line locates, and GTViewer mobile maps.	Yes	Yes	Yes				
4826	SC-ELECTRIC METER SERVICES	Regulated Electric Customers	Manages and provides electric measurement support to field operations located in electric service states. Also manages AMI system for all electric entities.	Yes	Yes					
4827	SC-TRANSMISSION PLANNING	Regulated Electric Transmission/ Distribution	Performs near and long-term (1-20 year) transmission planning to determine cost-effective transmission additions needed to reliably serve projected customer load. Performs studies in support of large customer requests and the FERC Tariff; and supports operational studies for planned outages. Provides support in meeting compliance with NERC Standards; and represents the corporation in regional and sub-regional planning groups.	Yes	Yes					
4828	SC-NERC COMPLIANCE	Regulated Electric Transmission/ Distribution	Develops, coordinates and oversees the Electric Utilities Group's compliance with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, which standards are enforceable through financial sanctions and are intended to ensure a reliable Bulk Electric System	Yes	Yes					
4829	SC-FERC TARRIFF AND COMPLIANCE	Regulated Electric Transmission/ Distribution	Develops, coordinates, and oversees the Electric Utilities Group's compliance with the Federal Energy Regulatory Commission (FERC) requirements pertaining to electric transmission; and administers the Company's Open Access Transmission Tariff (OATT) and Open Access Same-time Information System (OASIS). Administration of the Tariff, which outlines the "rules of the road" for transmission providers, the rates we charge, and the procedures and timelines in addressing customer requests (new load, new generators, or other requests to wheel power across the system).	Yes	Yes					
4831	SC-CUSTOMER SERV CALL CENTERS	All Customers	Answers and resolves customer inquiries, requests for services, for both regulated and non-regulated customers	Yes	Yes	Yes		Yes		
4833	SC-CUSTOMER SERVICE SUPPORT	All Customers	Provides support to customer services areas through customer information system project management and process control for customer information system changes, revenue assurance analysis, quality analysis, training, and customer and community communication.	Yes	Yes	Yes		Yes		
4835	SC-FIELD RESOURCE CENTER	All Customers	Plans work, and schedules and dispatches premise service activities to both regulated and non-regulated customers.	Yes	Yes	Yes				
4840	SC-COMMUNITY AFFAIRS	All Customers	Aligns business objectives with the integrated communications provided to our stakeholders. Including: media relations, coordination of community involvement programs, developing and managing a consistent communications program, and leading economic development for community growth	Yes	Yes	Yes				
4845	SC-SERVICE GUARD MARKETING	Products and Services Customers (Non-Regulated)	Provides and manages product development for consumer marketing with the primary focus on Service Guard (appliance options) a non-regulated business for utility/regulated customers.	Yes						

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4871	SC GAS ASSET OPTIMIZATION	Regulated Natural Gas Customers (No NEGD)	Provides for the development and execution of the gas supply portfolio plans for all gas distribution operating companies and regulated power plants fueled by natural gas. This plan includes purchasing strategies for the commodity and optimization and procurement of pipeline capacity and services.	Yes	Yes	Yes	Yes	Yes		
4872	SC-EXEC MGMT-UTILITIES	Regulated Utilities- Blended	Provides guidance, direction and management to overall utility operations and support services.	Yes	Yes	Yes	Yes	Yes		
4873	SC-ENERGY EFFICIENCY/DSM	All Customers	Supports the energy efficiency programs across the utilities supported by BHUH	Yes	Yes	Yes				
4874	SC-TECHNICAL TRAINING	All Customers	Provides technical training support for gas and electric utilities.	Yes	Yes	Yes	Yes			
4875	SC-HR ROTATION PROGRAM	Regulated Utilities- Blended	Provides a rotation program to develop staff for critical need areas within the utility operating companies of Black Hills Corporation	Yes	Yes	Yes	Yes			
4876	SC-PROCESS AND SYSTEM TRAINING	Regulated Utilities- Blended	Provide training and support for utility employees on current and future business process standardization efforts.	Yes	Yes	Yes	Yes			
4877	SC-FIELD SUPPORT SERVICES	Regulated Utilities- Blended	Responsible for managing the design, development, configuration, access, integration, testing and security of the ClickSoftware suite in order to provide a high quality, value-added solution to business managers and end users.	Yes	Yes	Yes	Yes			
4879	SC- LAND RIGHTS	Regulated Utilities- Blended	Manages the company's right of way activities.	Yes	Yes	Yes	Yes			
4880	SC-BUSINESS DEVELOPMENT	Regulated Utilities- Blended	Provides business and planning services, including marketing. Searches for competitive business opportunities and energy solutions	Yes	Yes	Yes				
All Other	All Other	SC All-Blended	Departments at Black Hills Corporation and subsidiaries that are not specifically listed in the Cost Allocation Manual or included in the master allocation design that charge BHSC will be allocated using the Blended Allocation Ratio.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	All Other  Departments are primarily for the service of the Utility but	SC All-Blended	Departments at Black Hills Corporation and subsidiaries that are not specifically listed in the Cost Allocation Manual or included in the master allocation design that charge BHSC will be allocated using the Blended	Yes		Yes	Yes Yes	Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4700	SC-ACCOUNTING SYSTEMS	SC All-Blended	Maintains the corporate- wide accounting systems of Black Hills Corporation, most notably the general ledger and financial statement preparation systems.		Yes	Yes	Yes	Yes	Yes	Yes
4702	SC-CORP DEVELOPMENT	SC All-Blended	Facilitates the development of the corporate strategy, prepares strategic plans, and evaluates potential business opportunities. Department also assists various subsidiaries with financial analysis and special projects.		Yes	Yes	Yes	Yes	Yes	Yes
4704	SC-TAX	SC All-Blended	Prepares quarterly and annual tax provisions of all Black Hills Corporation subsidiaries. Maintains and reconciles all current and deferred income tax general ledger accounts. Prepares tax filings and ensures compliance with applicable laws and regulations. Oversees various tax planning projects.		Yes	Yes	Yes	Yes	Yes	Yes
4705	SC-CREDIT AND RISK	SC All-Blended	Provides risk management, risk evaluation, and risk analysis services. Provides support to the Executive Risk Committee. Evaluates contract risks		Yes	Yes	Yes	Yes	Yes	Yes
4706	SC-LEGAL - CORPORATE	SC All-Blended	Provides legal counsel and services related to general business operations, including labor and employment law, finance, litigation, contracts, utility rates and regulation, financial reporting, Securities and Exchange Commission, Federal Energy Regulatory Commission and other state and federal compliance, environmental matters, real estate and other legal matters. Oversees the hiring and administration of external counsel. Provides legal support to various corporate development projects. Facilitates physical risk management strategies through the purchase and evaluation of various types of insurance coverage. Provides claims management services. Develops and enforces corporate governance policies and procedures in accordance with applicable laws and regulations. Provides oversight of compliance with Securities and Exchange Commission rules and regulations. Provides various recordkeeping and administrative services related to shareholder services. Assists in the administration of equity-based compensation plans.		Yes	Yes	Yes	Yes	Yes	Yes
4709	SC-ENVIRONMENTAL SERVICES	Asset Cost	Establishes policies and procedures for compliance with environmental laws and regulations. Researches emerging environmental issues and monitors compliance with environmental requirements. Oversees environmental clean-up projects. Obtains permits to support the business operations of Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4710	SC-EXECUTIVE MGMT	SC All-Blended	Provides overall oversight of Black Hills Corporation and its subsidiaries. Provides the Board of Directors information for decision making purposes.		Yes	Yes	Yes	Yes	Yes	Yes
4711	SC-SAFETY	Employee Ratio	Develops and implements safety planning activities and provides employee safety education. Administers the corporate safety program. Assists with compliance with DOT, OSHA, and MSHA regulations.		Yes	Yes	Yes	Yes	Yes	Yes
4712	SC-TREASURY	SC All-Blended	Coordinates activities related to securities issuance, including maintaining relationships with financial institutions, debt holders, rating agencies, equity analysts and equity investors. Performs accounting, cash management, debt compliance, and investing activities. Monitors capital markets to support financial planning for all subsidiaries. Oversees the administration of corporate pension and 401(k) plans.		Yes	Yes	Yes	Yes	Yes	Yes
4715	SC-F&A LEADERSHIP	SC All-Blended	Provides management and administrative support for accounting and finance functions of the Company's regulated and non-regulated businesses including external audit coordination. Responsible for closing the general ledger for the Company's regulated and non-regulated businesses. Oversees the corporate consolidation of subsidiary financial statements. Prepares monthly internal financial reports for management. Prepares quarterly and annual financial reports to the Securities and Exchange Commission, financial statements to banks and quarterly and annual financial statements filed with FERC. Researches emerging accounting issues and assists with the compliance of new accounting rules and regulations.		Yes	Yes	Yes	Yes	Yes	Yes
4720	SC-HUMAN RESOURCES	Employee Ratio	Provides general Human Resources support services to the subsidiaries through the administration of policies and labor contracts for all facets of Human Resources, including employee relations, labor relations, talent management, recruiting and employment staffing, compensation and benefits administration. Processes payroll including but not limited to time reporting, calculation of salaries and wages, payroll tax reporting and compliance reports for Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4721	SC-HR TOTAL REWARDS	Employee Ratio	Administers policies related to compensation and benefits. Oversees the self-insured medical benefits plans and other pooled benefits and provides support to the third party administrators of the plans		Yes	Yes	Yes	Yes	Yes	Yes
4722	SC-HR TALENT MANAGEMENT	Employee Ratio	Provides for employee and leadership development, succession planning, performance management, goal alignment, employee engagement, strategic workforce planning, talent assessment and general HR support for Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4725	SC-INTERNAL AUDIT	SC All-Blended	Reviews internal controls and procedures to ensure assets are safeguarded and transactions are properly authorized and recorded. Oversees the Sarbanes Oxley compliance efforts.		Yes	Yes	Yes	Yes	Yes	Yes

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG		WRDC (Coal Mine)	BHWY and BHEG (Elec Gen- IPP)
4726	SC-IN-HOUSE CORPORATE SOLUTIONS (Communications)	SC All-Blended	Develops strategies and implements programs for effective communication with internal and external stakeholders. Develops and manages measured, and coordinated advertising. Designs and develops communication strategies and materials for the company.		Yes	Yes	Yes	Yes	Yes	Yes
4728	SC-POWER DELIVERY MGMT	Power Generation Capacity	Performs resource planning, power delivery management, strategic planning, and construction management for the corporation's power generation assets.		Yes					Yes
4729	SC-PROPERTY ACCOUNTING	Asset Cost	Maintains the accounting records for property, plant and equipment for the majority of subsidiaries of the corporation. Assists in compliance with regulatory accounting requirements as it relates to property. Prepares various operating and financial reports for management.		Yes	Yes	Yes	Yes	Yes	Yes
4730	SC-RECORDS MGMT	SC All-Blended	Administers and maintains the records retention policies and procedures of the corporation. Manages and maintains the content management software.		Yes	Yes	Yes	Yes	Yes	Yes
4731	SC-SUPPLY CHAIN MGMT	Brics)	Manages contracts, including drafting, negotiating, reviewing and interpreting contracts. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. Manages inventory, obsolescence and scrap. Ensure availability of proper materials.		Yes	Yes	Yes		Yes	Yes
4732	SC-SUPPLY CHAIN	SC All-Blended (No BHES)	Manages contracts, including drafting, negotiating, reviewing and interpreting contracts. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. Manages inventory, obsolescence and scrap. Ensure availability of proper materials. Pull, restock and stage materials. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders.		Yes	Yes	Yes		Yes	Yes
4734	SC-FLEET SERV	SC All-Blended	Manages fleet expense cards, fleet contracts, vehicle purchasing, replacement, disposal, licensing/registration and titling. Advises on vehicle maintenance and repairs, alternative fuel selections and implementations.		Yes	Yes	Yes	Yes	Yes	Yes
4736	SC-REAL ESTATE & FACILITIES	SC All-Blended	Provides facility, construction, and real estate management services for corporate-wide facilities. Supports disaster recovery and business continuation planning.		Yes	Yes	Yes	Yes	Yes	Yes
4741	SC-GOVERNMENTAL AFFAIRS		Advances corporate objectives by initiating, influencing, monitoring, and researching government legislation and policies. Acts as a liaison with legislators and other governmental officials. Maintains relationships with federal, state and other governmental bodies.		Yes	Yes	Yes	Yes	Yes	Yes
4742	SC-IT ADMINISTRATION	SC All-Blended	Provides guidance, governance, and strategic planning to the overall information technology operations.		Yes	Yes	Yes	Yes	Yes	Yes
4743	SC-IT BUSINESS APPLICATIONS FIN & HR SYSTEMS	SC All-Blended	Manages, maintains, and enhances the finance, human resource, web-based service and enterprise wide business applications.		Yes	Yes	Yes	Yes	Yes	Yes
4744	SC-IT BUS APPLICATIONS REG CUSTOMER SYSTEMS	All Customers	Manages, maintains, and enhances the customer service enterprise wide business applications.		Yes	Yes				
4745	SC-IT BUS APPS-WEB & ECM	SC All-Blended	Manages, maintains, and enhances the internal (intranet) and external web applications.		Yes	Yes	Yes	Yes	Yes	Yes
4746	SC-IT BUS APPS-WHLSLE&ENTPRISE.Dpt	Regulated Utilities- Blended	Manages, maintains, and enhances the electric and natural gas utility enterprise wide business applications.		Yes	Yes	Yes			
4747	SC-IT INFRASTRUCTURE	SC All-Blended	Manages, maintains, and enhances data center operations, infrastructure servers, storage, system software, enterprise architecture and corporate databases. Supports the data and voice communication needs for the company and provides telecommunication expense management services as well as technology support services and field service support for the company.		Yes	Yes	Yes	Yes	Yes	Yes
4749	SC-IT USER SERVICES.Dpt	SC All-Blended	Manages, maintains, and enhances the analytics and integration enterprise wide business applications.		Yes	Yes	Yes	Yes	Yes	Yes
4751	SC-IT COMPLIANCE/SECURITY	SC All-Blended	Responsible for internal and external audit compliance, disaster recovery, change management and legal compliance related to technology		Yes	Yes	Yes	Yes	Yes	Yes
4754	SC-GENERATION PLANT OPERATIONS	Nameplate Generation Capacity	Operates and manages the generation for BHCOE and BHCIPP		Yes					Yes
4755	SC-IT PMO / HELPDESK	SC All-Blended	Manages, maintains, and enhances the governance, project management, IT asset/service management, and enterprise content management business applications.		Yes	Yes	Yes	Yes	Yes	Yes
4756	SC-CPGS PLANT OPERATIONS	Nameplate Generation Capacity	Operates and manages the new generation for the Cheyenne Prairie Generation Station.		Yes					Yes

Department #	Name	Primary Allocation Ratio	Description / Functions	Centralized Utility	Electric	Natural Gas Utilities	RMNG	BHES	WRDC (Coal	BHWY and BHEG
·			•	Departments	Utilities (EU)	(NGU)			Mine)	(Elec Gen- IPP)
4770- 4781, 4796	SC-BENEFIT LOADINGS	By Function	Records overhead benefit costs loaded to labor costs dependent on assigned allocation ratio		Yes	Yes	Yes	Yes	Yes	Yes
4791	SC-ASSET TRANSMISSION	Regulated Electric Transmission/ Distribution	Allocates property assets (transmission)	Yes	Yes					
4792	SC- ASSET CUSTOMER	All Customers	Allocates property assets (customer)	Yes	Yes	Yes				
4793	SC – ASSET BLENDED	Blended Regulated Natural Gas (No BHEA)	Allocates property assets (service company)		Yes	Yes	Yes	Yes	Yes	Yes
4794	SC-BENEFIT POOLED	Employee Ratio	Records pooled benefit costs, primarily related to health and welfare for Black Hills Corporation and its subsidiaries.		Yes	Yes	Yes	Yes	Yes	Yes
4795	SC-ACCOUNTING ACCRUAL ENTRIES	SC All-Blended	Records accrual of certain charges not related to specific departments or not significant enough to allocate to each department		Yes	Yes	Yes	Yes	Yes	Yes
4803	SC- PIPELINE AND SYSTEM INTEGRITY	Regulated Natural Gas Blended	Provides management support to gas engineering and metering activities with emphasis on reliability, customer service, compliance and safety.	Yes		Yes	Yes			
4804	SC-COMPLIANCE GAS	Regulated Natural Gas Blended	Provides engineering support of gas transmission and distribution facilities including planning, monitoring, and analyses.	Yes		Yes	Yes			
4805	SC-ASSET PLANNING & DATA MANA	Regulated Natural Gas Blended	Provides engineering support of gas transmission and distribution facilities including planning, monitoring, and analyses.	Yes		Yes	Yes			
4806	SC-PIPELINE SAFETY AND COMPLIANCE GAS	Regulated Natural Gas Blended	Responsible for implementing and reporting DOT regulatory requirements, maintaining standards, and supporting GIS Smallworld mapping.	Yes		Yes	Yes			
4810	SC- RELIABILITY CENTER	Regulated Electric Transmission/ Distribution	Operates the Company's transmission and distribution systems on a 24/7 basis; and plans and directs switching and outage restoration efforts for both emergency and planned outages.	Yes	Yes					
4811	SC-OPERATIONAL SERVICES	Regulated Electric Transmission/ Distribution	Develops, coordinates and oversees the technical support piece of the Electric Utilities Group's compliance with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, which standards are enforceable through financial sanctions and are intended to ensure a reliable Bulk Electric System.	Yes	Yes					
4812	SC-TRANSMISSION SERVICES MGMT	Regulated Electric Transmission/ Distribution	For all three electric utilities, transmission Services directs the 24/7 Reliability Centers in Rapid City and Pueblo, Transmission Planning, NERC Compliance, FERC Compliance, Vegetation Management, and Transmission Tariff Administration.	Yes	Yes					
4813	SC-T&D ENGINEERING	Regulated Electric Transmission/ Distribution	For all three electric utilities, T&D Engineering provides engineering support of electric transmission and distribution facilities including planning, monitoring, and analyses.	Yes	Yes					
4814	SC-SUBSTATION/PROTECTION ENGINEERING	Regulated Electric Transmission/ Distribution	For all three electric utilities, designs, coordinates, and oversees the electric substation infrastructure for all Black Hills Energy electric utilities. This includes substation designs, standards, protective relaying, and NERC compliance associated with the same. Will include work with Transmission and Distribution assets.	Yes	Yes					
4815	SC-ENGINEERING RESOURCES	Regulated Electric Transmission/ Distribution	For all three electric utilities, Working with other departments coordinates talent development of engineers responsible for all Black Hills Energy electric utilities. Includes identifying project assignments in other groups, training opportunities, and rotational positions.	Yes	Yes					
4816	SC-GENERATION DISPATCH POWER MARKETING	GDPM	Manages the three electric utilities and others generation units dispatch and energy management services to generating resources on a system wide, least-cost basis.		Yes					Yes
4817	SC-ELEC OPS COMMUNICATIONS	Regulated Electric Blended	Manages and supports the Electric Utilities radio, fiber and microwave based communication needs for the electric operating companies. Provides telecommunication expense management for the electric operating companies.	Yes	Yes					
4818	SC-MAINTENANCE	Regulated Electric Transmission/ Distribution	For all three electric utilities, Maintenance Services supports the maintenance of the substation and lines within the Electric Utilities.	Yes	Yes					

		Primary Allocation								BHWY
Department #	Name	Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	and BHEG (Elec Gen- IPP)
4819	SC-VEGETATION MANAGEMENT	Regulated Electric Transmission/ Distribution	For all three electric utilities, Vegetation Management supports the vegetation management programs across all Electric Utilities.	Yes	Yes					,
4820	SC- ELECTRIC ASSET MANAGEMENT	Regulated Electric Blended	Engineering Services supports transmission and distribution activities within the Electric Utilities group including engineering, distribution planning, T and D asset management, metering, substation maintenance, , GIS/drafting and outage management systems.	Yes	Yes					
4821	SC-PWR SUPPLY AND RENEWABLES	Regulated Electric Blended	Provides for the planning, development, and management of power supply and renewable strategies for electric operating companies.	Yes	Yes					
4822	SC-REGULATORY AND FINANCIAL MANAGEMENT	SC All-Blended	Provides regulatory financial support for all electric and gas utility regulatory filings including: rates cases, class cost of service, rate design, reporting, adjustment clauses, riders, trackers and other regulatory issues. Additionally, provides financial management to the Company's regulated and non-regulated businesses. Oversees the accumulation of subsidiary financial budgets and forecasts. Provides the consolidation of the corporate wide- budget and forecast. Guides the preparation of strategic plans.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4823	SC-RELIABILITY AND CONTROL	Regulated Electric Transmission/ Distribution	For all three electric utilities, supports the maintenance of control and protective relaying equipment within the Electric Utilities.	Yes	Yes					
4824	SC-GAS METERING SERV	Regulated Natural Gas Customers	Manages and provides gas measurement support to field operations located in gas service states.	Yes		Yes	Yes			
4825	SC-ASSET PROGRAMS	All Customers	Researches, builds and implements utility software solutions for the benefit of electric and gas operations. This department supports Smallworld GIS, Click, STORMS work management, PowerOn outage management, Korterra line locates, and GTViewer mobile maps.	Yes	Yes	Yes				
4826	SC-ELECTRIC METER SERVICES	Regulated Electric Customers	Manages and provides electric measurement support to field operations located in electric service states. Also manages AMI system for all electric entities.	Yes	Yes					
4827	SC-TRANSMISSION PLANNING	Regulated Electric Transmission/ Distribution	Performs near and long-term (1-20 year) transmission planning to determine cost-effective transmission additions needed to reliably serve projected customer load. Performs studies in support of large customer requests and the FERC Tariff; and supports operational studies for planned outages. Provides support in meeting compliance with NERC Standards; and represents the corporation in regional and sub-regional planning groups.	Yes	Yes					
4828	SC-NERC COMPLIANCE	Regulated Electric Transmission/ Distribution	Develops, coordinates and oversees the Electric Utilities Group's compliance with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, which standards are enforceable through financial sanctions and are intended to ensure a reliable Bulk Electric System	Yes	Yes					
4829	SC-FERC TARRIFF AND COMPLIANCE	Regulated Electric Transmission/ Distribution	Develops, coordinates, and oversees the Electric Utilities Group's compliance with the Federal Energy Regulatory Commission (FERC) requirements pertaining to electric transmission; and administers the Company's Open Access Transmission Tariff (OATT) and Open Access Same-time Information System (OASIS). Administration of the Tariff, which outlines the "rules of the road" for transmission providers, the rates we charge, and the procedures and timelines in addressing customer requests (new load, new generators, or other requests to wheel power across the system).	Yes	Yes					
4831	SC-CUSTOMER SERV CALL CENTERS	All Customers	Answers and resolves customer inquiries, requests for services, for both regulated and non-regulated customers	Yes	Yes	Yes		Yes		
4833	SC-CUSTOMER SERVICE SUPPORT	All Customers	Provides support to customer services areas through customer information system project management and process control for customer information system changes, revenue assurance analysis, quality analysis, training, and customer and community communication.	Yes	Yes	Yes		Yes		
4835	SC-FIELD RESOURCE CENTER	All Customers	Plans work, and schedules and dispatches premise service activities to both regulated and non-regulated customers.	Yes	Yes	Yes				
4840	SC-COMMUNITY AFFAIRS	All Customers	Aligns business objectives with the integrated communications provided to our stakeholders. Including: media relations, coordination of community involvement programs, developing and managing a consistent communications program, and leading economic development for community growth	Yes	Yes	Yes				
4845	SC-SERVICE GUARD MARKETING	Products and Services Customers (Non-Regulated)	Provides and manages product development for consumer marketing with the primary focus on Service Guard	Yes						

Department #	Name	Ratio	Description / Functions	Centralized Utility Departments	Electric Utilities (EU)	Natural Gas Utilities (NGU)	RMNG	BHES	WRDC (Coal Mine)	and BHEG (Elec Gen- IPP)
4871	SC GAS ASSET OPTIMIZATION	Regulated Natural Gas Customers (No NEGD)	Provides for the development and execution of the gas supply portfolio plans for all gas distribution operating companies and regulated power plants fueled by natural gas. This plan includes purchasing strategies for the commodity and optimization and procurement of pipeline capacity and services.	Yes	Yes	Yes	Yes	Yes		
4872	SC-EXEC MGMT-UTILITIES	Regulated Utilities- Blended	Provides guidance, direction and management to overall utility operations and support services.	Yes	Yes	Yes	Yes	Yes		
4873	SC-ENERGY EFFICIENCY/DSM	All Customers	Supports the energy efficiency programs across the utilities supported by BHUH	Yes	Yes	Yes				
4874	SC-TECHNICAL TRAINING	All Customers	Provides technical training support for gas and electric utilities.	Yes	Yes	Yes	Yes			
4875	SC-HR ROTATION PROGRAM	Regulated Utilities- Blended	Provides a rotation program to develop staff for critical need areas within the utility operating companies of Black Hills Corporation	Yes	Yes	Yes	Yes			
4876	SC-PROCESS AND SYSTEM TRAINING	Regulated Utilities- Blended	Provide training and support for utility employees on current and future business process standardization efforts.	Yes	Yes	Yes	Yes			
4877	SC-FIELD SUPPORT SERVICES	Regulated Utilities- Blended	Responsible for managing the design, development, configuration, access, integration, testing and security of the ClickSoftware suite in order to provide a high quality, value-added solution to business managers and end users.	Yes	Yes	Yes	Yes			
4879	SC- LAND RIGHTS	Regulated Utilities- Blended	Manages the company's right of way activities.	Yes	Yes	Yes	Yes			
4880	SC-BUSINESS DEVELOPMENT	Regulated Utilities- Blended	Provides business and planning services, including marketing. Searches for competitive business opportunities and energy solutions	Yes	Yes	Yes				
All Other	All Other	SC All-Blended	Departments at Black Hills Corporation and subsidiaries that are not specifically listed in the Cost Allocation Manual or included in the master allocation design that charge BHSC will be allocated using the Blended Allocation Ratio.	Yes	Yes	Yes	Yes	Yes	Yes	Yes

# Black Hills Utility Holdings, Inc.

## **Cost Allocation Manual**

Effective Date: July 14, 2008

Amended: August 1, 2009

Amended: January 1, 2011

Amended: January 1, 2012

Amended: January 1, 2013

Amended: December 1, 2013

Amended: December 1, 2014

Amended: December 1, 2015

Amended: February 12, 2016

Amended: December 1, 2016

Amended: December 1, 2017

# **Black Hills Utility Holdings, Inc. Cost Allocation Manual**

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### Introduction

The purpose of this cost allocation manual is to document the allocation processes of Black Hills Utility Holdings, Inc. (BHUH), from recording the original transaction through the allocation of costs to entities receiving services from BHUH. Various topics to be addressed include the organization of BHUH, the recording of transactions, calculating and assigning allocation ratios, and recording allocation transactions.

BHUH began formal operations in July 2008. The company was formed in anticipation of the purchase of certain gas and electric utility operating companies from Aquila, Inc. BHUH is a wholly owned subsidiary of Black Hills Corporation (BHC). BHUH is the parent company of each of the acquired Aquila and SourceGas operating companies. In addition, BHUH also supports the operations of BHC's utility and utility like operating companies, together the "operating companies". These costs are allocated to the operating companies requesting service using formal cost allocation methodologies. Departments that provide other support services to the operating companies as well as other BHC subsidiaries are held at Black Hills Service Company, LLC (BHSC). BHSC cost allocation methodologies are discussed in a separate cost allocation manual.

### **BHUH Organization**

BHUH is organized into operating departments based upon the services that those departments provide to the operating companies. A list of each department, as well as a brief description of the services they provide, is attached hereto as Appendix 1.

### **Direct Costs versus Indirect Costs**

A key issue in distributing BHUH costs is distinguishing between direct costs and indirect costs. The account coding will change depending on whether the cost is a direct or indirect cost. Below is a summary of each of these types of costs and examples of these costs.

**Direct costs** are those costs that are specifically associated with an identified operating company. This means that it is known exactly to which operating company these costs relate. Here are some examples:

- Advertising is prepared for a new customer information and instructional advertising campaign in the state of Nebraska. The advertising costs incurred are specifically associated with an identified operating company. Therefore, this would be a direct cost.
- The Vice President of Utilities attends a meeting on the proposed budget for the state of Iowa. The labor costs incurred in attending this meeting are specifically associated with an identified operating company. Therefore, this would be a direct cost.
- A trainer from Gas Engineering travels to various Black Hills Kansas Gas field offices to conduct training. These travel costs are specifically associated with an identified operating company. Therefore, this would be a direct cost.

*Indirect costs* are those costs that are not associated with an identified operating company. This means that the costs indirectly support all companies or directly support the operation of BHUH. In other words, costs that would be directly charged to BHUH using the definition and examples above would be classified as indirect costs. Here are some examples:

- Advertising is prepared for all customers to inform them of changes to electronic payment processes. These advertising costs incurred apply to all operating companies. Therefore, this would be an indirect cost.
- The Vice President of Utilities attends a meeting to present the consolidated budget for all gas
  utilities to the Board of Directors. The labor costs incurred in attending this meeting are not
  specifically associated with an identified operating company. Therefore, this would be an indirect
  cost.
- A trainer from Gas Engineering travels to Rapid City to present a training program to operating company executives. These travel costs are specifically associated with BHUH. Therefore, this would be an indirect cost.

It is important to consider two things when determining if a cost is a direct cost or an indirect cost: (1) Can the costs coded to a specific operating company or group of operating companies be substantiated, and (2) Can it be substantiated that a utility-based subsidiary is not subsidizing the operations of a non-utility based subsidiary with the time and expenses that have been charged to them. A certain level of judgment will be involved when deciding whether a particular cost should be directly charged or indirectly allocated.

There are certain costs that will always be considered either direct or indirect costs. Below is a list of significant BHUH expenses that follow these rules:

Always considered direct costs:

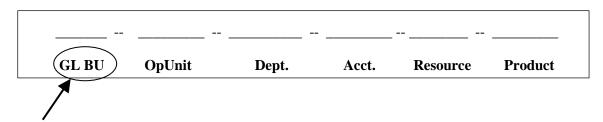
- Capitalized costs for non-BHUH projects (including capitalized labor)
- Retiree healthcare costs

Always considered indirect costs:

- Depreciation of BHUH and BHSC assets
- Intercompany interest expense and income related to the BHUH balance payable or receivable from the Utility Money Pool

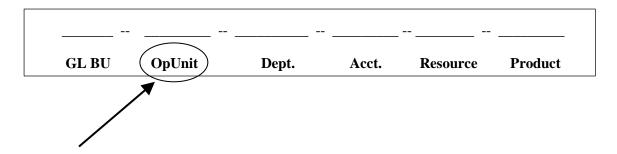
# **Transaction Coding**

The Holding Company uses an accounting software system to accumulate and distribute both direct costs and indirect costs. It is important to have costs properly classified as direct or indirect. Direct costs will be directly charged to the subsidiaries, while indirect costs will be allocated to the subsidiaries using pre-defined allocation factors. Below is a description of the coding.



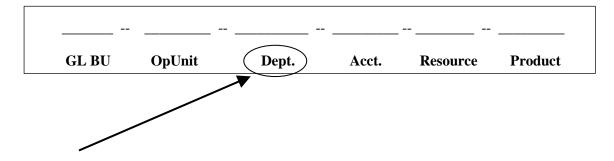
General Ledger Business Unit (GLBU):

- Five (5) character numeric field.
- The GLBU field is used to identify the company that will be receiving the charges, either as a direct cost or an indirect cost.
- The GLBU field is required on all accounting transactions
- The GLBU field will default based on the operating unit (Op Unit), as described below.



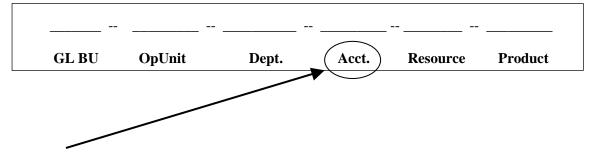
## **Operating Unit (OpUnit):**

- Six (6) character numeric field.
- The Op Unit field is used to identify the code block as either a direct cost or an indirect cost.
- If the cost is a direct cost, the Op Unit field will be populated using an Op Unit at the specific company being charged.
- The Op Unit field will be populated using one of the BHUH Op Units for indirect costs. Indirect costs also include costs from other areas of the company that are directly related to the Utility Holding Company.



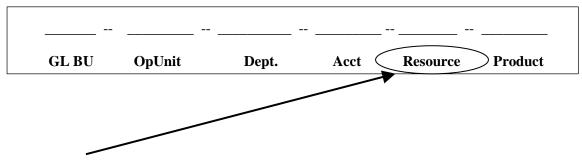
### Department (Dept.):

- Four (4) character numeric field
- The Department field is used to identify where the cost(s) originated
- The Department field is required on all income statement and capital transactions
- Every Department is assigned to a GLBU



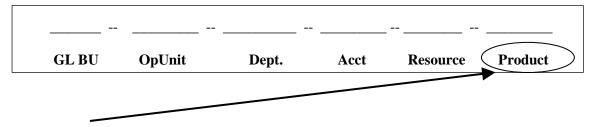
### Account (Acct.):

- Six (6) character numeric field
- The account field is required on all accounting transactions
- All companies will generally use the same Chart of Accounts although some values will be specific to certain companies.



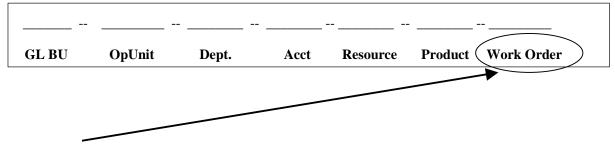
### Resource:

- Four (4) character numeric field
- A Resource is used to identify types of costs
- The Resource field is required for all income statement and capital accounting transactions



### Product:

- Three (3) character numeric field
- A Product is used to identify business lines
- Examples of the product line include electric, gas, and non-regulated



#### Work Order:

- Alpha or numeric field
- Represents the collection of costs to allow the monitoring of a job or group of costs
- The work order field is required on all construction work in progress transactions

# Timekeeping

All BHUH employees are required to complete a timesheet for each two week pay period. Timesheets of appropriate employees must be approved by a supervisor.

Employees must complete the coding string, as previously discussed, for each time record. The timesheet will default the department and resource. However, the employee is responsible for providing the remainder

of the code block. Employees are encouraged to enter their time in one half hour increments, although they may use smaller increments if they so choose.

# **Loadings**

Certain benefits that are provided to employees become an inherent cost of labor. To account for these benefits and allow for them to be charged to the appropriate subsidiary, they become part of a loading rate that is added on to each payroll dollar.

The loading rates are calculated at the beginning of the year based on budgeted benefit expenses and budgeted labor. Benefit costs and loading rates are reviewed, and updated as needed. Below is a list of components of the loading rates:

### General labor loadings:

- Compensated Absences: including but not limited to paid time off (PTO), Holiday, Jury duty, Funeral pay, United Way day, Short-term Disability and Annual Physical appointment.
- Payroll Taxes: including but not limited to FICA, FUTA SUTA and city taxes.
- Employee Benefits: including but not limited to health and medical, 401K match and fees, Pension, Retiree healthcare and associated fees.
- Incentives: including but not limited to Non-officer incentive plans, Restricted Stock and Stock Option expense.

Loadings calculated on payroll are based on estimated benefit costs, therefore, differences between actual benefits will be inherent to this process. After the difference is calculated and reviewed for reasonableness, it is recorded to a separate department, and indirectly allocated to Black Hills Corporation subsidiaries.

### **Allocation Ratios**

As previously stated, BHUH costs are either directly charged to an operating company, or indirectly allocated when the cost is not associated with a specific operating company. Indirect costs are allocated

using one of several pre-defined allocation ratios. Each department has been assigned one of these allocation ratios. All indirect costs of that department are then allocated using that ratio. When determining which allocation ratio should be assigned to each department, a ratio was selected based on the specific cost driver of that department. For instance, the expenses incurred by the Customer Service - Rapid City department are primarily related to the support of all utility customers. In this example, the cost driver for the Customer Service - Rapid City department indirect costs is the number of customers. Therefore, the indirect costs will be allocated based upon the Customer Count Ratio.

When determining how the assigned ratio should be applied, consideration is given to the operating companies or segments that are supported by the department. For instance, the Appliance Technical Training department was determined to have a cost driver of number of Service Guard customers. Therefore, the indirect costs will be allocated based on the Customer Count Ratio using Service Guard customers whereas the Customer Service – Rapid City department used in the previous example would be allocated based on the Customer Count Ratio using Regulated Utility customers.

For certain departments, a specific cost driver may not be clearly identifiable or the driver may not be cost effective to compute on a continuing basis. In these instances, a three-pronged general allocation ratio is used. This ratio equally weights three different general ratios: Gross Margin, Asset Cost (net plant), and Payroll Dollars (direct payroll). These factors were chosen to be included in the Blended Allocator Ratio because they best allocate costs based on the diverse nature of BHUH operations.

A list of all allocation ratios, including a brief description of the ratio, the basis for the calculation of the ratio, and the department to which that ratio has been assigned, is attached hereto as Appendix 2.

# **Changing Allocation Ratios**

Allocation ratios are set at the first of the year, based upon financial information from the trailing twelve months ending September 30<sup>th</sup> for the prior year. The ratios for Asset Cost and Customer Count are based on values as of the previous period ending September 30<sup>th</sup> for the prior year. The ratios for Gross Margin and Payroll Dollars, are based on values for the trailing twelve months ended September 30<sup>th</sup> for the prior year.

Certain events may occur during the year that are deemed to be significant to BHUH that will require corresponding adjustments be made to the allocation ratios. Examples of these types of events include acquisitions, divestitures, new generation, significant change in asset base, significant staffing changes or new, significant revenue streams.

When these events occur, indirect allocation ratios will be adjusted. When adjusting allocation ratios, it is the policy of BHUH to not recalculate all allocation ratios. Rather, allocation ratios will be adjusted with pro forma adjustments for the subsidiary with a significant change in a specific allocation ratio base. For example, if an acquisition occurs during the middle of the year, pro forma values will be loaded. Asset values at the time of the acquisition would be used, as well as pro forma gross margin and payroll dollars for a 12 month period. It should be noted that estimations may be required, especially when significant additions or changes are expected as a result of the acquisition.

It should also be noted that asset values, gross margin, and payroll dollars for the other companies will not be changed. However, the ratios will change because the base against which the ratios are calculated will change. Operating companies would normally see decreased ratio values with acquisitions, and increased ratio values with divestitures. Changes will be effective as of the beginning of the month following the significant event, and will apply to all transactions for the month.

# **Subsidiary Payment for Direct and Indirect Charges**

It is the policy of BHUH to insure payments are made by the subsidiary companies for direct and indirect charges. All payments for direct and indirect charges must be remitted to BHUH by the end of the following month. BHUH will monitor payments received during the month to insure that all subsidiary companies make payment in a timely manner.

# **Allocating Fixed Assets**

BHUH maintains certain fixed assets that are used by and benefit all operating companies. These fixed assets primarily consist of computer hardware and software and shared office facilities. Because these fixed assets support all operating companies, they are allocated monthly as part of the month-end close process, along with the allocation of these assets' accumulated depreciation. Construction Work in Process balances are not allocated.

Allocated assets and accumulated depreciation are maintained in separate general ledger accounts at the subsidiary level so they are not intermingled with regular subsidiary fixed assets, and for ease of reconciliation.

The allocation ratio used to allocate assets and accumulated depreciation will vary depending on the type of asset being allocated, and will be based on the function the asset is serving. For instance, customer service software is allocated based on the Customer Count Ratio, while general office space is allocated using the Blended Allocator Ratio.

# **Allocating Capitalized Inventory**

The gas and electric meter shops are BHUH departments serving the utility operating companies. As meters are purchased, they are recorded as capitalized inventory (charged to plant-in-service) by BHUH, as the meters are issued out of inventory to the specific operating company those assets are transferred from BHUH to the specific utility operating companies. All unassigned gas and electric meter investment and accumulated depreciation reserve is held at BHUH, and is allocated to the applicable utilities monthly. The Customer Count Ratio is used for this allocation.

### **Appendix 1- BHUH Departments**

The following departments are included in BHUH as of 01/01/2017 and are subject to changes as required to support evolving business requirements.

### **UHC-GAS ASSET OPTIMIZATION (2301)**

Description: Provides for the development and execution of the gas supply portfolio plans for all gas distribution operating companies and regulated power plants fueled by natural gas. This plan includes purchasing strategies for the commodity and optimization and procurement of pipeline capacity and services. (Customer Count Ratio)

### UHC-ASSETS-LINCOLN CCTR/CAD (4247)

Description: The assets invested for the Computer Aided Dispatch system for Black Hills Energy. This includes capitalized and centrally located hardware and software costs to service multiple utilities. Depreciation expense and maintenance expense on this group of assets is also charged from here. (Customer Count Ratio)

#### **UHC-BENEFITS LOADINGS (4470)**

Description: Utilized for charging out benefits, including medical costs, to the operating departments. Provided that all labor is loaded with overhead loadings, only the residual charges are to the operating companies. (Blended)

### **UHC-REVENUE AND COGS (4471)**

Description: Utilized for revenue and cost of goods sold within the customer billing system, CIS+, relating to charges within customer accounts that do not relate to a specific operating unit. (Blended)

### UHC-ACCOUNTING ACCRUAL ENTRIES (4474)

Description: Created to facilitate the accrual of certain charges not related to specific departments. (Blended)

### UHC-ASSETS-BLENDED-ALL (4478)

Description: The assets invested and centrally located for gas and electric operating companies where the Blended Ratio is determined to be the best form of allocation. Depreciation expense on this group of assets is also charged from here. (Blended)

### UHC-ASSETS-BLENDED-ELECTRIC (4479)

Description: The assets invested and centrally located for electric operating companies where the Blended Ratio is determined to be the best form of allocation. Depreciation expense on this group of assets is also charged from here. (Blended)

#### UHC-ASSETS-BLENDED-GAS (4480)

Description: The assets invested and centrally located for gas operating companies where the Blended Ratio is determined to be the best form of allocation. Depreciation expense on this group of assets is also charged from here. (Blended)

### UHC-ASSETS-BLENDED-CUSTOMERS (4481)

Description: The assets invested and centrally located for gas and electric companies where the Customer Ratio is determined to be the best form of allocation. Depreciation expense on this group of assets is also charged from here. (Customer Count Ratio)

### UHC- ASSET PLANNING & DATA MANAGEMENT (5104)

Description: Provide expertise in collecting, managing and utilizing operations data to make decisions regarding investment strategy. Department consists of the Utility Systems (responsible for work asset management "WAM" system), GIS, Land Rights and Asset Planning (system project management) functions. (Blended)

### UHC-DESIGN ENGINEERING GAS (5105)

Description: Provides engineering support of gas transmission, distribution facilities, storage, gas processing, and compression facilities including planning, monitoring, and analyses. Provides project management support to operations, business development, gas control and tech services activities. (Blended)

### UHC- PIPELINE SAFETY AND COMPLIANCE SUPPORT (5106)

Description: Responsible for enhancing pipeline safety by monitoring and evaluating federal, state, and local regulations, implementing new processes related to regulations, maintaining company standards documentation, ensuring compliance data integrity, facilitating regulatory audits and general regulatory communication, preparing required state and federal reports, overseeing required gas utility programs, and working on pipeline safety initiatives. (Blended)

### UHC-TRANSMISSION PLANNING (5107)

Description: Performs near and long-term (1-20 year) transmission planning to determine cost-effective transmission additions needed to reliably serve projected customer load. Performs studies in support of large customer requests and the FERC Tariff; and supports operational studies for planned outages. Provides support in meeting compliance with NERC Standards; and represents the corporation in regional and sub-regional planning groups. (Transmission)

#### UHC-NERC COMPLIANCE (5108)

Description: Develops, coordinates and oversees the Electric Utilities Group's compliance with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, which standards are enforceable through financial sanctions and are intended to ensure a reliable Bulk Electric System. (Transmission)

### UHC-FERC TARIFF AND COMPLIANCE (5109)

Description: Develops, coordinates, and oversees the Electric Utilities Group's compliance with the Federal Energy Regulatory Commission (FERC) requirements pertaining to electric transmission; and administers the Company's Open Access Transmission Tariff (OATT) and Open Access Same-time Information System (OASIS). Administration of the Tariff, which outlines the "rules of the road" for transmission providers, the rates we charge, and the procedures and timelines in addressing customer requests (new load, new generators, or other requests to wheel power across the system). (Transmission)

### UHC-T AND D RELIABILITY CTR (5110)

Description: Operates the Company's transmission and distribution systems on a 24/7 basis; and plans and directs switching and outage restoration efforts for both emergency and planned outages. (Transmission)

### UHC-NERC TRANSMISSION AND TECH SUPPORT (5111)

Description: Develops, coordinates and oversees the technical support piece of the Electric Utilities Group's compliance with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards, which standards are enforceable through financial sanctions and are intended to ensure a reliable Bulk Electric System. (Transmission)

### UHC-TRANSMISSION SERVICES MGMT (5112)

Description: For all three electric utilities (BHP, CLFP and Colorado Electric), Transmission Services directs the 24/7 Reliability Centers in Rapid City and Pueblo, Transmission Planning, NERC Compliance, FERC Compliance, Vegetation Management, and Transmission Tariff Administration. (Transmission)

### UHC-T&D ENGINEERING (5113)

Description: For all three electric utilities (BHP, CLFP and Colorado Electric), T&D Engineering provides engineering support of electric transmission and distribution facilities including planning, monitoring, and analyses. (Transmission)

### UHC-SUBSTATION/PROTECTION ENG (5114)

Description: Designs, coordinates, and oversees the electric substation infrastructure for all Black Hills Energy electric utilities. This includes substation designs, standards, protective relaying, and NERC compliance associated with the same. Will include work with Transmission and Distribution assets. (Transmission)

#### **UHC-ENGINEERING RESOURCES (5115)**

Description: Working with other departments coordinates talent development of engineers responsible for all Black Hills Energy electric utilities. Includes identifying project assignments in other groups, training opportunities, and rotational positions. (Transmission)

### **UHC-ELEC OPS COMMUNICATIONS (5117)**

Description: Manages and supports the Electric Utilities radio, fiber and microwave based communication needs for the electric operating companies. Provides telecommunication expense management for the electric operating companies. (Blended)

### **UHC-ELEC MAINT SERVICES (5118)**

Description: Maintenance Services supports the maintenance of the substation, line, control, and protective relaying equipment within the Electric Utilities. (Transmission)

### **UHC-VEGETATION MANAGEMENT (5119)**

Description: Vegetation Management supports the vegetation management programs across all Electric Utilities. (Transmission)

### UHC-ELEC ENGINEERING SERV (5120)

Description: Engineering Services supports transmission and distribution activities within the Electric Utilities group including engineering, distribution planning, T&D asset management, metering, substation maintenance, GIS/drafting and outage management systems. (Blended)

### UHC-PWR SUPPLY AND RENEWABLES (5121)

Description: Provides for the planning, development, and management of power supply and renewable strategies for electric operating companies. (Blended)

### UHC-REGULATORY (5122)

Description: provides regulatory financial support for all electric and gas utility regulatory filings including: rates reviews, class cost of service, rate design, reporting, adjustment clauses, riders, trackers and other regulatory issues. (Blended)

### UHC-HR ROTATION PROGRAM (5125)

Description: Provides a rotation program to develop staff for critical need areas within the utility operating companies of Black Hills Corporation. (Blended)

#### UHC-TECHNICAL TRAINING (5254)

Description: Provides technical training support for gas and electric utilities. (Customer-Regulated)

#### UHC-GIS SUPPORT (5305)

Description: Researches, builds and implements utility software solutions for the benefit of electric operations. This department supports, STORMS/WAM work management, PowerOn outage management, GIS mapping & modeling, and Korterra line locates. (Customer Count Ratio)

### **UHC-GAS MEASURING (5490)**

Description: Manages and provides gas measurement support to field operations located in gas service states. (Customer-Regulated)

### **UHC-EXEC MGMT-UTILITIES (5682)**

Description: Provides guidance, direction and management to overall utility operations and support services. (Blended)

### **UHC-BUSINESS DEVELOPMENT (5688)**

Description: Provides program management for the development and marketing of customer energy solutions. (Blended)

### **UHC-COMMUNITY AFFAIRS (5690)**

Description: Aligns business objectives with the integrated communications provided to our stakeholders. Including: media relations, coordination of community involvement programs, developing and managing a consistent communications program, and leading economic development for community growth (Customer Count Ratio)

### **UHC-ELECTRIC METER SERVICES (5691)**

Description: Manages and provides electric measurement support to field operations located in electric service states. Also manages AMI system for all electric entities. (Customer-Regulated)

### **UHC-CUSTOMER SERV CALL CENTERS (5701)**

Description: Provides direct support to the operations of the all Black Hills customer service centers. Answers and resolves customer inquiries, requests for services, for both regulated and non-regulated customers. Provides analysis on employee staffing, monitoring service metrics, projects, and planning. (Customer Count Ratio)

### **UHC-CUSTOMER SERV SUPP (5703)**

Description: Provides support to customer services areas through customer information system project management and process control for customer information system changes, revenue assurance analysis, quality analysis, training, and customer and community communication. Manages and maintains regulated and non-regulated billing for electric and gas utility customers as well as the sales and billing of gas to large volume customers. Prepares prints, inserts and mails regulated and non-regulated letters and bills for BHC utility customers. Processes payments for regulated and non-regulated services for BHC utility customers. Assists customers with payment and collection issues. (Customer Count Ratio)

### UHC-FIELD RESOURCE CENTER (5715)

Description: Plans work, and schedules and dispatches premise service activities to both regulated and non-regulated customers. (Customer Count Ratio)

### UHC-REPAIR BUSINESS MARKETING (6005)

Description: Provides and manages the non-regulated repair business program which includes: consumer marketing, new service development and employee repair training. (Customers-Service Guard, CAPP, HomeServe)

### UHC- PIPELINE AND SYSTEM INTEGRITY (6183)

Description: Provides engineering and land rights support of storage, mid-stream gas processing, gas transmission, compression and distribution facilities including design, planning, monitoring, and design analyses. Provides capital project management support to operations, business development, gas control and tech services activities with emphasis on land rights, reliability, customer service, compliance and safety. (Blended)

### UHC-ENERGY EFFICIENCY/DSM (6373)

Description: Supports the energy efficiency programs across the utilities supported by BHUH (Customer Count Ratio)

#### CATCH-ALL

Description: Departments of Black Hills Corporation that are not specifically listed in the Cost Allocation Manual or included in the master allocation design that charge BHUH will be allocated using the Blended Allocator Ratio or Customer Count Ratio.

### **Appendix 2- Allocation Ratios**

Any asset ratios and employee and customer count ratios are calculated as of period-end dates, while revenue and expense ratios are calculated for twelve months ended as of period-end dates.

Asset Cost Ratio – Based on the net cost of assets as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable operating company and the denominator of which is all applicable operating companies. Assets are limited to property, plant, and equipment, and include construction or work in process less accumulated depreciation, depletion and amortization (compliance with GAAP).

No departments utilize this ratio, but it is a component in the Blended Ratio.

Gross Margin Ratio – Based on the total gross margin for the trailing twelve months ending September 30<sup>th</sup>, the numerator of which is for an applicable operating company and the denominator of which is for all applicable operating companies. Gross margin is defined as revenue less cost of sales. Certain intercompany transactions may be excluded from gross margin if they would not have occurred if the revenue relationship was with a third party instead of a related party.

No departments utilize this ratio, but it is a component in the Blended Ratio.

Payroll Dollar Ratio –Based on the total payroll dollars for the trailing twelve months ending September 30<sup>th</sup>, the numerator of which is the direct payroll charges from all BHC subsidiaries charging an applicable operating company and the denominator of which is for all applicable operating companies. Payroll dollars include all bonuses and compensation paid to employees, but do not include items that are only included on an employee's W-2 for gross-up and income tax purposes, such as life insurance premiums of \$50,000.

No departments utilize this ratio, but it is a component in the Blended Ratio.

Blended Ratio – A composite ratio comprised of an average of the Asset Cost Ratio, Payroll Dollar Ratio and the Gross Margin Ratio. These factors are equally weighted. This factor is sometimes referred to as the general allocation factor.

There are currently several variations of the Blended ratio that are specific to the segment that are appropriate for which charges are being allocated. For example, charges for electric engineering department labor would utilize an electric blended ratio whereby no allocations would be charged to a gas utility.

BHUH is utilizing the following segment variations and additional variations may be added if additional product lines are added or in the event that additional segmentation is deemed appropriate to most effectively allocate costs from a specific department

All Blended

Electric Blended

Gas Blended

**BHE Blended** 

**BHGD** Blended

Departments that utilize this ratio include BHUH Benefits Loading, Revenue and COGS, BHUH Accounting Accruals, All Blended Assets, Electric Blended Assets, Gas Blended Assets, Asset Planning and Data Management, Design Engineering Gas, Pipeline Safety and Compliance Support, Electric Engineering Services, Regulatory, HR Rotation Program, Executive Management Utilities, Business Development, Power Supply and Renewables, Electric Ops Communications, and Pipeline and System Integrity.

Any department at Black Hills Corp that appropriately charges a BHUH operating unit but is not part of the predefined allocation design will also utilize the Blended Allocator Ratio. For example if a BHSC IT department provides maintenance on the SCADA system supporting the regulated electric companies they would charge BHUH operating unit 201900 and these costs would be allocated using the Blended Ratio across the regulated electric companies.

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*Customer Count Ratio* – Based on the number of customers as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable operating company and the denominator of which is for all applicable operating companies.

There are currently several variations of the Customer Count ratio that are specific to the type of customers that are appropriate to the department for which charges are being allocated. For example a department that supports gas engineering would be allocated based on gas customers only whereas a general customer service department would be allocated based on total customers.

BHUH is utilizing the following customer counts to calculate customer count ratios additional variations may be added if additional product lines are added or in the event that additional segmentation of customers are deemed appropriate to most effectively allocate costs from a specific department

Customers

Electric Customers

Gas Customers

**BHE Customers** 

**BHGD Customers** 

Non-Regulated Customers

Departments that utilize these ratios include Gas Asset Optimization, Computer Aided Dispatch, Regulated Generation Assets, Customer Blended Assets, Technical Training, GIS Support, Gas Measuring, Community Affairs, Electric Meter Services, Customer Serv Call Centers, Customer Serv Supp,, Field Resource Center, Repair Business Marketing, and Energy Efficiency/DSM.

Transmission Ratio – Based on a simple average of a multiple of cross-sectional drivers for the transmission function as of September 30<sup>th</sup> for the prior year that includes customer counts, peak load, number of substations, number of feeders, number of distribution and transmission miles, and

number of remote terminal units. The numerator of which is for an applicable operating company and the denominator of which is for all applicable operating companies.

The departments that utilize this ratio include Transmission Planning, T&D Engineering, NERC Compliance, FERC Tariff and Compliance, Transmission and Distribution Reliability, NERC Transmission and Tech Support, Transmission Service Management, Substation/Protection Eng, Engineering Resources, Elec Maint Services, and Vegetation Management.

# Black Hills Service Company

# Cost Allocation Manual

Effective Date: July 14, 2008

Amended: January 1, 2010

Amended: August 1, 2010

Amended: December 1, 2013

Amended: December 1, 2014

Amended: December 1, 2015

Amended: December 1, 2016

Amended: December 1, 2017

# **Black Hills Service Company Cost Allocation Manual**

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### Introduction

The purpose of this cost allocation manual is to document the allocation processes of Black Hills Service Company (the Service Company or BHSC), from recording the original transaction through the allocation of costs to Black Hills Corporation subsidiaries. Various topics to be addressed include the organization of the Service Company, the recording of transactions, calculating and assigning allocation factors, and recording allocation transactions.

The Service Company was formed on December 30, 2004, and was fully implemented and operational as of January 1, 2006. The Service Company was formed as required by the Public Utility Holding Company Act of 1935, which was administered by the Securities and Exchange Commission (SEC). Service companies were required of all registered holding companies under this law. Service companies coordinate corporate support functions and distribute costs to registered holding company subsidiaries using pre-defined allocation methodologies that had to be approved by the SEC.

Black Hills Corporation became a registered holding company at the end of 2004, and through a transition period and various amendments to the registered holding company filings, established the date of January 1, 2006 to fully implement the Service Company. In August of 2005, this law was repealed and replaced by the Public Utility Holding Company Act of 2005, which is administered by the Federal Energy Regulatory Commission (FERC). This new law was effective in February of 2006. Although certain administrative and reporting requirements changed as a result of the repeal, Black Hills Corporation did not change its implementation plan.

The Service Company is a wholly owned subsidiary of Black Hills Corporation (the Holding Company or BHC), and is a separate legal entity. The majority of operations and all employees were transferred out of the Holding Company on the effective date of implementation. The only transactions that remain at the Holding Company are transactions pertaining to long-term debt and related deferred finance costs, short-term financing (corporate credit facility and commercial paper program) and related deferred finance costs. In addition, as will be discussed in greater detail later, certain corporate costs are charged directly to the Holding Company. The most notable of these types of costs are corporate development project costs.

# **Service Company Organization**

The Service Company is organized into operating departments based upon the services that those departments provide to Black Hills Corporation subsidiaries. A list of each department, as well as a brief description of the services they provide, is attached as Appendix 1.

### **Direct Costs versus Indirect Costs**

A key issue in distributing Service Company costs is distinguishing between direct and indirect costs. The account coding will change depending on whether the cost is a direct or indirect cost. Below is a summary of each of these types of costs and examples of these costs.

*Direct costs* are those costs that are specifically associated with an identified subsidiary. This means that it is known exactly to which subsidiary these costs relate. Here are some examples:

- A Payroll Processor is processing the payroll for Black Hills Power. The labor costs incurred in processing payroll are specifically associated with an identified subsidiary. Therefore, this would be a direct cost.
- An Internal Auditor travels to Denver to complete audits for Colorado Independent Power Production and Colorado Electric. The time associated with completing the audits would be charged to each company based on the time worked for each specific company project. The travel expenses should be split equally or on a pro rata share based on days worked.
- The Human Resources department incurs costs to bring an employment candidate on-site to Gillette for an interview with Wyodak Resources. These travel costs incurred in bringing the employee in for the interview are specifically associated with an identified subsidiary. Therefore, this would be a direct cost.
- A Help Desk technician orders a replacement computer monitor for an employee at Black Hills Power. This hardware cost incurred is specifically associated with an identified subsidiary. Therefore, this would be a direct cost.

*Indirect costs* are those costs that are not associated with an identified subsidiary. This means that the costs indirectly support all companies or directly support the operation of the Service Company. In other words, costs that would be directly charged to the Service Company using the definition and examples above would be classified as indirect costs. Here are some examples:

- The Internal Audit department is completing a BHC consolidated financial statement audit. Since all entities indirectly affect the financial statements of BHC consolidated, this charge would be considered an indirect cost.
- An Environmental representative attends an industry training event. This charge cannot be directly attributable to any specifically identified company; therefore, this charge would be considered an indirect cost.
- A Help Desk technician orders a replacement computer monitor for an employee of the Service Company. This hardware cost incurred is specifically associated with the Service Company. Therefore, this would be an indirect cost.

It is important to consider two things when determining if a cost is a direct cost or an indirect cost: (1) Whether the costs that are coded to a specific company or group of companies be substantiated; and (2) Whether it be substantiated that a utility-based entity is not subsidizing the operations of non-utility based company with the time and expenses that have been charged to them. A certain level of judgment will be involved when deciding whether a particular cost should be directly charged or indirectly allocated.

There are certain costs that will always be considered either direct or indirect costs. Below is a list of significant Service Company expenses that follow these rules:

Always considered direct costs:

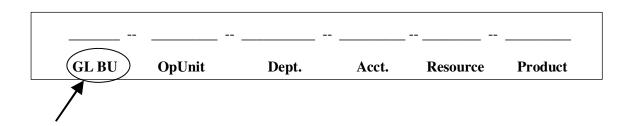
- Capitalized costs for non-BHSC projects (including capitalized labor)
- Corporate development project costs
- Retiree healthcare costs

Always considered indirect costs:

- Board of Directors' fees and expenses
- Rapid City office facility rent
- Depreciation of BHSC assets
- Directors' and officers' insurance
- Investor relations expenses
- Shareholder expenses
- Intercompany interest expense and income

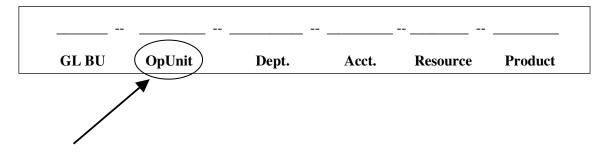
# **Transaction Coding**

The Service Company uses an accounting software system to accumulate and distribute both direct costs and indirect costs. It is important to have costs properly classified as direct or indirect. Direct costs will be directly charged to the subsidiaries, while indirect costs will be allocated to the subsidiaries using pre-defined allocation factors. Below is a description of the coding.



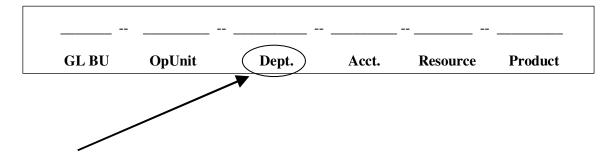
# **General Ledger Business Unit (GLBU):**

- Five (5) character numeric field.
- The GLBU field is used to identify the company that will be receiving the charges, either as a direct cost or an indirect cost.
- The GLBU field is required on all accounting transactions.
- The GLBU field will default based on the operating unit (Op Unit), as described below.



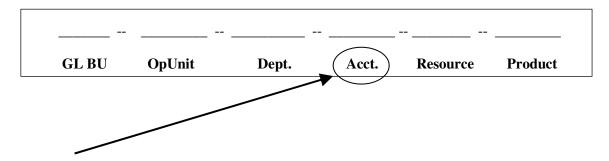
### **Operating Unit (OpUnit):**

- Six (6) character numeric field.
- The OpUnit field is used to identify the code block as either a direct cost or an indirect cost.
- If the cost is a direct cost, the OpUnit field will be populated using the OpUnit code for the company being directly charged.
- The Op Unit field will be populated using one of the Service Company Op Units for indirect
  costs. Indirect costs also include costs from other areas of the company that are directly
  related to the Service Company.



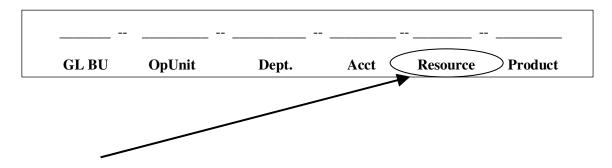
# **Department (Dept):**

- Four (4) character numeric field.
- The Department field is used to identify where the cost(s) originated.
- The Department field is required on all income statement and capital transactions.
- Every Department is assigned to a GLBU.



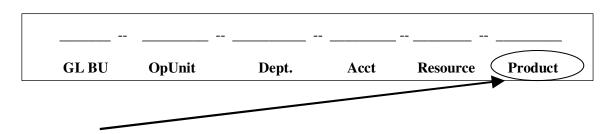
### Account (Acct)

- Six (6) character numeric field.
- The Account field is required on all accounting transactions.
- All companies will generally use the same Chart of Accounts although some values will be specific to certain companies.



### **Resource:**

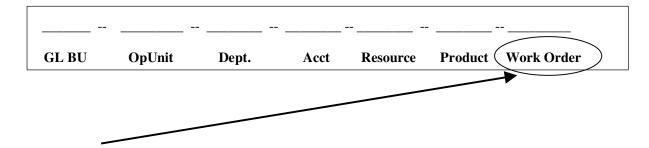
- Four (4) character numeric field.
- A Resource is used to identify types of costs.
- The Resource field is required for all income statement and capital accounting transactions.



### **Product:**

• Three (3) character numeric field.

- A Product code is used to identify business lines.
- Examples of the product line include electric, gas, coal and non-regulated



#### Work Order:

- Alpha or numeric field.
- Represents the collection of costs to allow the monitoring of a job or group of costs.
- The Work Order field is required on all construction work in progress transactions

## **Timekeeping**

All Service Company employees are required to complete a timesheet for each two week pay period. Timesheets of appropriate employees must be approved by a supervisor.

Employees must complete the code block, as previously discussed, for each time record. The timesheet will default the department and resource. However, the employee is responsible for providing the remainder of the code block. Employees are encouraged to enter their time in one half hour increments, although they may use smaller increments if they so choose.

# Loadings

Certain benefits that are provided to employees become an inherent cost of labor. To account for these benefits and allow for them to be charged to the appropriate subsidiary, they become part of a loading rate that is added on to each payroll dollar.

The loading rates are calculated at the beginning of the year based on budgeted benefit expenses and budgeted labor. Benefit costs and loading rates are reviewed, and updated as needed. Below is a list of components of the loading rates:

### General labor loadings:

- Compensated Absences: including but not limited to paid time off (PTO), Holiday, Jury duty, Funeral pay, United Way day, Short-term Disability and Annual Physical appointment.
- Payroll Taxes: including but not limited to FICA, FUTA SUTA and city taxes

- Employee Benefits: including but not limited to health and medical, 401K match and fees, Pension, Retiree healthcare and associated fees
- Incentives: including but not limited to Non-officer incentive plans, Restricted Stock and Stock Option expense

### Supplemental loadings:

- Officer short term incentive plans
- Officer supplemental retirement
- Officer performance plan

Loadings calculated on payroll are based on estimated benefit costs, therefore, differences between actual benefits will be inherent to this process. After the difference is calculated and reviewed for reasonableness, it is recorded to a separate department, and indirectly allocated to Black Hills Corporation subsidiaries.

### **Allocation Ratios**

As previously stated, Service Company costs are either directly charged to a subsidiary, or indirectly allocated when the cost is not associated with a specific subsidiary. Indirect costs are allocated using one of several pre-defined allocation ratios. Each department has been assigned one of these allocation ratios. All indirect costs of that department are then allocated using that ratio. When determining which allocation ratio should be assigned to each department, a ratio is selected based on the specific cost driver of that department. For instance, the expenses incurred by a Human Resources department are primarily related to their support of all company employees. In this example, the cost driver for the Human Resources department indirect costs is employees. Therefore, their indirect costs will be allocated based upon the Employee Ratio.

For certain departments, a specific cost driver may not be clearly identifiable or the driver may not be cost effective to compute on a continuing basis. In these instances, a three-pronged general allocation ratio is used, which is referred to as the Blended Ratio. This ratio equally weights three different general ratios: Gross Margin, Asset Cost, and Payroll Dollars. These factors were chosen to be included in the Blended Ratio because they best allocate costs based on the diverse nature of BHC operations.

In addition, some departments utilize a Holding Company Blended Ratio. The difference between the Blended Ratio and the Holding Company Blended Ratio is that the Holding Company Blended Ratio allocates a percentage of costs to BHC Holding Company. For example, the Corporate Governance department will allocate indirect costs using the Holding Company Blended Ratio because certain costs incurred, such as New York Stock Exchange fees and Board of Directors costs, relate to both the Holding Company and the subsidiary companies.

One additional item to note is that pooled benefits, primarily health care costs, are allocated differently due to the pooling method for benefits such as self-insured health care. BHC has chosen to pool certain benefit costs and spread the risk amongst all subsidiaries equally. All pooled benefit

costs of BHC are paid by the Service Company and allocated to subsidiaries based on employee counts.

A list of all allocation ratios, including a brief description of the ratio, the basis for the calculation of the ratio, and the department to which that ratio has been assigned, is attached hereto as Appendix 2.

## **Changing Allocation Ratios**

Allocation ratios are set at the first of the year, based upon financial information from the trailing twelve months ending September 30<sup>th</sup> for prior year. Assets, utility assets, employee counts, and power generation capacity are based on values as of previous period ending September 30<sup>th</sup>. Gross margin, utility gross margin, payroll dollars, and utility payroll dollars are based on values for the trailing twelve months ending September 30<sup>th</sup>.

Certain events may occur during the year that are deemed to be significant to BHC that will require corresponding adjustments be made to the allocation ratios. Examples of these types of events include acquisitions, divestitures, new generation, significant change in asset base, significant staffing changes or new, significant revenue streams.

When these events occur, indirect allocation ratios will be adjusted. When adjusting allocation ratios, it is the policy of the Service Company to not recalculate all allocation ratios. Rather, allocation ratios will be adjusted with pro forma adjustments for the subsidiary with a significant change in a specific allocation ratio base. For example, if an acquisition occurs during the middle of the year, pro forma values will be loaded. Asset values at the time of the acquisition would be used, as well as pro forma gross margin and payroll dollars for a 12 month period. It should be noted that estimations may be required, especially when significant additions or changes are expected as a result of the acquisition.

It should also be noted that asset values, gross margin, and payroll dollars for the other companies will not be changed. However, the ratios will change because the base against which the ratios are calculated will change. Subsidiary companies would see decreased ratio values with acquisitions, and increased ratio values with divestitures. Changes will be effective as of the beginning of the month following the significant event, and will apply to all transactions for the month.

# **Subsidiary Payment for Direct and Indirect Charges**

It is the policy of the Service Company to insure payments are made by the subsidiary companies for direct and indirect charges. All payments for direct and indirect charges must be remitted to the Service Company by the end of the following month. The Service Company will monitor

payments received during the month to insure that all subsidiary companies make payment in a timely manner.

### **Allocating Fixed Assets**

The Service Company maintains certain fixed assets that are used by and benefit multiple BHC subsidiaries. These fixed assets primarily consist of computer hardware and software that form the corporate-wide information technology network. Because these fixed assets support multiple BHC subsidiaries, they are allocated to the appropriate subsidiaries monthly as part of the monthend close process, along with the allocation of these assets' accumulated depreciation. Construction Work in Process balances are not allocated.

Allocated assets and accumulated depreciation are maintained in separate general ledger accounts at the subsidiary level so that they are not intermingled with regular subsidiary fixed assets, and for ease of reconciliation.

The allocation ratio used for fixed assets and accumulated depreciation is the Blended Ratio, except as otherwise noted. Depreciation expense is also allocated using the Blended Ratio.

### **Appendix 1 – BHSC Departments**

The following departments are included in BHSC as of 01/01/2017 and are subject to changes as required to support evolving business requirements.

### SC-ACCOUNTING SYSTEMS (4700)

Description: Maintains the corporate- wide accounting systems of Black Hills Corporation, most notably the general ledger and financial statement preparation systems. (Blended)

### SC-CORP DEVELOPMENT (4702)

Description: Facilitates the development of the corporate strategy, prepares strategic plans, and evaluates potential business opportunities. Department also assists various subsidiaries with financial analysis and special projects. (HoldCo Blended)

### SC-CORP GOV AND SHAREHOLDER SERV (4703)

Description: Develops and enforces corporate governance policies and procedures in accordance with applicable laws and regulations. Provides oversight of compliance with Securities and Exchange Commission rules and regulations. Oversees the administrative duties to the Board of Directors. Provides various recordkeeping and administrative services related to shareholder services. Assists in the administration of equity-based compensation plans. (HoldCo Blended)

### SC-TAX (4704)

Description: Prepares quarterly and annual tax provisions of all Black Hills Corporation subsidiaries. Maintains and reconciles all current and deferred income tax general ledger accounts. Prepares tax filings and ensures compliance with applicable laws and regulations. Oversees various tax planning projects. (Blended)

### SC-CREDIT AND RISK (4705)

Description: Provides risk management, risk evaluation, and risk analysis services. Provides support to the Executive Risk Committee. Evaluates contract risks. (Blended)

### SC-LEGAL - CORPORATE (4706)

Description: Provides legal counsel and services related to general business operations, including labor and employment law, finance, litigation, contracts, utility rates and regulation, financial reporting, Securities and Exchange Commission, Federal Energy Regulatory Commission and other state and federal compliance, environmental matters, real estate and other legal matters. Oversees the hiring and administration of external counsel. Provides legal support to various corporate development projects. Facilitates physical risk management strategies through the

purchase and evaluation of various types of insurance coverage. Provides claims management services. (Blended)

### SC-ENVIRONMENTAL SERVICES (4709)

Description: Establishes policies and procedures for compliance with environmental laws and regulations. Researches emerging environmental issues and monitors compliance with environmental requirements. Oversees environmental clean-up projects. Obtains permits to support the business operations of Black Hills Corporation and its subsidiaries. (Asset Cost)

### SC-EXECUTIVE MGMT (4710)

Description: Provides overall oversight of Black Hills Corporation and its subsidiaries. Provides the Board of Directors information for decision making purposes. (HoldCo Blended)

### **SC-SAFETY (4711)**

Description: Develops and implements safety planning activities and provides employee safety education. Administers the corporate safety program. Assists with compliance with DOT, OSHA, and MSHA regulations. (Employee)

### SC-FINANCE AND TREASURY (4712)

Description: Coordinates activities related to securities issuance, including maintaining relationships with financial institutions, debt holders, rating agencies, equity analysts and equity investors. Performs accounting, cash management, debt compliance, and investing activities. Monitors capital markets to support financial planning for all subsidiaries. Performs the accounting for the corporate pension plan..(HoldCo Blended)

### SC-F&A LEADERSHIP (4715)

Description: Provides management and administrative support for accounting and finance functions of the Company's regulated and non-regulated businesses including external audit coordination. Oversees the corporate consolidation of subsidiary financial statements. Prepares monthly internal financial reports for management. Prepares quarterly and annual financial reports to the Securities and Exchange Commission, financial statements to banks and quarterly and annual financial statements filed with FERC. Researches emerging accounting issues and assists with the compliance of new accounting rules and regulations. (Blended)

### SC-CORPORATE ACCOUNTING (4716)

Description: Responsible for closing the general ledger for the Company's regulated and non-regulated businesses (excluding WRDC) on a monthly basis and assists in the compliance of all accounting rules and regulations. Analyzes balance sheet accounts and assists the financial management team with monthly analysis. Maintains the accounting records for Black Hills

Service Company and Black Hills Corporation. Provides oversight of the Accounts Payable and Property Accounting departments. Processes payments to vendors and prepares 1099s and applicable documentation for the majority of Black Hills Corporation subsidiaries. (Blended)

### SC-FINANCIAL MANAGEMENT (4717)

Description: Provides financial management to the Company's regulated and non-regulated businesses. Oversees the accumulation of subsidiary financial budgets and forecasts. Provides the consolidation of the corporate wide-budget and forecast. Guides the preparation of strategic plans. (Blended)

### SC-HUMAN RESOURCES (4720)

Description: Provides general Human Resources support services to the subsidiaries through the administration of policies and labor contracts for all facets of Human Resources, including employee relations, labor relations, talent management, recruiting and employment staffing, compensation and benefits administration. Processes payroll including but not limited to time reporting, calculation of salaries and wages, payroll tax reporting and compliance reports for Black Hills Corporation and its subsidiaries. Oversees the administration of the corporate pensions and 401(k) plans. (Employee)

### SC-COMPENSATION AND BENEFITS (4721)

Description: Administers policies related to compensation and benefits. Oversees the self-insured medical benefits plans and other pooled benefits and provides support to the third party administrators of the plans. (Employee)

### SC-ORGANIZATIONAL DEVELOPMENT AND TRAINING (4722)

Description: Provides for employee and leadership development, succession planning, performance management, goal alignment, employee engagement, strategic workforce planning, talent assessment and general HR support for Black Hills Corporation and its subsidiaries. (Employee)

### SC-INTERNAL AUDIT (4725)

Description: Reviews internal controls and procedures to ensure assets are safeguarded and transactions are properly authorized and recorded. Oversees the Sarbanes Oxley compliance efforts. (Blended)

### SC-IN-HOUSE CORPORATE SOLUTIONS (4726)

Description: Develops strategies and implements programs for effective communication with internal and external stakeholders. Develops and manages measured, and coordinated

advertising. Designs and develops communication strategies and materials for the company. (Blended)

### SC-POWER DELIVERY MGMT (4728)

Description: Performs resource planning, power delivery management, strategic planning, and construction management for the corporation's power generation assets. (Generation Capacity)

### SC-PROPERTY ACCOUNTING (4729)

Description: Maintains the accounting records for property, plant and equipment for the majority of subsidiaries of the corporation. Assists in compliance with regulatory accounting requirements as it relates to property. Prepares various operating and financial reports for management. (Asset Cost)

### SC-RECORDS MGMT (4730)

Description: Administers and maintains the records retention policies and procedures of the corporation. Manages and maintains the content management software. (Blended)

### SC-SUPPLY CHAIN MGMT (4731)

Description: Manages contracts, including drafting, negotiating, reviewing and interpreting contracts. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. Manages inventory, obsolescence and scrap. Ensure availability of proper materials. (Blended)

### SC-SUPPLY CHAIN (4732)

Description: Manages contracts, including drafting, negotiating, reviewing and interpreting contracts. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. Manages inventory, obsolescence and scrap. Ensure availability of proper materials. Pull, restock and stage materials. Executes the procurement process including, purchasing activities, managing vendor relationships, and issue resolution and tracking and expediting orders. (Blended)

### SC-FLEET SERV (4734)

Description: Manages fleet expense cards, fleet contracts, vehicle purchasing, replacement, disposal, licensing/registration and titling. Advises on vehicle maintenance and repairs, alternative fuel selections and implementations. (Blended)

### SC-FACILITIES (4736)

Description: Provides facility, construction, and real estate management services for corporatewide facilities. Supports disaster recovery and business continuation planning. (Blended)

### SC-GOVERNMENTAL AFFAIRS (4741)

Description: Advances corporate objectives by initiating, influencing, monitoring, and researching government legislation and policies. Acts as a liaison with legislators and other governmental officials. Maintains relationships with federal, state and other governmental bodies. (Blended)

### SC-IT ADMINISTRATION (4742)

Description: Provides guidance, governance, and strategic planning to the overall information technology operations. (Blended)

### SC-IT BUSINESS APPLICATIONS-FIN&HR SYSTEMS (4743)

Description: Manages, maintains, and enhances the finance, human resource, web-based service and enterprise wide business applications. (Blended)

### SC-IT BUSINESS APPLICATIONS-CUSTOMER SYSTEMS (4744)

Description: Manages, maintains, and enhances business applications within the utility companies. (Blended)

### SC-IT BUSINESS APPLICATIONS-WEB & ECM (4745)

Description: Manages, maintains, and enhances the web-based and ECM service business applications of the company. (Blended)

### SC-IT BUSINESS APPLICATIONS-UTILITY SYSTEMS (4746)

Description: Manages, maintains, and enhances the wholesale and utility business applications of the company. (Blended)

### SC-IT INFRASTRUCTURE (4747)

Description: Manages, maintains, and enhances data center operations, infrastructure servers, storage, system software, enterprise architecture and corporate databases. Supports the data and voice communication needs for the company and provides telecommunication expense management services as well as technology support services and field service support for the company. Provides IT telephone support, technology training and technology integration services. (Blended)

### SC-IT COMPLIANCE (4751)

Description: Responsible for internal and external audit compliance, disaster recovery, change management and legal compliance related to technology. (Blended)

### SC-GENERATION PLANT OPERATIONS (4754)

Description: Operates and manages the generation for BHCOE and BHCIPP. (NamePlate Generation Capacity)

### SC-IT BUSINESS APPLICATIONS - PMO (4755)

Description: The Project Management Office ("PMO") provides IT project management services. (Blended)

### SC-CPGS PLANT OPERATIONS (4756)

Description: Operates and manages the new generation for the Cheyenne Prairie Generation Station. (NamePlate Generation Capacity)

### SC – ASSET BLENDED (4793)

Description: Records depreciation for the Service Company assets. (Blended)

### SC-BENEFIT POOLED (4794)

Description: Records pooled benefit costs, primarily related to health and welfare for Black Hills Corporation and its subsidiaries. (Employee)

### SC-ACCOUNTING ACCRUAL ENTRIES (4795)

Description: Records accrual of certain charges not related to specific departments or not significant enough to allocate to each department. (Blended)

### SC-BENEFITS LOADING (4796)

Description: Records overhead benefit costs loaded to labor costs (Blended)

#### CATCH-ALL

Description: Departments at Black Hills Corporation and subsidiaries that are not specifically listed in the Cost Allocation Manual or included in the master allocation design that charge BHSC will be allocated using the Blended Allocation Ratio.

### **Appendix 2 – Allocation Ratios**

Asset Cost Ratio – Based on the net cost of assets as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Assets are limited to property, plant, and equipment, and include construction or work in process less accumulated depreciation, depletion and amortization (compliance with GAAP).

The Environmental Services and Property Accounting departments utilize this ratio, and it is a component in the Blended Ratio and the Holding Company Blended Ratio.

Gross Margin Ratio – Based on the total gross margin for the trailing twelve months ending September 30<sup>th</sup>, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Gross margin is defined as revenue less cost of sales. Certain intercompany transactions may be excluded from gross margin if they would not have occurred if the revenue relationship was with a third party instead of a related party.

No departments utilize this ratio, but it is a component in the Blended Ratio and the Holding Company Blended Ratio.

Payroll Dollars Ratio – Based on the total payroll dollars for the trailing twelve months ending September 30<sup>th</sup>, the numerator of which is the direct payroll charges from all BHC subsidiaries charging the applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Payroll dollars include all bonuses and compensation paid to employees, but do not include items that are only included on an employee's W-2 for gross-up and income tax purposes, such as life insurance premiums over \$50,000.

No departments utilize this ratio, but it is a component in the Blended Ratio and the Holding Company Blended Ratio.

Blended Ratio – A composite ratio comprised of an average of the Asset Cost Ratio, the Payroll Dollars Ratio, and the Gross Margin Ratio. These ratios are equally weighted. This ratio is sometimes referred to as the general allocation ratio.

Departments that utilize this ratio include Accounting Systems, Tax, Credit and Risk, F&A Leadership, Internal Audit, Legal, Corporate Accounting, In-House Corporate Solutions, Records Management, Supply Chain Management, Supply Chain, Fleet Services, Facilities, Governmental Affairs, Information Technology Administration, Information Technology Business Applications Information Technology Infrastructure, Information Technology Compliance, Information Technology Helpdesk / Technology Integration, Assets Blended, Accounting Accruals, Benefits and BHSC portion of the Rapid City Plant Street Facility, Midlands Data Facility and Cheyenne Data Center Facility.

Holding Company Blended Ratio -5% of costs allocated to the Holding Company, with the remaining 95% of costs allocated using a composite ratio comprised of an average of the Asset Cost Ratio, the Payroll Dollars Ratio, and the Gross Margin Ratio. These ratios are equally weighted.

Departments that utilize this ratio include Corporate Development, Corporate Governance and Shareholder Services, Executive Management, Finance and Treasury and .

*Employee Ratio* – Based on the number of employees as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries.

Departments that utilize this ratio include Safety, Human Resources, Compensation and Benefits, and Organizational Development and Training. Health and welfare costs for BHC will be in a pool and allocated to subsidiaries based on the Employee Ratio.

*Power Generation Capacity Ratio* – Based on the total power generation capacity as of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Power generation includes capacity in service and capacity under construction.

Departments that use this ratio include Power Delivery Management.

Nameplate Generation Capacity Ratio – Based on the total facility's power generation capacity at the end of September 30<sup>th</sup> for the prior year, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries. Nameplate generation includes capacity in service and capacity under construction at the facility.

The Generation Plant Operations and CPGS Plant Operations departments utilize this ratio.

Square Footage Ratio – The total square footage of a given facility, the numerator of which is for an applicable BHC subsidiary and the denominator of which is for all applicable BHC subsidiaries.

The Rapid City office facility, Fayetteville and Denver Office Facilities utilize this ratio.