

SECTION 7: DEPRECIATION

7.1 Summary

1. AEY engaged Concentric Advisors, ULC (Concentric) to complete a study and recommend depreciation parameters for the 2023-2024 General Rate Application based on asset plant balances as of December 31, 2022 (Concentric Depreciation Study). During the preparation of the Depreciation Information Requests, AEY noted inadvertent errors within the Depreciation Study and engaged Concentric to update the Study. AEY has updated the depreciation rates and parameters as per the recommendations of the revised Concentric Depreciation Study (please refer to Attachment 1).
2. The outcome of the revised Concentric Depreciation Study resulted in a slight reduction in overall rates for the amortization of life balances, from 2.75 percent to 2.67 percent, as well as reinstatement of Net Salvage utilizing a phased in approach resulting in a 0.47 percent Salvage rate.
3. The updated depreciation expenses included in this Application are outlined in Schedules 7.1 through 7.4 and are summarized below in Table 7.1.

Table 7.1: Depreciation (\$000)

	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actuals							Test Period	
Depreciation Expense - Life	5,835	6,115	6,293	6,382	6,707	6,950	7,343	6,658	8,496
Net Salvage	-	-	-	-	-	-	-	2,006	2,100
Total Deprecation Expense	5,835	6,115	6,293	6,382	6,707	6,950	7,343	8,664	10,596

4. The annual increases in depreciation expense from 2018 to 2022 are due to growth in property, plant and equipment. The increases in depreciation expense in the Test Period compared to 2022 are mainly driven by the restart of the Net Salvage collection, which is explained further below in Section 7.2, partially offset by a reduction in the overall Life amortization rates. In addition, the depreciation expense increases from 2023 to 2024 are due to the full year depreciation of the CIS Program, the capitalization of large renewable projects (which are contributed projects and the expense is offset by the

Amortization of Contribution, as reflected in Table 7.2), as well as the increase in customer base resulting in increased distribution improvements.

**Table 7.2: Amortization of Contributions
(\$000)**

	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actuals							Test Period	
Amortization	(1,499)	(1,525)	(1,538)	(1,635)	(1,754)	(1,877)	(2,033)	(2,077)	(2,389)

5. The depreciation rates used to calculate actual amounts for 2018 through to 2022 were determined by a Depreciation Technical Update conducted in 2018, based on Depreciation Parameters approved in Board Orders 2014-06 & 2017-01. The forecast 2023-2024 depreciation expense amounts are calculated using the rates provided by Concentric in the revised Concentric Depreciation Study.

7.2 Negative Net Salvage

**Table 7.3: Negative Net Salvage
(\$000)**

	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actuals							Test Period	
Opening Net Salvage	(3,692)	(3,469)	(3,286)	(2,846)	(2,158)	(1,661)	(1,351)	(477)	(1,483)
Removals	223	183	440	688	497	310	874	1,000	1,264
Salvage Depreciation	-	-	-	-	-	-	-	(2,006)	(2,100)
Ending Net Salvage	(3,469)	(3,286)	(2,846)	(2,158)	(1,661)	(1,351)	(477)	(1,483)	(2,319)

6. AEY discontinued collection of Future Removal and Site Restoration, or Negative Net Salvage as directed in Board Orders 2009-2 and 2014-06. Current reserve balances are not sufficient to fund planned salvage over the next several years.

7. As AEY's current assets continue to age there is an increase in the amount of salvage work and site restoration required, as reflected in the increased forecast of removals in the table above. In addition, there are larger projects that will require salvage work, such as the Old Crow Project. If AEY does not build up this reserve to address aging assets, the funding will not be available when the work is required and there is a

risk of generational inequity where future customers will be funding the salvage of assets from which previous customers benefitted.

8. AEY is requesting Board approval to resume collection of Negative Net Salvage in revenue requirement. Concentric confirmed the need for Negative Net Salvage in order to minimize future intergenerational equity issues, as well as to reduce the risk of larger-scale increases in net salvage rates being necessary in the future.¹ The current reserve balance of \$0.5 million is not enough to fund upcoming retirements and salvage work.² These identified factors support AEY's position that the collection of Negative Net Salvage should be restarted during this Test Period. The estimates for salvage depreciation included in this Application have been updated to the final revised Concentric Depreciation Study balances. AEY requested that Concentric consider a phase-in approach to the re-instatement of Negative Net Salvage to mitigate rate pressures in the Yukon, while ensuring the appropriate funding is collected for future salvage and restoration work.

¹ Revised Concentric Depreciation Study, PDF pp. 13-14.

² Ibid.

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Utility Revenue Requirement
(\$000)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Revenues												
2	Retail Revenues	S.2.1 L.54	57,788	63,942	66,111	66,474	77,107	80,860	84,470	63,702	71,014	52,071	54,859
3	Other Revenue	S.2.2 L.8	1,238	1,304	1,404	1,462	1,540	2,232	2,529	2,103	2,186	1,299	1,328
4	Total Revenues		<u>59,026</u>	<u>65,246</u>	<u>67,516</u>	<u>67,936</u>	<u>78,647</u>	<u>83,092</u>	<u>86,999</u>	<u>65,805</u>	<u>73,200</u>	<u>53,370</u>	<u>56,187</u>
5													
6	Costs												
7	Purchase Power	S.3.1 L.14	30,409	34,011	36,354	36,339	45,853	48,961	51,419	29,762	30,944	25,229	26,404
8	Fuel	S.4.1 L.6	5,363	5,571	5,403	5,432	5,709	5,353	5,766	9,181	9,023	5,257	5,334
9	Operations and Maintenance	S.5.1 L.49	11,141	11,884	11,114	11,104	11,966	13,814	14,794	14,500	14,755	11,630	11,754
10	Property Taxes	Section 6-1	253	253	264	277	277	267	275	285	292	262	267
11	Depreciation	S.7.1 L.6	5,835	6,115	6,293	6,382	6,707	6,950	7,343	8,664	10,596	5,846	6,231
12	Amortization of Contributions	S.8.12 L.8	(1,499)	(1,525)	(1,538)	(1,635)	(1,754)	(1,877)	(2,033)	(2,077)	(2,389)	(1,504)	(1,570)
13	Amortization of Deferred Charges & Credits	S.8.8 L.11	334	334	335	335	335	334	200	(204)	(113)	334	335
		S.8.1 L.11, 21, 31, 41, 51,											
14	Return on Rate Base	61, 71, 81, 92	7,280	8,409	8,490	8,646	8,584	8,228	8,440	8,282	9,122	6,787	7,091
15	Income Taxes	S.10.1 L.37	(90)	201	808	1,062	978	1,064	801	(2,588)	970	(470)	341
16	Total Costs		<u>59,026</u>	<u>65,253</u>	<u>67,522</u>	<u>67,941</u>	<u>78,653</u>	<u>83,094</u>	<u>87,005</u>	<u>65,805</u>	<u>73,200</u>	<u>53,370</u>	<u>56,187</u>

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Miscellaneous Revenue
(\$000)**

Line No.	Description	Cross Ref.	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Reconnect Revenue		184	178	228	218	169	207	204	201	204	200	205
2	Joint Use		804	858	989	952	1,041	1,126	1,127	1,228	1,275	781	798
3	Services to Outside Parties		80	53	49	85	120	171	20	20	20	70	71
4	Affiliate Services	Note 1	-	-	-	-	-	459	53	-	-	-	-
5	Carbon Tax Rebate		-	-	-	-	-	-	832	334	297	-	-
6	Other	Note 2	170	216	139	207	210	269	293	320	390	249	254
7													
8	Total		<u>1,238</u>	<u>1,304</u>	<u>1,404</u>	<u>1,462</u>	<u>1,540</u>	<u>2,232</u>	<u>2,529</u>	<u>2,103</u>	<u>2,186</u>	<u>1,299</u>	<u>1,328</u>

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10 Note 1: In 2021 and a portion of 2022 AEY employees supported affiliate initiatives. All of their costs including any overheads were recovered from affiliates on a cost recovery basis
with no element of profit, offsetting expenses were included in Services to Outside Parties in schedule 5.1

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12 Note 2: Other revenues are mainly made up of penalty charges as per the Terms and Conditions as well as service fees charged to YEC for billing services.

ATCO Electric (AEY)
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Schedule of Purchase Power

Line No.	Description	Cross Ref.	Actual						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Purchases (MWh)												
2	Primary Energy		302,583	326,206	333,311	331,491	347,277	348,983	347,018	349,466	362,365	300,363	314,234
3	Secondary Sales	S.2.1 L.34	4,835	8,385	258	1	479	4,430	3,439	2,931	2,931	9,429	9,429
4			307,418	334,591	333,568	331,491	347,756	353,413	350,457	352,397	365,296	309,792	323,663
5													
6	Purchase Power Rates												
7	Primary Energy Charge (\$ per kWh)		0.08298	0.08298	0.08298	0.08298	0.08298	0.08298	0.08298	0.08298	0.08298	0.0830	0.0830
8	Secondary Sales (\$ per kWh)		0.05031	0.05488	0.06229	0.07400	0.01680	0.07454	0.08039	0.12200	0.12200	0.044	0.044
9													
10	Purchase Power Expense (\$000)												
11	Primary Energy Expense	L.2 x L.7	25,108	27,069	27,658	27,507	28,817	28,959	28,796	28,999	30,069	24,924	26,075
12	Secondary Energy Expense	L.3 x L.8	243	460	16	0	8	330	276	358	358	415	415
13	Shortfall Rider J		5,273	6,487	8,680	8,920	17,028	19,529	21,921	-	-	-	-
14	Less: Capitalized		(216)	(5)	-	(88)	-	-	-	(49)	-	(110)	(86)
15	Total Purchase Power Expense		30,409	34,011	36,354	36,339	45,853	48,818	50,993	29,307	30,427	25,229	26,404
16													
17	Purchases (MWh)												
18	Independent Electricity Purchases	S.3.2 L. 11						212	475	587	649		
19													
20	Average Electricity Purchase Rates (\$ per MWh)							0.68	0.74	0.77	0.80		
21													
22	Renewable Purchase Expense (\$000)	L.18 x L.20						143	352	451	517		
23	Constraints							-	75	4	-		
24	Total Renewable Purchase Expenses							143	426	455	517		
25	Total Purchase Power		30,409	34,011	36,354	36,339	45,853	48,961	51,419	29,762	30,944		

ATCO Electric Yukon (AEY)
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Schedule of Energy Losses
(MWh)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Sales and Losses												
2	Total Energy Sales - MWh	S.2.1 L.46	318,815	344,985	341,212	340,184	354,691	363,853	365,128	365,552	378,905	319,020	332,513
3	Losses and Company Used - MWh		17,535	18,870	20,599	19,575	21,784	23,587	19,964	21,933	22,734	19,779	20,616
4	Losses -%		5.5%	5.5%	6.0%	5.8%	6.1%	6.5%	5.5%	6.0%	6.0%	6.2%	6.2%
5	Total Generation and Purchases (MWh)	L. 13	336,350	363,855	361,811	359,760	376,475	387,440	385,092	387,485	401,639	338,800	353,129
6	Sources - MWh												
7	Hydro Generation		8,051	7,103	5,458	4,973	5,034	9,843	9,597	9,522	10,143	8,245	8,536
8	Hydro Grid Standby Diesel Generation	S.4.2 L.15	44	99	110	185	346	103	284	115	208	39	40
9	Diesel Generation	(S.4.1 L.1) - L.8	20,837	22,061	22,024	21,811	21,714	21,698	21,516	21,586	21,550	20,723	20,889
10	Wholesales Purchases	S.3.1 L.4	307,418	334,591	333,568	331,491	347,756	353,413	350,457	352,397	365,296	309,792	323,663
11	Independent Purchases		-	-	-	-	-	212	475	587	649	-	-
12	Micro-Generation ¹		-	-	650	1,300	1,624	2,171	2,763	3,278	3,793	-	-
13			336,350	363,855	361,811	359,760	376,475	387,440	385,092	387,485	401,639	338,800	353,129
14	Sources - %												
15	Hydro Generation		2.4%	2.0%	1.5%	1.4%	1.3%	2.5%	2.5%	2.5%	2.5%	2.4%	2.4%
16	Diesel Generation		6.2%	6.1%	6.1%	6.1%	5.9%	5.6%	5.7%	5.6%	5.4%	6.1%	5.9%
17	Wholesales Purchases		91.4%	92.0%	92.2%	92.1%	92.4%	91.2%	91.0%	90.9%	91.0%	91.4%	91.7%
18	Independent Purchases		0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%	0.0%	0.0%
19	Micro-Generation ¹		-	-	0.2%	0.4%	0.4%	0.6%	0.7%	0.8%	0.9%	-	-
20			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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22 Note 1 - Micro-Generation MWh is the power that microgeneration sites put back onto the Electricity System

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Diesel Generation and Fuel Summary
(\$000)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Total Diesel Generation (in MWh)	S. 4.2 L.16	20,881	22,160	22,135	21,995	22,061	21,801	21,799	21,700	21,758	20,763	20,930
2	Fuel Heat Rate (kWh per litre)		3.69	3.77	3.83	3.78	3.75	3.81	3.71	3.78	3.78	3.71	3.71
3	Litres of Fuel (000)	S. 4.2 L.33	5,655	5,877	5,783	5,812	5,890	5,725	5,872	5,738	5,759	5,592	5,643
4	Fuel Costs (\$000)		4,895	5,642	6,627	6,586	5,750	6,660	9,443	9,181	9,023	5,257	5,334
5	Fuel Variance		469	(71)	(1,224)	(1,154)	(41)	(1,307)	(3,677)	-	-	-	-
6	Fuel Expense		5,363	5,571	5,403	5,432	5,709	5,353	5,766	9,181	9,023	5,257	5,334
7	Average Cost (cents per litre)	(L.4 / L.3)x100	86.56	96.01	114.60	113.31	97.61	116.34	160.81	159.99	156.69	94.00	94.52

**ATCO Electric Yukon (AEY)
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Fuel Information

Line No.	Description	Cross Ref.	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	<u>Average Cost (in cents per litre)</u>												
2	Watson Lake		73.41	83.65	100.05	99.11	74.97	95.71	147.46	135.21	135.21	76.18	76.18
3	Beaver Creek		73.61	82.88	100.13	96.12	78.97	94.16	139.16	151.39	151.39	92.40	92.40
4	Destruction Bay		71.35	79.98	97.55	93.11	76.93	92.37	137.66	132.65	132.65	91.90	91.90
5	Old Crow		179.46	187.36	225.99	229.36	232.31	247.21	308.55	319.21	319.21	201.71	201.71
6	Swift River		76.26	89.44	106.69	102.21	84.85	96.77	142.77	147.47	147.47	88.72	88.72
7	Standby Units		100.74	98.38	61.85	96.10	94.18	98.95	122.94	122.94	122.94	97.81	97.81
8													
9	<u>Generation (MWh)</u>												
10	Watson Lake		14,992	15,296	15,386	15,171	14,756	15,140	15,116	14,916	15,195	14,690	14,688
11	Beaver Creek		1,792	2,006	1,911	1,837	1,841	1,803	1,745	1,684	1,627	1,820	1,908
12	Destruction Bay		1,556	1,880	1,936	1,966	2,017	1,958	1,923	2,067	2,142	1,782	1,756
13	Old Crow		2,278	2,575	2,522	2,569	2,853	2,567	2,517	2,714	2,365	2,216	2,309
14	Swift River		220	303	269	268	247	231	215	206	221	215	228
15	Standby Units		44	99	110	185	346	103	284	115	208	39	40
16			20,881	22,160	22,135	21,995	22,061	21,801	21,799	21,700	21,758	20,763	20,930
17													
18	<u>Net Heat Rate (kWh/litre)</u>												
19	Watson Lake		3.90	3.90	3.93	3.89	3.87	3.92	3.79	3.88	3.88	3.85	3.85
20	Beaver Creek		3.65	3.59	3.59	3.56	3.44	4.02	3.41	3.59	3.59	3.43	3.43
21	Destruction Bay		3.37	3.42	3.67	3.54	3.71	4.07	3.11	3.60	3.60	3.61	3.61
22	Old Crow		3.40	3.61	3.68	3.84	3.53	3.24	4.44	3.70	3.70	3.40	3.40
23	Swift River		2.76	3.02	2.97	2.33	2.88	2.72	2.43	2.65	2.65	2.68	2.68
24	Standby Units		3.14	3.20	3.03	3.20	3.28	1.85	3.00	2.94	2.94	2.20	2.20
25													
26	<u>Litres Consumed (000)</u>												
27	Watson Lake		3,846	3,922	3,911	3,898	3,810	3,863	3,992	3,844	3,916	3,817	3,816
28	Beaver Creek		491	559	533	517	536	448	512	469	453	531	557
29	Destruction Bay		515	551	528	555	544	481	617	575	596	493	486
30	Old Crow		702	714	685	670	809	793	567	734	640	652	680
31	Swift River		80	100	91	115	86	85	88	78	84	80	85
32	Standby Units		21	31	36	58	106	55	95	39	71	18	18
33			5,655	5,877	5,783	5,812	5,890	5,725	5,872	5,738	5,759	5,592	5,643

ATCO Electric Yukon
2023 - 2024 General Rate Application (GRA)

Operations and Maintenance Expenses
(\$'000)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Production												
2	62600 - Hydro Generation	S.5.2 L.5	277	224	279	209	217	343	297	498	336	273	263
3	64000 - Supervision and Engineering Diesel	S.5.2 L.19	57	72	155	161	183	193	235	216	223	70	71
4	64600 - Diesel Generation	S.5.2 L.29	444	365	422	399	473	535	490	566	605	493	502
5	82600 - Hydro Maintenance	S.5.2 L.46	52	196	210	96	119	127	184	231	237	65	81
6	84600 - Diesel Maintenance	S.5.2 L.59	1,299	1,463	1,208	1,249	890	1,371	1,901	1,865	1,695	1,147	1,063
7			<u>2,129</u>	<u>2,320</u>	<u>2,274</u>	<u>2,114</u>	<u>1,882</u>	<u>2,569</u>	<u>3,107</u>	<u>3,376</u>	<u>3,096</u>	<u>2,048</u>	<u>1,980</u>
8	Distribution												
9	87000 - Supervision	S.5.2 L.76	260	376	304	333	236	375	384	394	406	325	332
10	87100 - Brushing	S.5.2 L.88	460	681	278	458	466	795	907	606	621	413	421
11	87200 - Vehicle Depreciation	S.5.2 L.104	(272)	(311)	(327)	(319)	(344)	(336)	(360)	(352)	(361)	(211)	(215)
12	87300 - Maintenance	S.5.2 L.109	1,999	1,904	2,098	2,268	2,311	2,300	2,970	2,851	2,931	2,061	2,101
13	87310 - Service to Outside Parties	S.5.2 L.128	80	53	49	85	120	629	149	20	20	120	122
14	87400 - Underground Line Maintenance	S.5.2 L.136	172	205	223	137	108	88	154	163	166	150	153
15	87500 - Meter and Meter Testing	S.5.2 L.153	62	153	91	95	179	99	91	155	103	90	92
16	87700 - Transformer Repair and Replacement	S.5.2 L.165	34	23	6	14	12	9	13	12	12	53	54
17	87800 - Street Light Maintenance	S.5.2 L.170	177	133	214	118	166	291	174	285	292	248	254
18			<u>2,972</u>	<u>3,217</u>	<u>2,936</u>	<u>3,189</u>	<u>3,254</u>	<u>4,250</u>	<u>4,481</u>	<u>4,134</u>	<u>4,190</u>	<u>3,248</u>	<u>3,314</u>
19	General												
20	88400 - Communication	S.5.2 L.185	12	27	41	36	39	48	59	120	123	25	25
21	88800 - Maintenance Company-Owned Houses	S.5.2 L.192	69	108	(29)	27	35	34	21	48	49	54	52
22	88900 - Maintenance Warehouse and Office	S.5.2 L.201	136	168	195	192	207	347	440	202	206	154	158
23			<u>217</u>	<u>303</u>	<u>207</u>	<u>255</u>	<u>281</u>	<u>429</u>	<u>520</u>	<u>370</u>	<u>378</u>	<u>233</u>	<u>234</u>
24	Public Information												
25	70100 - Public Information Administration	S.5.2 L.219	21	32	21	24	31	76	151	30	32	14	15
26	70200 - General Public Information	S.5.2 L.226	73	159	37	50	53	80	98	149	154	120	138
27			<u>94</u>	<u>191</u>	<u>58</u>	<u>74</u>	<u>84</u>	<u>156</u>	<u>249</u>	<u>179</u>	<u>186</u>	<u>135</u>	<u>153</u>
28	Customer Accounting												
29	71000 - Supervision	S.5.2 L.245	43	40	38	35	22	36	48	49	50	45	46
30	71100 - Customer Applications and Service Orders	S.5.2 L.250	512	414	422	440	421	356	427	450	463	489	500
31	71200 - Meter Reading	S.5.2 L.261	656	705	752	737	687	686	736	785	799	624	638
32	71300 - Customer Billing and Accounting	S.5.2 L.272	443	446	410	522	541	565	580	785	1,105	616	628
33	71400 - Revenue Collections	S.5.2 L.285	176	171	184	201	212	213	229	232	241	173	176
34	71500 - Collection of Delinquent Accounts	S.5.2 L.292	134	109	142	88	115	113	98	106	106	129	132
35	71800 - Provision for Uncollectible Accounts	S.5.2 L.298	53	67	112	(32)	178	(5)	50	78	78	86	88
36			<u>2,017</u>	<u>1,952</u>	<u>2,060</u>	<u>1,991</u>	<u>2,176</u>	<u>1,964</u>	<u>2,168</u>	<u>2,485</u>	<u>2,842</u>	<u>2,163</u>	<u>2,208</u>
37	Administration and General												
38	72100 - Administrative	S.5.2 L.312	2,049	2,388	2,195	2,194	2,647	2,811	2,580	2,728	2,860	2,069	2,107
39	72200 - Administrative Corporate	S.5.2 L.340	358	266	188	226	248	104	108	112	121	143	145
40	72300 - Insurance	S.5.2 L.349	93	88	89	98	117	132	154	158	165	100	102
41	72400 - Injuries & Damages	S.5.2 L.357	112	112	112	112	112	112	112	(279)	(279)	112	112
42	72500 - Employee Expenses	S.5.2 L.362	385	369	289	121	150	159	180	177	181	335	340
43	72600 - Training and Safety	S.5.2 L.374	409	492	409	453	518	433	725	659	608	495	505
44	72700 - Relocation	S.5.2 L.390	153	16	66	128	165	164	110	130	130	366	367
45	72800 - Miscellaneous General											2	2
46	72900 - Audit/Legal Fees & Special Studies	S.5.2 L.401	153	169	230	149	332	530	300	271	277	184	186
47			<u>3,712</u>	<u>3,900</u>	<u>3,578</u>	<u>3,481</u>	<u>4,289</u>	<u>4,445</u>	<u>4,268</u>	<u>3,956</u>	<u>4,063</u>	<u>3,804</u>	<u>3,866</u>
48													
49	Total Operations and Maintenance Expenses		<u>11,141</u>	<u>11,883</u>	<u>11,113</u>	<u>11,104</u>	<u>11,966</u>	<u>13,814</u>	<u>14,794</u>	<u>14,500</u>	<u>14,755</u>	<u>11,630</u>	<u>11,754</u>

ATCO Electric Yukon (AEY)
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Breakdown of Operations & Maintenance Expenses - Labour, Other
(\$000)

Line No.		Actuals						Test Period		Approved	Approved	
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Production											
2	62600 - Hydro Generation											
3	Labour	117	79	92	86	93	107	100	140	143		
4	Other	160	145	187	123	124	236	197	358	193		
5		<u>277</u>	<u>224</u>	<u>279</u>	<u>209</u>	<u>217</u>	<u>343</u>	<u>297</u>	<u>498</u>	<u>336</u>	273	263
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16	64000 - Supervision and Engineering Diesel											
17	Labour	57	72	156	151	170	177	223	210	217		
18	Other	-	-	(1)	10	13	16	12	6	6		
19		<u>57</u>	<u>72</u>	<u>155</u>	<u>161</u>	<u>183</u>	<u>193</u>	<u>235</u>	<u>216</u>	<u>223</u>	70	71
20												
21												
22												
23												
24												
25												
26	64600 - Diesel Generation											
27	Labour	265	230	317	290	341	287	240	315	325		
28	Other	179	135	105	109	132	248	250	251	280		
29		<u>444</u>	<u>365</u>	<u>422</u>	<u>399</u>	<u>473</u>	<u>535</u>	<u>490</u>	<u>566</u>	<u>605</u>	493	502
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												

Costs decrease in 2019 due to lower environmental costs related to the Fish Lake water license than in 2018.

Costs increase in 2021 due to higher environmental costs related to the Fish Lake water license process (\$50) and brushing at site (\$20).

Costs increase in 2023 due to additional environmental costs for the dam breach study (\$140) related to the Fish Lake water license process. As well as labour cost increase of (\$40) in 2023 due to additional plant maintenance resource.

Costs decrease in 2024 due to lower environmental costs, as the dam breach study will be done in 2023.

Costs increase in 2018 due to the addition of engineering resources (\$84) as well as inflation.

Costs increase in 2022 due to the addition of engineering resources (\$40) in addition to inflation.

Costs fluctuate from 2016 through 2020 mainly due to fluctuations in vacancies.

Costs increase in 2021 mainly due to higher contractor services for cyclical fuel tank cleaning and certification (\$120), partially offset by lower labour costs due to vacancies (\$54).

Costs decrease in 2022 mainly due to the cyclical nature of fuel tank cleaning and certification (\$54).

Costs increase in 2023 mainly due to additional plant maintenance resource (\$70).

Costs increase in 2024 mainly due to fuel tank maintenance (\$30).

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Breakdown of Operations & Maintenance Expenses - Labour, Other
(\$000)

Line No.		Actuals							Test Period		Approved	Approved	
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017	
398	72900 - Audit/Legal Fees & Special Studies												
399	Labour	12	51	71	70	84	77	74	73	74			
400	Other	141	118	159	79	248	453	226	198	203			
401		153	169	230	149	332	530	300	271	277	184	186	
402													
403	Costs increase in 2018 (\$40) and 2019 (\$65) mainly due to higher audit fees.												
404													
405	Costs increase in 2020 mainly due to legal fees (\$145) and higher audit fees (\$23).												
406													
407	Costs increase in 2021 mainly due to write down of feasibility study costs previously included in WIP (\$188) in addition to inflationary increases.												
408													
409	Costs decrease in 2022 mainly due to completion of the renewable's study in 2021 (\$188) and lower audit and legal costs, partially offset												
410	by inflationary increases.												
411													
412	Total Admin & General	3,712	3,900	3,578	3,481	4,289	4,445	4,268	3,956	4,063	3,804	3,865	
413													
414	Grand Total	11,141	11,883	11,113	11,104	11,966	13,814	14,794	14,500	14,755	11,630	11,754	
415													
416	Labour	5,671	5,643	6,042	5,917	6,037	6,266	6,483	7,133	7,295			
417	Other	5,470	6,240	5,071	5,187	5,929	7,548	8,311	7,368	7,460			
418	Total	11,141	11,883	11,113	11,104	11,966	13,814	14,794	14,500	14,755	11,630	11,754	

ATCO Electric Yukon (AEY)
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Affiliate Charges included in Operations and Maintenance Expenses
(\$000)

Line No.	O&M Category	Affiliate Company	Services Provided	Cross Ref.	Actuals							Test Period		Approved		
					2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017	
1	<u>Details of Affiliate Costs in Operations and Maintenance</u>															
2	87500 - Meters and Meter Testing	ATCO Electric	Metering Services		36	24	-	15	-	-	-	-	-	48	49	
3	87000 - Supervision	ATCO Electric	After Hours - Call Answering		5		7	26	27	52	32	32	32	59	60	
4	71200 - Meter Reading	ATCO Gas	Meter Services					15	22	22	14	21	21	24	24	
5	72100 - Administrative Expenses	ATCO Gas	Office Services											6	6	
6	71300 - Customer Billing and Accounting	ATCO Electric	Customer Care & Billing		87	68	60	80	80	46	42	64	64	73	74	
7																
8	<u>Details of Head Office Costs</u>															
9	72100 - Administrative Expenses	ATCO Electric	Governance, HR, and Health & Safety		31	112	127	127	127	113	118	121	112	146	149	
10	72100 - Administrative Expenses	ATCO Electric	Rates and Terms & Conditions		-	-	-	-	-	-	-	-	-	40	41	
11	72100 - Administrative Expenses	ATCO Electric	Financial Reporting and Regulatory Support		456	494	413	428	410	397	241	697	792	554	565	
12	72100 - Administrative Expenses	ATCO Electric	Payroll, Use of Systems and IT		155	115	8	7	7	-	-	-	-	114	116	
13	70202 - General Public Information	ATCO Electric	General Marketing		-	-	25	52	52	57	-	-	-	-	-	
14			Total Head Office Fees		642	721	573	614	597	567	359	818	904	854	870	
15																
16	72100 - Administrative Expenses	ATCO Electric	Material Management		10	10	3	3	5	3	3	3	5	3	3	
17																
18	Total Affiliate Costs included in Operations and Maintenance					780	823	643	753	731	690	450	938	1,026	1,067	1,087

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Schedule of Depreciation Expense
(\$000)

Line No.	Description	Cross Ref.	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	General Provision- Life	S.7.2 L.55, S7.3 L.51	6,378	6,673	6,839	6,910	7,247	7,530	7,956	7,553	9,395	6,336	6,723
2	Amortization of Differences- Life	S.7.4 L.50	(402)	(402)	(402)	(402)	(402)	(402)	(402)	(684)	(684)	(402)	(402)
3	Vehicle Depreciation Capitalized- Life		(141)	(156)	(144)	(126)	(138)	(178)	(211)	(211)	(215)	(88)	(90)
4	General Provision- Salvage	S.7.2 L.55, S7.3 L.51	-	-	-	-	-	-	-	1,336	1,430	-	-
5	Amortization of Differences- Salvage	S.7.4 L.50	-	-	-	-	-	-	-	670	670	-	-
6	Total Depreciation Expense		5,835	6,115	6,293	6,382	6,707	6,950	7,343	8,664	10,596	5,846	6,231

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Calculation of Depreciation Expense 2023
(\$'000)

Line No.	Acct.	Description	Cross Ref.	2023 Opening PPE	Depreciation Life Rate	Depreciation on Opening Balance	Net Capital Additions	Depreciation on Capital Additions	2023 Life Depreciation	Depreciation Salvage Rate	Depreciation on Opening Balance	Depreciation on Capital Additions	2023 Salvage Depreciation	2023 Total Depreciation
1		Production - Hydro												
2	331 00	Structures And Improvements		1,876	1.74%	33	320	3	36	0.09%	2	-	2	38
3	332 00	Reservoirs, Dams And Waterways		8,754	1.14%	100	722	4	104	0.06%	5	-	5	109
4	333 00	Water Wheels, Turbines And Generators		3,262	1.33%	43	393	3	46	0.07%	2	-	2	48
5	334 00	Accessory Electric Equipment		151	2.32%	4	48	1	5	0.00%	-	-	-	5
6	335 00	Miscellaneous Power Plant Equipment		111	2.08%	2	50	1	3	0.10%	-	-	-	3
7		Total Production - Hydro		14,154		182	1,533	12	194		9	-	9	203
8														
9		Production - Diesel												
10	341 20	Int Combust Structures		6,123	2.73%	167	164	2	169	0.27%	17	-	17	186
11	342 20	Int Combust Fuel Holders, Producers And Accessories		3,438	2.57%	88	398	5	93	0.39%	13	1	14	107
12	343 20	Int Combust Generators		20,592	4.08%	839	586	12	851	0.41%	84	1	85	936
13	345 20	Int Combust Accessory		5,155	2.99%	154	555	8	162	0.30%	15	1	16	178
14	346 20	Int Combust Miscellaneous		1,118	2.65%	30	89	1	31	0.13%	1	-	1	32
15	347 20	Renewables Energy Storage		3,532	4.58%	162	-	-	162	0.00%	-	-	-	162
16		Total Production - Diesel		39,958		1,440	1,792	28	1,468		130	3	133	1,601
17														
18		Transmission												
19	353 00	Station Equipment		1,144	1.95%	22	-	-	22	0.00%	-	-	-	22
20		Total Transmission		1,144		22	-	-	22		-	-	-	22
21														
22		Distribution Plant												
23	360 10	Land Rights		2,161	1.48%	32	20	-	32	0.00%	-	-	-	32
24	362 00	Station Equipment		7,546	2.64%	199	850	11	210	0.26%	20	1	21	231
25	362 10	System Communication and Control		1,459	6.67%	97	(412)	(14)	83	0.67%	10	(1)	9	92
26	364 00	Poles, Towers And Fixtures		54,593	2.24%	1,224	5,045	57	1,281	1.12%	612	28	640	1,921
27	365 00	Overhead Conductors And Devices		28,893	2.11%	610	2,479	26	636	0.53%	153	7	160	796
28	365 10	Overhead Services		5,252	2.21%	116	606	7	123	0.22%	12	1	13	136
29	367 00	Underground Conductor And Devices		35,098	2.14%	751	3,036	32	783	0.54%	188	8	196	979
30	367 10	Underground Services		6,291	2.09%	132	492	5	137	0.10%	7	-	7	144
31	368 00	Line Transformers		41,812	2.40%	1,005	3,741	45	1,050	0.24%	100	4	104	1,154
32	370 00	Conventional Meters		2,975	5.64%	168	(65)	(2)	166	0.28%	8	-	8	174
33	371 00	Automated Meters		174	7.03%	12	221	8	20	0.00%	-	-	-	20
34	373 00	Street Lights		13,675	3.29%	450	3,346	55	505	0.33%	45	6	51	556
35	373 10	Sentinel Lights		285	1.82%	5	(1)	-	5	-0.18%	(1)	-	(1)	4
36		Total Distribution Plant		200,215		4,801	19,356	230	5,031		1,154	54	1,208	6,239
37														
38		General Plant												
39	390 00	Structures And Improvements		5,249	2.52%	132	283	4	136	0.25%	13	-	13	149
40	390 01	Structures And Improvements Houses		454	2.60%	12	(3)	-	12	0.26%	1	-	1	13
41	391 00	Office Furniture And Equipment		292	6.67%	19	51	2	21	0.00%	-	-	-	21
42	391 10	Computer Hardware & Voice And Data Network Equipment		61	20.00%	12	163	16	28	0.00%	-	-	-	28
43	391 22	Computer Software And Applications Major (10 Yr)		795	10.00%	80	8,090	404	484	0.00%	-	-	-	484
44	392 20	Transportation Equipment, Fleet Vehicles Category 2		2,956	8.43%	249	712	30	279	-0.84%	(25)	(3)	(28)	251
45	392 30	Transportation Equipment, Fleet Vehicles Category 3		2,757	6.69%	185	317	11	196	0.00%	-	-	-	196
46	394 00	Tools, Shop, Garage, Stores And Laboratory Equipment		1,739	6.67%	116	278	19	135	0.00%	-	-	-	135
47	392 40	Transportation Equipment, Fleet Vehicles Category 4		232	7.30%	17	-	-	17	0.00%	-	-	-	17
48	303 00	Fish Lake Water Licence		2,313	4.00%	93	-	-	93	0.00%	-	-	-	93
49	303 00	Demand Side Management ¹		923	20.00%	-	(923)	(185)	(185)	0.00%	-	-	-	(185)
50		Total General Plant		17,770		915	8,967	301	1,216		(11)	(3)	(14)	1,202
51														
52		Demand Side Management Depreciation Adjustment ¹							(378)					(378)
53														
54														
55		Plant Studied		270,006		7,360	31,649	571	7,553		1,282	54	1,336	8,889
56		Plant Not Studied - Fish Lake Water License, DSM & Land		3,550										
57		Total Plant	S.8.6 L.10	273,556										
58														

(1) Demand side management costs have been fully depreciated and needs to be retired. Upon review of this asset, AEY notes that demand side management has been over depreciated for 2.3 years. As a result, there will be no depreciation on the opening balance, there will be a credit to depreciation of 185 on the immediate retirement of this asset and an additional credit adjustment of 378. This results in a decrease to depreciation expense and revenue requirement.

ATCO Electric Yukon (AEY)
 2023 - 2024 General Rate Application (GRA)
 Schedule of Amortization of Differences
 (\$000)

Line No.	Acct.	Description	Cross Ref.	Estimator	Survivor Curve	Life	Salvage	Rates	Actuals				Test Period				Approved			
									2016	2017	2018	2019	2020	2021	2022	2023	2024	2023	2024	2016
1		Production - Hydro																		
2	331 00	Structures And Improvements		R2	70	-5	0.63%	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(1)	(1)	(1)	(1)	(2)	(2)
3	332 00	Reservoirs, Dams And Waterways		R3	100	-5	3.32%	(9)	(9)	(9)	(9)	(9)	(9)	(9)	3	3	1	1	(9)	(9)
4	333 00	Water Wheels, Turbines And Generators		R3	85	-5	1.24%	-	-	-	-	-	-	-	(17)	(17)	1	1	(4)	(4)
5	334 00	Accessory Electric Equipment		R2.5	40	0	0.03%	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	0	0	(2)	(2)
6	335 00	Miscellaneous Power Plant Equipment		R4	51	-5	0.04%	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)	0	0	(1)	(1)
7		Total Production - Hydro						(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	2	2	(17)	(17)
8																				
9		Production - Diesel																		
10	341 20	Structures and Improvements - Other		R2	40	-10	2.30%	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(9)	(9)	11	11	(6)	(6)
11	342 20	Fuel Holders, Producers, & Acc. Equipment - Other		R3	40	-15	1.29%	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(15)	(15)	10	10	(8)	(8)
12	343 20	Generating Equipment & Prime Mover - Other		S2	26	-10	7.72%	16	16	16	16	16	16	16	84	84	50	50	16	16
13	345 20	Accessory Electric Equipment - Other		R3	35	-10	1.94%	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(8)	(8)	8	8	(10)	(10)
14	346 20	Misc. Power Plant Equipment - Other		R3	40	-5	0.42%	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)	1	1	(2)	(2)
15	347 20	Renewables Energy Storage		R3	25	0	1.33%	-	-	-	-	-	-	-	3	3	-	-	-	-
16		Total Production - Diesel						(10)	(10)	(10)	(10)	(10)	(10)	(10)	52	52	81	81	(10)	(10)
17																				
18		Transmission																		
19	353 00	Substation Equipment		R3	50	0	0.43%	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(4)	(4)	(1)	(1)	(7)	(7)
20		Total Transmission						(7)	(7)	(7)	(7)	(7)	(7)	(7)	(4)	(4)	(1)	(1)	(7)	(7)
21																				
22		Distribution Plant																		
23	360 10	Land Rights		R3	75	0	0.81%	-	-	-	-	-	-	-	-	-	-	-	0	0
24	362 00	Station Equipment		R2.5	40	-10	2.84%	(16)	(16)	(16)	(16)	(16)	(16)	(16)	(11)	(11)	20	20	(16)	(16)
25	362 10	System Communication & Control		SQ	15	-10	0.37%	4	4	4	4	4	4	4	(119)	(119)	13	13	4	4
26	364 00	Poles, Towers & Fixtures		R2	50	-50	20.06%	(75)	(75)	(75)	(75)	(75)	(75)	(75)	(104)	(104)	171	171	(75)	(75)
27	365 00	Overhead Conductor		R3	50	-25	10.83%	(37)	(37)	(37)	(37)	(37)	(37)	(37)	(54)	(54)	21	21	(37)	(37)
28	365 10	Services - Overhead		R2.5	50	-10	1.97%	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(10)	(10)	6	6	(7)	(7)
29	367 00	Underground Conductor		R3	50	-25	12.86%	14	14	14	14	14	14	14	(28)	(28)	95	95	14	14
30	367 10	Services - Underground		R4	50	-5	2.36%	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(12)	(12)	3	3	(4)	(4)
31	368 00	Line Transformers		R2.5	45	-10	15.38%	(84)	(84)	(84)	(84)	(84)	(84)	(84)	(81)	(81)	61	61	(84)	(84)
32	370 00	Meters		R0.5	15	-5	1.11%	60	60	60	60	60	60	60	(32)	(32)	13	13	60	60
33	371 00	AMR - Meters		R2.5	15	0	0.07%	1	1	1	1	1	1	1	(0)	(0)	5	5	1	1
34	373 00	Street Lighting		R3	30	-10	5.13%	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(84)	(84)	81	81	(64)	(64)
35	373 10	Sentinel Lights		R2	23	10	0.11%	(18)	(18)	(18)	(18)	(18)	(18)	(18)	17	17	28	28	(18)	(18)
36		Total Distribution Plant						(227)	(227)	(227)	(227)	(227)	(227)	(227)	(518)	(518)	515	515	(227)	(227)
37																				
38		General Plant																		
39	390 00	Structures & Improvements		L3	40	-10	1.95%	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(21)	(21)	22	22	(15)	(15)
40	390 01	Structures And Improvements Houses		R3	40	-10	0.17%	(72)	(72)	(72)	(72)	(72)	(72)	(72)	(30)	(30)	44	44	(72)	(72)
41	391 00	Office Furniture & Equipment		SQ	15	0	0.10%	8	8	8	8	8	8	8	(5)	(5)	1	1	8	8
42	391 10	Computer Hardware & Voice And Data Network Equipment		SQ	5	0	0.02%	6	6	6	6	6	6	6	(24)	(24)	-	-	6	6
43	391 22	Computer Software And Applications Major (10 Yr)		SQ	10	0	0.29%	-	-	-	-	-	-	-	(10)	(10)	-	-	-	-
44	392 20	Transportation Equipment, Fleet Vehicles Category 2		L3	12	10	1.11%	(73)	(73)	(73)	(73)	(73)	(73)	(73)	(161)	(161)	-	-	-	-
45	392 30	Transportation Equipment, Fleet Vehicles Category 3		L3	15	0	1.04%	-	-	-	-	-	-	-	49	49	-	-	-	-
46	392 40	Transportation Equipment, Fleet Vehicles Category 4		L0	12	0	0.09%	-	-	-	-	-	-	-	5	5	-	-	-	-
47	394 00	Tools, Shop, Garage, Stores And Laboratory Equipment		SQ	15	0	0.64%	4	4	4	4	4	4	4	-	-	(0)	(0)	4	4
48		Total General Plant						(142)	(142)	(142)	(142)	(142)	(142)	(142)	(197)	(197)	74	74	(142)	(142)
49																				
50		Total Amortization of Differences						(402)	(402)	(402)	(402)	(402)	(402)	(402)	(684)	(684)	670	670	(402)	(402)

S. 7.1 L. 2, L.5

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Return on Rate Base
(\$000)

Line No.	Description	Cross Ref.	Mid Year Balance	Mid Year Cost Ratio	Mid Year Rate Base	Mid Year Cost Rate	Return
1							
2							
3	2016 Actual						
5	Long-Term Debt	"S.8.2 & 8.3" L.21	60,200	59.46%	58,546	5.44%	3,182
7	Common Stock		40,349	39.85%	39,240	10.44%	4,098
9	No Cost Capital	S.8.4 L.8	703	0.69%	683	0.00%	-
11	Total		101,252	100.0%	98,470	7.39%	7,280
13	2017 Actual						
15	Long-Term Debt	"S.8.2 & 8.3" L.48	65,150	59.38%	60,894	5.23%	3,183
17	Common Stock		43,766	39.89%	40,907	12.77%	5,226
19	No Cost Capital	S.8.4 L.8	809	0.74%	756	0.00%	-
21	Total		109,726	100.0%	102,558	8.20%	8,409
23	2018 Actual						
25	Long-Term Debt	"S.8.2 & 8.3" L.75	67,700	59.51%	62,501	5.09%	3,184
27	Common Stock		45,152	39.69%	41,684	12.73%	5,306
29	No Cost Capital	S.8.4 L.8	915	0.80%	845	0.00%	-
31	Total		113,767	100.0%	105,030	8.08%	8,490
33	2019 Actual						
35	Long-Term Debt	"S.8.2 & 8.3" L.101	68,550	59.37%	63,014	4.94%	3,116
37	Common Stock		45,898	39.75%	42,192	13.11%	5,530
39	No Cost Capital	S.8.4 L.8	1,023	0.89%	940	0.00%	-
41	Total		115,471	100.0%	106,146	8.15%	8,646
43	2020 Actual						
45	Long-Term Debt	"S.8.2 & 8.3" L.128	69,450	59.71%	63,953	4.67%	2,988
47	Common Stock		45,729	39.32%	42,110	13.29%	5,596
49	No Cost Capital	S.8.4 L.8	1,130	0.97%	1,041	0.00%	-
51	Total		116,310	100.0%	107,103	8.01%	8,584
52							

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Return on Rate Base
(\$000)

Line No.	Description	Cross Ref.	Mid Year Balance	Mid Year Cost Ratio	Mid Year Rate Base	Mid Year Cost Rate	Return
53	2021 Actual						
55	Long-Term Debt	"S.8.2 & 8.3" L.155	70,800	60.31%	65,804	4.53%	2,984
57	Common Stock		45,348	38.63%	42,148	12.44%	5,244
59	No Cost Capital	S.8.4 L.8	1,238	1.05%	1,150	0.00%	-
61	Total		117,386	100.0%	109,102	7.54%	8,228
62							
63	2022 Actual						
65	Long-Term Debt	"S.8.2 & 8.3" L.184	72,300	60.06%	68,731	4.54%	3,121
67	Common Stock		46,739	38.82%	44,431	11.97%	5,319
69	No Cost Capital	S.8.4 L.8	1,344	1.12%	1,278	0.00%	-
71	Total		120,383	100.0%	114,440	7.37%	8,440
72							
73	2023 Test Period						
75	Long-Term Debt	"S.8.2 & 8.3" L.212	76,050	59.72%	77,197	4.47%	3,447
77	Common Stock		50,137	39.37%	50,893	9.50%	4,835
79	No Cost Capital	S.8.4 L.8	1,158	0.91%	1,176	0.00%	-
81	Total		127,345	100.0%	129,266	6.41%	8,282
82							
83							
84	2024 Test Period						
85							
86	Long-Term Debt	"S.8.2 & 8.3" L.241	81,350	59.39%	84,790	4.36%	3,701
87							
88	Common Stock		54,745	39.97%	57,060	9.50%	5,421
89							
90	No Cost Capital	S.8.4 L.8	880	0.64%	917	0.00%	-
91							
92	Total		136,975	100.0%	142,766	6.39%	9,122
93							

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Return on Rate Base
(\$000)

Line No.	Description	Cross Ref.	Mid Year Balance	Mid Year Cost Ratio	Mid Year Rate Base	Mid Year Cost Rate	Return
94							
95	<u>2016 Approved</u>						
96							
97	Long-Term Debt	"S.8.2 & 8.3" L.267	59,200	59.60%	59,211	5.46%	3,235
98							
99	Common Stock		39,465	39.73%	39,472	9.00%	3,552
100							
101	No Cost Capital	S.8.4 L.8	660	0.66%	660	0.00%	-
102							
103	Total		99,324	100.0%	99,343	6.83%	6,787
104							
105							
106	<u>2017 Approved</u>						
107							
108	Long-Term Debt	"S.8.2 & 8.3" L.294	63,400	59.62%	62,869	5.28%	3,319
109							
110	Common Stock		42,268	39.75%	41,913	9.00%	3,772
111							
112	No Cost Capital	S.8.4 L.8	667	0.63%	662	0.00%	-
113							
114	Total		106,335	100.0%	105,444	6.73%	7,091

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Schedule of Debt Capital Employed and Embedded Cost
(\$000)**

Line No.	Description	Series	Issue Date	Coupon Rate	Maturity Date	Net Capital Employed			Effective Cost Rate	Principal Outstanding 31-Dec-16	Carrying Cost	Average Embedded Cost Rate
						Principal Amount Offered	Total Amount	Per \$100 of Principal Amount				
1		D	1990-11-28	11.85%	2020	1,500	1,500	100.00	11.91%	1,500	179	
2		E	1992-05-08	9.46%	2023	2,500	2,500	100.00	9.51%	2,500	238	
3		K	1999-08-13	6.80%	2019	4,500	4,500	100.00	6.85%	4,500	308	
4		N	2002-11-22	6.16%	2017	3,900	3,900	100.00	6.21%	3,900	242	
5		O	2004-01-23	5.42%	2019	1,000	1,000	100.00	5.47%	1,000	55	
6		Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.23%	4,300	225	
7		R	2006-11-20	5.02%	2036	3,000	3,000	100.00	5.07%	3,000	152	
8		S	2008-05-26	5.56%	2028	860	860	100.00	5.61%	860	48	
9		T	2008-05-26	5.57%	2038	1,290	1,290	100.00	5.62%	1,290	72	
10		U	2009-03-06	6.23%	2024	2,900	2,900	100.00	6.28%	2,900	182	
11		V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.55%	3,700	242	
12		W	2011-10-24	4.53%	2041	5,000	5,000	100.00	4.58%	5,000	229	
13		X	2012-11-01	3.84%	2052	4,000	4,000	100.00	3.89%	4,000	156	
14		Y	2013-11-01	4.71%	2043	9,400	9,400	100.00	4.76%	9,400	448	
15		Z	2014-11-01	4.07%	2044	7,900	7,900	100.00	4.12%	7,900	325	
16		AA	2015-11-01	3.95%	2045	750	750	100.00	4.00%	750	30	
17		AB	2016-11-17	3.75%	2046	7,400	7,400	100.00	3.80%	7,400	281	
18	Total					63,900				63,900	3,412	5.34%
19	Prior Year									56,500	3,131	5.54%
20	Total									120,400	6,544	
21	Mid Year									60,200	3,272	5.44%
22												
23	2017 Actual											
24												
25												
26	Description	Series	Issue Date	Coupon Rate	Maturity Date	Principal Amount Offered	Total Amount	Per \$100 of Principal Amount	Effective Cost Rate	Principal Outstanding 31-Dec-17	Carrying Cost	Average Embedded Cost Rate
27		D	1990-11-28	11.85%	2020	1,500	1,500	100.00	11.91%	1,500	179	
28		E	1992-05-08	9.46%	2023	2,500	2,500	100.00	9.51%	2,500	238	
29		K	1999-08-13	6.80%	2019	4,500	4,500	100.00	6.85%	4,500	308	
30		O	2004-01-23	5.42%	2019	1,000	1,000	100.00	5.47%	1,000	55	
31		Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.23%	4,300	225	
32		R	2006-11-20	5.02%	2036	3,000	3,000	100.00	5.07%	3,000	152	
33		S	2008-05-26	5.56%	2028	860	860	100.00	5.61%	860	48	
34		T	2008-05-26	5.57%	2038	1,290	1,290	100.00	5.62%	1,290	72	
35		U	2009-03-06	6.23%	2024	2,900	2,900	100.00	6.28%	2,900	182	
36		V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.55%	3,700	242	
37		W	2011-10-24	4.53%	2041	5,000	5,000	100.00	4.58%	5,000	229	
38		X	2012-11-01	3.84%	2052	4,000	4,000	100.00	3.89%	4,000	156	
39		Y	2013-11-01	4.71%	2043	9,400	9,400	100.00	4.76%	9,400	448	
40		Z	2014-11-01	4.07%	2044	7,900	7,900	100.00	4.12%	7,900	325	
41		AA	2015-11-01	3.95%	2045	750	750	100.00	4.00%	750	30	
42		AB	2016-11-17	3.75%	2046	7,400	7,400	100.00	3.80%	7,400	281	
43		AC	2017-11-22	3.50%	2047	6,400	6,400	100.00	3.55%	6,400	227	
44												
45	Total					66,400	66,400			66,400	3,397	5.12%
46	Prior Year									63,900	3,412	5.34%
47	Total									130,300	6,810	
48	Mid Year									65,150	3,405	5.23%

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Schedule of Debt Capital Employed and Embedded Cost
(\$000)**

2018 Actual		Net Capital Employed										
Description	Series	Issue Date	Coupon Rate	Maturity Date	Principal Amount Offered	Total Amount	Per \$100 of Principal Amount	Effective Cost Rate	Principal Outstanding 31-Dec-18	Carrying Cost	Average Embedded Cost Rate	
54	D	1990-11-28	11.85%	2020	1,500	1,500	100.00	11.91%	1,500	179		
55	E	1992-05-08	9.46%	2023	2,500	2,500	100.00	9.51%	2,500	238		
56	K	1999-08-13	6.80%	2019	4,500	4,500	100.00	6.85%	4,500	308		
57	O	2004-01-23	5.42%	2019	1,000	1,000	100.00	5.47%	1,000	55		
58	Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.23%	4,300	225		
59	R	2006-11-20	5.02%	2036	3,000	3,000	100.00	5.07%	3,000	152		
60	S	2008-05-26	5.56%	2028	860	860	100.00	5.61%	860	48		
61	T	2008-05-26	5.57%	2038	1,290	1,290	100.00	5.62%	1,290	72		
62	U	2009-03-06	6.23%	2024	2,900	2,900	100.00	6.28%	2,900	182		
63	V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.55%	3,700	242		
64	W	2011-10-24	4.53%	2041	5,000	5,000	100.00	4.58%	5,000	229		
65	X	2012-11-01	3.84%	2052	4,000	4,000	100.00	3.89%	4,000	156		
66	Y	2013-11-01	4.71%	2043	9,400	9,400	100.00	4.76%	9,400	448		
67	Z	2014-11-01	4.07%	2044	7,900	7,900	100.00	4.12%	7,900	325		
68	AA	2015-11-01	3.95%	2045	750	750	100.00	4.00%	750	30		
69	AB	2016-11-17	3.75%	2046	7,400	7,400	100.00	3.80%	7,400	281		
70	AC	2017-11-22	3.50%	2047	6,400	6,400	100.00	3.55%	6,400	227		
71	AD	2018-11-21	3.94%	2048	2,600	2,600	100.00	3.99%	2,600	104		
72	Total				69,000				69,000	3,501	5.07%	
73	Prior Year								66,400	3,397	5.12%	
74	Total								135,400	6,898		
75	Mid Year								67,700	3,449	5.09%	
76												
2019 Actual		Net Capital Employed										
Description	Series	Issue Date	Coupon Rate	Maturity Date	Principal Amount Offered	Total Amount	Per \$100 of Principal Amount	Effective Cost Rate	Principal Outstanding 31-Dec-19	Carrying Cost	Average Embedded Cost Rate	
81	D	1990-11-28	11.85%	2020	1,500	1,500	100.00	11.910%	1,500	179		
82	E	1992-05-08	9.46%	2023	2,500	2,500	100.00	9.510%	2,500	238		
83	Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.230%	4,300	225		
84	R	2006-11-20	5.02%	2036	3,000	3,000	100.00	5.070%	3,000	152		
85	S	2008-05-26	5.56%	2028	860	860	100.00	5.610%	860	48		
86	T	2008-05-26	5.57%	2038	1,290	1,290	100.00	5.620%	1,290	72		
87	U	2009-03-06	6.23%	2024	2,900	2,900	100.00	6.280%	2,900	182		
88	V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.550%	3,700	242		
89	W	2011-10-24	4.53%	2041	5,000	5,000	100.00	4.580%	5,000	229		
90	X	2012-11-01	3.84%	2052	4,000	4,000	100.00	3.890%	4,000	156		
91	Y	2013-11-01	4.71%	2043	9,400	9,400	100.00	4.761%	9,400	448		
92	Z	2014-11-01	4.07%	2044	7,900	7,900	100.00	4.120%	7,900	325		
93	AA	2015-11-01	3.95%	2045	750	750	100.00	4.001%	750	30		
94	AB	2016-11-17	3.75%	2046	7,400	7,400	100.00	3.799%	7,400	281		
95	AC	2017-11-22	3.53%	2047	6,400	6,400	100.00	3.583%	6,400	229		
96	AD	2018-11-21	3.94%	2048	2,600	2,600	100.00	3.988%	2,600	104		
97	AE	2019-09-07	2.95%	2049	4,600	4,600	100.00	2.996%	4,600	138		
98	Total				68,100				68,100	3,278	4.81%	
99	Prior Year								69,000	3,501	5.07%	
100	Total								137,100	6,779		
101	Mid Year								68,550	3,390	4.94%	

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Schedule of Debt Capital Employed and Embedded Cost
(\$000)**

2020 Actual											
Description	Series	Issue Date	Coupon Rate	Maturity Date	Principal Amount Offered	Net Capital Employed		Effective Cost Rate	Principal Outstanding 31-Dec-20	Carrying Cost	Average Embedded Cost Rate
						Total Amount	Per \$100 of Principal Amount				
107	E	1992-05-08	9.40%	2023	2,500	2,500	100.00	9.510%	2,500	238	
108	Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.230%	4,300	225	
109	R	2006-11-20	5.03%	2036	3,000	3,000	100.00	5.070%	3,000	152	
110	S	2008-05-26	5.56%	2028	860	860	100.00	5.610%	860	48	
111	T	2008-05-26	5.58%	2038	1,290	1,290	100.00	5.620%	1,290	72	
112	U	2009-03-06	6.22%	2024	2,900	2,900	100.00	6.280%	2,900	182	
113	V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.550%	3,700	242	
114	W	2011-10-24	4.54%	2041	5,000	5,000	100.00	4.580%	5,000	229	
115	X	2012-11-01	3.86%	2052	4,000	4,000	100.00	3.890%	4,000	156	
116	Y	2013-11-01	4.72%	2043	9,400	9,400	100.00	4.761%	9,400	448	
117	Z	2014-11-01	4.09%	2044	7,900	7,900	100.00	4.120%	7,900	325	
118	AA	2015-11-01	3.96%	2045	750	750	100.00	4.001%	750	30	
119	AB	2016-11-17	3.76%	2046	7,400	7,400	100.00	3.799%	7,400	281	
120	AC	2017-11-22	3.55%	2047	6,400	6,400	100.00	3.583%	6,400	229	
121	AD	2018-11-21	3.95%	2048	2,600	2,600	100.00	3.988%	2,600	104	
122	AE	2019-09-07	2.96%	2049	4,600	4,600	100.00	2.996%	4,600	138	
123	AF	2020-09-28	2.61%	2050	4,200	4,200	100.00	2.644%	4,200	111	
124											
125	Total				70,800	70,800			70,800	3,211	4.535%
126	Prior Year								68,100	3,278	4.94%
127	Total								138,900	6,489	
128	Mid Year								69,450	3,244	4.67%
129											
2021 Actual											
Description	Series	Issue Date	Coupon Rate	Maturity Date	Principal Amount Offered	Net Capital Employed		Effective Cost Rate	Principal Outstanding 31-Dec-21	Carrying Cost	Average Embedded Cost Rate
						Total Amount	Per \$100 of Principal Amount				
134	E	1992-05-08	9.40%	2023	2,500	2,500	100.00	9.510%	2,500	238	
135	Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.230%	4,300	225	
136	R	2006-11-20	5.03%	2036	3,000	3,000	100.00	5.070%	3,000	152	
137	S	2008-05-26	5.56%	2028	860	860	100.00	5.610%	860	48	
138	T	2008-05-26	5.58%	2038	1,290	1,290	100.00	5.620%	1,290	72	
139	U	2009-03-06	6.22%	2024	2,900	2,900	100.00	6.280%	2,900	182	
140	V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.550%	3,700	242	
141	W	2011-10-24	4.54%	2041	5,000	5,000	100.00	4.580%	5,000	229	
142	X	2012-11-01	3.86%	2052	4,000	4,000	100.00	3.890%	4,000	156	
143	Y	2013-11-01	4.72%	2043	9,400	9,400	100.00	4.761%	9,400	448	
144	Z	2014-11-01	4.09%	2044	7,900	7,900	100.00	4.120%	7,900	325	
145	AA	2015-11-01	3.96%	2045	750	750	100.00	4.001%	750	30	
146	AB	2016-11-17	3.76%	2046	7,400	7,400	100.00	3.799%	7,400	281	
147	AC	2017-11-22	3.55%	2047	6,400	6,400	100.00	3.583%	6,400	229	
148	AD	2018-11-21	3.95%	2048	2,600	2,600	100.00	3.988%	2,600	104	
149	AE	2019-09-07	2.96%	2049	4,600	4,600	100.00	2.996%	4,600	138	
150	AF	2020-09-28	2.61%	2050	4,200	4,200	100.00	2.644%	4,200	111	
151								0.000%		-	
152	Total				70,800				70,800	3,211	4.535%
153	Prior Year								70,800	3,211	4.535%
154	Total								141,600	6,421	
155	Mid Year								70,800	3,211	4.53%

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Schedule of Debt Capital Employed and Embedded Cost
(\$000)**

		<u>Net Capital Employed</u>											
						Principal		Per \$100 of		Principal		Average	
		Issue	Coupon	Maturity	Amount	Total	Principal	Effective	Outstanding	Carrying	Embedded		
		Date	Rate	Date	Offered	Amount	Amount	Cost Rate	31-Dec-22	Cost	Cost Rate		
156	2022 Actual	Description	Series										
161		E		1992-05-08	2,500	2,500	100.00	9.510%	2,500	238			
162		Q		2005-11-21	4,300	4,300	100.00	5.230%	4,300	225			
163		R		2006-11-20	3,000	3,000	100.00	5.070%	3,000	152			
164		S		2008-05-26	860	860	100.00	5.610%	860	48			
165		T		2008-05-26	1,290	1,290	100.00	5.620%	1,290	72			
166		U		2009-03-06	2,900	2,900	100.00	6.280%	2,900	182			
167		V		2009-03-06	3,700	3,700	100.00	6.550%	3,700	242			
168		W		2011-10-24	5,000	5,000	100.00	4.580%	5,000	229			
169		X		2012-11-01	4,000	4,000	100.00	3.890%	4,000	156			
170		Y		2013-11-01	9,400	9,400	100.00	4.761%	9,400	448			
171		Z		2014-11-01	7,900	7,900	100.00	4.120%	7,900	325			
172		AA		2015-11-01	750	750	100.00	4.001%	750	30			
173		AB		2016-11-17	7,400	7,400	100.00	3.799%	7,400	281			
174		AC		2017-11-22	6,400	6,400	100.00	3.583%	6,400	229			
175		AD		2018-11-21	2,600	2,600	100.00	3.988%	2,600	104			
176		AE		2019-09-07	4,600	4,600	100.00	2.996%	4,600	138			
177		AF		2020-09-28	4,200	4,200	100.00	2.644%	4,200	111			
178		AG		2022-09-14	3,000	3,000	100.00	4.825%	3,000	145			
179													
180													
181		Total			73,800	73,800			73,800	3,355	4.546%		
182		Prior Year							70,800	3,211	4.535%		
183		Total							144,600	6,566			
184		Mid Year							72,300	3,283	4.54%		
185													
186	2023 Test Period												
187													
188													
189		Description	Series	Issue Date	Coupon Rate	Maturity Date	Principal Amount Offered	Total Amount	Principal Amount	Effective Cost Rate	Principal Outstanding 31-Dec-23	Carrying Cost	Average Embedded Cost Rate
190													
191			Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.230%	4,300	225	
192			R	2006-11-20	5.03%	2036	3,000	3,000	100.00	5.070%	3,000	152	
193			S	2008-05-26	5.56%	2028	860	860	100.00	5.610%	860	48	
194			T	2008-05-26	5.58%	2038	1,290	1,290	100.00	5.620%	1,290	72	
195			U	2009-03-06	6.22%	2024	2,900	2,900	100.00	6.280%	2,900	182	
196			V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.550%	3,700	242	
197			W	2011-10-24	4.54%	2041	5,000	5,000	100.00	4.580%	5,000	229	
198			X	2012-11-01	3.86%	2052	4,000	4,000	100.00	3.890%	4,000	156	
199			Y	2013-11-01	4.72%	2043	9,400	9,400	100.00	4.761%	9,400	448	
200			Z	2014-11-01	4.09%	2044	7,900	7,900	100.00	4.120%	7,900	325	
201			AA	2015-11-01	3.96%	2045	750	750	100.00	4.001%	750	30	
202			AB	2016-11-17	3.76%	2046	7,400	7,400	100.00	3.799%	7,400	281	
203			AC	2017-11-22	3.55%	2047	6,400	6,400	100.00	3.583%	6,400	229	
204			AD	2018-11-21	3.95%	2048	2,600	2,600	100.00	3.988%	2,600	104	
205			AE	2019-09-07	2.96%	2049	4,600	4,600	100.00	2.996%	4,600	138	
206			AF	2020-09-28	2.61%	2050	4,200	4,200	100.00	2.644%	4,200	111	
207			AG	2022-09-14	4.77%	2052	3,000	3,000	100.00	4.825%	3,000	145	
208			AH	2023-05-08	4.56%	2053	7,000	7,000	100.00	4.56%	7,000	319	
209		Total			78,300	78,300					78,300	3,437	4.389%
210		Prior Year									73,800	3,355	4.546%
211		Total									152,100	6,792	
212		Mid Year									76,050	3,396	4.47%

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Schedule of Debt Capital Employed and Embedded Cost
(\$000)**

<u>2024 Test Period</u>		<u>Net Capital Employed</u>									
<u>Description</u>	<u>Series</u>	<u>Issue Date</u>	<u>Coupon Rate</u>	<u>Maturity Date</u>	<u>Principal Amount Offered</u>	<u>Total Amount</u>	<u>Per \$100 of Principal Amount</u>	<u>Effective Cost Rate</u>	<u>Principal Outstanding 31-Dec-22</u>	<u>Carrying Cost</u>	<u>Average Embedded Cost Rate</u>
213											
214											
215											
216											
217											
218											
219		Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.230%	4,300	225
220		R	2006-11-20	5.03%	2036	3,000	3,000	100.00	5.070%	3,000	152
221		S	2008-05-26	5.56%	2028	860	860	100.00	5.610%	860	48
222		T	2008-05-26	5.58%	2038	1,290	1,290	100.00	5.620%	1,290	72
223		V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.550%	3,700	242
224		W	2011-10-24	4.54%	2041	5,000	5,000	100.00	4.580%	5,000	229
225		X	2012-11-01	3.86%	2052	4,000	4,000	100.00	3.890%	4,000	156
226		Y	2013-11-01	4.72%	2043	9,400	9,400	100.00	4.761%	9,400	448
227		Z	2014-11-01	4.09%	2044	7,900	7,900	100.00	4.120%	7,900	325
228		AA	2015-11-01	3.96%	2045	750	750	100.00	4.001%	750	30
229		AB	2016-11-17	3.76%	2046	7,400	7,400	100.00	3.799%	7,400	281
230		AC	2017-11-22	3.55%	2047	6,400	6,400	100.00	3.583%	6,400	229
231		AD	2018-11-21	3.95%	2048	2,600	2,600	100.00	3.988%	2,600	104
232		AE	2019-09-07	2.96%	2049	4,600	4,600	100.00	2.996%	4,600	138
233		AF	2020-09-28	2.61%	2050	4,200	4,200	100.00	2.644%	4,200	111
234		AG	2022-09-14	4.77%	2052	3,000	3,000	100.00	4.825%	3,000	145
235		AH	2023-05-08	4.56%	2053	7,000	7,000	100.00	4.56%	7,000	319
236		AI	2024-03-06	4.56%	2054	9,000	9,000	100.00	4.56%	9,000	410
237											
238	Total				84,400	84,400			84,400	3,665	4.342%
239	Prior Year								78,300	3,437	4.389%
240	Total								162,700	7,102	
241	Mid Year								81,350	3,551	4.36%
242											
243	<u>2016 Approved</u>										
244											
245											
246											
247		D	1990-11-28	11.85%	2020	1,500	1,500	100.00	11.91%	1,500	179
248		E	1992-05-08	9.46%	2023	2,500	2,500	100.00	9.51%	2,500	238
249		K	1999-08-13	6.80%	2019	4,500	4,500	100.00	6.85%	4,500	308
250		N	2002-11-22	6.16%	2017	3,900	3,900	100.00	6.21%	3,900	242
251		O	2004-01-23	5.42%	2019	1,000	1,000	100.00	5.47%	1,000	55
252		Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	5.23%	4,300	225
253		R	2006-11-20	5.02%	2036	3,000	3,000	100.00	5.07%	3,000	152
254		S	2008-05-26	5.56%	2028	860	860	100.00	5.61%	860	48
255		T	2008-05-26	5.57%	2038	1,290	1,290	100.00	5.62%	1,290	72
256		U	2009-03-06	6.23%	2024	2,900	2,900	100.00	6.28%	2,900	182
257		V	2009-03-06	6.50%	2039	3,700	3,700	100.00	6.55%	3,700	242
258		W	2011-10-24	4.53%	2041	5,000	5,000	100.00	4.58%	5,000	229
259		X	2012-11-01	3.84%	2052	4,000	4,000	100.00	3.89%	4,000	156
260		Y	2013-11-01	4.71%	2043	9,400	9,400	100.00	4.76%	9,400	448
261		Z	2014-11-01	4.07%	2044	7,900	7,900	100.00	4.12%	7,900	325
262		AA	2015-11-01	3.95%	2045	750	750	100.00	4.00%	750	30
263		AB	2016-11-17	3.75%	2046	5,400	5,400	100.00	3.80%	5,400	205
264	Total				61,900				61,900	3,337	5.39%
265	Prior Year								56,500	3,131	5.54%
266	Total								118,400	6,468	
267	Mid Year								59,200	3,234	5.46%

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Schedule of Debt Capital Employed and Embedded Cost
(\$000)**

268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	<u>Net Capital Employed</u>			
																											<u>Principal</u>	<u>Per \$100 of</u>	<u>Principal</u>	<u>Average</u>
<u>2017 Approved</u>																								<u>Offered</u>	<u>Amount</u>	<u>Principal</u>	<u>Effective</u>	<u>Outstanding</u>	<u>Carrying</u>	<u>Embedded</u>
<u>Description</u>	<u>Series</u>	<u>Issue</u>	<u>Coupon</u>	<u>Maturity</u>	<u>Amount</u>	<u>Amount</u>	<u>Cost Rate</u>	<u>31-Dec-17</u>	<u>Cost</u>	<u>Cost Rate</u>																				
<u>Date</u>	<u>Rate</u>	<u>Date</u>	<u>Rate</u>	<u>Date</u>	<u>Offered</u>	<u>Amount</u>	<u>Cost Rate</u>	<u>31-Dec-17</u>	<u>Cost</u>	<u>Cost Rate</u>																				
	D	1990-11-28	11.85%	2020	1,500	1,500	100.00	1,500	179	11.91%																				
	E	1992-05-08	9.46%	2023	2,500	2,500	100.00	2,500	238	9.51%																				
	K	1999-08-13	6.80%	2019	4,500	4,500	100.00	4,500	308	6.85%																				
	N	2002-11-22	6.16%	2017	-	-	100.00	-	-	6.21%																				
	O	2004-01-23	5.42%	2019	1,000	1,000	100.00	1,000	55	5.47%																				
	Q	2005-11-21	5.18%	2035	4,300	4,300	100.00	4,300	225	5.23%																				
	R	2006-11-20	5.02%	2036	3,000	3,000	100.00	3,000	152	5.07%																				
	S	2008-05-26	5.56%	2028	860	860	100.00	860	48	5.61%																				
	T	2008-05-26	5.57%	2038	1,290	1,290	100.00	1,290	72	5.62%																				
	U	2009-03-06	6.23%	2024	2,900	2,900	100.00	2,900	182	6.28%																				
	V	2009-03-06	6.50%	2039	3,700	3,700	100.00	3,700	242	6.55%																				
	W	2011-10-24	4.53%	2041	5,000	5,000	100.00	5,000	229	4.58%																				
	X	2012-11-01	3.84%	2052	4,000	4,000	100.00	4,000	156	3.89%																				
	Y	2013-11-01	4.71%	2043	9,400	9,400	100.00	9,400	448	4.76%																				
	Z	2014-11-01	4.07%	2044	7,900	7,900	100.00	7,900	325	4.12%																				
	AA	2015-11-01	3.95%	2045	750	750	100.00	750	30	4.00%																				
	AB	2016-11-17	3.75%	2046	5,400	5,400	100.00	5,400	205	3.80%																				
	AC	2017-11-01	3.77%	2057	6,900	6,900	100.00	6,900	264	3.82%																				
	Total				64,900	64,900		64,900	3,358	5.17%																				
	Prior Year							61,900	3,337	5.39%																				
	Total							126,800	6,694																					
	Mid Year							63,400	3,347	5.28%																				

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Continuity Schedule of No Cost Capital
(\$000)

Line No.	Description	Cross Ref.	Actuals					Test Period		Approved			
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	No Cost Capital												
2	Deferred Pension and Regulatory Asset/Liability												
3													
4	Mid-Year Balance Summary												
5	Other Post Employment Benefits (OPEB)		537	537	537	537	537	537	537	537	537	537	
6	Defined Benefit Pension		133	128	123	119	115	111	106	103	103	140	136
7	Injuries & Damages		33	144	256	367	479	590	701	518	239	(17)	(6)
8	Total No Cost Capital Mid-Year Balance		<u>703</u>	<u>809</u>	<u>915</u>	<u>1,023</u>	<u>1,130</u>	<u>1,238</u>	<u>1,344</u>	<u>1,158</u>	<u>880</u>	<u>660</u>	<u>667</u>
9													
10	Other Post Employment Benefits (OPEB)												
11	Balance at Beginning of Year		537	537	537	537	537	537	537	537	537	537	537
12	Add: Charges		36	24	29	25	69	141	73	73	73	37	37
13	Less: Cash Payments		(36)	(24)	(29)	(25)	(69)	(141)	(73)	(73)	(73)	(37)	(37)
14	Balance at End of Year		<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>
15													
16	Mid-Year Balance	(L.11+L.14) / 2	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>	<u>537</u>
17													
18	Defined Benefit Pension												
19	Balance at Beginning of Year		134	132	124	121	116	113	108	103	103	142	138
20	Add: Charges		509	505	244	244	276	252	204	39	39	505	505
21	Less: Cash Payments		(511)	(513)	(247)	(249)	(279)	(257)	(209)	(39)	(39)	(509)	(509)
22	Balance at End of Year		<u>132</u>	<u>124</u>	<u>121</u>	<u>116</u>	<u>113</u>	<u>108</u>	<u>103</u>	<u>103</u>	<u>103</u>	<u>138</u>	<u>134</u>
23													
24	Mid-Year Balance	(L.19+L.22) / 2	<u>133</u>	<u>128</u>	<u>123</u>	<u>119</u>	<u>115</u>	<u>111</u>	<u>106</u>	<u>103</u>	<u>103</u>	<u>140</u>	<u>136</u>
25													
26	Injuries & Damages												
27	Balance at Beginning of Year		(23)	89	100	212	323	435	546	658	379	(23)	(12)
28	Add: Write-off		112	112	112	112	112	112	112	(279)	(279)	112	112
29	Less: Costs		-	(100)	-	-	-	-	-	-	-	(100)	(100)
30	Balance at End of Year		<u>89</u>	<u>100</u>	<u>212</u>	<u>323</u>	<u>435</u>	<u>546</u>	<u>658</u>	<u>379</u>	<u>100</u>	<u>(12)</u>	<u>-</u>
31													
32	Mid-Year Balance	(L.26+L.29) / 2	<u>33</u>	<u>94</u>	<u>156</u>	<u>267</u>	<u>379</u>	<u>490</u>	<u>602</u>	<u>518</u>	<u>239</u>	<u>(17)</u>	<u>(6)</u>

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Computation of Rate Base
(\$000)

Line No.	Description	Cross Ref.	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Property, Plant and Equipment												
2	Year End Balance	S.8.6 L.14	220,251	229,417	238,084	248,117	258,812	273,245	290,080	318,230	341,277	220,326	232,056
3	Deduct:												
4	Accumulated Depreciation	S.8.6 L.25	82,738	87,516	92,689	95,014	99,056	105,160	109,761	114,551	122,072	82,559	88,089
5	Construction-in-Progress	S.8.6 L.12	4,266	6,349	4,681	8,227	9,335	13,467	16,524	13,025	6,318	2,375	2,786
6	Total Deductions		87,004	93,864	97,369	103,241	108,390	118,627	126,285	127,576	128,390	84,933	90,875
7	Net Plant in Service												
8	Current Year End Balance		133,247	135,552	140,714	144,876	150,422	154,618	163,795	190,654	212,887	135,393	141,181
9	Previous Year End Balance		126,923	133,247	135,552	140,714	144,876	150,422	154,618	163,795	190,654	126,921	135,393
10	Total		260,170	268,799	276,267	285,590	295,297	305,040	318,413	354,449	403,541	262,314	276,574
11													
12	Mid-Year Balance		130,085	134,400	138,133	142,795	147,649	152,520	159,207	177,225	201,770	131,157	138,287
13													
14	Mid-Year Deferred Charges/Credits	S.8.8 L.17	424	261	(2)	(490)	(897)	(1,271)	(1,679)	(1,101)	(210)	600	463
15	Working Capital	S.8.10 L.37	3,062	3,208	3,386	3,333	3,243	3,665	4,658	5,157	4,263	2,964	3,010
16	Gross Rate Base		133,571	137,869	141,518	145,638	149,995	154,913	162,186	181,281	205,823	134,721	141,760
17	Deduct:												
18	Contributions in Aid of Construction												
19	Current Year End Balance	S.8.12 L.11	34,972	35,651	37,325	41,659	44,125	47,498	47,994	56,036	70,078	35,526	37,106
20	Previous Year End Balance		35,230	34,972	35,651	37,325	41,659	44,125	47,498	47,994	56,036	35,230	35,526
21	Total		70,202	70,623	72,976	78,984	85,784	91,623	95,491	104,030	126,114	70,756	72,632
22													
23	Mid-Year Balance		35,101	35,311	36,488	39,492	42,892	45,811	47,746	52,015	63,057	35,378	36,317
24	Net Rate Base		98,470	102,558	105,030	106,146	107,103	109,102	114,440	129,266	142,766	99,343	105,444

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Continuity Schedule of Property, Plant and Equipment
(\$000)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Property, Plant and Equipment												
2													
3	Balance at Beginning of Year		204,749	215,985	223,068	233,403	239,890	249,477	259,778	273,556	305,205	204,749	217,952
4													
5	Additions	S.9.1 L.34	11,545	8,393	11,159	9,982	11,893	11,014	15,857	34,734	31,780	13,823	12,060
6	Reclassify from Deferred Charges	S. 8.8 L.40	534	-	-	-	-	-	-	-	-	534	-
7	Retirement and Disposals	S.8.7 L.32	(844)	(1,310)	(825)	(3,495)	(2,306)	(714)	(2,079)	(3,085)	(2,026)	(1,154)	(741)
8			11,236	7,083	10,335	6,487	9,587	10,301	13,778	31,649	29,754	13,203	11,319
9													
10	Balance at End of Year		215,985	223,068	233,403	239,890	249,477	259,778	273,556	305,205	334,958	217,952	229,270
11													
12	Construction-in-Progress	S.9.1 L.38	4,266	6,349	4,681	8,227	9,335	13,467	16,524	13,025	6,318	2,375	2,786
13													
14	Total Property, Plant and Equipment		220,251	229,417	238,084	248,117	258,812	273,245	290,080	318,230	341,277	220,327	232,056
15													
16	Accumulated Depreciation												
17													
18	Balance at Beginning of Year		77,828	82,738	87,516	92,689	95,014	99,056	105,160	109,761	114,551	77,828	82,559
19	Reclassify from Deferred Charges		-	-	-	-	-	-	-	-	-	-	-
20	Depreciation Expense	S.7.1 L.6	5,835	6,115	6,293	6,382	6,707	6,950	7,343	8,664	10,596	5,846	6,231
21	Depreciation Capitalized	S.7.1 L.3	141	156	144	126	138	178	211	211	215	88	90
22	Dismantling		(223)	(183)	(440)	(688)	(497)	(310)	(874)	(1,000)	(1,264)	(50)	(50)
23	Retirements		(844)	(1,310)	(825)	(3,495)	(2,306)	(714)	(2,079)	(3,085)	(2,026)	(1,154)	(741)
24													
25	Balance at End of Year		82,738	87,516	92,689	95,014	99,056	105,160	109,761	114,551	122,072	82,559	88,089
26													
27													
28	Net Property, Plant and Equipment		137,513	141,901	145,395	153,103	159,756	168,085	180,319	203,679	219,205	137,768	143,967

**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Omissions and Updates
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**Continuity Schedule of Capital Retirements by Function
(\$000)**

Line No.	Description	Cross Ref.	Actuals						Test Period		Test Period		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Generation												
2	Internal Combustion		(150)	(721)	(112)	(353)	(1,221)	(472)	(765)	(820)	(820)	(518)	(105)
3	Hydro		-	-	-	(816)	(161)	-	(36)	(66)	(66)	-	-
4	Other Retirements Less Than \$20,000		-	-	-	-	-	-	-	-	-	-	-
5	Total Generation Retirements		(150)	(721)	(112)	(1,169)	(1,382)	(472)	(802)	(885)	(885)	(518)	(105)
6													
7													
8	Distribution												
9	Poles, Towers & Fixtures		(86)	(24)	(52)	(174)	(109)	(77)	(87)	(91)	(91)	(226)	(226)
10	Line Transformers		(215)	(19)	(80)	(2)	(19)	(0)	(108)	(200)	(200)	(115)	(115)
11	System Communication and Control		-	-	-	-	-	-	-	(481)	(59)	-	-
12	Meters		(1)	-	(7)	(62)	(66)	(80)	(9)	(52)	(52)	(97)	(97)
13	Overhead Conductor, Devices, and Services		(11)	(2)	(74)	(53)	(31)	(14)	(43)	(29)	(29)	-	-
14	Underground Conductor And Devices		(45)	(27)	(2)	(91)	(23)	(12)	(107)	(48)	(48)	-	-
15	Station Equipment		-	-	(15)	(77)	(102)	-	(40)	(47)	(47)	-	-
16	Street Lights		(53)	(30)	(68)	(86)	(32)	(18)	(44)	(31)	(31)	-	-
17	Other Retirements Less Than \$20,000		-	(0)	(45)	(7)	(15)	(3)	(8)	(9)	(9)	(10)	(10)
18													
19	Total Distribution Retirements		(412)	(103)	(344)	(552)	(397)	(205)	(446)	(988)	(566)	(448)	(448)
20													
21	General Plant												
22	Office Furniture & Equipment		-	(16)	-	-	-	(2)	(16)	(10)	(1)	(9)	(9)
23	Vehicles		(282)	(126)	(279)	(52)	(46)	-	(520)	(189)	(189)	(166)	(166)
24	Tool & Work Equipment		-	(64)	(87)	(24)	(37)	(10)	(104)	(46)	(37)	(11)	(11)
25	Demand Side Management		-	-	-	-	-	-	-	(923)	-	-	-
26	Computer Hardware & Software		-	(280)	(2)	(1,613)	(361)	(10)	(189)	(10)	(315)	-	-
27	Structures & Improvements		-	-	-	(74)	(83)	(10)	-	(31)	(31)	-	-
28	Other Retirements Less Than \$20,000		-	-	-	(11)	-	(5)	(2)	(2)	(2)	(1)	(1)
29	Total General Plant Retirements		(282)	(486)	(369)	(1,774)	(526)	(36)	(831)	(1,211)	(575)	(187)	(187)
30													
31	Miscellaneous Other												
32													
33	Total Capital Retirements		(844)	(1,310)	(825)	(3,495)	(2,306)	(714)	(2,079)	(3,085)	(2,026)	(1,154)	(741)

ATCO Electric Yukon (AEY)
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Continuity Schedule of Deferred Charges & Credits
(\$000)

Line No.	Description	Cross Ref.	Actuals					Test Period		Approved			
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
46	Pension Deferral												
47	Balance at Beginning of Year		-	(77)	-	(77)	(154)	(215)	(289)	(384)	(192)	-	(77)
48	Add: Costs		(154)	-	(154)	(154)	(138)	(150)	(172)	-	-	(154)	-
49	Less: Write-off		77	77	77	77	77	77	77	192	192	77	77
50	Balance at End of Year		(77)	-	(77)	(154)	(215)	(289)	(384)	(192)	-	(77)	-
51													
52	Mid-Year Balance	(L.47+L.50)/2	(39)	(39)	(38)	(115)	(184)	(252)	(336)	(288)	(96)	(39)	(39)
53													
54	EPA/IPP Legal Costs												
55	Balance at Beginning of Year		-	-	-	-	-	146	209	187	94		
56	Add: Costs		-	-	-	-	-	146	63	-	-		
57	Less: Write-off		-	-	-	-	-	-	-	(94)	(94)		
58	Balance at End of Year							146	209	94	-		
59													
60	Mid-Year Balance	(L.55+L.58)/2	-	-	-	-	73	178	198	141	47	-	-

ATCO Electric Yukon (AEY)
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Rate Case Costs
 (\$000)

Line No.	Description	Cross Ref.	Test Period	
			2023	2024
1	Phase I			
2	Legal Expenses		70	71
3	Consultant		94	75
4	ATCO Electric Disbursements		2	2
5	Yukon Electrical Disbursements		2	2
6	Intervener Costs		25	25
7	Board Costs		109	132
8	Total Costs		301	307

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Computation of Allowance for Working Capital
(\$000)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Operations and Maintenance	S.1.1 L.9	11,141	11,884	11,114	11,104	11,966	13,814	14,794	14,500	14,755	11,630	11,754
2	Purchase Power		25,135	27,524	27,674	27,419	28,825	29,432	29,498	29,762	30,944	25,229	26,404
3	Diesel Fuel	S.1.1 L.8	5,363	5,571	5,403	5,432	5,709	5,353	5,766	9,181	9,023	5,257	5,334
4	Property Taxes	S.1.1 L.10	253	253	264	277	277	267	275	285	292	262	267
5	Net O&M		41,892	45,232	44,455	44,231	46,776	48,866	50,334	53,728	55,014	42,377	43,759
6	O&M Lag Days		4	4	4	4	4	4	4	4	4	4	4
7	Operating Expenses Working Capital		477	515	506	504	533	557	573	612	627	483	499
8													
9	Tax Installments		0	0	0	0	(257)	(1,877)	(764)	(218)	(970)	0	0
10	Income Tax Installment Lag Days		22	22	22	22	22	22	22	22	22	22	22
11	Tax Installments Working Capital		0	0	0	0	(15)	(113)	(46)	(13)	(58)	0	0
12													
13	Income Taxes Receivable (Payable)		0	0	0	(268)	(776)	65	722	2,045	0	0	0
14	Tax Receivable Lag Days		204	204	204	204	204	204	204	204	204	204	204
15	Taxes Payable Working Capital		0	0	0	(150)	(434)	36	404	1,143	0	0	0
16													
17	Inventory (Three-Year Average)		2,175	2,215	2,386	2,458	2,565	2,584	3,102	2,750	2,812	2,123	2,123
18													
19	GST Impact on Working Capital	S.8.11 L.36	151	130	124	130	159	170	182	147	183	134	129
20													
21	Return - Long Term Debt		3,182	3,183	3,184	3,116	2,988	2,984	3,121	3,447	3,701	3,235	3,319
22	Combined Long Term Debt Lag Days		(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)
23	Long Term Debt Working Capital		(453)	(453)	(454)	(444)	(426)	(425)	(445)	(491)	(527)	(461)	(473)
24													
25	Return - 50% of Common Equity		2,049	2,613	2,653	2,765	2,798	2,622	2,659	2,417	2,710	1,776	1,886
26	Dividend Lag Days		(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
27	Common Equity (Dividend) Working Capital		(22)	(29)	(29)	(30)	(31)	(29)	(29)	(26)	(30)	(19)	(21)
28													
29	Return - 50% of Common Equity		2,049	2,613	2,653	2,765	2,798	2,622	2,659	2,417	2,710	1,776	1,886
30	Depreciation Lag Days		42	42	42	42	42	42	42	42	42	42	42
31	Common Equity (Retained Earnings) Working Capital		236	301	305	318	322	302	306	278	312	204	217
32													
33	Net Depreciation		4,336	4,590	4,755	4,747	4,953	5,073	5,310	6,587	8,207	4,342	4,661
34	Depreciation Lag Days		42	42	42	42	42	42	42	42	42	42	42
35	Depreciation Working Capital		499	528	547	546	570	584	611	758	944	500	536
36													
37	Working Capital		3,062	3,208	3,386	3,333	3,243	3,665	4,658	5,157	4,263	2,964	3,010

ATCO Electric Yukon (AEY)
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Effect of GST on Working Capital
(\$000)

Line No.	Description	Cross Ref.	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	REVENUE:												
2	Total Operating Revenue Subject to GST	S.2.1 L.54	57,788	63,942	66,111	66,474	77,107	80,860	84,470	60,004	67,374	52,071	54,859
3	GST Rate		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
4	GST Billable		2,889	3,197	3,306	3,324	3,855	4,043	4,224	3,000	3,369	2,604	2,743
5													
6	Day Factor - Revenues		41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
7	Day Factor - Remittance Lag		56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
8			(14.7)	(14.7)	(14.7)	(14.7)	(14.7)	(14.7)	(14.7)	(14.7)	(14.7)	(14.7)	(14.7)
9													
10	GST Impact on Working Capital Increase/(Decrease)	(L.4*L.8)/365	(117)	(129)	(134)	(134)	(156)	(163)	(170)	(121)	(136)	(105)	(111)
11													
12	EXPENSES:												
13	Total Utility Expenses	S.1.1 L.16	59,026	65,253	67,522	67,941	78,653	83,094	87,005	65,805	73,200	53,370	56,187
14	Property Taxes	S.1.1 L.10	(253)	(253)	(264)	(277)	(277)	(267)	(275)	(285)	(292)	(262)	(267)
15	Labour and Fringe	S.5.2 L. 416	(5,671)	(5,643)	(6,042)	(5,917)	(6,037)	(6,266)	(6,483)	(7,133)	(7,295)	(6,333)	(6,460)
16	Depreciation	S.1.1 L.11	(5,835)	(6,115)	(6,293)	(6,382)	(6,707)	(6,950)	(7,343)	(8,664)	(10,596)	(5,846)	(6,231)
17	Amortization of Contributions	S.1.1 L.12	1,499	1,525	1,538	1,635	1,754	1,877	2,033	2,077	2,389	1,504	1,570
18	Income Tax	S.1.1 L.15	90	(201)	(808)	(1,062)	(978)	(1,064)	(801)	(2,588)	970	(470)	341
19	Injuries & Damages Costs		-	(100)	-	-	-	-	-	-	-	(100)	(100)
20	Injuries & Damages Write-off		112	112	112	112	112	112	112	(279)	(279)	112	112
21	Rate Case Costs		236	296	-	-	-	-	-	301	307	586	-
22	Rate Case Write-off		(313)	(313)	(313)	(313)	(313)	(313)	(313)	(156)	(203)	(313)	(313)
23	Other Deferrals and Studies Costs	S.8.8 L.30	-	-	-	-	-	-	-	-	-	-	-
24	Other Deferrals and Studies Write-off	S.8.8 L.32	(99)	(99)	(99)	(99)	(99)	(99)	(99)	74	124	(99)	(99)
25	Capital Expenditures Net of Contributions		14,998	7,437	6,171	7,380	8,959	9,307	10,102	14,676	17,671	14,999	12,471
26	Net Costs Subject to GST		63,791	61,899	61,524	63,018	75,068	79,432	83,939	63,829	75,995	57,149	57,211
27	GST Rate		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
28	GST Refundable		3,190	3,095	3,076	3,151	3,753	3,972	4,197	3,191	3,800	2,857	2,861
29													
30	Day Factor - Expense (Including Capital)		26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
31	Day Factor - Remittance Lag		56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
32			30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
33													
34	GST Impact on Working Capital Increase/(Decrease)	(L.28*L.32)/365	267	259	258	264	315	333	352	267	318	240	240
35													
36	Net Impact of GST on Working Capital		151	130	124	130	159	170	182	147	183	134	129

ATCO Electric Yukon (AEY)
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Continuity Schedule of Contributions in Aid of Construction
(\$000)

Line No.	Description	Cross Ref.	Actuals					Test Period		Approved			
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Contributions in Aid of Construction												
2	Prior Year Gross Contributions		58,177	59,354	61,469	64,470	70,439	74,959	80,147	82,547	92,503	58,177	59,723
3	Additions to Property		1,241	2,204	3,212	5,969	4,220	5,250	2,529	10,119	16,431	1,800	3,151
4	Retirements		(64)	(89)	(211)	-	300	(62)	(129)	(164)	(164)	(255)	(255)
5	Current Year Gross Contributions		59,354	61,469	64,470	70,439	74,959	80,147	82,547	92,503	108,770	59,723	62,619
6	Accumulated Amortization												
7	Prior Year Accumulated Amortization		22,948	24,383	25,818	27,145	28,780	30,834	32,649	34,554	36,467	22,948	24,197
8	Gross Amortization		1,499	1,525	1,538	1,635	1,754	1,877	2,033	2,077	2,389	1,504	1,570
9	Retirements		(64)	(89)	(211)	-	300	(62)	(129)	(164)	(164)	(255)	(255)
10	Current Year Accumulated Amortization		24,383	25,818	27,145	28,780	30,834	32,649	34,554	36,467	38,692	24,197	25,513
11	Net Contributions in Aid of Construction		34,972	35,651	37,325	41,659	44,125	47,498	47,994	56,036	70,078	35,526	37,106

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Plant Additions
(\$000)

Line No.	Description	Cross Ref.	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Work in progress, Beginning of Year		1,561	4,266	6,349	4,681	8,227	9,335	13,467	16,524	13,025	1,561	2,375
2													
3	Generation:												
4	Generation	S.9.2 L.131	6,944	963	2,147	2,635	3,597	3,050	1,178	3,723	3,352	6,602	2,529
5	Renewables	S.9.2 L.138	-	208	80	1,007	1,087	1,330	3,749	6,044	2,436		
6			<u>6,944</u>	<u>1,171</u>	<u>2,227</u>	<u>3,642</u>	<u>4,684</u>	<u>4,380</u>	<u>4,926</u>	<u>9,767</u>	<u>5,788</u>	<u>6,602</u>	<u>2,529</u>
7	Distribution:												
8	New Extensions	S.9.2 L.171	2,527	3,099	3,990	5,176	3,636	4,247	4,714	5,885	5,215	2,155	3,716
9	New Extensions-IPP	S.9.2 L.181	-	-	-	-	-	366	1,394	1,115	-	-	-
10	Distribution Improvements	S.9.2 L.309	4,103	3,819	2,318	2,634	1,658	3,180	2,028	5,195	9,081	4,335	4,153
11	Street and Sentinel Lights	S.9.2 L.338	407	936	553	785	1,627	1,055	1,009	2,563	1,042	584	777
12	Meters	S.9.2 L.342	105	88	32	67	127	75	98	103	106	199	203
13	Meters - AMR	S.9.2 L.341	-	-	-	-	-	-	-	132	304	-	-
14	Transformers and Regulators	S.9.2 L.351	324	213	70	262	385	222	(8)	928	275	367	91
15													
16			<u>7,466</u>	<u>8,156</u>	<u>6,962</u>	<u>8,924</u>	<u>7,434</u>	<u>9,145</u>	<u>9,234</u>	<u>15,920</u>	<u>16,023</u>	<u>7,640</u>	<u>8,940</u>
17	General Property and Equipment:												
18	Computers	S.9.2 L.356	-	-	22	247	(4)	-	-	-	-	-	-
19	Communication Equipment	S.9.2 L.391	63	138	32	20	29	53	131	47	141	117	160
20	Transportation Equipment	S.9.2 L.427	18	665	6	382	570	675	661	697	766	369	315
21	Land and Buildings	S.9.2 L.380	89	105	91	72	147	(22)	95	232	794	94	300
22	Tools, Instruments & Equip.	S.9.2 L.398	151	162	73	197	108	160	87	310	128	149	165
23	Office Computer Equipment	S.9.2 L.416	54	79	79	44	32	755	3,780	4,261	1,434	8	42
24	Office Furniture & Equipment		-	-	-	-	-	-	-	-	-	20	20
25													
26													
27			<u>374</u>	<u>1,150</u>	<u>303</u>	<u>962</u>	<u>883</u>	<u>1,621</u>	<u>4,753</u>	<u>5,547</u>	<u>3,263</u>	<u>757</u>	<u>1,002</u>
28													
29	Miscellaneous Other									-	-	-	-
30													
31	Total Capital Expenditures		<u>14,784</u>	<u>10,476</u>	<u>9,491</u>	<u>13,529</u>	<u>13,001</u>	<u>15,147</u>	<u>18,914</u>	<u>31,234</u>	<u>25,073</u>	<u>14,999</u>	<u>12,471</u>
32													
33	Less:												
34	Transfers to Rate Base		(12,079)	(8,393)	(11,159)	(9,982)	(11,893)	(11,014)	(15,857)	(34,734)	(31,780)	(13,823)	(12,060)
35	Transfers to Deferred Charges		-	-	-	-	-	-	-	-	-	(362)	-
36			<u>(12,079)</u>	<u>(8,393)</u>	<u>(11,159)</u>	<u>(9,982)</u>	<u>(11,893)</u>	<u>(11,014)</u>	<u>(15,857)</u>	<u>(34,734)</u>	<u>(31,780)</u>	<u>(14,185)</u>	<u>(12,060)</u>
37													
38	Work in Progress, End of Year		<u>4,266</u>	<u>6,349</u>	<u>4,681</u>	<u>8,227</u>	<u>9,335</u>	<u>13,467</u>	<u>16,524</u>	<u>13,025</u>	<u>6,318</u>	<u>2,375</u>	<u>2,786</u>

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

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Continuity of Capital Expenditures
(\$000)

Line No.	Project Name	Business Case Reference	Actuals							Test Period		Approved	
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
210	5L622 - Lewes River Bridge Crossing Replacement	1	1	87	-	-	-	-	-	-	-	140	-
211	Paint Mountain Conductor Replacement	1	(4)	144	72	306	37	177	(34)	-	-	-	559
212	Range Road Rebuild	1	108	-	-	-	-	-	-	-	-	110	-
213	Carcross Nares Bridge Relocation	1	-	-	-	-	-	-	-	-	-	90	-
214													
215	Replace Watson Lake Substation Transformer T2	1	-	175	67	(7)	0	-	-	-	-	-	356
216	400 Amp Regulators in Logan Substation	Business Case No. 03	-	168	6	-	-	-	-	-	-	-	122
217	AEY Carcross Corner Pol	1	-	41	1	-	-	-	-	-	-	-	-
218	AEY Maintenance Work Order M255-2016 3rd a	1	-	28	-	-	-	-	-	-	-	-	-
219	AEY CCC Rd Rebuild	Reference Document 4	-	9	174	0	-	-	-	-	-	-	-
220	3 Phase Hotsprings Rd	Business Case No. 05	-	-	-	386	11	(4)	-	-	-	-	-
221	Haines Junction OSS Replacement	1	-	47	21	(16)	-	-	-	-	-	-	51
222	Single Regulator 5L631	1	-	25	-	-	-	-	-	-	-	-	30
223	Steward Crossing Ferry Hill Line Rebuild - Design	1	0	16	2	1	1	(21)	-	-	-	-	30
224	McRae Substation Regulator Upgrade	1	-	-	-	-	-	-	-	-	-	-	20
225	Rebuild Line Behind City Municipal Services Building	1	-	-	-	-	-	-	-	-	-	-	81
226													
227													
228	Distribution Improvements Continued												
229	AEY Old Crow Volt Issues-Loop	Reference Document 5	-	-	356	6	-	-	-	-	-	-	-
230	AEY 25kV A.Hwy Hamilton Tie	Business Case No. 11	-	-	218	(12)	(14)	-	-	-	-	-	-
231	McIntyre Subdivision Contingency Loop	Business Case No. 11	-	-	116	189	(0)	(10)	-	-	-	-	-
232	Teslin Substn Metering	1	-	2	61	(1)	-	-	-	-	-	-	-
233	Teslin OSS Replacement	2	-	-	47	(0)	-	-	-	-	-	-	-
234	AEY 3rd Ave Burial Dwtwn	2	-	-	42	3	6	2	2	-	-	-	-
235	AEY Wtsn Lk Vertical Strctrs	2	-	-	28	0	-	-	-	-	-	-	-
236	AEY Teslin Sub Gnd Grid	2	-	-	18	7	6	0	-	-	-	-	-
237	AEY Lower Post Fire 2018	2	-	-	16	24	-	-	-	-	-	-	-
238	AEY Cowley Rd Rebuild SKH	Reference Document 6	-	-	7	85	18	-	-	-	-	-	-
239	AEY 2nd Ave Trespass	2	-	-	3	2	18	-	-	-	-	-	-
240	AEY SCADA Switch at Pinerdg	2	-	-	1	42	2	25	6	-	-	-	-
241	YG Toyota Access, Intersection & Frontage Road Upgrades	5	-	-	0	341	2	-	-	-	-	-	-
242	AEY YG Nares River Bridge	2	4	82	(13)	(7)	-	-	-	-	-	-	-
243	Whitehorse Airport Hanger D Area Rebuild	2	0	12	1	160	(9)	-	-	-	-	-	142
244													
245	AEY Reroute Mountain View	2	-	-	-	53	0	-	-	-	-	-	-
246	AEY Aerial Trespass Lot 9 Blk 16 Adela Trail Watson Lake	Reference Document 7	-	-	-	0	1	116	37	-	-	-	-
247	Rogers Street 25kV Conversion	2	-	-	-	24	16	-	-	-	-	-	-
248	AEY Trespass Primary Line Reroute, Lot 1499 Hotsprings Road	2	-	-	-	1	21	24	-	-	-	-	-
249	Install 35kV Regulators on Carcross Road	Business Case No. 17	-	-	-	-	199	(3)	-	-	-	-	-
250	HLC Breaker Replacement	Business Case No. 04	-	-	-	-	136	-	-	-	-	-	-
251	Upgrade Regulators at Laberge Substation	Business Case No. 09	-	-	-	-	129	-	-	-	-	-	-
252	Powerline Relocation Hillcrest YG Highway Realignment	Business Case No. 15	-	-	-	-	119	5	(3)	-	-	-	-
253	Reconductor Mayo Rd Mainline	Business Case No. 06	-	-	-	-	111	-	-	-	-	-	-
254	Shipyards Sub Replace Relays	2	-	-	-	-	94	-	-	-	-	-	-
255	266 ACSR Upgrade Sumanik Drive	2	-	-	-	-	73	-	-	-	-	-	-
256	AEY Aerial Trespass Lots 14A & 14B Pilot Mtn Sub'd	2	-	-	-	-	37	-	-	-	-	-	-
257	AEY D/C Powerline Reroute Cousins to Mayo Cutoff	2	-	-	-	-	35	(7)	-	-	-	-	-
258	Riverdale Load Sectionalizing	2	-	-	-	-	25	-	-	-	-	-	-
259	DWCI -Downtown South Voltage Conversion- prep	2	-	-	-	-	17	18	2	-	-	-	-
260	AEY Reconductor Mayo Road Mainline - Stage 2	Business Case No. 06	-	-	-	-	15	138	-	-	-	-	-
261	AEY Powerline Relocation YG Alaska Hwy Crestview Phase 1 of 2	Business Case No. 15	-	-	-	-	0	225	(41)	-	-	-	-
262													
263	Powerline Relocation Burns Road to Range Road Intersection	Business Case No. 15	-	-	-	-	-	136	(18)	-	-	-	-
264	AEY Hamilton to Alaska Highway 25kV Tie	2	-	-	-	-	-	73	(4)	-	-	-	-
265	AEY Powerline Relocation Lot 2 Salvation Army	2	-	-	-	-	-	62	2	-	-	-	-
266	Upgrade Recloser at Carx Substn	2	-	-	-	-	-	44	-	-	-	-	-
267	AIS 9 Switch Cube Replacement - S2350 Hamilton Blvd	2	-	-	-	-	-	37	0	-	-	-	-
268	AEY New Subst Mayo Rd	2	-	-	-	-	-	29	-	-	-	-	-
269	AEY Voltage Issues Gold Road	2	-	-	-	-	-	3	28	-	-	-	-
270													
271	AEY Aerial Trespass Lot 23, Blk 25 or 102 Teslin Crescent, (Thomas Slager), Wats	2	-	-	-	-	-	-	47	-	-	-	-
272	Ross River Substn Voltage Regulator Control	2	-	-	-	-	-	-	36	-	-	-	-
273	Upgrade Recloser Mountainview Substn	2	-	-	-	-	-	-	54	-	-	-	-
274	New Substation Mayo Road	Business Case No. 25	-	-	-	-	-	-	400	2,400	-	-	-
275	Reconductor Mayo Rd Mainline - Stage 3	Business Case No. 06	-	-	-	-	-	0	162	-	-	-	-
276	Watson Lake Substation Feeder & Feeder Protection Replacement	Reference Document 8	-	-	-	-	-	-	146	66	-	-	-
277													
278	Downtown south voltage conversion		-	-	-	-	-	-	-	-	-	-	-
279	AEY Choutla Long Span Rebuild	3	-	-	-	-	-	-	-	40	-	-	-

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Continuity of Capital Expenditures
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			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
280	AEY Dogwood voltage improvement	3	-	-	-	-	-	-	-	40	-	-	-
281	AEY DWCI - New 12.5kV substation	Note 1	-	-	-	-	-	-	-	25	792	-	-
282	AEY Haines Junction Regulator Stand Replacement	3	-	-	-	-	-	-	-	20	-	-	-
283	AEY New Substation Whistle Bend - Leota	Business Case No. 25	-	-	-	-	-	-	-	154	2,781	-	-
284	AEY Nisutlin Bridge Pole Relocation	Note 2	-	-	-	-	-	-	-	380	165	-	-
285	AEY SCADA Pineridge Switch	3	-	-	-	-	-	-	-	47	-	-	-
286	AEY Upgrade 6L11 conductor S150 to Carcross Corner	3	-	-	-	-	-	-	-	50	52	-	-
287	AEY Upgrade recloser	3	-	-	-	-	-	-	-	87	90	-	-
288	AEY Voltage Improvement Destruction Bay	3	-	-	-	-	-	-	-	225	-	-	-
289	AEY Whitehorse Escarpment line reroutes - Hoge	3	-	-	-	-	-	-	-	110	-	-	-
290	Robinson sub capacity	3	-	-	-	-	-	-	-	-	165	-	-
291	AEY Hillcrest Voltage Improvement	3	-	-	-	-	-	-	-	100	-	-	-
292	AEY Pelly Crossing Voltage Improvement	3	-	-	-	-	-	-	-	-	361	-	-
293	Watson Lake 5L621 Upgrade	3	-	-	-	-	-	-	-	-	103	-	-
294	Power System Assessment - YEC and AEY	3	-	-	-	-	-	-	-	150	206	-	-
295	Whitehorse CKES UG conversion	3	-	-	-	-	-	-	-	-	155	-	-
296	Encroachment 3rd and Black Encroachment	3	-	-	-	-	-	-	-	-	124	-	-
297													
298	AEY 6L19 voltage improvement	Business Case No. 30	-	-	-	-	-	-	-	-	593	-	-
299	Relocate 100 A Carcross Cutoff Regulator	Business Case No. 30	-	-	-	-	-	-	-	-	178	-	-
300	Relocate 100 A Lewes River Regulator	Business Case No. 30	-	-	-	-	-	-	-	-	178	-	-
301	AEY Carcross PQ monitoring	3	-	-	-	-	-	-	-	-	77	-	-
302	AEY Whitehorse Escarpment line reroutes - 5th avenue	3	-	-	-	-	-	-	-	-	412	-	-
303	Old Crow voltage improvement - reconductor	Business Case No. 29	-	-	-	-	-	-	-	-	464	-	-
304													
305	400 Amp Regulators in Arkell Substation	1	-	161	5	-	-	-	-	-	-	-	122
306	Shipyards Spare 25kV Breaker	1	-	55	146	2	-	-	-	-	-	-	102
307	Replace Underground Cables at Whitehorse Airport	1	0	1	1	0	(0)	0	(1)	-	-	-	84
308	Distribution Improvements < \$20,000		197	260	146	130	27	28	66	143	10	81	77
309	Distribution Improvements Total		4,103	3,819	2,318	2,634	1,658	3,180	2,028	5,195	9,081	4,335	4,153
310													
311	Street and Sentinel Lighting												
312	General Streetlight Replacements	4	237	211	85	166	48	105	121	342	186	199	254
313	New Customer Streetlight Installations	Business Case No. 34	170	112	230	84	850	555	180	1,060	448	199	203
314	Whistle Bend Streetlights	1	-	-	-	-	-	-	-	-	-	-	-
315	Watson Lake Street Light Replacement		-	-	-	-	-	-	-	-	-	-	41
316	St Lt Replacements Hart Cr.	Business Case No. 20	-	-	-	-	-	180	-	-	-	-	-
317	Car Cross Streetlights	5	-	429	(24)	111	(0)	-	-	-	-	-	-
318													
319	Alaska Highway North Klondike Highway Intersection	5	-	-	-	-	359	0	-	-	-	-	-
320	Street Lights Burns Road to Range Road Intersection	5	-	-	-	-	-	184	-	-	-	-	-
321	Street Lights Lodestar to Philmars Phase 1	5	-	-	-	-	-	-	509	-	-	-	-
322	Pelly Crossing Community Lights	5	-	-	-	-	-	-	145	-	-	-	-
323													
324	McIntyre Subdivision Streetlight Rebuild	Business Case No. 01	-	-	-	-	-	-	-	412	155	175	254
325	YG Nisutlin Bridge Streetlights	3	-	-	-	-	-	-	-	110	106	-	-
326													
327	Whistle Bend 3C Street Lights	5	-	185	-	-	-	-	-	-	-	-	-
328	Whistle Bend Lights 4D	Business Case No. 31	-	-	-	-	159	-	-	-	-	-	-
329	Whistle Bend Street Lights - Stage 4	Business Case No. 31	-	0	261	291	-	-	-	-	-	-	-
330	Whistle Bend Street Lights - Stage 5	Business Case No. 31	-	-	-	133	211	-	-	-	-	-	-
331	Whistle Bend Street Lights - Stage 6	Business Case No. 31	-	-	-	-	-	-	-	50	-	-	-
332	Whistle Bend Street Lights - Stage 7	Business Case No. 31	-	-	-	-	-	31	55	301	-	-	-
333	Whistle Bend Street Lights - Stage 8	Business Case No. 31	-	-	-	-	-	-	-	103	-	-	-
334	Whistle Bend Street Lights - Stage 9A	Business Case No. 31	-	-	-	-	-	-	-	186	-	-	-
335	Whistle Bend Street Lights - Stage 9B	Business Case No. 31	-	-	-	-	-	-	-	-	147	-	-
336													
337	Street and Sentinel Lighting < \$20,000	1	-	-	-	-	-	-	-	-	-	11	25
338	Street and Sentinel Lighting Total		407	936	553	785	1,627	1,055	1,009	2,563	1,042	584	777
339													
340	Meters												
341	AMI Project New Meters	AEY-YUB-065(a) Attachment 1	-	-	-	-	-	-	-	132	304	-	-
342	Replacement of Meters and New Installations	1,2,3&4	105	88	32	67	127	75	98	103	106	199	203
343	Meters Total		105	88	32	67	127	75	98	235	410	199	203
344													
345	Transformers & Regulators												
346	General Capitalizable Transformers	Business Case No. 16	-	-	-	-	268	49	(19)	218	275	90	91
347	Spare 10 MVA Transformer	1	251	-	-	-	-	-	-	-	-	219	-
348	Spare Padmount Regulator for Shipyards Substation	1	-	-	-	-	-	-	-	-	-	58	-
349	Transformers and Regulators	4	73	213	70	262	118	173	10	-	-	-	-

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350	AEY Old Crow Regulators	Business Case No. 29	-	-	-	-	-	-	-	710	-	-	-
351	Transformers & Regulators Total		324	213	70	262	385	222	(8)	928	275	367	91
352													
353	GP&E												
354	Computer												
355	My Account- Technology Project	Business Case No. 19	-	-	22	247	(4)	-	-	-	-	-	-
356	Computer Total		-	-	22	247	(4)	-	-	-	-	-	-
357													
358	Land & Building												
359	Service Complex Heating System	1	4	17	6	-	-	-	-	-	-	40	25
360	Annual Building Upgrades	3	-	-	-	-	-	-	-	75	73	-	-
361	Downtown Office Interior Renovations	3	-	-	-	-	-	-	-	51	-	-	-
362	Whitehorse Service Complex RTU'S Construction	3	-	-	-	-	-	-	-	100	-	-	-
363	Whitehorse Service Complex Rooftop Unit Design	3	-	-	-	-	-	-	-	5	-	-	-
364	Service Complex Boiler Replacement	Business Case No. 10	-	-	-	-	132	(27)	-	-	-	-	71
365	Kilowatt - Misc. Imp	1	24	-	-	-	-	-	-	-	-	-	-
366	102 Kilowatt Ln Refurbish	1&2	-	14	32	-	-	-	-	-	-	-	-
367	101 Kilowatt Ln Refurbish	1&2	-	19	32	-	-	-	-	-	-	-	-
368	Warehouse Mezzanine Upg	1	-	22	-	-	-	-	-	-	-	-	-
369	DT Office Renos & Improvements	2	-	-	-	27	-	-	-	-	-	-	-
370	Service Complex Yard Extension	2	-	-	-	36	0	-	-	-	-	-	-
371	Fencing for Marwell Yard	2	-	-	-	-	-	-	-	-	-	-	-
372	Old Crow Bunkhouse replacement	Business Case No. 41	-	-	-	-	-	-	-	-	515	-	-
373	Fish Lake 1 Storage building roof replacements	3	-	-	-	-	-	-	-	-	77	-	-
374	Downtown Office Security and Fire Suppression	3	-	-	-	-	-	-	-	-	103	-	-
375	Warehousing Seacan	3	-	-	-	-	-	-	-	-	26	-	-
376	Furnace Replacements - Watson Lake	3	-	-	-	-	-	-	-	-	-	25	-
377	Watson Lake Septic Upgrade	1	-	-	-	-	-	-	-	-	-	-	51
378	Watson Lake Storage Solutions	1	-	-	-	-	-	-	-	-	-	-	92
379	Land & Buildings - Corporate < \$20,000	4	61	32	21	9	15	5	50	-	-	-	-
380	Total Land & Buildings		89	105	91	72	147	(22)	95	232	794	65	239
381													
382													
383	Communication Equipment												
384	Communication Equipment	1,2,3&4	36	23	2	(0)	19	48	(46)	-	-	18	13
385	AEY SCADA Upgrades	4	26	116	30	20	10	5	20	47	141	49	66
386	Satellite Radios	Business Case No. 14	-	-	-	-	-	-	157	-	-	-	-
387	Windows XP Conversion for Operations Dispatch	1	-	-	-	-	-	-	-	-	-	30	-
388	Form 6 Substation Controls	1	-	-	-	-	-	-	-	-	-	20	-
389	Whitehorse SCADA Dispatch UHF Repeater	1	-	-	-	-	-	-	-	-	-	-	36
390													
391	Total Communication Equipment		63	138	32	20	29	53	131	47	141	117	115
392													
393	Tools, Instruments & Equip.												
394	FRC Replacement	1,2,3&4	19	24	9	18	13	10	8	22	25	-	-
395	Power Quality Meter	1	-	-	-	-	-	-	14	20	-	-	-
396	Primary current monitors	3	-	-	-	-	-	-	-	26	27	-	-
397	Miscellaneous Tools and Instruments	4	132	138	64	180	95	150	65	242	76	149	165
398	Total Tools, Instruments & Equip.		151	162	73	197	108	160	87	310	128	149	165
399													
400	Office Computer Equipment												
401	Office Furniture & Equipment	1,2,3&4	20	11	2	5	5	12	14	62	20	20	20
402	2021 Surface Pro Purchases	2	-	-	-	-	-	21	-	-	-	-	-
403	Replace XP Operating Systems - iFix PCs	1	31	0	-	-	-	-	-	-	-	-	46
404													
405	GP&E Continued												
406	CIS Replacement	Business Case No. 22	-	-	-	-	-	680	3,712	3,666	345	-	-
407	Asset Management - Evaluation & Program Roadmap	2&3	-	-	-	-	-	-	59	13	-	-	-
408	Asset Management - Phase 1	Business Case No. 24	-	-	-	-	-	-	-	305	901	-	-
409	Sales force	AEY-YUB-066(b) Attachment 1	-	-	-	-	-	-	-	172	155	-	-
410	My Account Enhancements - AEY	2	-	-	-	-	-	37	16	-	-	-	-
411	Enterprise Batch Printing	2	-	-	-	-	-	-	49	-	-	-	-
412	Fleet Maximo - AEY	2	-	-	24	29	7	-	-	-	-	-	-
413	Oracle R12 Replacement	Note 3	-	51	51	-	-	-	-	-	-	-	-
414													
415	Office Computer Equipment < \$20,000	4	2	16	3	10	21	4	(71)	43	13	-	-
416	Total Office Computer Equipment		54	79	79	44	32	755	3,780	4,261	1,434	20	66
417													
418	Transportation Equipment												
419	Transportation Equipment	Business Case No. 27&28	18	294	6	88	117	507	397	697	766	369	315

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**ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)**

**Continuity of Capital Expenditures
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Line No.	Project Name	Business Case Reference	Actuals							Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017	
420	Purchase New Unit YT169 - Small Bucket Truck	Business Case No. 13												
421	Unit 136 to Replace Unit 643 Bucket Truck	AEY-YUB-041(a)(viii) Attachment 1.		371										
422	Unit YT144 New Mechanic's Truck	Business Case No. 13	-	-	-	145	-	-	-	-	-	-	-	-
423	Purchase Unit YT145 to Replace Unit 091	Business Case No. 13	-	-	-	149	-	-	-	-	-	-	-	-
424	Unit 151 Digger to Replace Unit 429 - Wlk Bucket	Business Case No. 13	-	-	-	-	324	11	-	-	-	-	-	-
425	Purchase Unit YT148 - Replace Unit 092 - Ram 5500 CC 4x4 - Flat Deck	Business Case No. 13	-	-	-	-	129	-	-	-	-	-	-	-
426	Purchase YT159 - Replace Unit 886 - 1 Ton Service Body	Business Case No. 13	-	-	-	-	-	158	-	-	-	-	-	-
427	Total Transpiration Equipment		18	665	6	382	570	675	661	697	766	369	315	
428			-	-	-	-	-	-	-	-	-	-	-	
429	Other Projects Less Than \$20,000											37	102	
430	GP&E Total		374	1,150	303	962	883	1,621	4,753	5,547	3,263	757	1,002	
431	Grand Total		14,784	10,476	9,491	13,529	13,001	15,147	18,914	31,234	25,073	14,999	12,470	

- 433 Note 1: The project is not going into service in test period and therefore will not impact rate base or revenue requirement. A business case will be completed upon completion of the engineering study.
- 434 Note 2: This was a government directed pole movement, AEY is mandated to abide by these requests, no business case was completed as a result.

ATCO Electric Yukon (AEY)
2023 - 2024 General Rate Application (GRA)

Income Tax Expense
(\$000)

Line No.	Description	Cross Ref.	Actuals						Test Period		Approved		
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2016	2017
1	Utility Earnings Before Tax		4,008	5,427	6,114	6,592	6,574	6,308	6,119	2,247	6,391	3,083	4,113
2													
3	Add:												
4	Depreciation	S.1.1 L.12	5,835	6,115	6,293	6,382	6,707	6,950	7,343	8,664	10,596	5,846	6,231
5	Amortization of Contributions	S.1.1 L.13	(1,499)	(1,525)	(1,538)	(1,635)	(1,754)	(1,877)	(2,033)	(2,077)	(2,389)	(1,504)	(1,570)
6	Non-Allowable Expenses		43	56	23	56	68	31	57	52	52	50	51
7	Deferred Charges Write-off	S.8.8 L.9	334	334	335	335	335	334	335	(204)	(113)	334	335
8	Injuries & Damages Write-off	S.8.4 L.28	112	112	112	112	112	112	112	(279)	(279)	112	112
9	Demand Side Management Costs Write-off		135	185	185	185	185	185	185	(563)	-		
10	Allowance for Doubtful Account		54	68	115	(29)	205	18	9	43	43		
11	Share Appreciation Rights		67	(0)	28	28	(67)	3	(1)	-	-		
12	COLA Disallowance			33	10	10	12	11	9	9	9		
13	Charges to Deferred Pension & OPEB		545	529	273	269	345	393	277	112	112	380	380
14	Sub-Total		5,626	5,906	5,835	5,712	6,146	6,160	6,293	5,758	8,032	5,217	5,538
15													
16	Deduct:												
17	CCA		6,854	6,832	6,225	6,275	6,085	5,497	5,762	13,442	7,891	6,821	6,546
18	Rate Case Expenditure	S.8.8 L.21	236	296	-	-	-	-	-	301	307	586	-
19	Injuries & Damages Costs	S.8.4 L.29	-	100	-	-	-	-	-	-	-	100	100
20	Pension & OPEB payments	S.8.4 L.13 + S.8.4 L.21	547	537	276	274	348	398	282	112	112	546	546
21	Inventory Pool Costs Capitalized		290	503	357	393	670	560	379	394	403	326	336
22	Study Costs		362	208	80	-	47	(125)	(22)	-	-	362	-
23	Dismantling Costs	S.8.6 L.22	223	183	440	688	497	310	874	1,000	1,264	50	50
24	Demand Side Management Costs	S.8.8 L.39	136	-	-	-	-	-	-	-	-	136	-
25	Purchase Power Capitalized	S.3.1 L.13	216	5	501	88	-	-	-	49	-	110	86
26	Cumulative Eligible Capital		35	-	-	-	-	-	-	-	-	28	26
27	CIS Replacement Running Costs		-	-	-	-	-	185	1,177	473	71		
28	Bad Debt Write-off		45	63	82	20	-	125	91	88	91		
29	Rate Relief Refund	S.8.8 L.23	-	-	-	-	-	-	135	1,232	-		
30	ES&G & Other Deductible Costs		1,055	925	538	711	832	914	816	498	690	800	824
31	Sub-Total		9,997	9,651	8,498	8,449	8,478	7,863	9,493	17,589	10,829	9,866	8,515
32													
33	Taxable Income		(364)	1,682	3,451	3,855	4,241	4,605	2,918	(9,585)	3,594	(1,565)	1,136
34	Tax Rate		30.0%	30.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	30.0%	30.0%
35	Income Tax		(109)	505	932	1,041	1,145	1,243	788	(2,588)	970	(470)	341
36	Book to Filing Adjustment		19	(304)	(124)	22	(167)	(179)	13	-	-	-	-
37	Total Current Provision		(90)	201	808	1,062	978	1,064	801	(2,588)	970	(470)	341



2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES
APPLICABLE TO ELECTRIC HYDRO AND DIESEL PRODUCTION, DISTRIBUTION, AND GENERAL
PLANT IN SERVICE AS OF DECEMBER 31, 2022

Prepared for ATCO Electric Yukon
October 2023

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October 30, 2023

ATCO Electric Yukon
10035 – 105 Street
Edmonton, AB T5J 2V6

Attention: Beth Rogers
Director, Regulatory
North of 60

Dear Ms. Rogers;

Pursuant to your request, we have conducted a depreciation study related to the electric hydro and diesel production, distribution, and general plant systems of ATCO Electric Yukon ("AEY" or "the Company") as of December 31, 2022. Our report presents a description of the methods used in the estimation of depreciation and net salvage, the statistical analysis of service life and the summary and detailed tabulations of annual and accrued depreciation.

We gratefully acknowledge the assistance of ATCO personnel in the completion of the review.

Should you have any questions or concerns, please do not hesitate to contact me directly at 587.997.6489.

Yours truly,

Concentric Advisors, ULC

A handwritten signature in blue ink, appearing to read "LEK", written over a light blue circular stamp.

Larry E. Kennedy
Senior Vice President

A handwritten signature in blue ink, appearing to read "DB", written over a light blue circular stamp.

Donna Bourne
Project Manager

LEK/ta
Project: 100281



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SECTION 1

1 STUDY HIGHLIGHTS

Pursuant to a request by ATCO Electric Yukon (“AEY” or “the Company”), Concentric Advisors, ULC (“Concentric”) conducted a depreciation study related to the AEY electric hydro and diesel production, distribution, and general plant accounts, as of December 31, 2022. The purpose of the study is to determine the annual depreciation accrual rates and amounts applicable to the original cost of electric utility plant, as of December 31, 2022. Concentric acknowledges that it has a duty to provide opinion evidence to the Yukon Utilities Board (the “Board” or “YUB”) that is fair, objective and non-partisan.

The depreciation rates are based on the Straight-Line method using the Equal Life Group (“ELG”) procedure and were applied on a Whole 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. Variances between the calculated accrued depreciation and the book accumulated depreciation, as of December 31, 2022, are amortized over the composite remaining life of assets.

Concentric recommends the calculated annual depreciation accrual rates set forth herein apply specifically to electric plant in service, as of December 31, 2022, as summarized in Tables 1 and 2 in Section 5 of this report by account detail. Supporting data and calculations are provided as well.

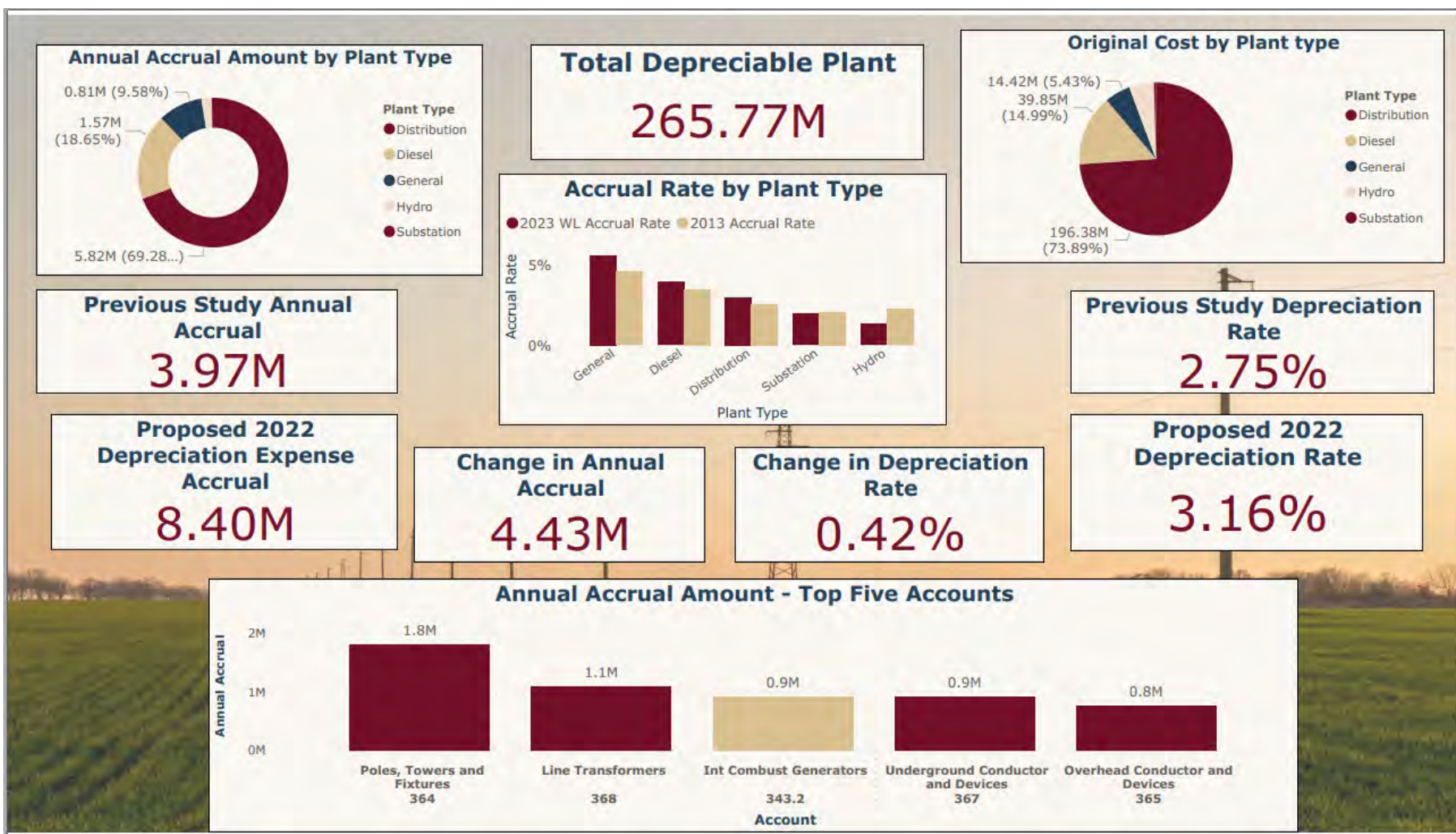
Finally, this study results in an annual depreciation expense accrual related to the recovery of original cost and net salvage requirement of \$8.4 million, when applied to depreciable plant study balances, as of December 31, 2022, of \$265.8 million. The study results are summarized at an aggregate functional group level as follows:

SUMMARY OF ORIGINAL COST AND ANNUAL ACCRUAL AMOUNTS

Plant Group / Accounts	Original Cost	Annual Accrual
Hydro Generation	\$13,971,738	\$186,216
Diesel Generation	\$39,850,172	\$1,567,021
Distribution Plant (including Substation Plant)	\$196,378,887	\$5,820,961
General Plant	\$14,421,333	\$805,217
TOTAL DEPRECIABLE PLANT STUDY BALANCE	\$265,766,419	\$8,401,693



1.1 Executive Summary (Power BI)





SECTION 2

2 BASIS OF THE UPDATE

2.1 Scope

Concentric has been retained by AEY to develop reasonable and appropriate depreciation amounts based on plant in service as of December 31, 2022, and applied specifically to plant in service as of December 31, 2022, as summarized by Tables 1, 1A, 1B, 2, 2A, 2B. This report also describes the concepts, methods and judgments that underlie the recommended annual depreciation accrual rates. The rates and amounts are based on the Straight-Line method of depreciation, incorporating the ELG procedure applied on a Whole Life basis.

Continued monitoring and maintenance of the accumulated depreciation reserve at the account level is recommended. Concentric has determined an amortization amount to correct the present booked accumulated depreciation variance with the calculated accrued depreciation (“theoretical reserve”) over the composite remaining life of each account. Tables 2A, 2B and 2C, presented in Section 5 of the report, sets forth the amortization of the reserve variance at the account level, as of December 31, 2022. This adjustment mechanism, whether determined separately as an amortization amount or incorporated in the calculation of remaining life accruals, is widely accepted throughout North America. Concentric recommends that AEY continue the use of an amortization account to correct any book accumulated depreciation variance. An explanation of the monitoring of the accumulated depreciation reserve and the calculation of the true-up provision is presented on page 5-2 of this report.

The Straight-Line method, as described in Section 3.1, ELG procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America and has been approved for use by AEY by the YUB. Concentric recommends its continued use.

Amortization accounting is used for certain accounts because of the disproportionate plant accounting effort required to process retirements in these accounts. Many regulated utilities in North America have received approval to adopt amortization accounting for these types of accounts.



2.2 Plan of Study

This study is presented in the following order:

Section 1:	Study Highlights, presents a brief summary of the depreciation study and results
Section 2:	Basis of the Update, contains statements with respect to the plan and the Basis of the Update
Section 3:	Development of the Required Depreciation Rates, presents descriptions of the methods used and factors considered in the service life study
Section 4:	Calculation of Annual and Accrued Depreciation, presents the methods and procedures used in the calculation of depreciation
Section 5:	Results of Study, presents summaries by depreciable group of annual and accrued depreciation in Tables 1, 1A, 1B, 2, 2A, and 2B.
Section 6:	Retirement Rate Analysis, presents the results of the retirement rate statistics
Section 7:	Net Salvage, presents the results of the net salvage study
Section 8:	Detailed Depreciation Calculations, presents the results of the detailed depreciation calculations
Section 9:	Estimation of Survivor Curves, is an overview of lowa curves and the Retirement Rate Analysis
Section 10:	Estimation of Net Salvage discusses the methodology used in calculating net salvages

2.3 Depreciation

A full and comprehensive depreciation study includes the following components:

1. supported recommendations regarding average service life estimates for each account;
2. supported recommendations regarding estimated Net Salvage requirements for each account;
3. selection of an appropriate grouping procedure;
4. detailed calculation of the depreciation rate utilizing the estimated average service life and Net Salvage requirements; and
5. a report explaining the procedures followed and justifying the results in a format suitable for submission to senior management and regulatory authorities.

2.4 Information Provided by AEY

AEY has provided Concentric with the required information, as of December 31, 2022. This information has been compiled from the plant accounting records and includes the following:

- current balances by vintage year for each account (aged balances) through December 31, 2022. The balances provide the amount of investment sorted by installation year. This file is only inclusive of plant in service and does not include any retirement information;



- retirement transactions for all accounts through December 31, 2022. The transactions include information regarding the transaction year of the retirement, the installation year of the asset being retired, and the original cost of the asset being retired; and
- cost of removal and gross salvage transactions for all accounts requiring the recovery of net salvage through December 31, 2022. The transactions include information regarding the transaction year of the retirement, the costs associated with the retirement, and any gross salvage proceeds from the sale or reuse of the property.

2.5 Data Reconciliation

The above data was reviewed and reconciled to AEY's control schedules to ensure accuracy and reasonableness in use of the calculations developed in this study. These checks include:

- that the surviving investment by account equals (or can be reconciled to) the Company's gross plant in service and accumulated depreciation ledger balances;
- that the surviving investment in each vintage is not negative. In other words, this check confirms that the sum of retirements from any given vintage have not exceeded the amount of plant additions to the vintage; and
- that any adjusting transactions are properly accounted for within the account transactions provided.

The following table provides a comparison of account numbers used in the previous study to the account numbers used in this study.

Previous Account	Previous Title	New Account	New Title
422.00	Hydro Structures	331.00	Structures and Improvements
423.00	Hydro Reservoirs, Dams and Waterways	332.00	Reservoirs, Dams and Waterways
425.00	Hydro Generators	333.00	Water Wheels, Turbines and Generators
426.00	Hydro Accessories and Equipment	334.00	Accessory Electric Equipment
427.00	Hydro Miscellaneous Equipment	335.00	Miscellaneous Power Plant Equipment
442.00	Structures and Improvements	341.20	Internal Combustion Structures
444.00	Fuel Holders, Products and Accessories	342.20	Internal Combustion Fuel Holders, Producers and Accessories
445.00	General Equipment and Primes Movers	343.20	Internal Combustion Generators
446.00	Accessory Electric Equipment	345.20	Internal Combustion Accessories
447.00	Miscellaneous Power Plant Equipment	346.20	Internal Combustion Miscellaneous
457.00	Substation Equipment - Treatment	353.00	Station Equipment



Previous Account	Previous Title	New Account	New Title
471.00	Land Rights	360.10	Land Rights
473.00	Poles Towers and Fixtures	364.00	Poles, Towers and Fixtures
474.00	Overheard Conductor	365.00	Overhead Conductors and Devices
474.10	Overhead Services	365.10	Overhead Services
475.00	Underground Conduit	367.00	Underground Conductor and Devices
475.10	Underground Services	367.10	Underground Services
476.10	Meters	370.00	Conventional Meters
476.30	AMR - Meters	371.00	Automated Meters
477.10	Substation Equipment	362.00	Station Equipment
478.10	Street Lights and Signal Systems	373.00	Street Lights
478.20	Sentinel Lights	373.10	Sentinel Lights
479.10	Line Transformers	368.00	Line Transformers
482.00	Structures and Improvements	390.00	Structures and Improvements
483.00	Office Furniture and Equipment	391.00	Office Furniture and Equipment
483.20	Computer Equipment and Accessories	391.10	Computer Hardware & Voice and Data Network Equipment
484.00	Transportation and Mobile Equipment	392.20	Transportation Equipment, Fleet Vehicles, Category 2
484.00	Transportation and Mobile Equipment	392.30	Transportation Equipment, Fleet Vehicles, Category 3
484.00	Transportation and Mobile Equipment	392.40	Transportation Equipment, Fleet Vehicles, Category 4
485.00	Tools and Instruments	394.00	Tools, Shop, Garage, Stores and Laboratory Equipment
486.00	Communication Equipment	362.10	System Communication & Control
488.20	Houses	390.01	Structures and Improvements - Houses



SECTION 3

3 DEVELOPMENT OF THE REQUIRED DEPRECIATION RATES

3.1 Depreciation

The development of the depreciation calculations requires the input of an average service life, a retirement dispersion curve (i.e., Iowa curve) and net salvage recommendations. Together, the average service life, retirement dispersion curve, and net salvage recommendation are referred to as the depreciation parameters. Additionally, to complete the depreciation calculations, the calculation methods must be established. Specifically, the selection of the depreciation method must establish three types of additional input:

1. the choice of a depreciation method;
2. a basis upon which to apply the method, and
3. in the case of group assets, a procedure to use in grouping the assets.

In this study, the depreciation rates for AEY have been calculated in accordance with the Straight-Line method, the ELG procedure and applied using the Whole Life technique, with any accumulated depreciation variances trued-up over the composite remaining life of each account. This is in line with the currently approved depreciation method.

Depreciation, as applied to depreciable plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric 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 the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art and changes in demand and requirements of public authorities.¹

When considering the action of the elements, the average service life and net salvage calculations have considered large catastrophic events that have occurred and impacted the life estimates of utilities across North America. The average service life of utility plant has been influenced by events including:

- forest fires;
- earthquakes;
- tornadoes;
- ice storms;
- wind-storms;
- large scale flooding;
- fires;
- lightning;
- intentional actions of third parties;
- hoar frost; and
- other natural forces of nature.

¹ The National Association of Railroad and Utilities Commissioners, Uniform System of Accounts for Class A and B Electric Utilities. The Definition used by the Federal Energy Regulatory Commission for Electric is essentially the same.



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 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.

The calculation of annual and accrued depreciation based on the Straight-Line method requires the estimation of survivor curves and is described in the following sections of this report. The development of the proposed depreciation rates also requires the selection of group depreciation procedures, as discussed below.

3.1.1 Study Depreciation Methods and Procedures

This study calculates the annual and accrued depreciation using the Straight-Line method and ELG procedure for most accounts. For certain plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages, and estimates of service lives. Variances between the calculated accrued depreciation and the book accumulated depreciation are amortized over the composite remaining life of each account.

Periodic monitoring and maintenance of the accumulated depreciation reserve at the account level is recommended. Concentric has determined an amortization amount to correct the present variance with the calculated accrued depreciation (theoretical reserve) over the composite remaining life of each account.

3.2 Estimation of Survivor Curves and Net Salvage

3.2.1 Survivor Curves

The use of an average service life or 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 plotting the number of units that survive at successive ages using the retirement rate method of analysis.

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. The Iowa curves *"...were sorted into three groups according to whether the mode was to the left, approximately coincident with, or to the right of the average-life ordinate. The curves in each of these three groups were then sub-classified in accordance with the height of the mode, taking also into consideration the distance of the mode to the left or right of the average life."*² The Iowa curves are described as L-type (i.e., left-moded), R-type (i.e., right-moded), and S-type (i.e., symmetrical). Further development resulted in the introduction of O-type (i.e., origin-moded curves) where the greatest frequency of

² Robley Winfrey, Statistical Analyses of Industrial Property Retirements, Bulletin 125 revised (Engineering Research Institute, Iowa State University, 1935) 65



retirement occurs at the origin, or immediately after age zero. Individual type curves are further depicted with numerical subscripts that represent the relative heights of the modes of the frequency curves within each family.

The program that is used by Concentric for statistical smooth curve fitting utilizes an internal “goodness-of-fit” criterion known as the Residual Measure. This Residual Measure is based on a least squares solution of the differences between the stub curve (or original data points) and smooth survivor curve, which also requires a balancing of the differences above and below the stub curve.

The criterion of goodness-of-fit is the mean square of the differences between the points on the stub and fitted smooth survivor curves. The residual measure, or standard error of estimate, shown in the output format is the square root of this mean square. As such, the lower the Residual Measure the better the statistical fit between the analyzed Iowa curve and the observed data points. Concentric follows the widely used practice of fitting Iowa curves up to one percent of the maximum exposures. This standard practice is utilized to minimize the influence of typically small retirements applied to similarly small exposures that may unduly affect the Iowa curve fitting process. However, Concentric will recognize the observed data points beyond the one percent of maximum exposures if it is determined that the additional data is a valid consideration for life recommendation.

A discussion of the general concept of survivor curves and retirement rate method is presented in Section 9.

3.2.2 Survivor Curve and Net Salvage Judgments

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed professional judgment that incorporated a review of management’s plans, policies and outlook, a general knowledge of the electric utility industry, and comparisons of the service life and net salvage estimates from Concentric’s studies of other electric utilities. A detailed peer review is compiled to establish a range of reasonableness for the Iowa curve and net salvage estimate for each account. While the peer review is considered an appropriate test of the estimates, it should never be viewed as definitive. Differences in characteristics such as the account structure, climate conditions, regulatory environment, and area of service must always be considered when reviewing a peer study.

The following utilities with similar characteristics to AEY were considered in the peer review:

- Northwest Territories Power Corporation (“NTPC”)
- BC Hydro
- FortisBC Electric
- Manitoba Hydro
- ATCO Electric

The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for 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 and the probable future. The forecasting of the probable future included management and operational staff interviews and site tours of substations within Whitehorse, as well as Fish Lake 1 and Fish Lake 2 hydro generation plants. The combination of the historical experience and the probable future yielded estimated survivor curves from which the average service lives were derived. The recommended depreciation rates are summarized in the applicable tables of this study (Section 5).

In addition to staff interviews and site tours, when forecasting the probable future average service lives Concentric also considered current Government energy transition policies and their near-term effect on AEY. These policies, coupled with rapid population growth in the Yukon, has resulted in increased investment in new plant, and upgrades and replacements of older plant. While this trend is forecast to continue into the future, it is still too early to predict if or when this will have a material effect on the service lives of AEY's assets. Therefore, Concentric recommends only moderated changes to AEY's service life estimates at this time; however, periodic monitoring and evaluation is recommended to ensure annual depreciation accrual rates remain appropriate.

The estimates of net salvage for the mass property accounts were based in part on historical data related to actual retirement activity for the years 1983 through 2022, with the majority of relevant cost of removal transactions occurring in the last 10 years. Gross salvage and cost of removal as recorded to the depreciation reserve account and related to experienced retirements were used. Percentages of the cost of plant retired were calculated for each component of net salvage on an annual, three-year, five-year, and on a cumulative moving average basis. This analysis demonstrated the need for AEY to reinstate its annual collection of net salvage costs in this study.

AEY applied to reinstate net salvage (i.e., future removal and site restoration) in its last depreciation study, however, the Board did not agree and stated that the liability balance in 2012 of \$4.4 million was "sufficient to address any planned retirements going forward."³ The liability balance as at December 31, 2022 is \$0.5 million and in discussions with AEY management, is not sufficient to fund the expected level of retirement activity in the near term. Therefore, Concentric recommends reinstating the collection of net salvage in order to ensure AEY can fund the cost of removal associated with its future retirements.

Reinstatement of net salvage rates will help to minimize future intergenerational equity issues and reduce the risk of larger-scale increases in net salvage rates being necessary in the future. This approach to a graduated phase-in of net salvage requirements is a similar approach to the method recommended by NTPC in its 2016/19 Phase 1 General Rate Application and approved by the Public Utilities Board of the Northwest Territories in Decision 16-2017. More recently, general rate

³ Board Order 2014-06 – Appendix A: Reasons for Decision



applications for both natural gas and electric utilities have included a significant amount of evidence regarding the proactive collection of future cost of removal expenditures.^{4,5}

AEY requested Concentric to consider a phase-in approach to the re-instatement of net salvage in this study to manage potential rate shock. Concentric has considered this request in its estimates and chose the lower end of the range of net salvage used by peers for most of AEY’s accounts. However, periodic monitoring and evaluation is recommended to ensure annual net salvage rates are appropriately accounting for inflationary pressures on costs of removal and the increased trend of capital upgrades and replacements.

The following discussion, dealing with a number of accounts that comprise the majority of the investment analyzed, presents an overview of the factors considered by Concentric in the determination of the average service life and net salvage estimates. The survivor curve estimates for the remainder of the accounts not discussed in the following sections were based on similar considerations.

ACCOUNT 331.00 – HYDRO GENERATION PLANT – STRUCTURES AND IMPROVEMENTS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$1,668,036	0.63%	72-R2	70-R2	-5%

The investment in Hydro Generation – Structures and Improvements is approximately \$1.7 million, representing 0.63 percent of the total depreciable plant studied. This account contains structures and improvements used in connection with hydro power generation.

The currently approved life parameter is an Iowa 72-R2. The retirements, additions, and other plant transactions, for the period 1971 through 2022, were analyzed by the retirement rate method. Retirements, for the period 2013 through 2022, of \$131,681 were recorded. The currently approved Iowa 72-R2 produced a fit with a related residual measure of 3.2629. An Iowa 70-R2 produced a better fit with a related residual measure of 3.2265, as depicted on page 6-2. A review of peer Canadian electric generation and distribution utilities indicates a life of between 60 and 65 years. As such, the recommended curve falls outside of the peer range. Conversations with AEY operational staff and subject matter experts indicated that the recommended life for this account is consistent with their opinion that there is no change in practice and the future retirement activity should not be materially different from what has been experienced in the past. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 70-R2 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 70-R2 to represent the future expectations for the investment in this account.

⁴ For example, a BC Hydro F2023 – F2025 Revenue Requirement Application resulting in BCUC Decision and Order G-91-23 endorsing a restatement of net salvage collection in future applications.

⁵ In a recent Enbridge Gas Inc. Proceeding EB-2022-0200 before the Ontario Energy Board, the evidence from all parties endorsed the continued use of a pro-active collection of a reserve for the costs of future retirement of assets.



AEY has incurred almost \$63,000 in cost of removal in this account between 2013-2022. The historical net salvage activity shows a range from negative six percent to negative 56 percent. A three-year band analysis shows a range from zero percent to over negative 1,000 percent. A five-year band analysis produces a range from negative 46 percent to over negative 1,000 percent. The full-depth band for this account shows an amount of negative 47 percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 10 percent. Concentric is recommending a net salvage percentage of negative five percent due to AEY's recent experience and near-term requirements.

ACCOUNT 332.00 – HYDRO GENERATION PLANT – RESERVOIRS, DAMS, AND WATERWAYS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$8,819,431	3.32%	103-R3	100-R3	-5%

The investment in Hydro Generation Plant – Reservoirs, Dams, and Waterways is approximately \$8.8 million, representing 3.31 percent of the total depreciable plant studied. This account contains assets used for impounding, collecting, storage, diversion, regulation, and delivery of water used primarily for generating electricity.

The currently approved life parameter is an Iowa 103-R3. The retirements, additions and other plant transactions, for the period 1987 through 2022, were analyzed by the retirement rate method. Retirements, for the period 2019 through 2022, of \$834,407 were recorded for this period. The currently approved Iowa 103-R3 produced a fit with a residual measure of 1.9818. An Iowa 100-R3 produced a better fit with a related residual measure of 1.9793, as depicted on page 6-5. Although roughly half of the historical retirements were experienced before age 30 (\$379,932), conversations with AEY operational staff and subject matter experts indicated that the recommended life for this account is consistent with their opinion that there is no change in practice and the future retirement activity should not be materially different from what has been experienced in the past. A review of peer Canadian electric generation and distribution utilities indicates a life of between 70 and 125 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 100-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 100-R3 to represent the future expectations for the investment in this account.

AEY has incurred almost \$46,000 in cost of removal in this account between 2019-2022. The historical net salvage activity shows a range from negative five percent to negative six percent. A three-year band analysis shows a range from negative two percent to negative five percent. The full-depth band for this account shows an amount of negative six percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 25 percent. Concentric is recommending a net salvage percentage of negative five percent due to AEY's recent experience and near-term requirements.



ACCOUNT 333.00 – HYDRO GENERATION PLANT – WATER WHEELS, TURBINES, AND GENERATORS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$3,293,183	1.24%	85-R3	85-R3	-5%

The investment in Hydro Generation Plant – Water Wheels, Turbines, and Generators is approximately \$3.3 million, representing 1.24 percent of the total depreciable plant studied. This account contains water wheels, hydraulic turbines, and generators used primarily for generating hydroelectricity.

The currently approved life parameter is an Iowa 85-R3. The retirements, additions and other plant transactions, for the period 1987 through 2022, were analyzed by the retirement rate method. Retirements, for the period 2013 through 2022, of \$539,117 were recorded. The currently approved and proposed Iowa 85-R3 produced a related residual measure of 1.6945, as depicted on page 6-8. Discussions with AEY operational and management staff indicated that the currently approved life is still a good representation of the historical life and future expectations for retirements in this account. The additional data since the last study has not indicated an immediate need to change the recommended life for this account. The most consequential retirement experience occurs at age 32, where roughly 25 percent of exposures at that age experienced retirement. A review of peer Canadian generation and electric distribution utilities indicates a life of between 30 and 70 years. Concentric acknowledges that this life recommendation is longer than the peer group, but based on the above discussion and considerations, and on Concentric’s experience, an Iowa 85-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 85-R3 to continue to represent the future expectations for the investment in this account.

AEY has incurred almost \$41,000 in cost of removal in this account between 2013-2022. The historical net salvage activity shows a range from negative six percent to negative eight percent. A three-year band analysis produces a range from zero percent to negative 13 percent. A five-year band analysis produces a range from zero percent to negative 13 percent. The full-depth band for this account shows an amount of negative eight percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 30 percent. Concentric is recommending a net salvage percentage of negative five percent due to AEY’s recent experience and near-term requirements.

ACCOUNT 341.20 – DIESEL GENERATION PLANT – INTERNAL COMBUSTION STRUCTURES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$6,101,560	2.30%	40-R2.5	40-R2	-10%

The investment in Diesel Generation Plant – Internal Combustion Structures is approximately \$6.1 million, representing 2.30 percent of the total depreciable plant studied. This account contains the cost in place of structures and improvements used in connection with diesel generation.



The currently approved life parameter is an Iowa 40-R2.5. The retirements, additions and other plant transactions, for the period 1958 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1971 through 2022, of \$70,707 were recorded. The currently approved Iowa 40-R2.5 produced a related residual measure of 2.2689. The proposed Iowa 40-R2 has a better mathematical fit to the data with a residual measure of 2.2297, as depicted on page 6-17. Discussions with AEY operational and management staff indicated that the currently approved life is still a good representation of the historical life and future expectations for retirements in this account. Since the previous study, the surviving plant balance has increased by 297 percent. However, the ages of plant in service that have experienced retirement activity have shown no material changes since the last study. There are earlier retirements occurring that will need to be monitored moving forward but the current experience does not constitute a change to what is currently approved. A review of peer Canadian generation and electric distribution utilities indicates a life of between 30 and 50 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 40-R2 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 40-R2 to represent the future expectations for the investment in this account.

AEY has incurred almost \$15,000 in cost of removal in this account between 2003-2022. The historical net salvage activity shows a range from seven percent to negative 49 percent. A three-year band analysis shows a range from negative one percent to over negative 1,000 percent. A five-year band analysis produces a range from negative 17 percent to over negative 1,000 percent. The full-depth band for this account shows an amount of negative 21 percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 13 percent. Concentric is recommending a net salvage percentage of negative 10 percent due to AEY’s recent experience and near-term requirements.

ACCOUNT 342.20 – DIESEL GENERATION PLANT – INTERNAL COMBUSTION FUEL HOLDERS, PRODUCERS, AND ACCESSORIES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$3,430,728	1.29%	35-R4	40-R3	-15%

The investment in Diesel Generation Plant – Internal Combustion Fuel Holders, Producers, and Accessories is approximately \$3.4 million, representing 1.29 percent of the total depreciable plant studied. This account primarily contains fuel handling and storage equipment.

The currently approved life parameter is an Iowa 35-R4. The retirements, additions and other plant transactions, for the period 1957 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1959 through 2022, of \$116,702 were recorded. The currently approved Iowa 35-R4 produced a related residual measure of 2.3393. The proposed Iowa 40-R3 produces a better visual and mathematical fit with a residual measure of 1.3505 as depicted on page 6-20. Retirements in this account in the previous study equaled \$71,504, and retirements in this account as at the time of the study equaled \$116,702, for an increase of 63 percent. Much of this increase (approximately \$35,000) occurred between ages 12 and 16. The overall exposure amount of roughly



\$3.5 million is, however, relatively unaffected by this increase in retirement experience, and as such, the proposed R3 mode curve does a better job of fitting the retirements from age 25 upwards. Conversations with AEY operational staff and subject matter experts indicated that the recommended life for this account is consistent with their opinion on the future retirement activity within this account. A review of peer Canadian generation and electric distribution utilities indicates a life of between 27 and 35 years. Although the 40-R3 is above the baseline for peers within Canada, there are no indications that it is unreasonable for this group of assets. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 40-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 40-R3 to represent the future expectations for the investment in this account.

AEY incurred \$33,000 in cost of removal in this account between 1998-2022. The historical net salvage activity shows a range from 100 percent to negative 69 percent. A three-year band analysis shows a range from 200 percent to negative 153 percent. A five-year band analysis produces a range from 169 percent to negative 153 percent. The full-depth band for this account shows an amount of negative 21 percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 25 percent. Concentric is recommending a net salvage percentage of negative 15 percent due to AEY’s recent experience and near-term requirements.

ACCOUNT 343.20 – DIESEL GENERATION PLANT – INTERNAL COMBUSTION GENERATORS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$20,512,067	7.72%	26-S2.5	26-S2	-10%

The investment in Diesel Generation Plant – Internal Combustion Generators is approximately \$20.5 million, representing 7.72 percent of the total depreciable plant studied. This account contains the cost installed of diesel plant devoted to the generation of electric energy, together with their auxiliaries, or other power-driven main generators.

The currently approved life parameter is an Iowa 26-S2.5. The retirements, additions and other plant transactions, for the period 1945 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1959 through 2022, of \$7,973,056 were recorded. The currently approved 26-S2.5 produces a residual measure of 0.6632. The proposed Iowa 26-S2 produced a related residual measure of 0.5674 as depicted on page 6-23. Discussions with AEY operational and management staff indicated that the 26-year life is still a good representation of the historical life and future expectations. The change in mode from a S2.5 to a S2 does a better job of fitting to the retirement experience within the account, as demonstrated by the lower residual measure. There has been an increase of 133 percent in the retirement experience in this account, up from \$3,420,605 in the previous study. However, the additional data since the last study has not indicated a need to change the recommended life for this account as most of the retirement experience occurs at the same age of plant as it did previously. A review of peer Canadian generation and electric distribution utilities indicates a life of between 25 and 32 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 26-S2 is a reasonable expectation for the



investment in this account. As such, Concentric recommends an Iowa 26-S2 to represent the future expectations for the investment in this account.

AEY has incurred almost \$473,000 in cost of removal in this account between 2013-2022. The historical net salvage activity shows a range from negative five percent to negative 936 percent. A three-year band analysis shows a range from negative four percent to negative 15 percent. A five-year band analysis produces a range from negative five percent to negative 14 percent. The full-depth band for this account shows an amount of negative 10 percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative five percent. Concentric is recommending a net salvage percentage of negative 10 percent due to AEY's recent experience and near-term requirements.

ACCOUNT 345.20 – DIESEL GENERATION PLANT – INTERNAL COMBUSTION ACCESSORY

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$5,155,803	1.94%	35-R3	35-R3	-10%

The investment in Diesel Generation Plant – Internal Combustion Accessory is approximately \$5.2 million, representing 1.94 percent of the total depreciable plant studied. This account contains the cost of installed auxiliary generating apparatus, conversion equipment, equipment used primarily in connection with the control and switching of electric energy produced in other power generating stations, and the protection of electric circuits and equipment.

The currently approved life parameter is an Iowa 35-R3. The retirements, additions and other plant transactions, for the period 1957 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1960 through 2022, of \$445,837 were recorded. The currently approved and proposed 35-R3 produces a residual measure of 1.3451, as depicted on page 6-26. Discussions with AEY operational and management staff indicated that a 35-year life is still a good representation of the historical life and future expectations for retirements in this account. There has been an increase of approximately 78 percent in the retirement experience in this account, up from \$250,429 in the previous study. However, the additional data since the last study has not indicated a need to change the recommended life for this account as most of the retirement experience occurs at the same age of plant as it did previously. A review of peer Canadian generation and electric distribution utilities indicates a life of between 28 and 35 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 35-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 35-R3 to continue to represent the future expectations for this account.

AEY has incurred over \$21,000 in cost of removal in this account between 2013-2022. The historical net salvage activity shows a range from negative 12 percent to negative 45 percent. A three-year band analysis shows a range from negative five percent to negative 41 percent. A five-year band analysis produces a range from negative seven percent to negative 13 percent. The full-depth band for this account shows an amount of negative 12 percent. Canadian electric generation and distribution peers



have net salvage ranging from 0 to negative 8 percent. Concentric is recommending a net salvage percentage of negative 10 percent due to AEY’s recent experience and near-term requirements.

ACCOUNT 353.00 – TRANSMISSION SUBSTATION PLANT – STATION EQUIPMENT

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$1,114,289	0.43%	50-R4	50-R3	0%

The investment in Substation Plant – Station Equipment is approximately \$1.1 million, representing 0.43 percent of the total depreciable plant studied. This account contains transmission substation assets, excluding transformers, primarily within Yukon Energy owned substations.

The previously approved curve for this account was a 50-R4. The retirements, additions and other plant transactions, for the period 1948 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1959 through 2022, of \$294,376 were recorded. The currently approved Iowa 50-R4 produced a fit with a related residual measure of 1.3975. An Iowa 50-R3 produced a better fit with a related residual measure of 1.1119, as depicted on page 6-34. The 50-R3 captures more retirement experience from 100 percent to roughly 50 percent of plant surviving than the 50-R4 does. Over 98 percent (\$290,423) of retirement experiences occur before age 50, where the 50-R3 is the better mathematical fit. Discussions with AEY operational and management staff indicated that a 50-year life is still a good representation of the historical life and future expectations for retirements in this account. A review of peer Canadian electric generation and distribution utilities resulted in lives of 32 to 50 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 50-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R3 to represent the future expectations for the investment in this account.

This account does not have any historical costs of removal with minimal costs of removal expected in the future. Therefore, at this time, Concentric recommends no net salvage collection on this account within this study.

ACCOUNT 362.00 – DISTRIBUTION PLANT – STATION EQUIPMENT

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$7,543,473	2.84%	40-R4	40-R2.5	-10%

The investment in Distribution Plant – Station Equipment is approximately \$7.5 million, representing 2.84 percent of the total depreciable plant studied. This account contains the station equipment located at AEY’s distribution substations.

The currently approved life parameter is an Iowa 40-R4. The retirements, additions and other plant transactions, for the period 1960 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1985 through 2022, of \$271,244 were recorded. The currently approved



Iowa 40-R4 produced a fit with a related residual measure of 3.4265. An Iowa 40-R2.5 produced a better fit with a related residual measure of 3.0739, as depicted on page 6-41. The change from a R4 to a R2.5 curve for this account reflects the experienced retirements and the fact that they are retiring at earlier ages than the R4 captures; they also do not retire in such a steep manner, which the R4 curve estimates will occur. Discussions with AEY operational and management staff indicated that the 40-year life is a good representation of the historical life and future expectations for retirements in this account. A review of peer Canadian electric generation and distribution utilities indicates a life of between 25 and 55 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 40-R2.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 40-R2.5 to represent the future expectations for the investment in this account.

AEY has incurred \$100,000 in cost of removal in this account between 2013-2022, with the largest amounts occurring in 2020. The historical net salvage percentage ranges from negative two to negative 39 percent. A three-year band analysis for this account shows a range in net salvage from negative eight percent to negative 49 percent. A five-year band analysis shows a range from negative eight to negative 46 percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 30 percent. Concentric is recommending a net salvage percentage of negative 10 percent due to AEY’s recent experience and near-term requirements.

ACCOUNT 364.00 – DISTRIBUTION PLANT – POLES, TOWERS, AND FIXTURES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$53,306,940	20.06%	45-R3	50-R2	-50%

The investment in Distribution Plant – Poles, Towers, and Fixtures is approximately \$53.3 million, representing 20.06 percent of the total depreciable plant studied. This account contains poles, towers, and fixtures used for supporting overhead distribution conductors and service wires.

The currently approved life parameter is an Iowa 45-R3. The retirements, additions and other plant transactions, for the period 1945 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1960 through 2022, of \$2,292,224 were recorded. The currently approved Iowa 45-R3 produced a fit with a related residual measure of 2.1291. An Iowa 50-R2 produced a fit with a related residual measure of 1.3011, as depicted on page 6-45. The move to a 50-R2 for this account for mathematical fit is due to the robust retirement history following very closely with the behaviour of an R2 curve. This curve has earlier retirements (some within the first five years) but is much more gradual in its dispersion than the R3 curve. A review of peer Canadian electric generation and distribution utilities indicates a life of between 40 and 60 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 50-R2 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R2 to represent the future expectations for the investment in this account.



AEY has incurred \$1.2 million in cost of removal in this account between 2013-2022, with almost \$1.0 million incurred in the last five years. The historical net salvage activity shows a range from 72 percent to negative 103 percent. A three-year band analysis shows a range from 67 percent to negative 202 percent. A five-year band analysis produces a range from 54 percent to negative 188 percent. The full-depth band for this account shows an amount of negative 103 percent. Canadian electric generation and distribution peers have net salvage ranging from 0 to negative 65 percent. Concentric is recommending a net salvage percentage of negative 50 percent due to AEY's recent experience and near-term requirements.

ACCOUNT 365.00 – DISTRIBUTION PLANT – OVERHEAD CONDUCTORS AND DEVICES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$28,793,206	10.83%	45-R4	50-R3	-25%

The investment in Distribution Plant – Overhead Conductors and Devices is approximately \$28.8 million, representing 10.83 percent of the total depreciable plant studied.

The currently approved life parameter is an Iowa 45-R4. The retirements, additions and other plant transactions, for the period 1945 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1960 through 2022, of \$1,162,604 were recorded. The currently approved Iowa 45-R4 produced a fit with a related residual measure of 4.0224. An Iowa 50-R3 produced a better fit with a related residual measure of 3.1701, as depicted on page 6-49. As a results, the curve fit to the data by lengthening the life by five years is substantially better. The R3 curve captures the initial retirements from age 0 through age 25 better than the R4 does, and over half of the retirement dollars are experienced within this range. Also, by moving from a R4 to R3, the curve captures more of the gradual retirements from age 35 onwards. As there is not a large record of retirements, capturing the gradual nature of them in that age range is important. Discussions with AEY operational and management staff indicated that a 50-year life is a good representation of the historical life and future expectations of retirements. A review of peer Canadian electric distribution utilities indicates a life of between 40 and 65 years, with the two most recent studies having the longest lives of 60 and 65 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 50-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R3 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred \$271,071 in costs of removal for this account, with the majority incurred in the last five years. As such, the three-year band has ranged from positive 20 percent to negative 1,507 percent. The five-year band has ranged from negative 8 percent to negative 271 percent. The full depth band indicates negative 53 percent. A review of peer Canadian electric distribution utilities indicates a range of 0 percent to negative 40 percent. At this time, Concentric recommends a negative 25 percent net salvage estimate be used in the depreciation calculations within this study due to AEY's recent experience and near-term requirements.



ACCOUNT 365.10 – DISTRIBUTION PLANT – OVERHEAD SERVICES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$5,234,252	1.97%	45-R3	50-R2.5	-10%

The investment in Distribution Plant – Overhead Services is approximately \$5.2 million, representing 1.97 percent of the total depreciable plant studied.

The currently approved life parameter is an Iowa 45-R3. The retirements, additions, and other plant transactions, for the period 1945 through 2022, were analyzed by the retirement rate method. Retirements, for the period 1962 through 2022, of \$194,885 were recorded. The currently approved Iowa 45-R3 produced a fit with a related residual measure of 4.046. An Iowa 50-R2.5 produced a better fit with a related residual measure of 3.3072, as depicted on page 6-53. There has been a minor increase in retirement experience in this account since the previous study, with a larger portion of the total retirements occurring between the ages of 30 and 40. There are also more retirements after age 41 than the experience in the last study. The move from a 45 to a 50-year life is supported by this trend but should be monitored to see if it will continue into the future. Discussions with AEY operational and management staff indicated that a 50-year life is a good representation of the historical life and future expectations for retirements. A review of peer Canadian electric distribution utilities indicates a life of between 35 and 55 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 50-R2.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R2.5 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred \$108,081 in costs of removal for this account, all of which was incurred in the last five years. As such, the three-year band has ranged from negative 10 percent to negative 264 percent. The five-year band has ranged from negative 10 percent to negative 91 percent. The full depth band indicates negative 58 percent. A review of peer Canadian electric distribution utilities indicates a range of 0 percent to negative 8 percent. At this time, Concentric recommends that a negative 10 percent net salvage estimate be used in the depreciation calculations within this study due to AEY’s recent experience and near-term requirements.

ACCOUNT 367.00 – DISTRIBUTION PLANT – UNDERGROUND CONDUCTOR AND DEVICES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$34,178,702	12.84%	45-R3	50-R3	-25%

The investment in Distribution Plant – Underground Conductor and Devices is approximately \$34.2 million, representing 12.84 percent of total depreciable plant studied. The assets in this account relate to underground services conductor and devices throughout the AEY distribution system.

The currently approved life parameter is an Iowa 45-R3. The retirements, additions and other plant transactions, for the period 1961 through 2022, were analyzed by the retirement rate method.



Retirements, for the period 1985 through 2022, of \$351,344 were recorded. The currently approved Iowa 45-R3 produced a fit with a related residual measure of 0.9868. An Iowa 50-R3 produced a better fit with a related residual measure of 0.6526, as depicted on page 6-57. By extending the life of this account by five years, the R3 curve better captures the retirements through age 50, where there is 60 percent of plant surviving. Discussions with AEY operational and management staff indicated that a 50-year life is a good representation of the historical life and future expectations for retirements in this account. A review of peer Canadian electric distribution utilities indicates a life of between 30 and 55 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 50-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R3 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred \$381,553 in costs of removal for this account, with the majority incurred in the last five years. As such, the three-year band has ranged from positive 160 percent to over negative 1,000 percent. The five-year band has ranged from positive 98 percent to over negative 1,000 percent. The full depth band indicates negative 145 percent. A review of peer Canadian electric distribution utilities indicates a range from zero to negative 10 percent. At this time, however, Concentric recommends that a negative 25 percent net salvage estimate be used in the depreciation calculations within this study due to AEY’s large recent cost of removal experience and near-term requirements.

ACCOUNT 367.10 – DISTRIBUTION PLANT – UNDERGROUND SERVICES

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$6,266,150	2.36%	40-R4	50-R4	-5%

The investment in Distribution Plant – Underground Services is approximately \$6.3 million, representing 2.36 percent of the total depreciable plant studied. The assets in this account relate to underground services throughout the AEY distribution system.

The currently approved life parameter is an Iowa 40-R4. The retirements, additions and other plant transactions, for the period 1971 through 2022 were analyzed by the retirement rate method. Retirements, for the period 1991 through 2022, of \$117,607 were recorded. The currently approved Iowa 40-R4 produced a fit with a related residual measure of 0.9429. An Iowa 50-R4 produced a better fit with a related residual measure of 0.2653, as depicted on page 6-60. There has been an increase in retirements in this account of approximately 180 percent since the previous study. Most of these retirements have been experienced in the same ages of plant as the previous study but in larger amounts. However, there are more retirements that have occurred at later ages, specifically after 30 years, than the previous study. A review a of peer Canadian electric distribution utilities indicates a range of between 35 to 55 years. Discussions with AEY operational and management staff indicated that the change in the life 50 years is a good representation of the historical life and future expectations for retirements. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 50-R4 is a reasonable expectation for the investment in this account. As such,



Concentric recommends an Iowa 50-R4 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred almost \$30,000 in costs of removal for this account, all of which was incurred in the last four years. As such, the three-year band has ranged from negative six percent to negative 111 percent. The five-year band has ranged from negative 6 percent to negative 40 percent. The full depth band indicates negative 24 percent. A review of peer Canadian electric distribution utilities indicates a range of 0 percent to negative 8 percent. At this time, Concentric recommends that a negative five percent net salvage estimate be used in the depreciation calculations within this study due to AEY's recent experience and near-term requirements.

ACCOUNT 368.00 – DISTRIBUTION PLANT – LINE TRANSFORMERS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$40,867,164	15.38%	45-R3	45-R2.5	-10%

The investment in Distribution Plant – Line Transformers is approximately \$41 million, representing 15.38 percent of the total depreciable plant studied. Overhead line transformers step down distribution medium voltage (25kV or 13kV) to low voltage (120 / 240V, 277 / 480V, etc.) used at customer sites.

The currently approved life parameter is an Iowa 45-R3. The retirements, additions and other plant transactions, for the period 1945 through 2022 were analyzed by the retirement rate method. Retirements, for the period 1960 through 2022, of \$1,614,212 were recorded. The currently approved Iowa 45-R3 produced a fit with a related residual measure of 4.1113. An Iowa 45-R2.5 produced a better fit with a related residual measure of 3.9734, as depicted on page 6-63. There has been an increase in retirements in this account of approximately 166 percent since the previous study. Most of these retirements have been experienced in the same ages of plant as before but in slightly larger amounts. Comparing the retirement experience to the previous study shows no indication that there has been a large change to the retirement patterns within this account. However, with the new retirement experience taken into consideration, the move to a R2.5 curve better reflects the experienced retirements to date. A review a of peer Canadian electric distribution utilities indicates a range of between 37 to 50 years. Discussions with AEY operational and management staff indicated that a 45-year life is a good representation of the historical life and future expectations for retirements. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 45-R2.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 45-R2.5 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred almost \$700,000 in costs of removal for this account. As such, the three-year band has ranged from 487 percent to over negative 1,000 percent. The five-year band has ranged from 123 percent to negative 457 percent. The full depth band indicates negative 89 percent. A review of peer Canadian electric distribution utilities indicates a range of 0 percent to negative 40 percent. At this time, Concentric recommends a negative 10 percent net salvage estimate be used in



the depreciation calculations within this study due to AEY’s recent experience and near-term requirements.

ACCOUNT 370.00 – DISTRIBUTION PLANT – CONVENTIONAL METERS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$2,956,566	1.11%	15-L0	15-R0.5	-5%

The investment in Distribution Plant – Conventional Meters is approximately \$3 million, representing 1.11 percent of the total depreciable plant studied. This account contains residential and commercial analog meters (as well as the assets required to maintain meters) and will be replaced as AEY undergoes a program to replace a portion of its conventional meters with AMI meters.

The currently approved life parameter is an Iowa 15-L0. The retirements, additions and other plant transactions, for the period 1945 through 2022 were analyzed by the retirement rate method. Retirements, for the period 1960 through 2022, of \$1,927,297 were recorded. The currently approved Iowa 15-L0 produced a fit with a related residual measure of 1.1784. An Iowa 15-R0.5 produced a fit with a related residual measure of 1.2300, as depicted on page 6-67. The move to an R0.5 curve from the currently approved L0 reflects the need to better match the retirement history with the maximum life of the assets within this account. The maximum life of an L0 curve is 61.2 years, whereas the maximum life of an R0.5 is 30 years. This better aligns with industry retirement policy and the retirement history experienced by this account. There has been an increase in retirements in this account of approximately 69 percent since the previous study. Most of these retirements have been experienced in the same ages of plant as before but in slightly larger amounts. Comparing the retirement experience to the previous study shows no indication that there has been material change to the retirement patterns within this account. A review a of peer Canadian electric distribution utilities indicates a range of between 15 to 20 years. Discussions with AEY operational and management staff indicated that a 15-year life is a good representation of the historical life and future expectations. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 15-R0.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 15-R0.5 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred almost \$39,000 in costs of removal for this account. As such, the three-year band has ranged from 0 percent to over negative 1,000 percent. The five-year band has ranged from negative one percent to negative 59 percent. The full depth band indicates negative eight percent. A review of peer Canadian electric distribution utilities indicates zero percent for this account. However, at this time, Concentric recommends a negative five percent net salvage estimate be used in the depreciation calculations within this study due to AEY’s recent experience and near-term requirements.



ACCOUNT 373.00 – DISTRIBUTION PLANT – STREET LIGHTS

Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Concentric Recommended Salvage
\$13,636,687	5.13%	30-R3	30-R3	-10%

The investment in Distribution Plant – Street Lights is approximately \$13.6 million, representing 5.13 percent of the total depreciable plant studied.

The currently approved life parameter is an Iowa 30-R3. The retirements, additions and other plant transactions, for the period 1957 through 2022 were analyzed by the retirement rate method. Retirements, for the period 1958 through 2022, of \$1,108,342 were recorded. The currently approved and proposed Iowa 30-R3 produced a fit with a related residual measure of 2.7983, as depicted on page 6-72. Discussions with AEY operational and management staff indicated that the 30-year life is still a good representation of the historical life and future expectations for retirements. There has been an increase of approximately 51 percent in the retirement experience in this account, up from \$734,821 in the previous study. Approximately \$55,000 (around 5 percent of total retirements) of retirements are occurring at ages older than 35 years, where there were very minimal retirements in the previous study. However, this additional data since the last study has not indicated an immediate need to change the recommended life for this account as most of the retirement experience still occurs at the same age of plant as it did in the last study. A review of peer Canadian electric distribution utilities indicates a range of between 40 to 50 years. Based on the above discussion and considerations, and on Concentric’s experience, an Iowa 30-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 30-R3 to represent the future expectations for the investment in this account.

Since 2013, AEY has incurred over \$300,000 in costs of removal for this account. As such, the three-year band has ranged from zero percent to negative 194 percent. The five-year band has ranged from negative 18 percent to negative 182 percent. The full depth band indicates negative 79 percent. A review of peer Canadian electric distribution utilities indicates a range of 0 percent to negative 20 percent. At this time, Concentric recommends that a negative 10 percent net salvage estimate be used in the depreciation calculations within this study due to AEY’s recent experience and near-term requirements.



SECTION 4

4 CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

4.1 Group Depreciation Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because, usually all of 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: Average Life Group (“ALG”) and Equal Life Group (“ELG”).

In the ELG procedure, the property group is subdivided according to service life. That is, each ELG includes that portion of the property which experiences the life of that specific group. The relative size of each ELG is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each ELG.

The table on the following page presents an illustration of the calculation of ELG depreciation in a mass property account using the Iowa 13-R2 survivor curve, zero percent net salvage and a December 31, 2015 calculation date. Each ELG, in the table, is defined by the age interval shown in columns 1 and 2. These are the ages at which the first and last retirement of each group occurs, and the group's equal life, shown in column 3, is the midpoint of the interval. For purposes of the calculation, each vintage is divided into ELGs arranged so that the midpoint of each one-year age interval coincides with the calculation date, e.g., in this case December 31. This enables the calculation of annual accruals for a twelve-month period centered on the date of calculation.

The retirement during the age interval, shown in column 4, is the size of each ELG derived from the Iowa 13-R2 survivor curve and zero percent net salvage. It is the difference between the percentage surviving at the beginning and end of the age interval. Each ELG's annual accrual, shown in column 5, equals the group's size (column 4) divided by its life (column 3), except in the circumstance of age 0.5 due to the use of the mid-year convention.

Columns 7 through 10, show the derivation of the annual and accrued factors for each vintage based on the information developed in the first five columns. The year installed is shown in column 6. For all vintages other than 2015, the summation of annual accruals for each year installed, shown in column 7, is calculated by adding one-half of the group annual accrual (column 5) for that vintage's current age interval plus the group annual accruals for all succeeding age intervals. For example, the figure 9.36279122771 for 2014, equals one-half of 0.69931333333 plus all of the succeeding figures in column 5. Only one-half of the annual accrual for the vintage's current age interval group is included in the summation because the ELG for that interval has reached the year during which it is expected to be retired.



DETAILED COMPUTATION OF ANNUAL AND ACCRUED FACTORS USING THE EQUAL LIFE GROUP PROCEDURE
INPUT PARAMETERS: CALCULATION DATE = 12-31-2015 SURVIVOR CURVE = 13-R2

Age Interval		Life	Retirements During Interval	Group Annual Accrual	Year Inst.	Summation of Annual Accruals	Average Percent Surviving	Annual Factor	Accrued Factor
Beg.	End								
(1)	(2)	(3)	(4)	(5)=(4)/(3)	(6)	(7)	(8)	(9)	(10)
0.000	1.000	0.500	0.81843	0.81843000000	2015	10.53087789438	99.607343	0.1057	0.0529
1.000	2.000	1.500	1.04897	0.69931333333	2014	9.36279122771	98.657081	0.0949	0.1424
2.000	3.000	2.500	1.32665	0.53066000000	2013	8.74780456105	97.469276	0.0897	0.2243
3.000	4.000	3.500	1.65967	0.47419142857	2012	8.24537884676	95.976118	0.0859	0.3007
4.000	5.000	4.500	2.05317	0.45626000000	2011	7.78015313248	94.119697	0.0827	0.3722
5.000	6.000	5.500	2.51363	0.45702363636	2010	7.32351131430	91.836296	0.0797	0.4384
6.000	7.000	6.500	3.05106	0.46939384615	2009	6.86030257304	89.053950	0.0770	0.5005
7.000	8.000	7.500	3.66989	0.48931866667	2008	6.38094631663	85.693474	0.0745	0.5588
8.000	9.000	8.500	4.36997	0.51411411765	2007	5.87922992447	81.673542	0.0720	0.6120
9.000	10.000	9.500	5.14410	0.54148421053	2006	5.35143076038	76.916510	0.0696	0.6612
10.000	11.000	10.500	5.97129	0.56869428571	2005	4.79634151226	71.358816	0.0672	0.7056
11.000	12.000	11.500	6.79860	0.59118260870	2004	4.21640306506	64.973866	0.0649	0.7464
12.000	13.000	12.500	7.54947	0.60395760000	2003	3.61883296071	57.799833	0.0626	0.7825
13.000	14.000	13.500	8.12298	0.60170222222	2002	3.01600304960	49.963612	0.0604	0.8154
14.000	15.000	14.500	8.39246	0.57879034483	2001	2.42575676607	41.705891	0.0582	0.8439
15.000	16.000	15.500	8.25458	0.53255354839	2000	1.87008481946	33.382372	0.0560	0.8680
16.000	17.000	16.500	7.66186	0.46435515152	1999	1.37163046951	25.424151	0.0539	0.8894
17.000	18.000	17.500	6.66225	0.38070000000	1998	0.94910289375	18.262094	0.0520	0.9100
18.000	19.000	18.500	5.40212	0.29200648649	1997	0.61274965050	12.229909	0.0501	0.9269
19.000	20.000	19.500	4.06774	0.20860205128	1996	0.36244538162	7.494980	0.0484	0.9438
20.000	21.000	20.500	2.81382	0.13725951220	1995	0.18951459988	4.054203	0.0467	0.9574
21.000	22.000	21.500	1.70757	0.07942186047	1994	0.08117391354	1.793508	0.0453	0.9740
22.000	23.000	22.500	0.78015	0.03467333333	1993	0.02412631664	0.549647	0.0439	0.9878
23.000	24.000	23.500	0.15903	0.00676723404	1992	0.00340603296	0.080054	0.0425	0.9988
24.000	24.180	24.090	0.00054	0.00002241594	1991	0.00000201743	0.000049	0.0412	1.0000
TOTAL			100.00000						

The summation of annual accruals (column 7) for installations during 2015 is calculated on the basis of an in-service date at the midpoint of the year, i.e., June 30. In as much as the overall calculation is centered on December 31, 2015, the first figure in column 7, for vintage 2015, equals all of the group annual accrual for the first equal life group plus the accruals for all of the subsequent equal life groups.

The average percent surviving derived from the Iowa 13-R2 survivor curve and zero percent net salvage, is shown in column 8 for each age interval. The annual factor, shown in column 9, is the result of dividing the summation of annual accruals (column 7) by the average percent surviving (column 8). The accrued factor, shown in column 10, equals the annual factor multiplied by the age of the group at December 31, 2015.



4.2 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. 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 electric plant in service. The accounts and their amortization periods are as follows:

Account	Title	Investment	Recommended Amortization Period in Years
362.10	System Communication & Control	\$976,502	15
391.00	Office Furniture and Equipment	\$277,520	15
391.10	Computer Hardware & Voice and Data Network Equipment	\$60,707	5
391.22	Computer Software and Applications Major (10 YR)	\$777,425	10
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	\$1,712,700	15

For the purpose of calculating annual amortization amounts, as of December 31, 2022, the book depreciation reserve for each plant account (or sub-account) 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.

4.3 Monitoring of Book Accumulated Depreciation

The calculated accrued depreciation or amortization represents the portion of the depreciable cost that will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a measure of the book accumulated depreciation. The use of this measure is recommended in the amortization of book accumulated depreciation variances to ensure complete recovery of capital over the life of the property.



The recommended amortization of the variance between the book accumulated depreciation and the calculated accrued depreciation is based on an amortization period equal to the composite remaining life for each property group where the variance exceeds five percent of the calculated accrued depreciation.

The composite remaining life for use in the calculation of accumulated depreciation variances is derived by developing the composite sum of the individual remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left(\frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}} \quad (1)$$

The book costs and lives of the several vintages, which are summed in the foregoing equation, are defined by the estimated future survivor curve. In as much as book cost divided by life equals the Whole Life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accrual}} \quad (2)$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc, Reserve}}{\sum \text{Whole Life Annual Accrual}} \quad (3)$$

This approach was applied to the calculation of probable remaining life and annual provision for true-up in Tables 2A and 2B of this study.



SECTION 5

5 RESULTS OF THE STUDY

5.1 Qualification of Results

The calculated annual and accrued depreciation are the principal results of the study and are shown in Tables 1A, 1B, 1C, 2A, 2B and 2C, related to investment as of December 31, 2022. 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 and the accrued depreciation were calculated in accordance with the Straight-Line method, using the ELG procedure, based on estimates which reflect considerations of current historical evidence and expected future conditions.

5.2 Description of Detailed Tabulations

The following tables provides summaries by account of the original cost of investment, calculated and booked accumulated depreciation amounts, the required amount of annual depreciation expense, the required depreciation rate to be applied against the original cost of the account and the estimated composite remaining life of the surviving plant in service.

The detailed calculations of annual depreciation applicable to depreciable assets, as of December 31, 2022, are presented in account sequence starting in Section 5 – Page 5-2. The tables indicate the estimated average survivor curves used in the calculations. The tables set forth (for each installation year) the original cost, calculated accrued depreciation and the calculated annual accrual.

ATCO ELECTRIC YUKON

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Investment Percentage	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PLANT IN SERVICE								
GENERATION								
HYDRO GENERATION								
331.00	Structures and Improvements	70-R2	-5	0.63%	1,668,036	273,841	30,546	1.83%
332.00	Reservoirs, Dams, and Waterways	100-R3	-5	3.32%	8,819,431	817,356	105,560	1.20%
333.00	Water Wheels, Turbines and Generators	85-R3	-5	1.24%	3,293,183	472,678	45,825	1.39%
334.00	Accessory Electric Equipment	40-R2.5	0	0.03%	81,242	53,973	1,885	2.32%
335.00	Miscellaneous Power Plant Equipment	51-R4	-5	0.04%	109,846	12,066	2,400	2.19%
TOTAL HYDRO GENERATION					13,971,738	1,629,915	186,216	1.33%
DIESEL GENERATION								
341.20	Int Combust Structures	40-R2	-10	2.30%	6,101,560	2,295,862	183,133	3.00%
342.20	Int Combust Fuel Holders, Producers and Accessories	40-R3	-15	1.29%	3,430,728	1,862,551	101,409	2.96%
343.20	Int Combust Generators	26-S2	-10	7.72%	20,512,067	7,411,542	919,695	4.48%
345.20	Int Combust Accessory	35-R3	-10	1.94%	5,155,803	2,134,504	169,810	3.29%
346.20	Int Combust Miscellaneous	40-R3	-5	0.42%	1,113,753	415,820	31,024	2.79%
347.20	Renewable Energy Storage	25-R3	0	1.33%	3,536,262	242,926	161,951	4.58%
TOTAL DIESEL GENERATION					39,850,172	14,363,205	1,567,021	3.93%
TOTAL GENERATION					53,821,910	15,993,120	1,753,237	3.26%
SUBSTATION PLANT								
353.00	Station Equipment	50-R3	0	0.43%	1,144,289	705,900	22,279	1.95%
TOTAL SUBSTATION PLANT					1,144,289	705,900	22,279	1.95%
DISTRIBUTION PLANT								
360.10	Land Rights	75-R3	0	0.81%	2,160,689	425,115	32,059	1.48%
362.00	Station Equipment	40-R2.5	-10	2.84%	7,543,473	3,195,700	218,697	2.90%

ATCO ELECTRIC YUKON

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Investment Percentage	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
362.10	System Communication & Control	15-SQ	-10	0.37%	976,502	670,870	71,610	7.33%
364.00	Poles, Towers and Fixtures	50-R2	-50	20.06%	53,306,940	25,859,761	1,792,895	3.36%
365.00	Overhead Conductors and Devices	50-R3	-25	10.83%	28,793,206	13,395,549	760,068	2.64%
365.10	Overhead Services	50-R2.5	-10	1.97%	5,234,252	1,820,149	127,202	2.43%
367.00	Underground Conductor and Devices	50-R3	-25	12.86%	34,178,702	14,325,496	914,350	2.68%
367.10	Underground Services	50-R4	-5	2.36%	6,266,150	1,696,035	137,788	2.20%
368.00	Line Transformers	45-R2.5	-10	15.38%	40,867,164	15,706,402	1,080,836	2.64%
370.00	Conventional Meters	15-R0.5	-5	1.11%	2,956,566	1,824,136	175,197	5.93%
371.00	Automated Meters	15-R2.5	0	0.07%	173,069	71,540	12,166	7.03%
373.00	Street Lights	30-R3	-10	5.13%	13,636,687	7,722,035	493,418	3.62%
373.10	Sentinel Lights	23-R2	10	0.11%	285,488	243,584	4,674	1.64%
TOTAL DISTRIBUTION PLANT					196,378,887	86,956,373	5,820,961	2.96%
GENERAL PLANT								
390.00	Structures and Improvements	40-L3	-10	1.96%	5,197,272	2,960,746	143,933	2.77%
390.01	Structures and Improvements - Houses	40-R3	-10	0.17%	451,552	209,031	12,903	2.86%
391.00	Office Furniture and Equipment	15-SQ	0	0.10%	277,520	156,316	18,501	6.67%
391.10	Computer Hardware & Voice and Data Network Equip	5-SQ	0	0.02%	60,707	34,245	12,141	20.00%
391.22	Computer Software and Applications Major (10 YR)	10-SQ	0	0.29%	777,425	421,980	77,742	10.00%
392.20	Transportation Equipment, Fleet Vehicles, Category 2	12-L3	10	1.11%	2,955,682	1,268,174	224,350	7.59%
392.30	Transportation Equipment, Fleet Vehicles, Category 3	15-L3	0	1.04%	2,756,972	1,421,934	184,561	6.69%
392.40	Transportation Equipment, Fleet Vehicles, Category 4	12-L0	0	0.09%	231,503	127,712	16,905	7.30%
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	15-SQ	0	0.64%	1,712,700	785,217	114,180	6.67%
TOTAL GENERAL PLANT					14,421,333	7,385,355	805,217	5.58%
TOTAL PLANT STUDIED					265,766,419	111,040,747	8,401,693	3.16%

ATCO ELECTRIC YUKON

TABLE 1A. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PLANT IN SERVICE							
GENERATION							
HYDRO GENERATION							
331.00	Structures and Improvements	70-R2	0	1,668,036	260,801	29,092	1.74%
332.00	Reservoirs, Dams, and Waterways	100-R3	0	8,819,431	778,435	100,533	1.14%
333.00	Water Wheels, Turbines and Generators	85-R3	0	3,293,183	450,170	43,643	1.33%
334.00	Accessory Electric Equipment	40-R2.5	0	81,242	53,973	1,885	2.32%
335.00	Miscellaneous Power Plant Equipment	51-R4	0	109,846	11,491	2,286	2.08%
TOTAL HYDRO GENERATION				13,971,738	1,554,870	177,438	1.27%
DIESEL GENERATION							
341.20	Int Combust Structures	40-R2	0	6,101,560	2,087,147	166,485	2.73%
342.20	Int Combust Fuel Holders, Producers and Accessories	40-R3	0	3,430,728	1,619,609	88,181	2.57%
343.20	Int Combust Generators	26-S2	0	20,512,067	6,737,766	836,086	4.08%
345.20	Int Combust Accessory	35-R3	0	5,155,803	1,940,458	154,372	2.99%
346.20	Int Combust Miscellaneous	40-R3	0	1,113,753	396,019	29,547	2.65%
347.20	Renewable Energy Storage	25-R3	0	3,536,262	242,926	161,951	4.58%
TOTAL DIESEL GENERATION				39,850,172	13,023,926	1,436,622	3.61%
TOTAL GENERATION				53,821,910	14,578,796	1,614,060	3.00%
SUBSTATION PLANT							
353.00	Station Equipment	50-R3	0	1,144,289	705,900	22,279	1.95%
TOTAL SUBSTATION PLANT				1,144,289	705,900	22,279	1.95%
DISTRIBUTION PLANT							
360.10	Land Rights	75-R3	0	2,160,689	425,115	32,059	1.48%
362.00	Station Equipment	40-R2.5	0	7,543,473	2,905,181	198,816	2.64%
362.10	System Communication & Control	15-SQ	0	976,502	609,881	65,100	6.67%
364.00	Poles, Towers and Fixtures	50-R2	0	53,306,940	17,239,841	1,195,263	2.24%
365.00	Overhead Conductors and Devices	50-R3	0	28,793,206	10,716,439	608,054	2.11%
365.10	Overhead Services	50-R2.5	0	5,234,252	1,654,681	115,638	2.21%

ATCO ELECTRIC YUKON

TABLE 1A. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
367.00	Underground Conductor and Devices	50-R3	0	34,178,702	11,460,397	731,480	2.14%
367.10	Underground Services	50-R4	0	6,266,150	1,615,271	131,227	2.09%
368.00	Line Transformers	45-R2.5	0	40,867,164	14,278,547	982,579	2.40%
370.00	Conventional Meters	15-R0.5	0	2,956,566	1,737,272	166,854	5.64%
371.00	Automated Meters	15-R2.5	0	173,069	71,540	12,166	7.03%
373.00	Street Lights	30-R3	0	13,636,687	7,020,032	448,562	3.29%
373.10	Sentinel Lights	23-R2	0	285,488	270,649	5,193	1.82%
TOTAL DISTRIBUTION PLANT				196,378,887	70,004,849	4,692,991	2.39%
GENERAL PLANT							
390.00	Structures and Improvements	40-L3	0	5,197,272	2,691,587	130,848	2.52%
390.01	Structures and Improvements - Houses	40-R3	0	451,552	190,028	11,730	2.60%
391.00	Office Furniture and Equipment	15-SQ	0	277,520	156,316	18,501	6.67%
391.10	Computer Hardware & Voice and Data Network Equip	5-SQ	0	60,707	34,245	12,141	20.00%
391.22	Computer Software and Applications Major (10 YR)	10-SQ	0	777,425	421,980	77,742	10.00%
392.20	Transportation Equipment, Fleet Vehicles, Category 2	12-L3	0	2,955,682	1,409,082	249,278	8.43%
392.30	Transportation Equipment, Fleet Vehicles, Category 3	15-L3	0	2,756,972	1,421,934	184,561	6.69%
392.40	Transportation Equipment, Fleet Vehicles, Category 4	12-L0	0	231,503	127,712	16,905	7.30%
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	15-SQ	0	1,712,700	785,217	114,180	6.67%
TOTAL GENERAL PLANT				14,421,333	7,238,101	815,887	5.66%
TOTAL PLANT STUDIED				265,766,419	92,527,645	7,145,217	2.69%

ATCO ELECTRIC YUKON

TABLE 1B. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PLANT IN SERVICE							
GENERATION							
HYDRO GENERATION							
331.00	Structures and Improvements	70-R2	-5	1,668,036	13,040	1,455	0.09%
332.00	Reservoirs, Dams, and Waterways	100-R3	-5	8,819,431	38,922	5,027	0.06%
333.00	Water Wheels, Turbines and Generators	85-R3	-5	3,293,183	22,508	2,182	0.07%
334.00	Accessory Electric Equipment	40-R2.5	0	81,242	-	-	0.00%
335.00	Miscellaneous Power Plant Equipment	51-R4	-5	109,846	575	114	0.10%
TOTAL HYDRO GENERATION				13,971,738	75,045	8,778	0.06%
DIESEL GENERATION							
341.20	Int Combust Structures	40-R2	-10	6,101,560	208,715	16,648	0.27%
342.20	Int Combust Fuel Holders, Producers and Accessories	40-R3	-15	3,430,728	242,941	13,227	0.39%
343.20	Int Combust Generators	26-S2	-10	20,512,067	673,777	83,609	0.41%
345.20	Int Combust Accessory	35-R3	-10	5,155,803	194,046	15,437	0.30%
346.20	Int Combust Miscellaneous	40-R3	-5	1,113,753	19,801	1,477	0.13%
347.20	Renewable Energy Storage	25-R3	0	3,536,262	-	-	0.00%
TOTAL DIESEL GENERATION				39,850,172	1,339,279	130,399	0.33%
TOTAL GENERATION				53,821,910	1,414,899	139,177	0.33%
SUBSTATION PLANT							
353.00	Station Equipment	50-R3	0	1,144,289	-	-	0.00%
TOTAL SUBSTATION PLANT				1,144,289	-	-	0.00%
DISTRIBUTION PLANT							
360.10	Land Rights	75-R3	0	2,160,689	-	-	0.00%
362.00	Station Equipment	40-R2.5	-10	7,543,473	290,518	19,882	0.26%
362.10	System Communication & Control	15-SQ	-10	976,502	60,988	6,510	0.67%
364.00	Poles, Towers and Fixtures	50-R2	-50	53,306,940	8,619,920	597,632	1.12%
365.00	Overhead Conductors and Devices	50-R3	-25	28,793,206	2,679,110	152,014	0.53%
365.10	Overhead Services	50-R2.5	-10	5,234,252	165,468	11,564	0.22%
367.00	Underground Conductor and Devices	50-R3	-25	34,178,702	2,865,099	182,870	0.54%

ATCO ELECTRIC YUKON

TABLE 1B. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
367.10	Underground Services	50-R4	-5	6,266,150	80,764	6,561	0.10%
368.00	Line Transformers	45-R2.5	-10	40,867,164	1,427,855	98,258	0.24%
370.00	Conventional Meters	15-R0.5	-5	2,956,566	86,864	8,343	0.28%
371.00	Automated Meters	15-R2.5	0	173,069	-	-	0.00%
373.00	Street Lights	30-R3	-10	13,636,687	702,003	44,856	0.33%
373.10	Sentinel Lights	23-R2	10	285,488	(27,065)	(519)	-0.18%
TOTAL DISTRIBUTION PLANT				196,378,887	16,951,524	1,127,970	0.57%
GENERAL PLANT							
390.00	Structures and Improvements	40-L3	-10	5,197,272	269,159	13,085	0.25%
390.01	Structures and Improvements - Houses	40-R3	-10	451,552	19,003	1,173	0.26%
391.00	Office Furniture and Equipment	15-SQ	0	277,520	-	-	0.00%
391.10	Computer Hardware & Voice and Data Network Equipm	5-SQ	0	60,707	-	-	0.00%
391.22	Computer Software and Applications Major (10 YR)	10-SQ	0	777,425	-	-	0.00%
392.20	Transportation Equipment, Fleet Vehicles, Category 2	12-L3	10	2,955,682	(140,908)	(24,928)	-0.84%
392.30	Transportation Equipment, Fleet Vehicles, Category 3	15-L3	0	2,756,972	-	-	0.00%
392.40	Transportation Equipment, Fleet Vehicles, Category 4	12-L0	0	231,503	-	-	0.00%
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	15-SQ	0	1,712,700	-	-	0.00%
TOTAL GENERAL PLANT				14,421,333	147,253	(10,670)	-0.07%
TOTAL PLANT STUDIED				265,766,419	18,513,102	1,256,476	0.47%

ATCO ELECTRIC YUKON

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
PLANT IN SERVICE								
GENERATION								
HYDRO GENERATION								
331.00	Structures and Improvements	1,668,036	273,841	368,030	(94,189)	-34.40%	61.9	(1,521)
332.00	Reservoirs, Dams, and Waterways	8,819,431	817,356	445,134	372,222	45.54%	92.4	4,029
333.00	Water Wheels, Turbines and Generators	3,293,183	472,678	1,651,556	(1,178,878)	-249.40%	74.9	(15,741)
334.00	Accessory Electric Equipment	81,242	53,973	87,002	(33,029)	-61.19%	16.1	(2,050)
335.00	Miscellaneous Power Plant Equipment	109,846	12,066	10,015	2,051	17.00%	46.0	45
TOTAL HYDRO GENERATION		13,971,738	1,629,915	2,561,737	(931,822)			(15,238)
DIESEL GENERATION								
341.20	Int Combust Structures	6,101,560	2,295,862	2,232,316	63,546	2.77%	28.9	2,202 *
342.20	Int Combust Fuel Holders, Producers and Accessories	3,430,728	1,862,551	1,983,291	(120,740)	-6.48%	22.9	(5,278)
343.20	Int Combust Generators	20,512,067	7,411,542	4,957,035	2,454,508	33.12%	18.3	134,181
345.20	Int Combust Accessory	5,155,803	2,134,504	2,131,015	3,489	0.16%	23.0	151 *
346.20	Int Combust Miscellaneous	1,113,753	415,820	467,260	(51,440)	-12.37%	27.2	(1,894)
347.20	Renewable Energy Storage	3,536,262	242,926	169,269	73,657	30.32%	23.5	3,131
TOTAL DIESEL GENERATION		39,850,172	14,363,205	11,940,186	2,423,019			132,493
TOTAL GENERATION		53,821,910	15,993,120	14,501,924	1,491,197			117,255
SUBSTATION PLANT								
353.00	Station Equipment	1,144,289	705,900	819,894	(113,994)	-16.15%	21.7	(5,262)
TOTAL SUBSTATION PLANT		1,144,289	705,900	819,894	(113,994)			(5,262)
DISTRIBUTION PLANT								
360.10	Land Rights	2,160,689	425,115	434,787	(9,672)	-2.28%	62.0	- *
362.00	Station Equipment	7,543,473	3,195,700	2,978,316	217,383	6.80%	26.4	8,223
362.10	System Communication & Control	976,502	670,870	1,270,158	(599,289)	-89.33%	5.6	(106,415)
364.00	Poles, Towers and Fixtures	53,306,940	25,859,761	23,402,285	2,457,477	9.50%	36.8	66,728
365.00	Overhead Conductors and Devices	28,793,206	13,395,549	14,482,229	(1,086,679)	-8.11%	33.2	(32,753)
365.10	Overhead Services	5,234,252	1,820,149	1,974,231	(154,081)	-8.47%	36.2	(4,251)

ATCO ELECTRIC YUKON

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
367.00	Underground Conductor and Devices	34,178,702	14,325,496	11,988,411	2,337,085	16.31%	34.9	66,935
367.10	Underground Services	6,266,150	1,696,035	2,030,490	(334,455)	-19.72%	37.8	(8,851)
368.00	Line Transformers	40,867,164	15,706,402	16,341,422	(635,020)	-4.04%	31.4	(20,223) *
370.00	Conventional Meters	2,956,566	1,824,136	1,984,910	(160,774)	-8.81%	8.3	(19,452)
371.00	Automated Meters	173,069	71,540	31,746	39,794	55.62%	9.4	4,219
373.00	Street Lights	13,636,687	7,722,035	7,756,012	(33,977)	-0.44%	15.7	(2,166) *
373.10	Sentinel Lights	285,488	243,584	108,667	134,918	55.39%	3.0 +	44,973
TOTAL DISTRIBUTION PLANT		196,378,887	86,956,373	84,783,664	2,172,709			(3,034)
GENERAL PLANT								
390.00	Structures and Improvements	5,197,272	2,960,746	2,949,753	10,993	0.37%	21.6	509 *
390.01	Structures and Improvements - Houses	451,552	209,031	(160,352)	369,383	176.71%	24.7	14,950
391.00	Office Furniture and Equipment	277,520	156,316	184,725	(28,409)	-18.17%	6.6	(4,336)
391.10	Computer Hardware & Voice and Data Network Equipment	60,707	34,245	107,228	(72,983)	-213.12%	3.0 +	(24,328)
391.22	Computer Software and Applications Major (10 YR)	777,425	421,980	469,333	(47,353)	-11.22%	4.6	(10,357)
392.20	Transportation Equipment, Fleet Vehicles, Category 2	2,955,682	1,268,174	2,329,919	(1,061,745)	-83.72%	6.9	(153,474)
392.30	Transportation Equipment, Fleet Vehicles, Category 3	2,756,972	1,421,934	1,026,343	395,591	27.82%	8.1	48,862
392.40	Transportation Equipment, Fleet Vehicles, Category 4	231,503	127,712	86,978	40,734	31.90%	8.1	5,004
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	1,712,700	785,217	792,168	(6,951)	-0.89%	8.1	(17) *
TOTAL GENERAL PLANT		14,421,333	7,385,355	7,786,095	(400,740)			(123,188)
TOTAL PLANT STUDIED		265,766,419	111,040,747	107,891,577	3,149,171			(14,229)

* True-Up is calculated only when a variance of 5% or greater exists.

** True up relates to either Net Salvage or Life only

+ Remaining life is limited to be no less than 3 years.

ATCO ELECTRIC YUKON

TABLE 2A. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
PLANT IN SERVICE								
GENERATION								
HYDRO GENERATION								
331.00	Structures and Improvements	1,668,036	260,801	320,112	(59,311)	-22.74%	61.9	(958)
332.00	Reservoirs, Dams, and Waterways	8,819,431	778,435	491,035	287,400	36.92%	92.4	3,111
333.00	Water Wheels, Turbines and Generators	3,293,183	450,170	1,692,326	(1,242,156)	-275.93%	74.9	(16,586)
334.00	Accessory Electric Equipment	81,242	53,973	92,046	(38,073)	-70.54%	16.1	(2,363)
335.00	Miscellaneous Power Plant Equipment	109,846	11,491	17,611	(6,120)	-53.25%	46.0	(133)
TOTAL HYDRO GENERATION		13,971,738	1,554,870	2,613,130	(1,058,260)			(16,929)
DIESEL GENERATION								
341.20	Int Combust Structures	6,101,560	2,087,147	2,343,709	(256,562)	-12.29%	28.9	(8,889)
342.20	Int Combust Fuel Holders, Producers and Accessories	3,430,728	1,619,609	1,969,406	(349,797)	-21.60%	22.9	(15,292)
343.20	Int Combust Generators	20,512,067	6,737,766	5,198,971	1,538,795	22.84%	18.3	84,122
345.20	Int Combust Accessory	5,155,803	1,940,458	2,127,330	(186,872)	-9.63%	23.0	(8,113)
346.20	Int Combust Miscellaneous	1,113,753	396,019	479,979	(83,960)	-21.20%	27.2	(3,091)
347.20	Renewable Energy Storage	3,536,262	242,926	169,269	73,657	30.32%	23.5	3,131
TOTAL DIESEL GENERATION		39,850,172	13,023,926	12,288,664	735,261			51,867
TOTAL GENERATION		53,821,910	14,578,796	14,901,794	(322,998)			34,938
SUBSTATION PLANT								
353.00	Station Equipment	1,144,289	705,900	798,723	(92,824)	-13.15%	21.7	(4,285)
TOTAL SUBSTATION PLANT		1,144,289	705,900	798,723	(92,824)			(4,285)
DISTRIBUTION PLANT								
360.10	Land Rights	2,160,689	425,115	434,787	(9,672)	-2.28%	62.0	- *
362.00	Station Equipment	7,543,473	2,905,181	3,208,612	(303,430)	-10.44%	26.4	(11,479)
362.10	System Communication & Control	976,502	609,881	1,280,123	(670,241)	-109.90%	5.6	(119,014)
364.00	Poles, Towers and Fixtures	53,306,940	17,239,841	21,068,997	(3,829,156)	-22.21%	36.8	(103,973)
365.00	Overhead Conductors and Devices	28,793,206	10,716,439	12,502,352	(1,785,912)	-16.67%	33.2	(53,829)
365.10	Overhead Services	5,234,252	1,654,681	2,012,950	(358,269)	-21.65%	36.2	(9,884)

ATCO ELECTRIC YUKON

TABLE 2A. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
367.00	Underground Conductor and Devices	34,178,702	11,460,397	12,447,852	(987,455)	-8.62%	34.9	(28,281)
367.10	Underground Services	6,266,150	1,615,271	2,055,523	(440,252)	-27.26%	37.8	(11,651)
368.00	Line Transformers	40,867,164	14,278,547	16,814,446	(2,535,899)	-17.76%	31.4	(80,758)
370.00	Conventional Meters	2,956,566	1,737,272	2,002,816	(265,543)	-15.29%	8.3	(32,128)
371.00	Automated Meters	173,069	71,540	75,373	(3,833)	-5.36%	9.4	(406)
373.00	Street Lights	13,636,687	7,020,032	8,329,879	(1,309,847)	-18.66%	15.7	(83,509)
373.10	Sentinel Lights	285,488	270,649	218,938	51,712	19.11%	3.0 +	17,237
TOTAL DISTRIBUTION PLANT		196,378,887	70,004,849	82,452,647	(12,447,798)			(517,674)
GENERAL PLANT								
390.00	Structures and Improvements	5,197,272	2,691,587	3,149,930	(458,343)	-17.03%	21.6	(21,225)
390.01	Structures and Improvements - Houses	451,552	190,028	919,491	(729,463)	-383.87%	24.7	(29,523)
391.00	Office Furniture and Equipment	277,520	156,316	189,338	(33,021)	-21.12%	6.6	(5,041)
391.10	Computer Hardware & Voice and Data Network Equipment	60,707	34,245	107,228	(72,983)	-213.12%	3.0 +	(24,328)
391.22	Computer Software and Applications Major (10 YR)	777,425	421,980	469,333	(47,353)	-11.22%	4.6	(10,357)
392.20	Transportation Equipment, Fleet Vehicles, Category 2	2,955,682	1,409,082	2,520,568	(1,111,486)	-78.88%	6.9	(160,664)
392.30	Transportation Equipment, Fleet Vehicles, Category 3	2,756,972	1,421,934	1,026,343	395,591	27.82%	8.1	48,862
392.40	Transportation Equipment, Fleet Vehicles, Category 4	231,503	127,712	86,978	40,734	31.90%	8.1	5,004
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	1,712,700	785,217	792,027	(6,810)	-0.87%	8.1	- *
TOTAL GENERAL PLANT		14,421,333	7,238,101	9,261,236	(2,023,135)			(197,272)
TOTAL PLANT STUDIED		265,766,419	92,527,645	107,414,400	(14,886,755)			(684,292)

* True-Up is calculated only when a variance of 5% or greater exists.

** True up relates to either Net Salvage or Life only

+ Remaining life is limited to be no less than 3 years.

ATCO ELECTRIC YUKON

TABLE 2B. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account (1)	Description (2)	Surviving Original Cost as of 12/31/2022 (3)	Calculated Accrued Depreciation (4)	Book Accumulated Depreciation (5)	Accumulated Depreciation Variance Amount (6) = (4)-(5)	Accumulated Depreciation Variance Percent (7)=(6)/(4)	Probable Remaining Life (8)	Annual Provision for True-up (9)=(6)/(8)
PLANT IN SERVICE								
GENERATION								
HYDRO GENERATION								
331.00	Structures and Improvements	1,668,036	13,040	47,918	(34,878)	-267%	61.9	(563)
332.00	Reservoirs, Dams, and Waterways	8,819,431	38,922	(45,901)	84,823	218%	92.4	918
333.00	Water Wheels, Turbines and Generators	3,293,183	22,508	(40,769)	63,278	281%	74.9	845
334.00	Accessory Electric Equipment	81,242	-	(5,044)	5,044	100%	16.1	313
335.00	Miscellaneous Power Plant Equipment	109,846	575	(7,596)	8,171	1422%	46.0	178
TOTAL HYDRO GENERATION		13,971,738	75,045	(51,393)	126,437			1,691
DIESEL GENERATION								
341.20	Int Combust Structures	6,101,560	208,715	(111,393)	320,108	153%	28.9	11,091
342.20	Int Combust Fuel Holders, Producers and Accessories	3,430,728	242,941	13,885	229,056	94%	22.9	10,013
343.20	Int Combust Generators	20,512,067	673,777	(241,936)	915,713	136%	18.3	50,060
345.20	Int Combust Accessory	5,155,803	194,046	3,685	190,361	98%	23.0	8,265
346.20	Int Combust Miscellaneous	1,113,753	19,801	(12,719)	32,520	164%	27.2	1,197
347.20	Renewable Energy Storage	3,536,262	-	-	-	100%	23.5	-
TOTAL DIESEL GENERATION		39,850,172	1,339,279	(348,478)	1,687,757			80,626
TOTAL GENERATION		53,821,910	1,414,324	(399,871)	1,814,195			82,317
SUBSTATION PLANT								
353.00	Station Equipment	1,144,289	-	21,171	(21,171)	100%	21.7	(977)
TOTAL SUBSTATION PLANT		1,144,289	-	21,171	(21,171)			(977)
DISTRIBUTION PLANT								
360.10	Land Rights	2,160,689	-	-	-	100%	62.0	-
362.00	Station Equipment	7,543,473	290,518	(230,295)	520,814	179%	26.4	19,702
362.10	System Communication & Control	976,502	60,988	(9,964)	70,952	116%	5.6	12,599
364.00	Poles, Towers and Fixtures	53,306,940	8,619,920	2,333,288	6,286,633	73%	36.8	170,700
365.00	Overhead Conductors and Devices	28,793,206	2,679,110	1,979,877	699,233	26%	33.2	21,075
365.10	Overhead Services	5,234,252	165,468	(38,720)	204,188	123%	36.2	5,633
367.00	Underground Conductor and Devices	34,178,702	2,865,099	(459,441)	3,324,540	116%	34.9	95,216
367.10	Underground Services	6,266,150	80,764	(25,033)	105,797	131%	37.8	2,800

ATCO ELECTRIC YUKON

TABLE 2B. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
368.00	Line Transformers	40,867,164	1,427,855	(473,024)	1,900,879	133%	31.4	60,535
370.00	Conventional Meters	2,956,566	86,864	(17,905)	104,769	121%	8.3	12,676
371.00	Automated Meters	173,069	-	(43,627)	43,627	100%	9.4	4,626
373.00	Street Lights	13,636,687	702,003	(573,867)	1,275,870	182%	15.7	81,342
373.10	Sentinel Lights	285,488	(27,065)	(110,271)	83,206	-307%	3.0 +	27,735
TOTAL DISTRIBUTION PLANT		196,378,887	16,951,524	2,331,017	14,620,507			514,640
GENERAL PLANT								
390.00	Structures and Improvements	5,197,272	269,159	(200,177)	469,336	174%	21.6	21,734
390.01	Structures and Improvements - Houses	451,552	19,003	(1,079,843)	1,098,845	5783%	24.7	44,472
391.00	Office Furniture and Equipment	277,520	-	(4,613)	4,613	100%	6.6	704
391.10	Computer Hardware & Voice and Data Network Equipment	60,707	-	-	-	100%	3.0 +	-
391.22	Computer Software and Applications Major (10 YR)	777,425	-	-	-	100%	4.6	-
392.20	Transportation Equipment, Fleet Vehicles, Category 2	2,955,682	(140,908)	(190,649)	49,741	-35%	6.9	7,190
392.30	Transportation Equipment, Fleet Vehicles, Category 3	2,756,972	-	-	-	100%	8.1	-
392.40	Transportation Equipment, Fleet Vehicles, Category 4	231,503	-	-	-	100%	8.1	-
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	1,712,700	-	141	(141)	100%	8.1	(17)
TOTAL GENERAL PLANT		14,421,333	147,253	(1,475,141)	1,622,394			74,084
TOTAL PLANT STUDIED		265,766,419	18,513,102	477,176	18,035,926			670,063

* True-Up is calculated only when a variance of 5% or greater exists.
+ Remaining life is limited to be no less than 3 years.



SECTION 6

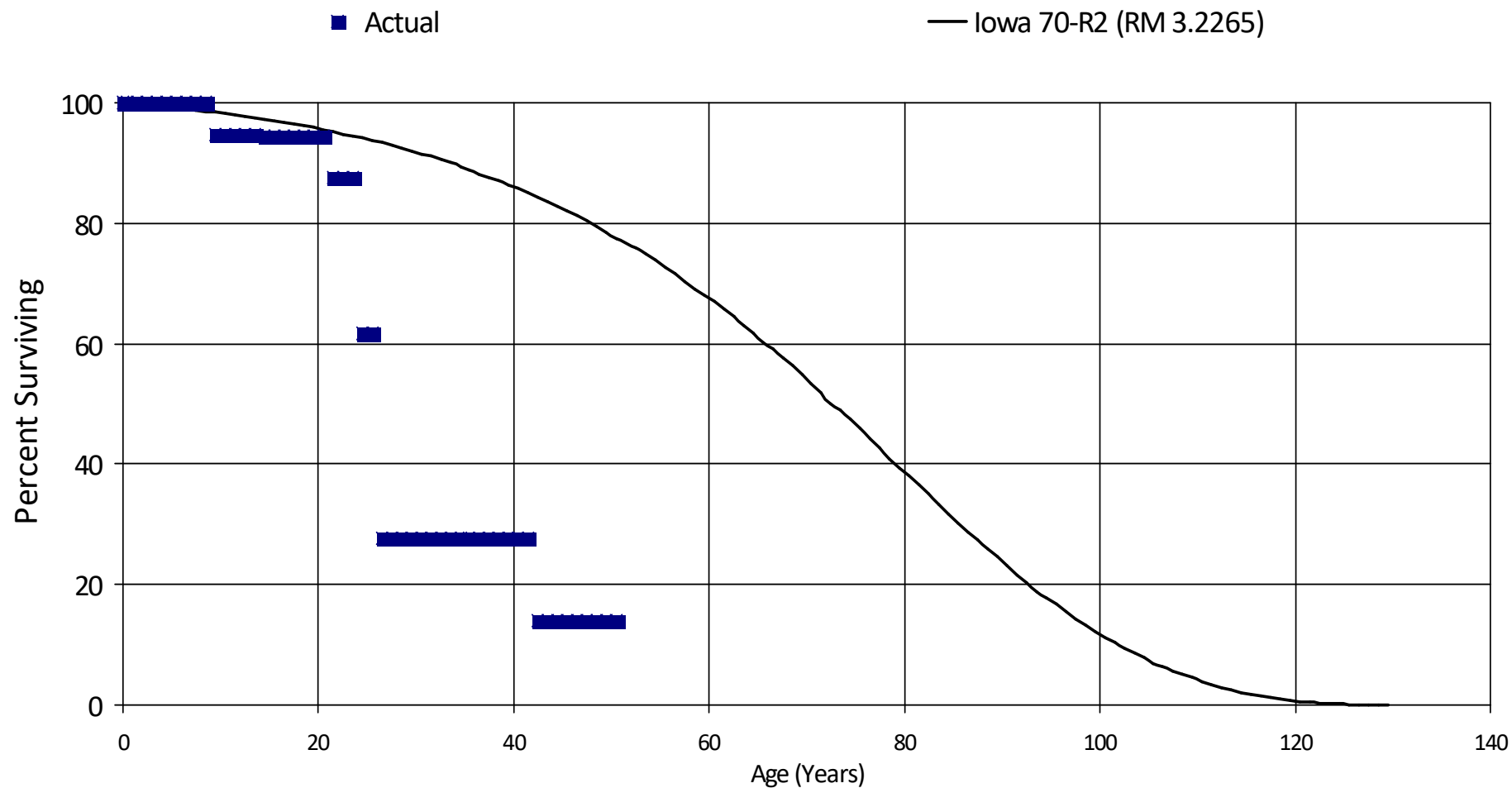
6 RETIREMENT RATE ANALYSIS

ATCO Electric Yukon

Account 331.00 - Hydro Structures and Improvements

Placement Band - 1971 - 2022 Experience Band - 2013 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 331.00 - Hydro Structures and Improvements

Placement Band - 1971 - 2022 Experience Band - 2013 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,799,717	0	0.00000	1.00000	100.00
0.5	1,799,717	0	0.00000	1.00000	100.00
1.5	1,799,717	0	0.00000	1.00000	100.00
2.5	1,799,717	0	0.00000	1.00000	100.00
3.5	1,799,717	0	0.00000	1.00000	100.00
4.5	1,643,986	0	0.00000	1.00000	100.00
5.5	1,643,986	0	0.00000	1.00000	100.00
6.5	1,643,986	0	0.00000	1.00000	100.00
7.5	1,643,986	282	0.00017	0.99983	100.00
8.5	396,141	21,239	0.05361	0.94639	99.98
9.5	306,716	0	0.00000	1.00000	94.62
10.5	291,078	0	0.00000	1.00000	94.62
11.5	158,719	0	0.00000	1.00000	94.62
12.5	158,719	0	0.00000	1.00000	94.62
13.5	158,719	508	0.00320	0.99680	94.62
14.5	158,211	0	0.00000	1.00000	94.32
15.5	158,211	0	0.00000	1.00000	94.32
16.5	158,211	0	0.00000	1.00000	94.32
17.5	158,211	0	0.00000	1.00000	94.32
18.5	158,211	0	0.00000	1.00000	94.32
19.5	158,211	0	0.00000	1.00000	94.32
20.5	158,211	11,156	0.07051	0.92949	94.32
21.5	147,054	202	0.00137	0.99863	87.67
22.5	136,020	0	0.00000	1.00000	87.55
23.5	136,020	40,353	0.29667	0.70333	87.55
24.5	95,668	0	0.00000	1.00000	61.58
25.5	95,668	52,610	0.54992	0.45008	61.58
26.5	43,057	0	0.00000	1.00000	27.72

ATCO Electric Yukon

Account 331.00 - Hydro Structures and Improvements

Placement Band - 1971 - 2022 Experience Band - 2013 - 2022

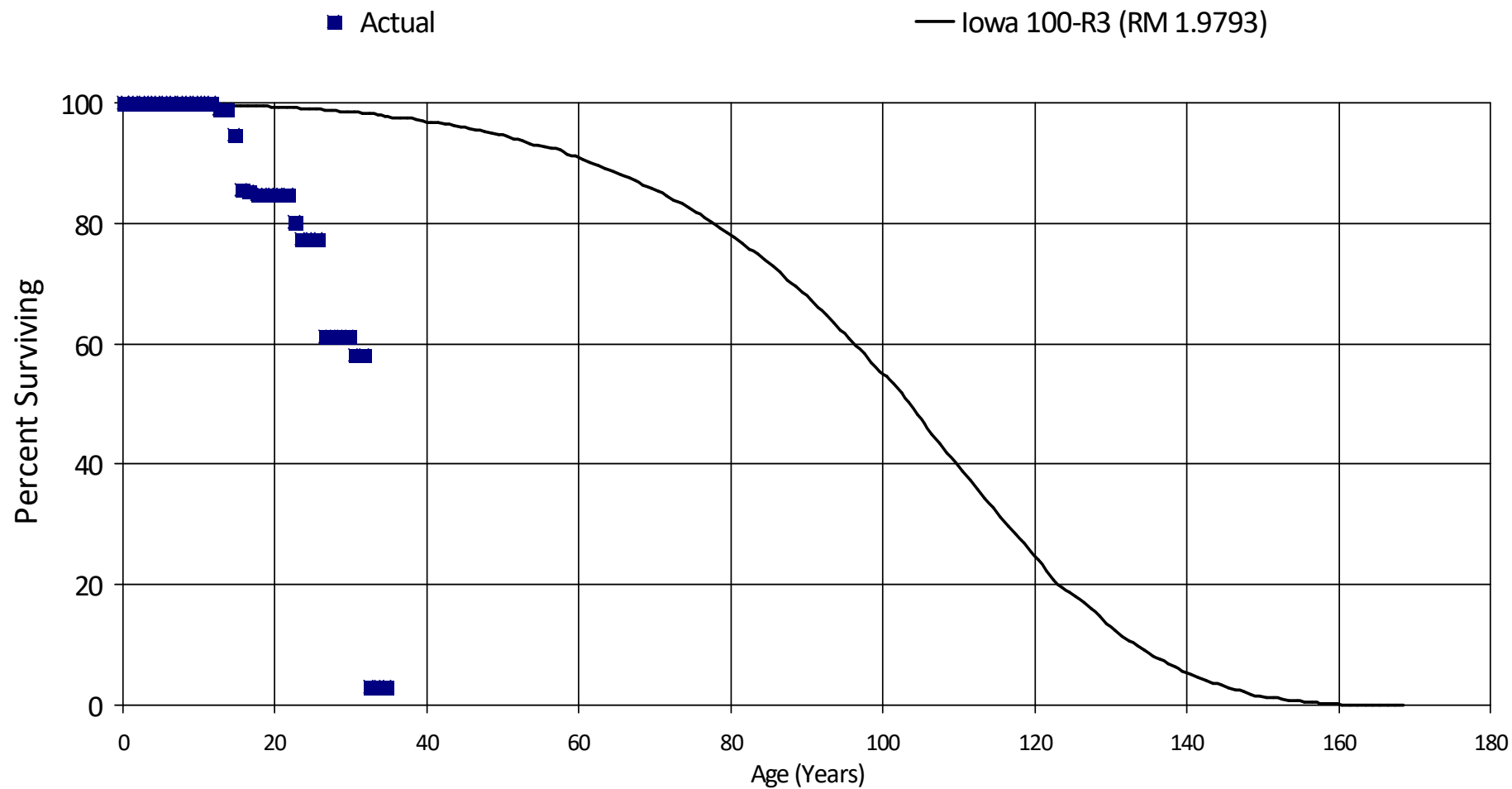
27.5	43,057	0	0.00000	1.00000	27.72
28.5	31,057	0	0.00000	1.00000	27.72
29.5	31,057	0	0.00000	1.00000	27.72
30.5	31,057	0	0.00000	1.00000	27.72
31.5	30,951	0	0.00000	1.00000	27.72
32.5	30,951	0	0.00000	1.00000	27.72
33.5	25,572	0	0.00000	1.00000	27.72
34.5	25,572	0	0.00000	1.00000	27.72
35.5	10,662	0	0.00000	1.00000	27.72
36.5	10,662	0	0.00000	1.00000	27.72
37.5	10,662	0	0.00000	1.00000	27.72
38.5	10,662	0	0.00000	1.00000	27.72
39.5	10,662	0	0.00000	1.00000	27.72
40.5	10,662	0	0.00000	1.00000	27.72
41.5	10,662	5,331	0.49998	0.50002	27.72
42.5	5,331	0	0.00000	1.00000	13.86
43.5	5,331	0	0.00000	1.00000	13.86
44.5	5,331	0	0.00000	1.00000	13.86
45.5	5,331	0	0.00000	1.00000	13.86
46.5	5,331	0	0.00000	1.00000	13.86
47.5	5,331	0	0.00000	1.00000	13.86
48.5	5,331	0	0.00000	1.00000	13.86
49.5	5,331	0	0.00000	1.00000	13.86
50.5	5,331	0	0.00000	1.00000	13.86
Totals:		131,681			

ATCO Electric Yukon

Account 332.00 - Hydro Reservoirs, Dams, and Waterways

Placement Band - 1987 - 2022 Experience Band - 2019 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 332.00 - Hydro Reservoirs, Dams, and Waterways

Placement Band - 1987 - 2022 Experience Band - 2019 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	9,653,838	0	0.00000	1.00000	100.00
0.5	9,653,838	0	0.00000	1.00000	100.00
1.5	9,653,838	0	0.00000	1.00000	100.00
2.5	8,887,692	0	0.00000	1.00000	100.00
3.5	8,874,825	0	0.00000	1.00000	100.00
4.5	8,194,996	0	0.00000	1.00000	100.00
5.5	8,194,996	2,397	0.00029	0.99971	100.00
6.5	5,098,833	0	0.00000	1.00000	99.97
7.5	5,098,833	2,397	0.00047	0.99953	99.97
8.5	2,766,160	0	0.00000	1.00000	99.92
9.5	2,724,222	0	0.00000	1.00000	99.92
10.5	2,117,640	0	0.00000	1.00000	99.92
11.5	1,787,282	15,611	0.00873	0.99127	99.92
12.5	990,495	0	0.00000	1.00000	99.05
13.5	990,495	44,124	0.04455	0.95545	99.05
14.5	922,935	88,839	0.09626	0.90374	94.64
15.5	735,984	1,394	0.00189	0.99811	85.53
16.5	734,590	5,760	0.00784	0.99216	85.37
17.5	728,830	0	0.00000	1.00000	84.70
18.5	707,730	0	0.00000	1.00000	84.70
19.5	706,336	0	0.00000	1.00000	84.70
20.5	700,576	0	0.00000	1.00000	84.70
21.5	700,576	36,567	0.05220	0.94780	84.70
22.5	664,009	24,178	0.03641	0.96359	80.28
23.5	639,831	0	0.00000	1.00000	77.36
24.5	639,831	0	0.00000	1.00000	77.36
25.5	639,831	134,389	0.21004	0.78996	77.36
26.5	505,441	0	0.00000	1.00000	61.11

ATCO Electric Yukon

Account 332.00 - Hydro Reservoirs, Dams, and Waterways

Placement Band - 1987 - 2022 Experience Band - 2019 - 2022

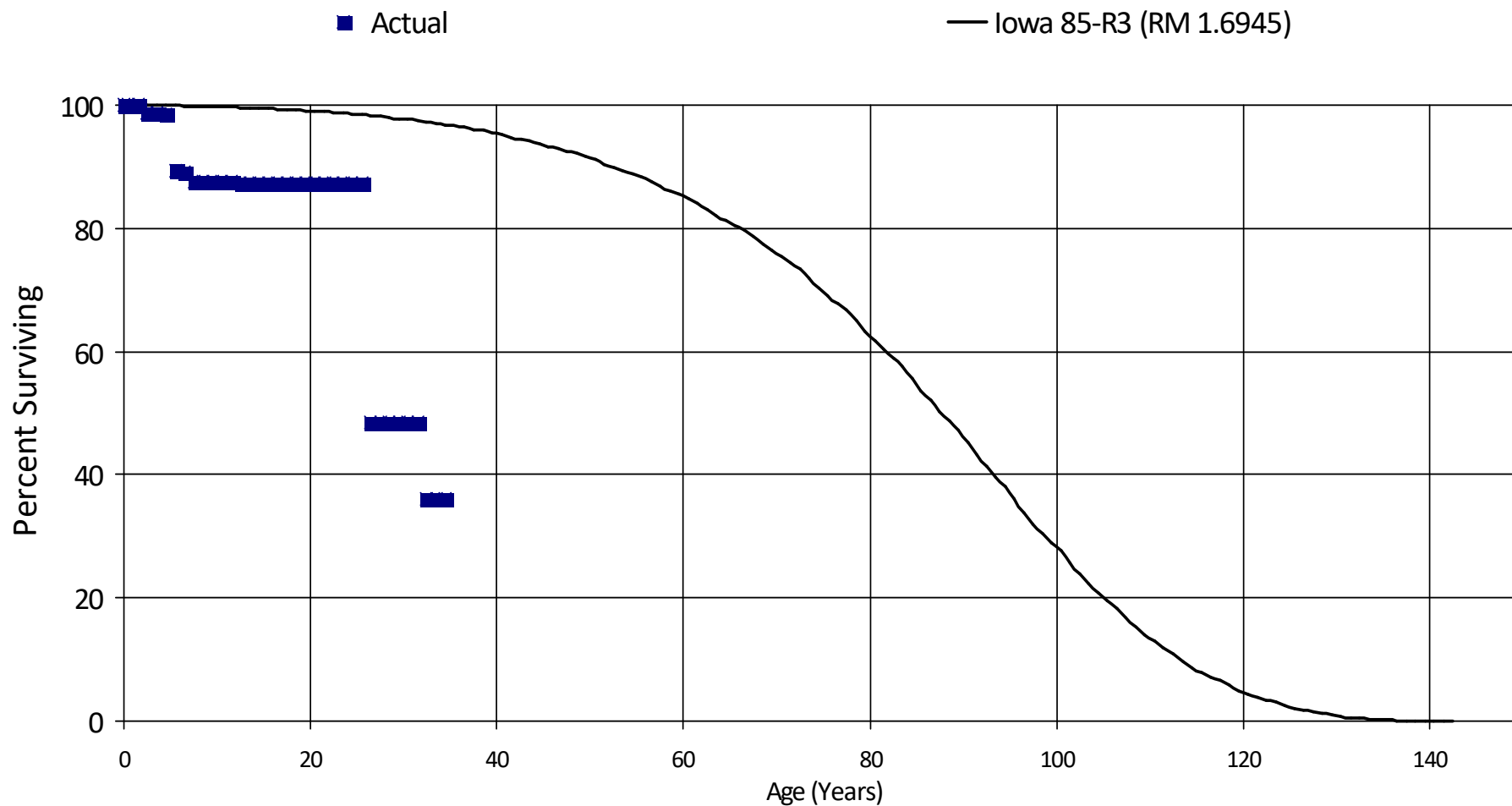
27.5	505,441	0	0.00000	1.00000	61.11
28.5	505,441	0	0.00000	1.00000	61.11
29.5	505,441	24,276	0.04803	0.95197	61.11
30.5	478,751	0	0.00000	1.00000	58.17
31.5	478,751	454,475	0.94929	0.05071	58.17
32.5	24,276	0	0.00000	1.00000	2.95
33.5	0	0	0.00000	1.00000	2.95
34.5	0	0	0.00000	1.00000	2.95
Totals:		834,407			

ATCO Electric Yukon

Account 333.00 - Hydro Water Wheels, Turbines, and Generators

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 333.00 - Hydro Water Wheels, Turbines, and Generators

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,832,301	0	0.00000	1.00000	100.00
0.5	3,832,301	0	0.00000	1.00000	100.00
1.5	3,827,325	51,573	0.01347	0.98653	100.00
2.5	3,717,229	0	0.00000	1.00000	98.65
3.5	3,703,973	8,616	0.00233	0.99767	98.65
4.5	3,477,674	318,629	0.09162	0.90838	98.42
5.5	3,159,045	6,855	0.00217	0.99783	89.40
6.5	2,529,790	44,807	0.01771	0.98229	89.21
7.5	2,463,163	0	0.00000	1.00000	87.63
8.5	2,463,163	0	0.00000	1.00000	87.63
9.5	2,323,880	0	0.00000	1.00000	87.63
10.5	878,782	0	0.00000	1.00000	87.63
11.5	859,615	3,500	0.00407	0.99593	87.63
12.5	392,793	0	0.00000	1.00000	87.27
13.5	268,621	0	0.00000	1.00000	87.27
14.5	268,621	0	0.00000	1.00000	87.27
15.5	268,621	0	0.00000	1.00000	87.27
16.5	268,621	0	0.00000	1.00000	87.27
17.5	268,621	0	0.00000	1.00000	87.27
18.5	268,621	0	0.00000	1.00000	87.27
19.5	268,621	0	0.00000	1.00000	87.27
20.5	268,621	0	0.00000	1.00000	87.27
21.5	268,621	0	0.00000	1.00000	87.27
22.5	179,229	0	0.00000	1.00000	87.27
23.5	179,229	0	0.00000	1.00000	87.27
24.5	179,229	0	0.00000	1.00000	87.27
25.5	179,229	79,835	0.44544	0.55456	87.27
26.5	99,393	0	0.00000	1.00000	48.40

ATCO Electric Yukon

Account 333.00 - Hydro Water Wheels, Turbines, and Generators

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

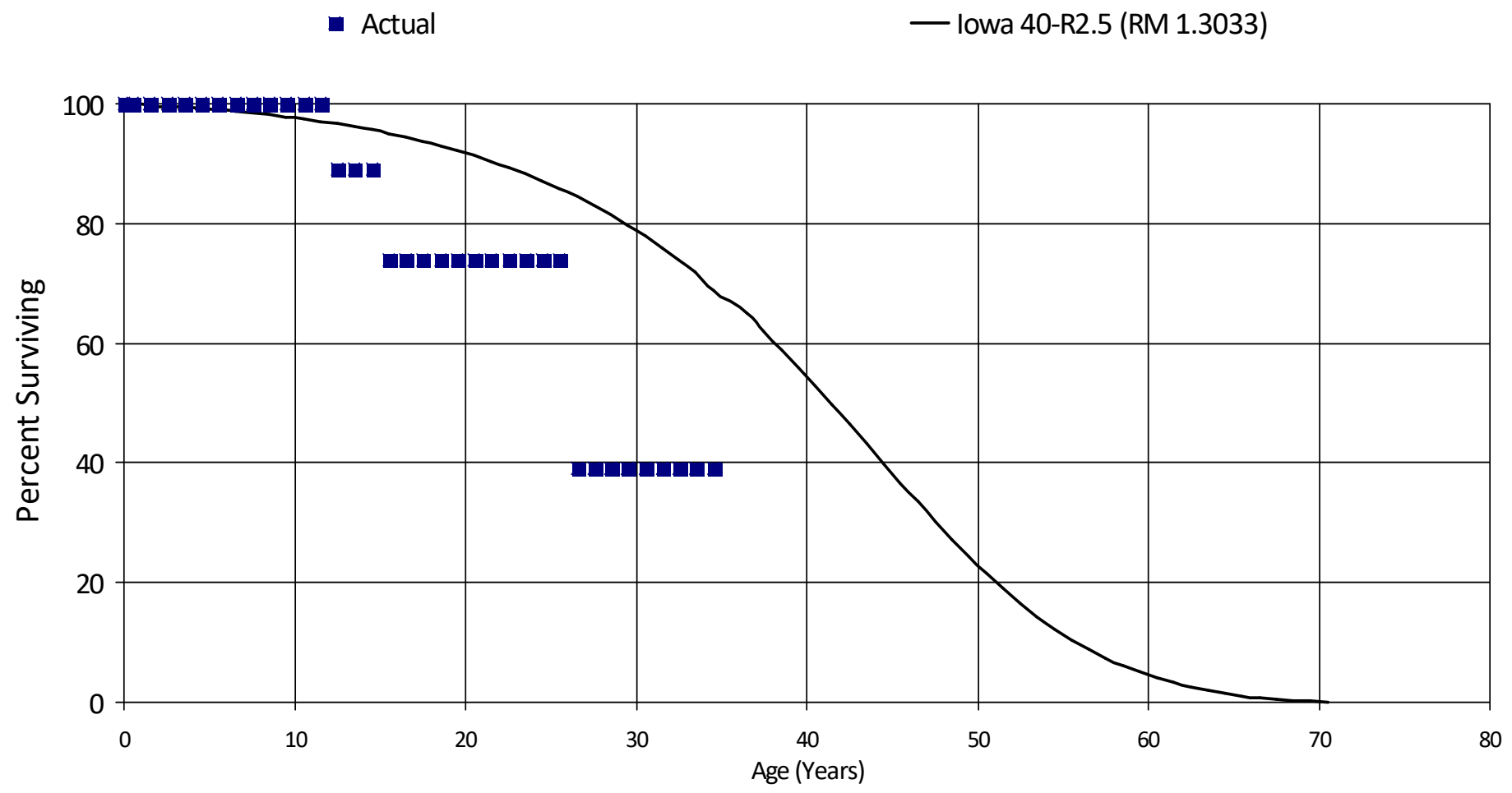
27.5	99,393	0	0.00000	1.00000	48.40
28.5	99,393	0	0.00000	1.00000	48.40
29.5	99,393	0	0.00000	1.00000	48.40
30.5	99,393	0	0.00000	1.00000	48.40
31.5	99,393	25,303	0.25457	0.74543	48.40
32.5	74,091	0	0.00000	1.00000	36.08
33.5	74,091	0	0.00000	1.00000	36.08
34.5	74,091	0	0.00000	1.00000	36.08
Totals:		539,118			

ATCO Electric Yukon

Account 334.00 - Hydro Accessory Electric Equipment

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 334.00 - Hydro Accessory Electric Equipment

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	157,864	0	0.00000	1.00000	100.00
0.5	157,864	0	0.00000	1.00000	100.00
1.5	157,864	0	0.00000	1.00000	100.00
2.5	157,864	0	0.00000	1.00000	100.00
3.5	157,864	0	0.00000	1.00000	100.00
4.5	157,864	0	0.00000	1.00000	100.00
5.5	157,864	0	0.00000	1.00000	100.00
6.5	157,864	0	0.00000	1.00000	100.00
7.5	157,864	0	0.00000	1.00000	100.00
8.5	157,864	0	0.00000	1.00000	100.00
9.5	157,864	0	0.00000	1.00000	100.00
10.5	157,864	0	0.00000	1.00000	100.00
11.5	157,864	17,229	0.10914	0.89086	100.00
12.5	140,635	0	0.00000	1.00000	89.09
13.5	140,635	0	0.00000	1.00000	89.09
14.5	140,635	23,878	0.16979	0.83021	89.09
15.5	116,757	0	0.00000	1.00000	73.96
16.5	116,757	0	0.00000	1.00000	73.96
17.5	116,757	0	0.00000	1.00000	73.96
18.5	116,757	0	0.00000	1.00000	73.96
19.5	116,757	0	0.00000	1.00000	73.96
20.5	116,757	0	0.00000	1.00000	73.96
21.5	116,757	0	0.00000	1.00000	73.96
22.5	103,860	0	0.00000	1.00000	73.96
23.5	103,860	0	0.00000	1.00000	73.96
24.5	75,066	0	0.00000	1.00000	73.96
25.5	75,066	35,515	0.47311	0.52689	73.96
26.5	39,552	0	0.00000	1.00000	38.97

ATCO Electric Yukon

Account 334.00 - Hydro Accessory Electric Equipment

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

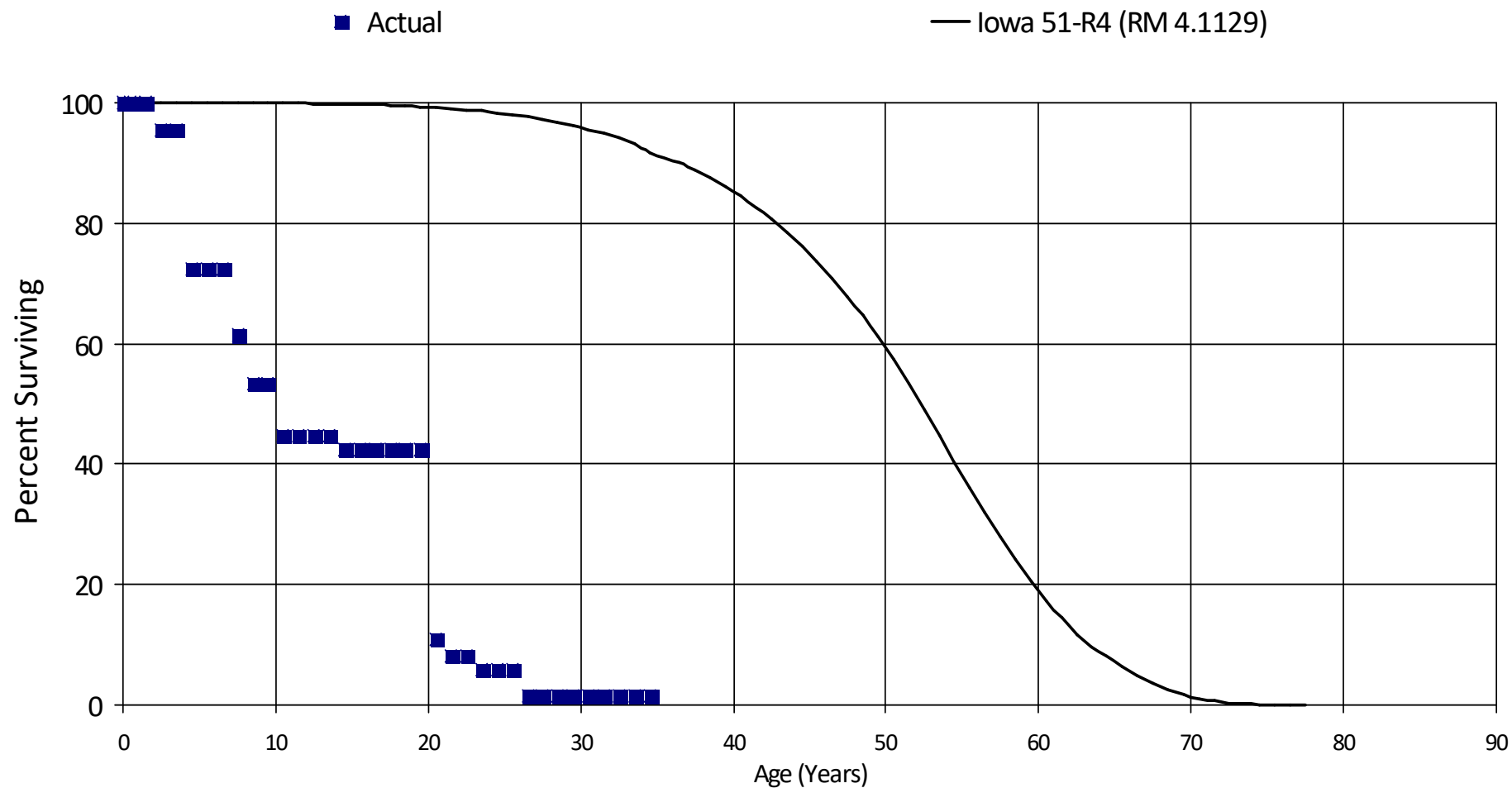
27.5	39,552	0	0.00000	1.00000	38.97
28.5	39,552	0	0.00000	1.00000	38.97
29.5	39,552	0	0.00000	1.00000	38.97
30.5	39,552	0	0.00000	1.00000	38.97
31.5	27,185	0	0.00000	1.00000	38.97
32.5	27,185	0	0.00000	1.00000	38.97
33.5	27,185	0	0.00000	1.00000	38.97
34.5	27,185	0	0.00000	1.00000	38.97
Totals:		76,622			

ATCO Electric Yukon

Account 335.00 - Miscellaneous Power Plant Equipment

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 335.00 - Miscellaneous Power Plant Equipment

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	216,233	0	0.00000	1.00000	100.00
0.5	199,407	0	0.00000	1.00000	100.00
1.5	188,529	8,616	0.04570	0.95430	100.00
2.5	172,747	0	0.00000	1.00000	95.43
3.5	170,229	41,307	0.24266	0.75734	95.43
4.5	91,271	0	0.00000	1.00000	72.27
5.5	91,271	0	0.00000	1.00000	72.27
6.5	91,271	13,615	0.14917	0.85083	72.27
7.5	63,892	8,616	0.13485	0.86515	61.49
8.5	55,276	0	0.00000	1.00000	53.20
9.5	55,276	8,884	0.16072	0.83928	53.20
10.5	27,349	0	0.00000	1.00000	44.65
11.5	27,349	0	0.00000	1.00000	44.65
12.5	27,349	0	0.00000	1.00000	44.65
13.5	27,349	1,365	0.04991	0.95009	44.65
14.5	23,984	0	0.00000	1.00000	42.42
15.5	23,984	0	0.00000	1.00000	42.42
16.5	23,984	0	0.00000	1.00000	42.42
17.5	23,984	0	0.00000	1.00000	42.42
18.5	23,984	0	0.00000	1.00000	42.42
19.5	23,984	17,814	0.74273	0.25727	42.42
20.5	6,171	1,523	0.24681	0.75319	10.91
21.5	4,648	0	0.00000	1.00000	8.22
22.5	4,648	1,348	0.29003	0.70997	8.22
23.5	3,300	0	0.00000	1.00000	5.84
24.5	3,300	0	0.00000	1.00000	5.84
25.5	3,300	2,500	0.75758	0.24242	5.84
26.5	800	0	0.00000	1.00000	1.42

ATCO Electric Yukon

Account 335.00 - Miscellaneous Power Plant Equipment

Placement Band - 1987 - 2022 Experience Band - 2013 - 2022

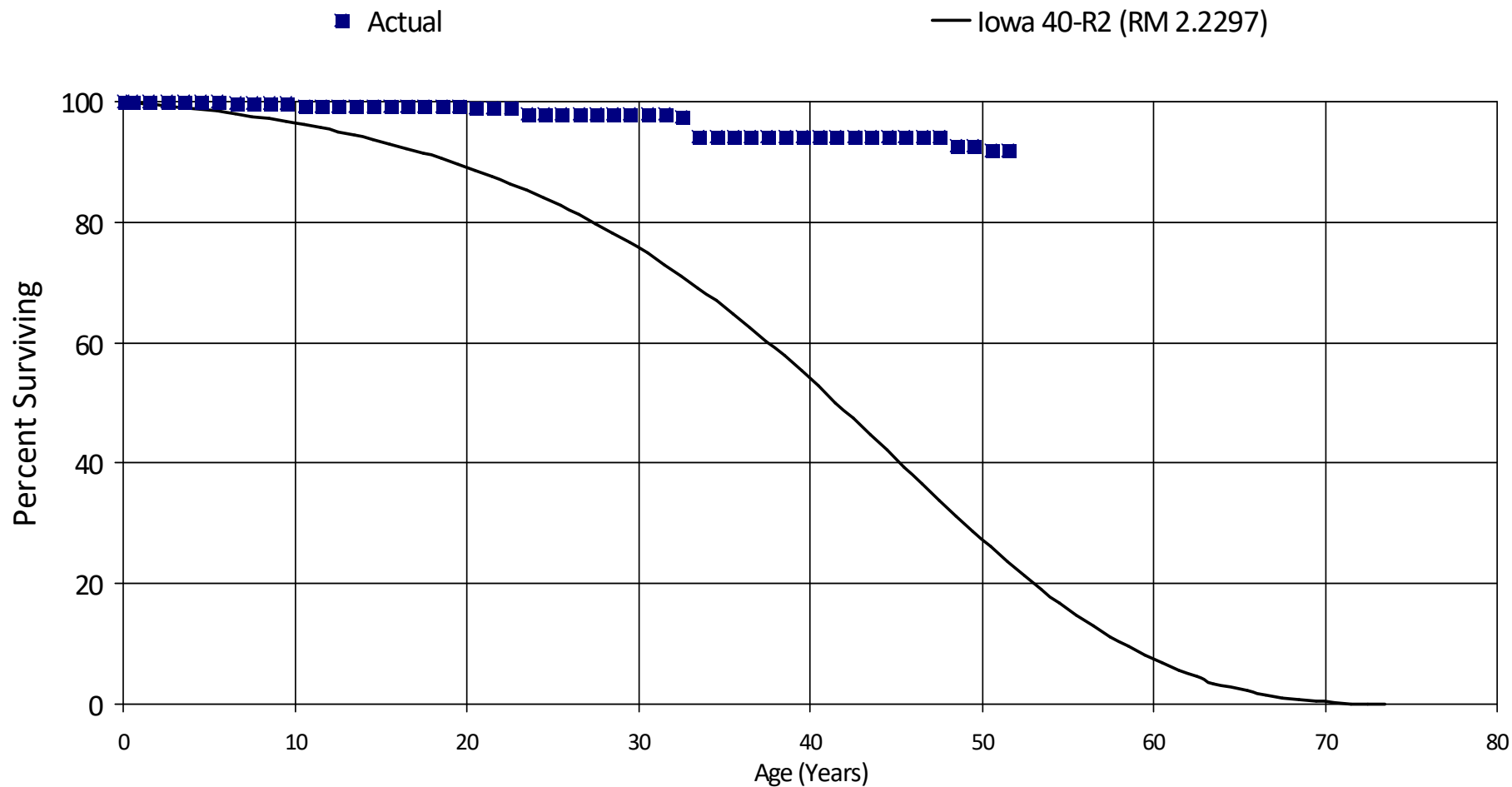
27.5	800	0	0.00000	1.00000	1.42
28.5	800	0	0.00000	1.00000	1.42
29.5	800	0	0.00000	1.00000	1.42
30.5	800	0	0.00000	1.00000	1.42
31.5	800	0	0.00000	1.00000	1.42
32.5	800	0	0.00000	1.00000	1.42
33.5	800	0	0.00000	1.00000	1.42
34.5	800	800	1.00000		1.42
Totals:		106,388			

ATCO Electric Yukon

Account 341.20 - Int Combust Structures

Placement Band - 1958 - 2022 Experience Band - 1971 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 341.20 - Int Combust Structures

Placement Band - 1958 - 2022 Experience Band - 1971 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	6,172,268	0	0.00000	1.00000	100.00
0.5	6,172,268	0	0.00000	1.00000	100.00
1.5	6,172,268	0	0.00000	1.00000	100.00
2.5	6,130,360	0	0.00000	1.00000	100.00
3.5	6,091,783	0	0.00000	1.00000	100.00
4.5	5,916,319	5,674	0.00096	0.99904	100.00
5.5	5,891,290	13,931	0.00236	0.99764	99.90
6.5	5,773,212	0	0.00000	1.00000	99.66
7.5	5,773,212	0	0.00000	1.00000	99.66
8.5	2,408,917	0	0.00000	1.00000	99.66
9.5	2,232,766	7,194	0.00322	0.99678	99.66
10.5	1,967,257	0	0.00000	1.00000	99.34
11.5	1,938,950	0	0.00000	1.00000	99.34
12.5	1,908,646	0	0.00000	1.00000	99.34
13.5	1,890,509	0	0.00000	1.00000	99.34
14.5	1,567,828	0	0.00000	1.00000	99.34
15.5	1,386,373	0	0.00000	1.00000	99.34
16.5	1,165,046	0	0.00000	1.00000	99.34
17.5	922,033	0	0.00000	1.00000	99.34
18.5	921,031	2,028	0.00220	0.99780	99.34
19.5	919,003	100	0.00011	0.99989	99.12
20.5	918,903	0	0.00000	1.00000	99.11
21.5	918,716	0	0.00000	1.00000	99.11
22.5	918,716	10,000	0.01088	0.98912	99.11
23.5	878,933	0	0.00000	1.00000	98.03
24.5	824,789	0	0.00000	1.00000	98.03
25.5	771,584	0	0.00000	1.00000	98.03
26.5	762,676	6	0.00001	0.99999	98.03

ATCO Electric Yukon

Account 341.20 - Int Combust Structures

Placement Band - 1958 - 2022 Experience Band - 1971 - 2022

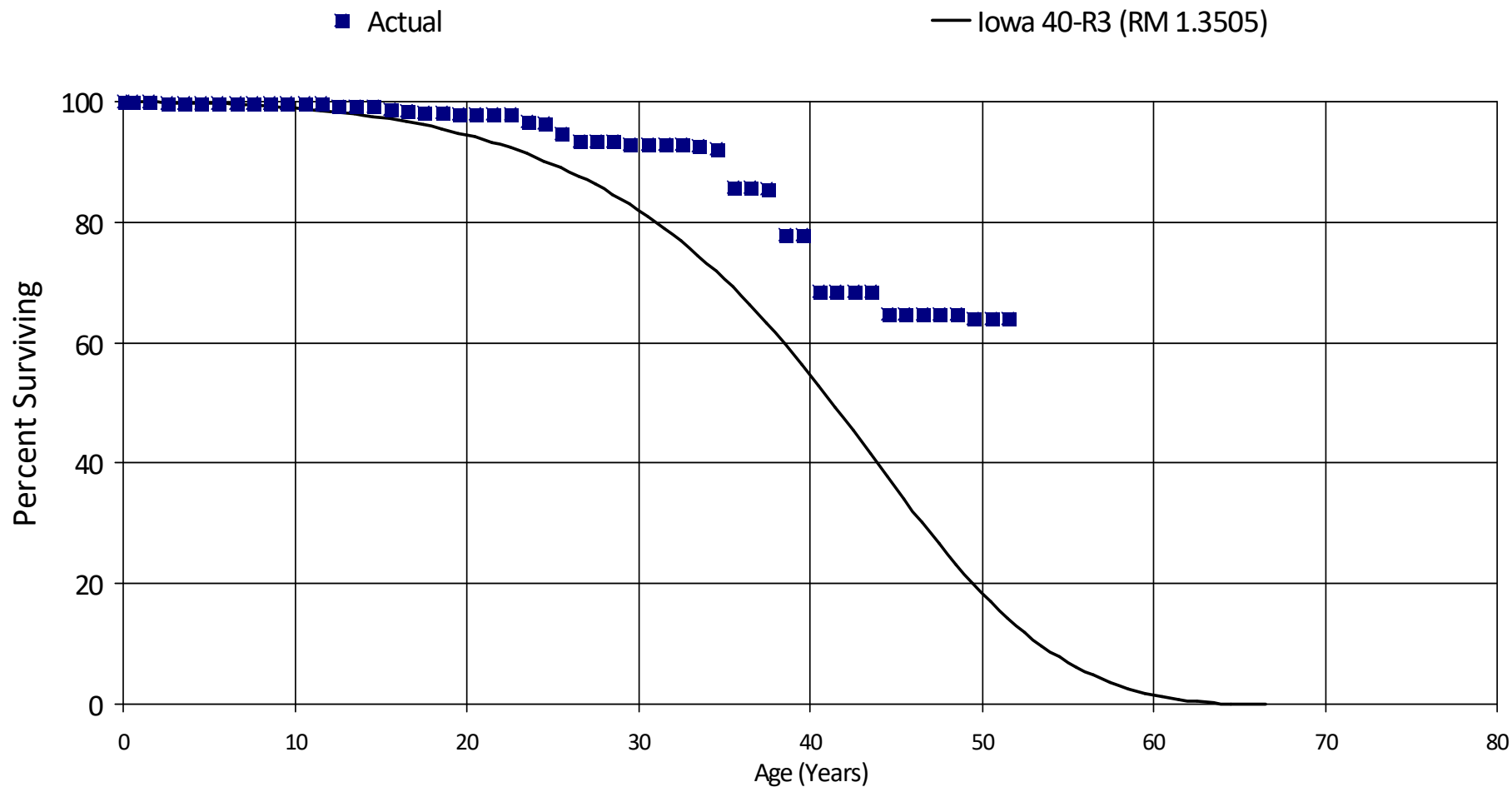
27.5	762,670	0	0.00000	1.00000	98.03
28.5	762,670	0	0.00000	1.00000	98.03
29.5	703,511	0	0.00000	1.00000	98.03
30.5	693,369	0	0.00000	1.00000	98.03
31.5	691,959	4,758	0.00688	0.99312	98.03
32.5	687,201	23,031	0.03351	0.96649	97.36
33.5	634,350	170	0.00027	0.99973	94.10
34.5	594,795	0	0.00000	1.00000	94.07
35.5	311,224	0	0.00000	1.00000	94.07
36.5	289,102	0	0.00000	1.00000	94.07
37.5	275,150	0	0.00000	1.00000	94.07
38.5	275,150	0	0.00000	1.00000	94.07
39.5	233,087	0	0.00000	1.00000	94.07
40.5	177,749	0	0.00000	1.00000	94.07
41.5	177,749	0	0.00000	1.00000	94.07
42.5	177,749	0	0.00000	1.00000	94.07
43.5	177,749	0	0.00000	1.00000	94.07
44.5	177,579	0	0.00000	1.00000	94.07
45.5	177,579	0	0.00000	1.00000	94.07
46.5	162,003	0	0.00000	1.00000	94.07
47.5	162,003	2,607	0.01609	0.98391	94.07
48.5	150,689	0	0.00000	1.00000	92.56
49.5	150,689	1,208	0.00802	0.99198	92.56
50.5	149,481	0	0.00000	1.00000	91.82
51.5	0	0	0.00000	0.00000	91.82
Totals:		70,707			

ATCO Electric Yukon

Account 342.20 - Int Combust Fuel Holders, Producers, and Accessories

Placement Band - 1957 - 2022 Experience Band - 1959 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 342.20 - Int Combust Fuel Holders, Producers, and Accessories

Placement Band - 1957 - 2022 Experience Band - 1959 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,547,428	0	0.00000	1.00000	100.00
0.5	3,547,428	0	0.00000	1.00000	100.00
1.5	3,547,428	7,910	0.00223	0.99777	100.00
2.5	3,528,840	0	0.00000	1.00000	99.78
3.5	3,331,414	1,700	0.00051	0.99949	99.78
4.5	3,201,658	8	0.00000	1.00000	99.73
5.5	3,200,015	349	0.00011	0.99989	99.73
6.5	3,199,666	0	0.00000	1.00000	99.72
7.5	3,199,666	0	0.00000	1.00000	99.72
8.5	3,199,666	0	0.00000	1.00000	99.72
9.5	3,199,666	302	0.00009	0.99991	99.72
10.5	3,089,699	0	0.00000	1.00000	99.71
11.5	3,089,699	13,457	0.00436	0.99564	99.71
12.5	3,076,242	0	0.00000	1.00000	99.28
13.5	2,923,651	3,252	0.00111	0.99889	99.28
14.5	2,867,658	9,382	0.00327	0.99673	99.17
15.5	2,858,276	8,657	0.00303	0.99697	98.85
16.5	2,749,379	9,322	0.00339	0.99661	98.55
17.5	2,055,019	0	0.00000	1.00000	98.22
18.5	1,238,515	1,640	0.00132	0.99868	98.22
19.5	887,492	1,491	0.00168	0.99832	98.09
20.5	886,001	0	0.00000	1.00000	97.93
21.5	886,001	0	0.00000	1.00000	97.93
22.5	886,001	11,451	0.01292	0.98708	97.93
23.5	694,774	1,986	0.00286	0.99714	96.66
24.5	523,897	9,712	0.01854	0.98146	96.38
25.5	459,571	6,230	0.01356	0.98644	94.59
26.5	447,872	0	0.00000	1.00000	93.31

ATCO Electric Yukon

Account 342.20 - Int Combust Fuel Holders, Producers, and Accessories

Placement Band - 1957 - 2022 Experience Band - 1959 - 2022

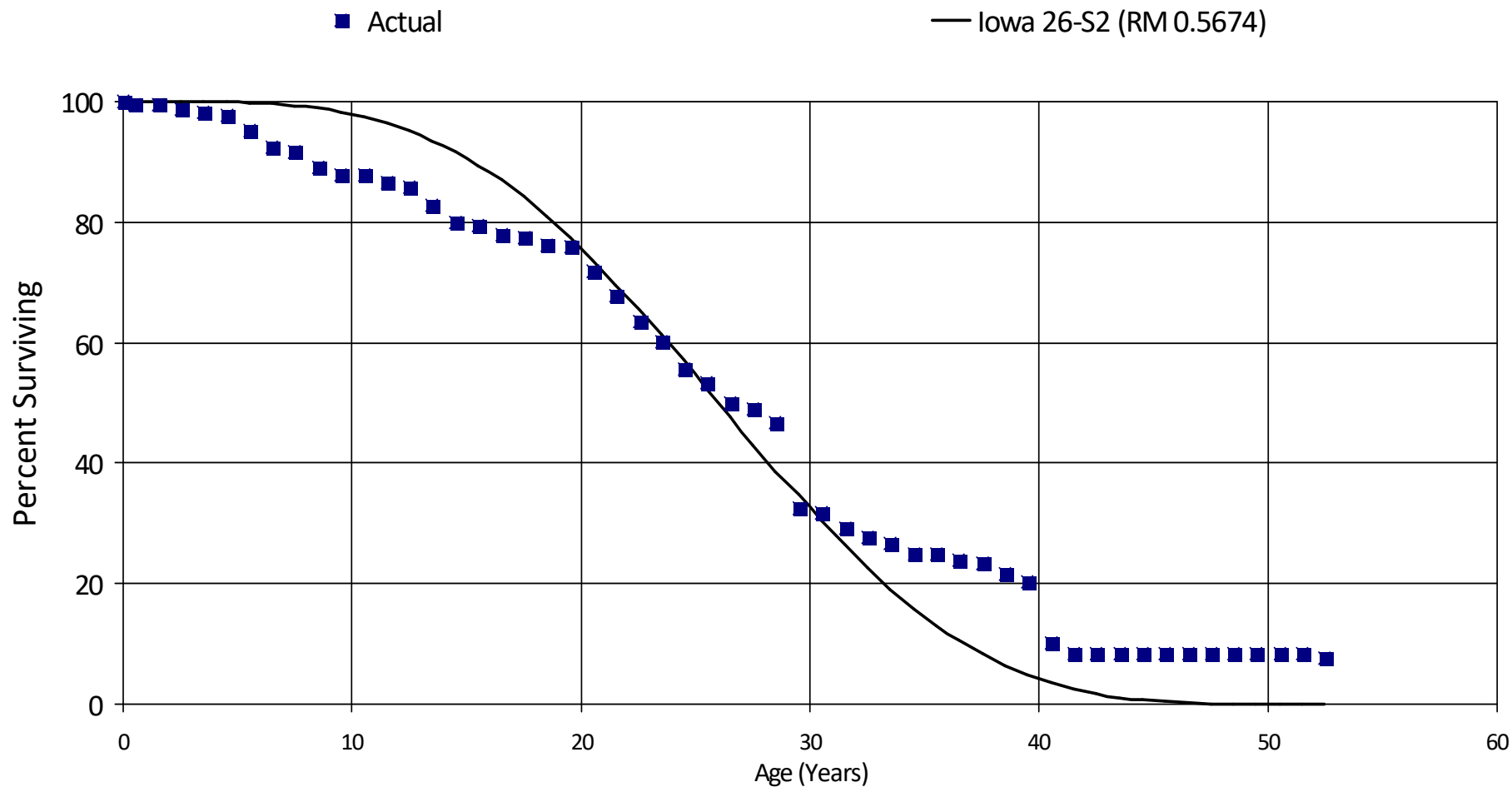
27.5	447,872	0	0.00000	1.00000	93.31
28.5	355,681	1,774	0.00499	0.99501	93.31
29.5	227,575	0	0.00000	1.00000	92.84
30.5	227,575	0	0.00000	1.00000	92.84
31.5	227,575	0	0.00000	1.00000	92.84
32.5	213,441	228	0.00107	0.99893	92.84
33.5	203,277	1,426	0.00702	0.99298	92.74
34.5	114,871	7,922	0.06896	0.93104	92.09
35.5	94,036	0	0.00000	1.00000	85.74
36.5	86,947	120	0.00138	0.99862	85.74
37.5	86,826	7,892	0.09089	0.90911	85.62
38.5	78,934	0	0.00000	1.00000	77.84
39.5	78,934	9,402	0.11911	0.88089	77.84
40.5	17,456	0	0.00000	1.00000	68.57
41.5	17,456	0	0.00000	1.00000	68.57
42.5	17,456	0	0.00000	1.00000	68.57
43.5	17,456	989	0.05666	0.94334	68.57
44.5	16,467	0	0.00000	1.00000	64.68
45.5	16,467	0	0.00000	1.00000	64.68
46.5	8,067	0	0.00000	1.00000	64.68
47.5	8,067	0	0.00000	1.00000	64.68
48.5	8,067	100	0.01240	0.98760	64.68
49.5	2,905	0	0.00000	1.00000	63.88
50.5	2,905	0	0.00000	1.00000	63.88
51.5	0	0	0.00000	0.00000	63.88
Totals:		116,702			

ATCO Electric Yukon

Account 343.20 - Int Combust Generators

Placement Band - 1945 - 2022 Experience Band - 1959 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 343.20 - Int Combust Generators

Placement Band - 1945 - 2022 Experience Band - 1959 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	28,485,121	114,893	0.00403	0.99597	100.00
0.5	26,535,673	7,813	0.00029	0.99971	99.60
1.5	23,784,022	207,729	0.00873	0.99127	99.57
2.5	21,219,780	91,641	0.00432	0.99568	98.70
3.5	20,717,478	130,135	0.00628	0.99372	98.27
4.5	20,062,679	496,742	0.02476	0.97524	97.65
5.5	18,185,122	565,809	0.03111	0.96889	95.23
6.5	15,736,500	89,808	0.00571	0.99429	92.27
7.5	15,634,353	467,276	0.02989	0.97011	91.74
8.5	12,394,732	170,099	0.01372	0.98628	89.00
9.5	10,001,392	0	0.00000	1.00000	87.78
10.5	9,632,111	127,197	0.01321	0.98679	87.78
11.5	9,080,505	88,184	0.00971	0.99029	86.62
12.5	8,844,194	313,201	0.03541	0.96459	85.78
13.5	8,527,827	279,752	0.03280	0.96720	82.74
14.5	8,248,075	60,755	0.00737	0.99263	80.03
15.5	8,187,320	167,724	0.02049	0.97951	79.44
16.5	8,019,596	42,331	0.00528	0.99472	77.81
17.5	7,977,266	135,223	0.01695	0.98305	77.40
18.5	7,837,169	22,900	0.00292	0.99708	76.09
19.5	7,799,418	408,742	0.05241	0.94759	75.87
20.5	7,383,952	433,788	0.05875	0.94125	71.89
21.5	6,950,165	441,332	0.06350	0.93650	67.67
22.5	6,475,614	338,539	0.05228	0.94772	63.37
23.5	6,042,541	443,168	0.07334	0.92666	60.06
24.5	5,263,422	223,950	0.04255	0.95745	55.66
25.5	4,416,581	267,077	0.06047	0.93953	53.29
26.5	3,866,976	91,515	0.02367	0.97633	50.07

ATCO Electric Yukon

Account 343.20 - Int Combust Generators

Placement Band - 1945 - 2022 Experience Band - 1959 - 2022

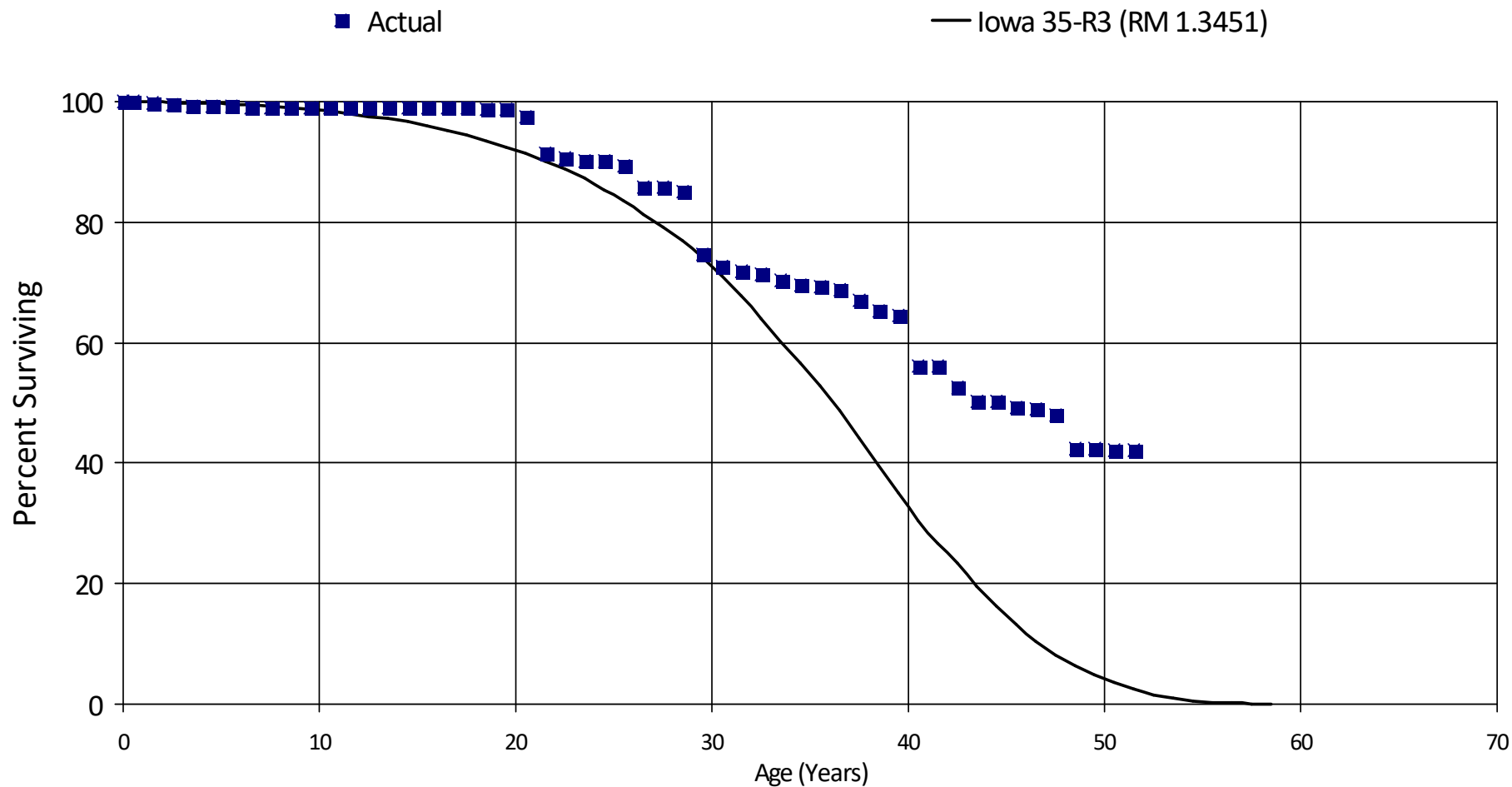
27.5	3,775,461	158,866	0.04208	0.95792	48.88
28.5	3,614,234	1,106,373	0.30612	0.69388	46.82
29.5	1,745,778	42,793	0.02451	0.97549	32.49
30.5	1,697,449	128,420	0.07565	0.92435	31.69
31.5	805,131	45,022	0.05592	0.94408	29.29
32.5	679,125	23,957	0.03528	0.96472	27.65
33.5	474,795	32,625	0.06871	0.93129	26.67
34.5	393,730	0	0.00000	1.00000	24.84
35.5	393,575	14,731	0.03743	0.96257	24.84
36.5	316,730	7,701	0.02431	0.97569	23.91
37.5	307,872	23,371	0.07591	0.92409	23.33
38.5	277,552	15,939	0.05743	0.94257	21.56
39.5	253,589	128,185	0.50548	0.49452	20.32
40.5	102,708	16,275	0.15846	0.84154	10.05
41.5	81,835	1,325	0.01619	0.98381	8.46
42.5	80,510	0	0.00000	1.00000	8.32
43.5	80,510	0	0.00000	1.00000	8.32
44.5	80,510	0	0.00000	1.00000	8.32
45.5	52,636	0	0.00000	1.00000	8.32
46.5	52,636	0	0.00000	1.00000	8.32
47.5	45,089	0	0.00000	1.00000	8.32
48.5	28,735	0	0.00000	1.00000	8.32
49.5	22,448	0	0.00000	1.00000	8.32
50.5	20,389	0	0.00000	1.00000	8.32
51.5	1,941	150	0.07728	0.92272	8.32
52.5	0	0	0.00000	0.00000	7.68
Totals:		7,973,056			

ATCO Electric Yukon

Account 345.20 - Int Combust Accessory

Placement Band - 1957 - 2022 Experience Band - 1960 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon
Account 345.20 - Int Combust Accessory

Placement Band - 1957 - 2022 Experience Band - 1960 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	5,601,639	0	0.00000	1.00000	100.00
0.5	5,601,639	15,260	0.00272	0.99728	100.00
1.5	5,586,379	17,240	0.00309	0.99691	99.73
2.5	5,569,139	7,468	0.00134	0.99866	99.42
3.5	5,561,671	0	0.00000	1.00000	99.29
4.5	4,729,328	7,434	0.00157	0.99843	99.29
5.5	4,666,143	4,460	0.00096	0.99904	99.13
6.5	4,554,217	240	0.00005	0.99995	99.03
7.5	3,444,915	0	0.00000	1.00000	99.03
8.5	2,996,516	0	0.00000	1.00000	99.03
9.5	2,329,949	0	0.00000	1.00000	99.03
10.5	2,082,013	0	0.00000	1.00000	99.03
11.5	2,029,156	0	0.00000	1.00000	99.03
12.5	2,025,932	0	0.00000	1.00000	99.03
13.5	2,017,166	0	0.00000	1.00000	99.03
14.5	1,824,886	1,900	0.00104	0.99896	99.03
15.5	1,762,424	0	0.00000	1.00000	98.93
16.5	1,741,977	0	0.00000	1.00000	98.93
17.5	1,737,017	1,500	0.00086	0.99914	98.93
18.5	1,732,566	809	0.00047	0.99953	98.84
19.5	1,731,757	21,916	0.01266	0.98734	98.79
20.5	1,679,105	107,410	0.06397	0.93603	97.54
21.5	1,418,936	12,194	0.00859	0.99141	91.30
22.5	1,233,222	4,746	0.00385	0.99615	90.52
23.5	1,077,052	0	0.00000	1.00000	90.17
24.5	958,112	9,712	0.01014	0.98986	90.17
25.5	822,322	32,813	0.03990	0.96010	89.26
26.5	789,509	0	0.00000	1.00000	85.70

ATCO Electric Yukon

Account 345.20 - Int Combust Accessory

Placement Band - 1957 - 2022 Experience Band - 1960 - 2022

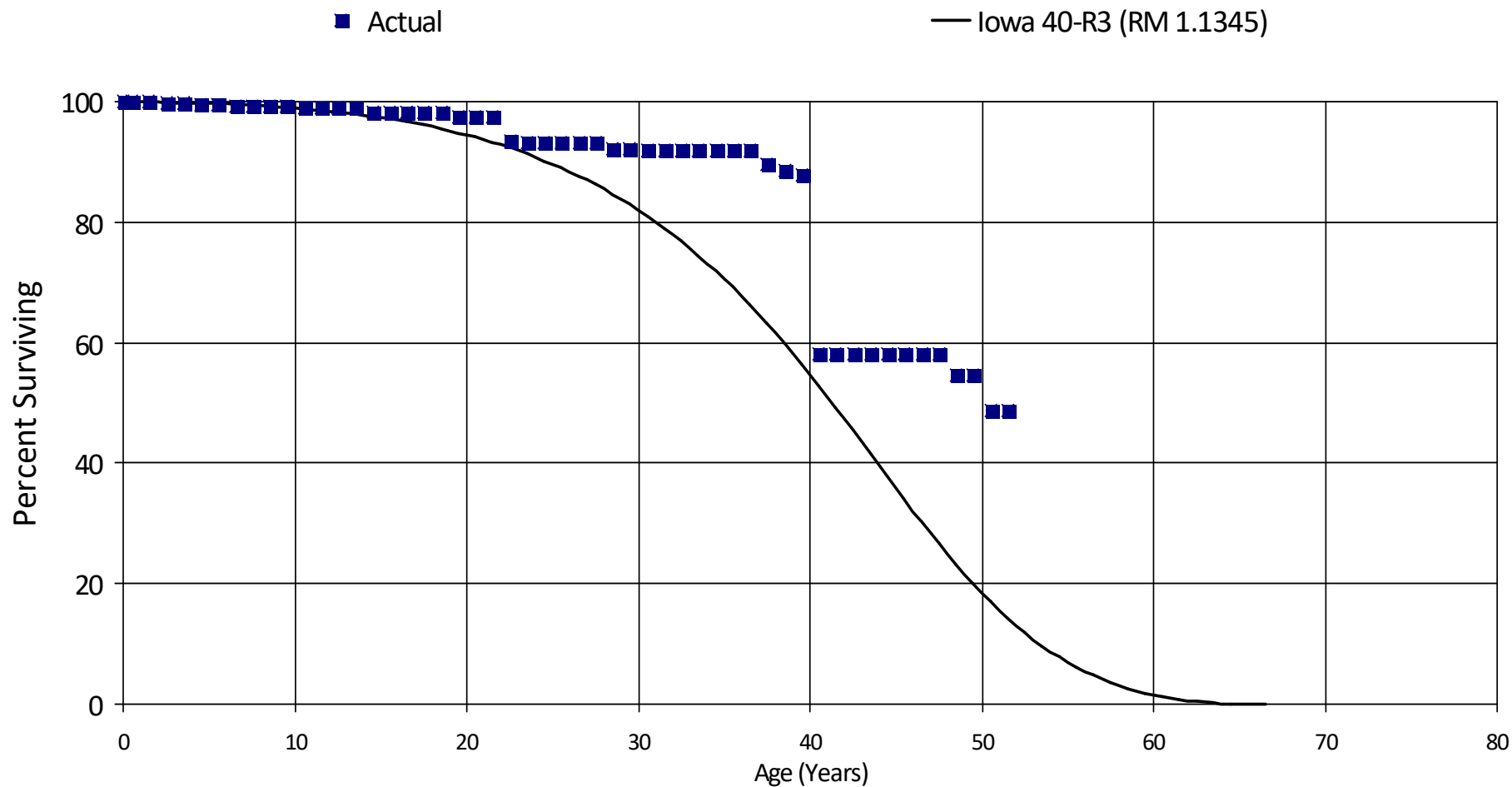
27.5	789,509	5,195	0.00658	0.99342	85.70
28.5	774,957	95,160	0.12279	0.87721	85.14
29.5	635,194	16,865	0.02655	0.97345	74.69
30.5	591,052	7,105	0.01202	0.98798	72.71
31.5	568,992	3,485	0.00612	0.99388	71.84
32.5	454,182	6,560	0.01444	0.98556	71.40
33.5	360,117	3,626	0.01007	0.98993	70.37
34.5	356,491	2,274	0.00638	0.99362	69.66
35.5	212,794	1,240	0.00583	0.99417	69.22
36.5	186,932	4,845	0.02592	0.97408	68.82
37.5	182,087	4,950	0.02718	0.97282	67.04
38.5	168,042	1,850	0.01101	0.98899	65.22
39.5	160,263	21,142	0.13192	0.86808	64.50
40.5	114,468	0	0.00000	1.00000	55.99
41.5	110,573	6,834	0.06181	0.93819	55.99
42.5	103,740	4,365	0.04208	0.95792	52.53
43.5	99,375	0	0.00000	1.00000	50.32
44.5	99,375	2,303	0.02317	0.97683	50.32
45.5	92,352	393	0.00426	0.99574	49.15
46.5	91,177	1,699	0.01863	0.98137	48.94
47.5	89,478	10,362	0.11580	0.88420	48.03
48.5	78,418	0	0.00000	1.00000	42.47
49.5	65,742	482	0.00733	0.99267	42.47
50.5	48,892	0	0.00000	1.00000	42.16
51.5	0	0	0.00000	0.00000	42.16
Totals:		445,837			

ATCO Electric Yukon

Account 346.20 - Int Combust Miscellaneous

Placement Band - 1957 - 2022 Experience Band - 1959 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon
Account 346.20 - Int Combust Miscellaneous

Placement Band - 1957 - 2022 Experience Band - 1959 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,158,738	0	0.00000	1.00000	100.00
0.5	1,153,463	0	0.00000	1.00000	100.00
1.5	1,118,181	2,205	0.00197	0.99803	100.00
2.5	1,039,895	0	0.00000	1.00000	99.80
3.5	1,019,966	3,170	0.00311	0.99689	99.80
4.5	974,810	978	0.00100	0.99900	99.49
5.5	931,281	1,000	0.00107	0.99893	99.39
6.5	856,214	0	0.00000	1.00000	99.28
7.5	787,723	381	0.00048	0.99952	99.28
8.5	786,694	566	0.00072	0.99928	99.23
9.5	760,721	1,327	0.00174	0.99826	99.16
10.5	722,547	0	0.00000	1.00000	98.99
11.5	617,430	334	0.00054	0.99946	98.99
12.5	608,154	0	0.00000	1.00000	98.94
13.5	570,275	3,527	0.00618	0.99382	98.94
14.5	539,807	885	0.00164	0.99836	98.33
15.5	272,138	0	0.00000	1.00000	98.17
16.5	240,446	0	0.00000	1.00000	98.17
17.5	222,089	0	0.00000	1.00000	98.17
18.5	222,089	1,450	0.00653	0.99347	98.17
19.5	220,620	43	0.00019	0.99981	97.53
20.5	220,577	0	0.00000	1.00000	97.51
21.5	220,577	9,309	0.04220	0.95780	97.51
22.5	211,268	474	0.00224	0.99776	93.40
23.5	203,265	0	0.00000	1.00000	93.19
24.5	185,061	0	0.00000	1.00000	93.19
25.5	185,061	0	0.00000	1.00000	93.19
26.5	184,985	0	0.00000	1.00000	93.19

ATCO Electric Yukon

Account 346.20 - Int Combust Miscellaneous

Placement Band - 1957 - 2022 Experience Band - 1959 - 2022

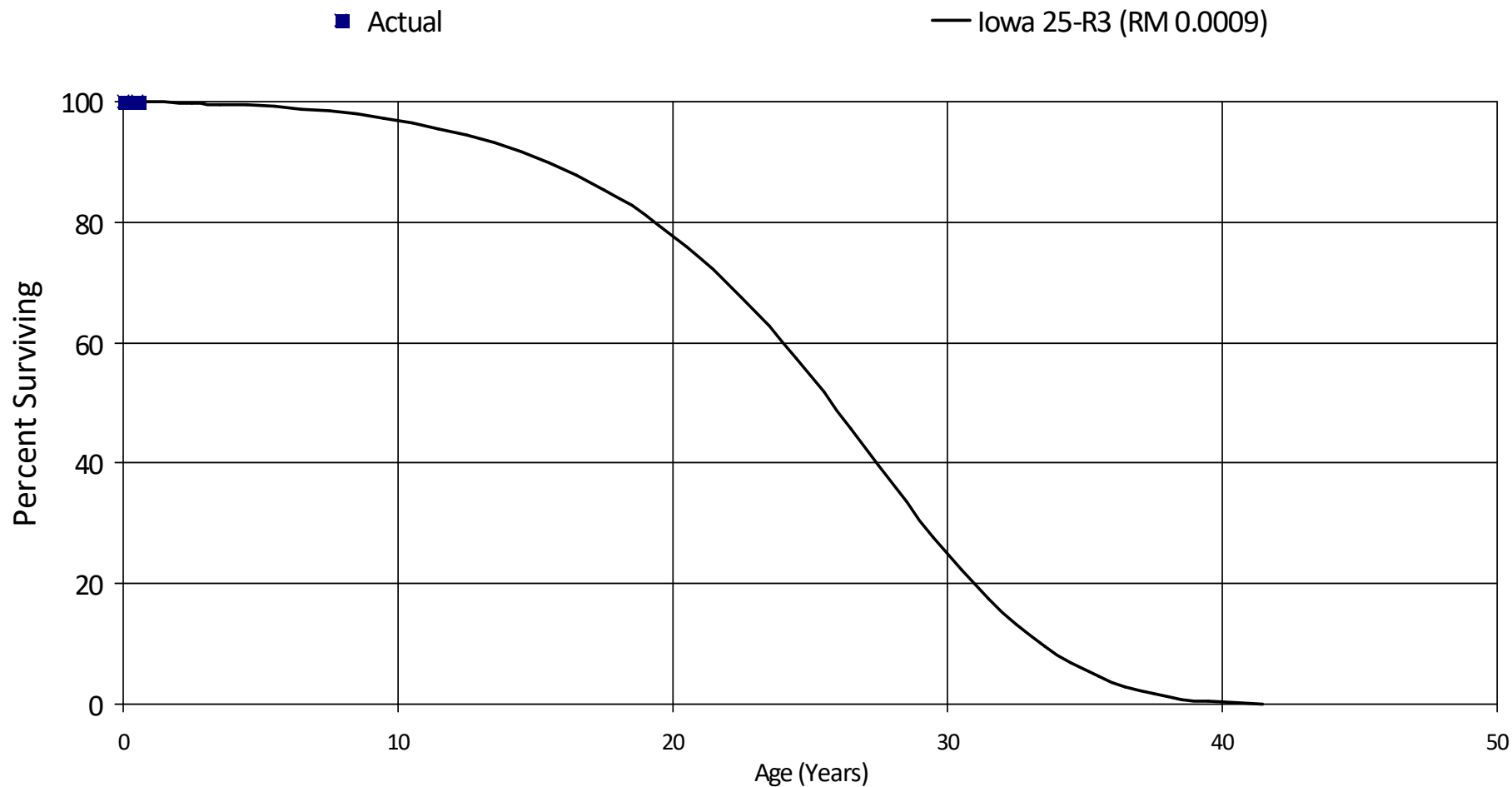
27.5	184,985	2,136	0.01155	0.98845	93.19
28.5	182,849	0	0.00000	1.00000	92.11
29.5	182,651	456	0.00250	0.99750	92.11
30.5	89,954	0	0.00000	1.00000	91.88
31.5	58,510	0	0.00000	1.00000	91.88
32.5	58,510	0	0.00000	1.00000	91.88
33.5	58,510	0	0.00000	1.00000	91.88
34.5	58,510	0	0.00000	1.00000	91.88
35.5	44,076	0	0.00000	1.00000	91.88
36.5	44,076	1,125	0.02552	0.97448	91.88
37.5	42,952	431	0.01003	0.98997	89.54
38.5	42,521	431	0.01014	0.98986	88.64
39.5	42,090	14,213	0.33768	0.66232	87.74
40.5	7,560	0	0.00000	1.00000	58.11
41.5	7,560	0	0.00000	1.00000	58.11
42.5	7,560	0	0.00000	1.00000	58.11
43.5	3,381	0	0.00000	1.00000	58.11
44.5	3,381	0	0.00000	1.00000	58.11
45.5	3,381	0	0.00000	1.00000	58.11
46.5	3,381	0	0.00000	1.00000	58.11
47.5	3,381	211	0.06241	0.93759	58.11
48.5	3,170	0	0.00000	1.00000	54.48
49.5	3,170	335	0.10568	0.89432	54.48
50.5	2,835	0	0.00000	1.00000	48.72
51.5	0	0	0.00000	0.00000	48.72
Totals:		44,987			

ATCO Electric Yukon

Account 347.20 - Renewable Energy Storage

Placement Band - 2021 - 2022 Experience Band - 2022 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon
Account 347.20 - Renewable Energy Storage

Placement Band - 2021 - 2022 Experience Band - 2022 - 2022

RETIREMENT RATE ANALYSIS

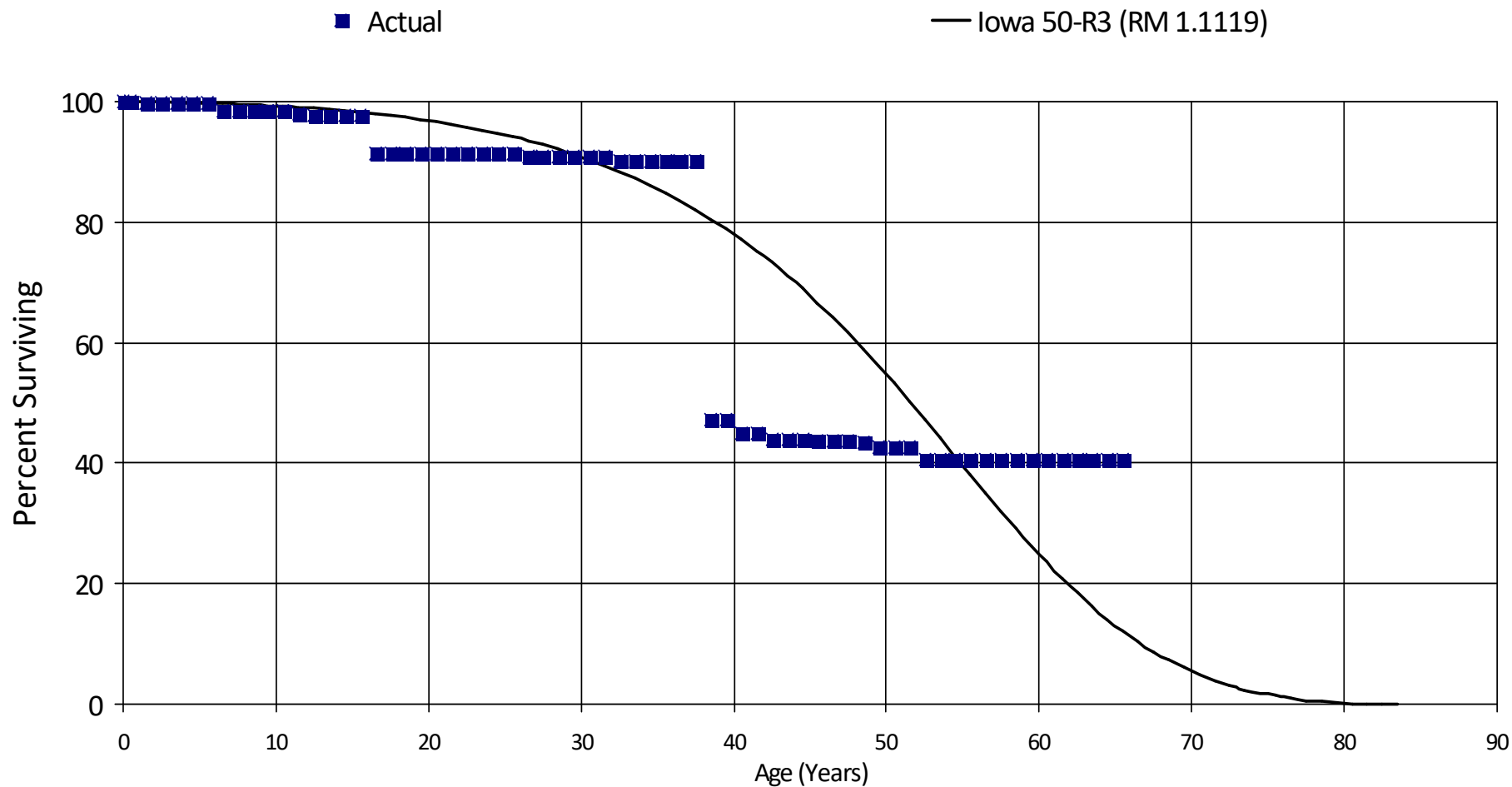
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,536,262	0	0.00000	1.00000	100.00
0.5	3,536,262	0	0.00000	1.00000	100.00
Totals:		0			

ATCO Electric Yukon

Account 353.00 - Transmission Station Equipment

Placement Band - 1948 - 2022 Experience Band - 1959 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 353.00 - Transmission Station Equipment

Placement Band - 1948 - 2022 Experience Band - 1959 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,438,664	0	0.00000	1.00000	100.00
0.5	1,438,664	4,796	0.00333	0.99667	100.00
1.5	1,433,868	0	0.00000	1.00000	99.67
2.5	1,433,868	0	0.00000	1.00000	99.67
3.5	1,433,868	0	0.00000	1.00000	99.67
4.5	1,433,868	253	0.00018	0.99982	99.67
5.5	1,433,615	16,423	0.01146	0.98854	99.65
6.5	1,417,192	1,349	0.00095	0.99905	98.51
7.5	1,415,843	0	0.00000	1.00000	98.42
8.5	1,415,843	0	0.00000	1.00000	98.42
9.5	1,415,843	0	0.00000	1.00000	98.42
10.5	1,415,843	5,610	0.00396	0.99604	98.42
11.5	1,410,233	2,888	0.00205	0.99795	98.03
12.5	1,407,345	118	0.00008	0.99992	97.83
13.5	1,407,227	0	0.00000	1.00000	97.82
14.5	1,407,227	0	0.00000	1.00000	97.82
15.5	1,407,227	93,789	0.06665	0.93335	97.82
16.5	1,313,438	0	0.00000	1.00000	91.30
17.5	1,313,438	0	0.00000	1.00000	91.30
18.5	1,313,438	0	0.00000	1.00000	91.30
19.5	1,313,438	0	0.00000	1.00000	91.30
20.5	1,313,438	33	0.00003	0.99997	91.30
21.5	1,313,405	0	0.00000	1.00000	91.30
22.5	1,309,324	0	0.00000	1.00000	91.30
23.5	1,247,284	0	0.00000	1.00000	91.30
24.5	1,247,284	0	0.00000	1.00000	91.30
25.5	1,246,841	5,175	0.00415	0.99585	91.30
26.5	1,093,688	0	0.00000	1.00000	90.92

ATCO Electric Yukon

Account 353.00 - Transmission Station Equipment

Placement Band - 1948 - 2022 Experience Band - 1959 - 2022

27.5	1,093,688	0	0.00000	1.00000	90.92
28.5	1,093,688	0	0.00000	1.00000	90.92
29.5	633,259	0	0.00000	1.00000	90.92
30.5	401,952	0	0.00000	1.00000	90.92
31.5	401,952	3,997	0.00994	0.99006	90.92
32.5	397,955	0	0.00000	1.00000	90.02
33.5	379,479	0	0.00000	1.00000	90.02
34.5	357,882	0	0.00000	1.00000	90.02
35.5	357,882	0	0.00000	1.00000	90.02
36.5	314,867	0	0.00000	1.00000	90.02
37.5	300,263	142,425	0.47433	0.52567	90.02
38.5	148,249	0	0.00000	1.00000	47.32
39.5	148,249	7,356	0.04962	0.95038	47.32
40.5	137,683	36	0.00026	0.99974	44.97
41.5	133,494	3,165	0.02371	0.97629	44.96
42.5	130,329	34	0.00026	0.99974	43.89
43.5	130,295	221	0.00170	0.99830	43.88
44.5	130,074	115	0.00088	0.99912	43.81
45.5	129,959	547	0.00421	0.99579	43.77
46.5	129,412	0	0.00000	1.00000	43.59
47.5	128,228	354	0.00276	0.99724	43.59
48.5	86,623	1,739	0.02008	0.97992	43.47
49.5	84,884	0	0.00000	1.00000	42.60
50.5	84,884	0	0.00000	1.00000	42.60
51.5	80,954	3,953	0.04883	0.95117	42.60
52.5	59,229	0	0.00000	1.00000	40.52
53.5	33,968	0	0.00000	1.00000	40.52
54.5	19,950	0	0.00000	1.00000	40.52
55.5	14,072	0	0.00000	1.00000	40.52
56.5	14,009	0	0.00000	1.00000	40.52
57.5	13,599	0	0.00000	1.00000	40.52

ATCO Electric Yukon

Account 353.00 - Transmission Station Equipment

Placement Band - 1948 - 2022 Experience Band - 1959 - 2022

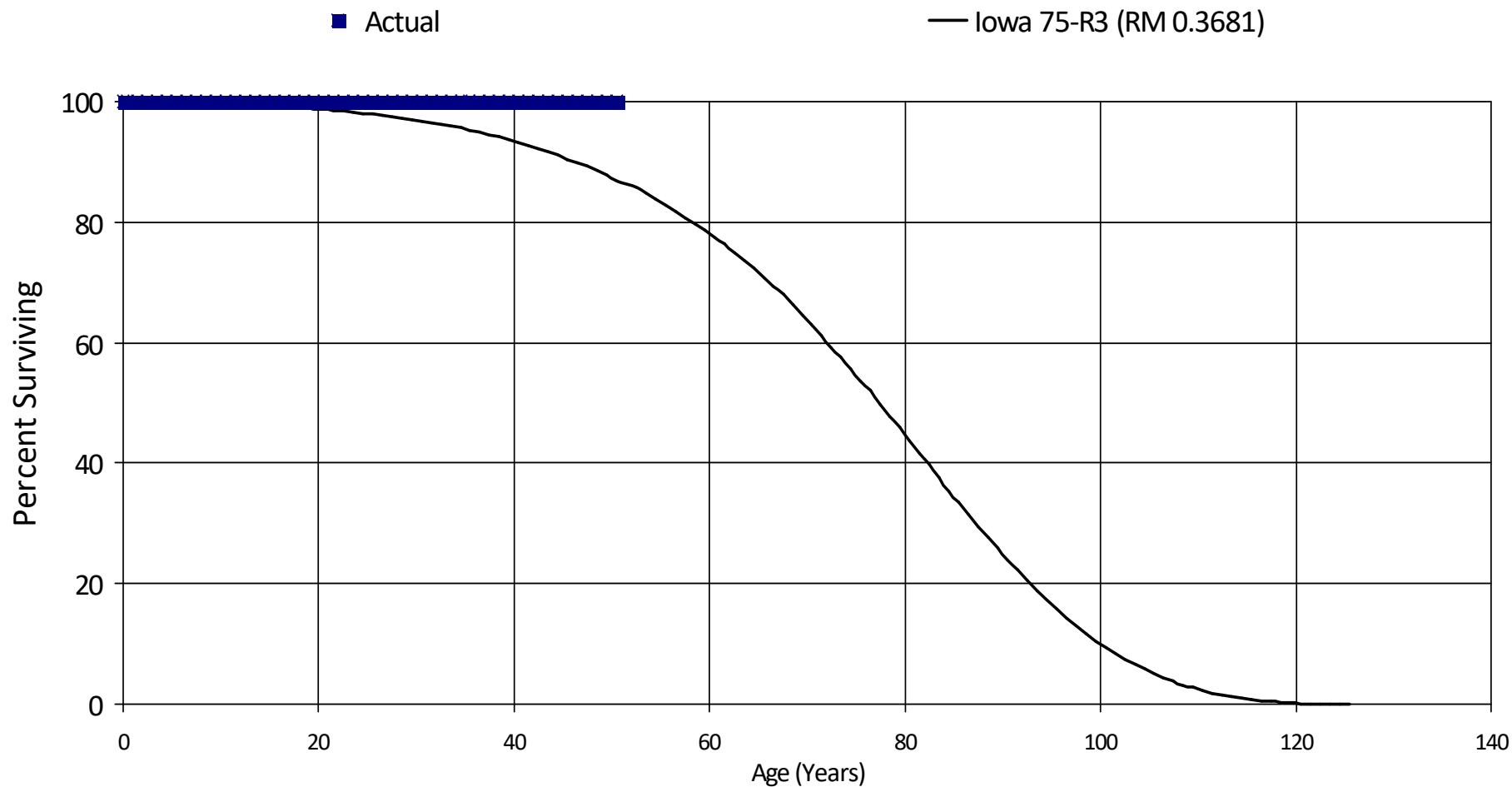
58.5	13,385	0	0.00000	1.00000	40.52
59.5	12,369	0	0.00000	1.00000	40.52
60.5	12,369	0	0.00000	1.00000	40.52
61.5	11,712	0	0.00000	1.00000	40.52
62.5	8,482	0	0.00000	1.00000	40.52
63.5	8,482	0	0.00000	1.00000	40.52
64.5	8,482	0	0.00000	1.00000	40.52
65.5	0	0	0.00000	0.00000	40.52
Totals:		294,376			

ATCO Electric Yukon

Account 360.10 - Land Rights

Placement Band - 1971 - 2022 Experience Band - 2022 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 360.10 - Land Rights

Placement Band - 1971 - 2022 Experience Band - 2022 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,160,689	0	0.00000	1.00000	100.00
0.5	2,094,757	0	0.00000	1.00000	100.00
1.5	2,028,629	0	0.00000	1.00000	100.00
2.5	1,948,213	0	0.00000	1.00000	100.00
3.5	1,883,870	0	0.00000	1.00000	100.00
4.5	1,779,370	0	0.00000	1.00000	100.00
5.5	1,705,625	0	0.00000	1.00000	100.00
6.5	1,583,974	0	0.00000	1.00000	100.00
7.5	1,455,345	0	0.00000	1.00000	100.00
8.5	1,386,208	0	0.00000	1.00000	100.00
9.5	1,335,807	0	0.00000	1.00000	100.00
10.5	1,272,863	0	0.00000	1.00000	100.00
11.5	1,197,215	0	0.00000	1.00000	100.00
12.5	1,110,471	0	0.00000	1.00000	100.00
13.5	1,037,546	0	0.00000	1.00000	100.00
14.5	933,889	0	0.00000	1.00000	100.00
15.5	864,160	0	0.00000	1.00000	100.00
16.5	817,906	0	0.00000	1.00000	100.00
17.5	613,583	0	0.00000	1.00000	100.00
18.5	547,739	0	0.00000	1.00000	100.00
19.5	485,766	0	0.00000	1.00000	100.00
20.5	451,118	0	0.00000	1.00000	100.00
21.5	395,770	0	0.00000	1.00000	100.00
22.5	346,100	0	0.00000	1.00000	100.00
23.5	296,095	0	0.00000	1.00000	100.00
24.5	245,573	0	0.00000	1.00000	100.00
25.5	105,460	0	0.00000	1.00000	100.00
26.5	59,374	0	0.00000	1.00000	100.00

ATCO Electric Yukon Account 360.10 - Land Rights

Placement Band - 1971 - 2022 Experience Band - 2022 - 2022

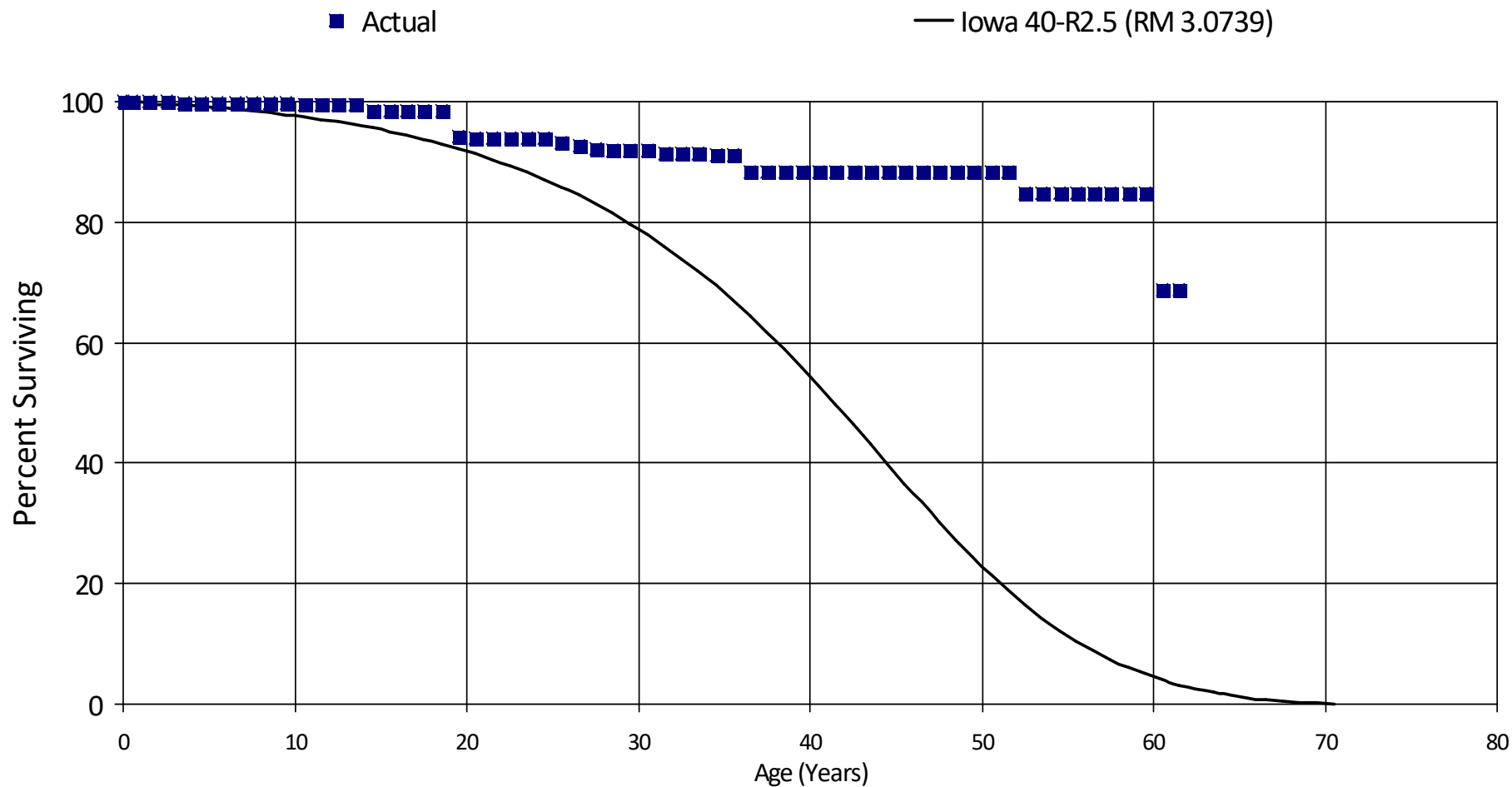
27.5	14,399	0	0.00000	1.00000	100.00
28.5	1,698	0	0.00000	1.00000	100.00
29.5	1,698	0	0.00000	1.00000	100.00
30.5	1,698	0	0.00000	1.00000	100.00
31.5	1,698	0	0.00000	1.00000	100.00
32.5	1,698	0	0.00000	1.00000	100.00
33.5	1,698	0	0.00000	1.00000	100.00
34.5	1,698	0	0.00000	1.00000	100.00
35.5	1,698	0	0.00000	1.00000	100.00
36.5	1,698	0	0.00000	1.00000	100.00
37.5	1,698	0	0.00000	1.00000	100.00
38.5	1,698	0	0.00000	1.00000	100.00
39.5	1,698	0	0.00000	1.00000	100.00
40.5	1,698	0	0.00000	1.00000	100.00
41.5	1,698	0	0.00000	1.00000	100.00
42.5	1,698	0	0.00000	1.00000	100.00
43.5	1,500	0	0.00000	1.00000	100.00
44.5	1,500	0	0.00000	1.00000	100.00
45.5	1,500	0	0.00000	1.00000	100.00
46.5	1,500	0	0.00000	1.00000	100.00
47.5	1,500	0	0.00000	1.00000	100.00
48.5	1,500	0	0.00000	1.00000	100.00
49.5	1,500	0	0.00000	1.00000	100.00
50.5	1,500	0	0.00000	1.00000	100.00
Totals:		0			

ATCO Electric Yukon

Account 362.00 - Distribution Station Equipment

Placement Band - 1960 - 2022 Experience Band - 1985 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 362.00 - Distribution Station Equipment

Placement Band - 1960 - 2022 Experience Band - 1985 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	7,814,718	0	0.00000	1.00000	100.00
0.5	7,761,400	211	0.00003	0.99997	100.00
1.5	7,700,288	5,152	0.00067	0.99933	100.00
2.5	7,304,468	7,648	0.00105	0.99895	99.93
3.5	7,232,036	786	0.00011	0.99989	99.83
4.5	6,672,010	2,182	0.00033	0.99967	99.82
5.5	5,203,187	723	0.00014	0.99986	99.79
6.5	4,899,668	0	0.00000	1.00000	99.78
7.5	4,526,767	0	0.00000	1.00000	99.78
8.5	4,526,767	4,215	0.00093	0.99907	99.78
9.5	4,522,551	6,207	0.00137	0.99863	99.69
10.5	3,140,425	0	0.00000	1.00000	99.55
11.5	3,140,425	1,638	0.00052	0.99948	99.55
12.5	3,138,788	0	0.00000	1.00000	99.50
13.5	3,138,788	30,232	0.00963	0.99037	99.50
14.5	3,108,556	90	0.00003	0.99997	98.54
15.5	3,108,466	1,182	0.00038	0.99962	98.54
16.5	3,084,945	0	0.00000	1.00000	98.50
17.5	2,617,203	176	0.00007	0.99993	98.50
18.5	2,617,027	118,051	0.04511	0.95489	98.49
19.5	2,498,977	3,489	0.00140	0.99860	94.05
20.5	2,495,488	0	0.00000	1.00000	93.92
21.5	2,328,918	0	0.00000	1.00000	93.92
22.5	2,281,370	0	0.00000	1.00000	93.92
23.5	2,238,242	0	0.00000	1.00000	93.92
24.5	2,238,242	17,796	0.00795	0.99205	93.92
25.5	2,218,994	14,409	0.00649	0.99351	93.17
26.5	2,008,493	10,430	0.00519	0.99481	92.57

ATCO Electric Yukon

Account 362.00 - Distribution Station Equipment

Placement Band - 1960 - 2022 Experience Band - 1985 - 2022

27.5	1,998,063	2,604	0.00130	0.99870	92.09
28.5	1,958,917	3,867	0.00197	0.99803	91.97
29.5	1,828,196	0	0.00000	1.00000	91.79
30.5	1,729,637	8,878	0.00513	0.99487	91.79
31.5	1,473,584	0	0.00000	1.00000	91.32
32.5	1,341,384	0	0.00000	1.00000	91.32
33.5	1,304,801	1,565	0.00120	0.99880	91.32
34.5	1,242,329	0	0.00000	1.00000	91.21
35.5	906,532	28,162	0.03107	0.96893	91.21
36.5	788,216	0	0.00000	1.00000	88.38
37.5	746,259	0	0.00000	1.00000	88.38
38.5	746,259	0	0.00000	1.00000	88.38
39.5	746,259	0	0.00000	1.00000	88.38
40.5	746,259	0	0.00000	1.00000	88.38
41.5	619,929	0	0.00000	1.00000	88.38
42.5	539,094	0	0.00000	1.00000	88.38
43.5	524,140	0	0.00000	1.00000	88.38
44.5	524,140	0	0.00000	1.00000	88.38
45.5	453,256	0	0.00000	1.00000	88.38
46.5	120,164	0	0.00000	1.00000	88.38
47.5	120,164	0	0.00000	1.00000	88.38
48.5	119,718	0	0.00000	1.00000	88.38
49.5	63,168	0	0.00000	1.00000	88.38
50.5	61,079	0	0.00000	1.00000	88.38
51.5	21,120	866	0.04100	0.95900	88.38
52.5	20,253	0	0.00000	1.00000	84.76
53.5	19,371	0	0.00000	1.00000	84.76
54.5	3,632	0	0.00000	1.00000	84.76
55.5	3,632	0	0.00000	1.00000	84.76
56.5	3,632	0	0.00000	1.00000	84.76
57.5	3,632	0	0.00000	1.00000	84.76

ATCO Electric Yukon
Account 362.00 - Distribution Station Equipment

Placement Band - 1960 - 2022 Experience Band - 1985 - 2022

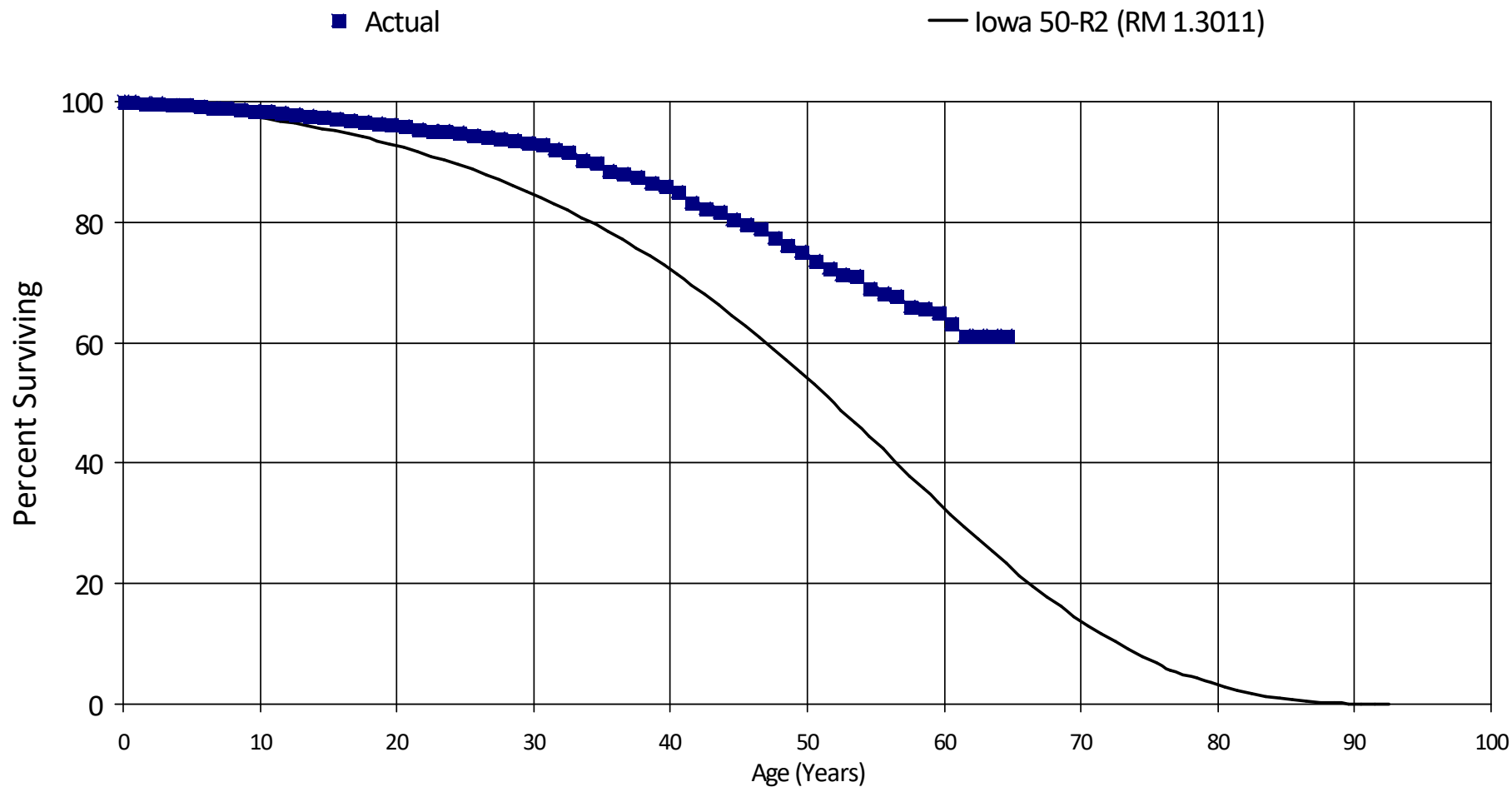
58.5	3,632	0	0.00000	1.00000	84.76
59.5	3,632	685	0.18862	0.81138	84.76
60.5	2,947	0	0.00000	1.00000	68.77
61.5	2,947	0	0.00000	1.00000	68.77
Totals:		271,244			

ATCO Electric Yukon

Account 364.00 - Poles, Towers, and Fixtures

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon
Account 364.00 - Poles, Towers, and Fixtures

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	55,599,307	2,603	0.00005	0.99995	100.00
0.5	53,603,813	93,214	0.00174	0.99826	100.00
1.5	51,215,309	89,019	0.00174	0.99826	99.83
2.5	49,226,655	35,018	0.00071	0.99929	99.66
3.5	47,001,923	59,554	0.00127	0.99873	99.59
4.5	45,443,205	105,013	0.00231	0.99769	99.46
5.5	44,040,030	65,084	0.00148	0.99852	99.23
6.5	42,542,299	71,824	0.00169	0.99831	99.08
7.5	40,954,079	25,226	0.00062	0.99938	98.91
8.5	38,359,547	95,144	0.00248	0.99752	98.85
9.5	35,617,180	82,756	0.00232	0.99768	98.60
10.5	31,671,978	64,889	0.00205	0.99795	98.37
11.5	28,386,011	54,322	0.00191	0.99809	98.17
12.5	26,470,366	69,662	0.00263	0.99737	97.98
13.5	24,825,604	42,214	0.00170	0.99830	97.72
14.5	23,180,365	94,166	0.00406	0.99594	97.55
15.5	22,016,815	57,345	0.00260	0.99740	97.15
16.5	20,612,486	56,230	0.00273	0.99727	96.90
17.5	19,588,593	32,322	0.00165	0.99835	96.64
18.5	18,277,010	58,486	0.00320	0.99680	96.48
19.5	17,447,026	61,527	0.00353	0.99647	96.17
20.5	16,405,014	53,583	0.00327	0.99673	95.83
21.5	15,724,055	39,491	0.00251	0.99749	95.52
22.5	15,096,833	34,407	0.00228	0.99772	95.28
23.5	14,299,915	39,249	0.00274	0.99726	95.06
24.5	13,590,696	49,606	0.00365	0.99635	94.80
25.5	12,793,851	23,220	0.00181	0.99819	94.45
26.5	11,872,675	41,544	0.00350	0.99650	94.28

ATCO Electric Yukon
Account 364.00 - Poles, Towers, and Fixtures

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

27.5	10,949,412	45,113	0.00412	0.99588	93.95
28.5	9,928,124	38,712	0.00390	0.99610	93.56
29.5	8,320,752	37,169	0.00447	0.99553	93.20
30.5	7,154,384	59,672	0.00834	0.99166	92.78
31.5	6,338,336	20,604	0.00325	0.99675	92.01
32.5	5,242,019	73,161	0.01396	0.98604	91.71
33.5	4,604,223	35,722	0.00776	0.99224	90.43
34.5	4,244,946	58,244	0.01372	0.98628	89.73
35.5	3,787,169	22,176	0.00586	0.99414	88.50
36.5	3,509,645	17,019	0.00485	0.99515	87.98
37.5	2,750,567	31,381	0.01141	0.98859	87.55
38.5	2,467,094	17,563	0.00712	0.99288	86.55
39.5	2,317,581	25,567	0.01103	0.98897	85.93
40.5	1,948,090	36,874	0.01893	0.98107	84.98
41.5	1,798,821	22,528	0.01252	0.98748	83.37
42.5	1,688,774	11,017	0.00652	0.99348	82.33
43.5	1,489,508	22,614	0.01518	0.98482	81.79
44.5	1,278,175	14,476	0.01133	0.98867	80.55
45.5	1,044,698	7,856	0.00752	0.99248	79.64
46.5	945,395	19,626	0.02076	0.97924	79.04
47.5	791,291	13,739	0.01736	0.98264	77.40
48.5	707,326	8,770	0.01240	0.98760	76.06
49.5	619,914	13,262	0.02139	0.97861	75.12
50.5	495,223	8,323	0.01681	0.98319	73.51
51.5	473,817	6,332	0.01336	0.98664	72.27
52.5	457,409	2,274	0.00497	0.99503	71.30
53.5	357,681	9,219	0.02577	0.97423	70.95
54.5	276,847	3,106	0.01122	0.98878	69.12
55.5	243,462	2,408	0.00989	0.99011	68.34
56.5	170,834	4,212	0.02466	0.97534	67.66
57.5	145,648	487	0.00334	0.99666	65.99

ATCO Electric Yukon
Account 364.00 - Poles, Towers, and Fixtures

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

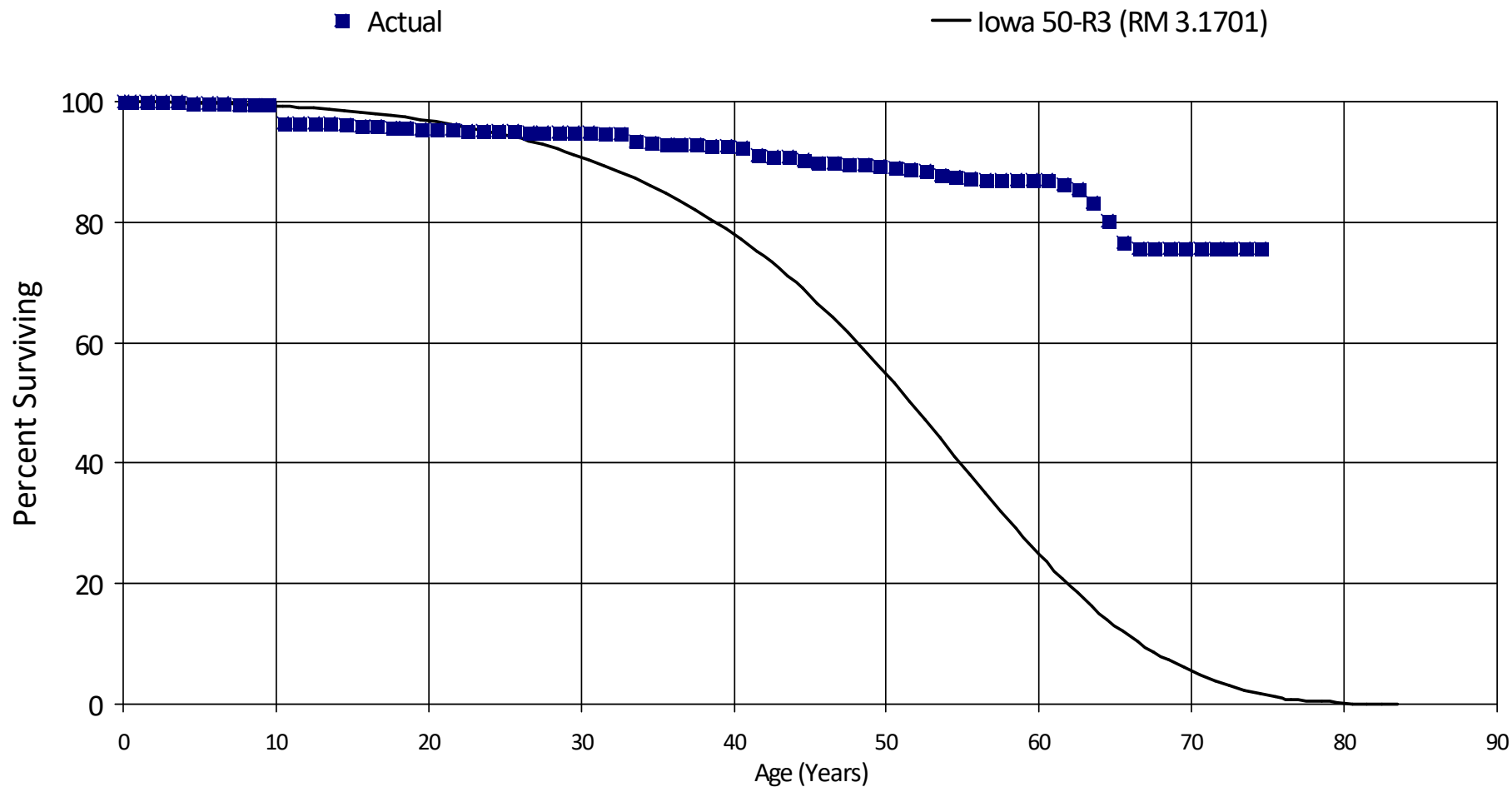
58.5	119,883	1,240	0.01034	0.98966	65.77
59.5	96,359	2,877	0.02986	0.97014	65.09
60.5	76,507	2,306	0.03014	0.96986	63.15
61.5	54,832	0	0.00000	1.00000	61.25
62.5	6,437	0	0.00000	1.00000	61.25
63.5	3,015	0	0.00000	1.00000	61.25
64.5	0	0	0.00000	0.00000	61.25
Totals:		2,292,367			

ATCO Electric Yukon

Account 365.00 - Overhead Conductors and Devices

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 365.00 - Overhead Conductors and Devices

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	29,955,808	1,575	0.00005	0.99995	100.00
0.5	29,370,387	12,079	0.00041	0.99959	100.00
1.5	28,909,430	10,374	0.00036	0.99964	99.96
2.5	28,479,268	7,649	0.00027	0.99973	99.92
3.5	28,066,215	14,599	0.00052	0.99948	99.89
4.5	27,638,324	38,304	0.00139	0.99861	99.84
5.5	27,170,881	12,398	0.00046	0.99954	99.70
6.5	26,410,199	25,079	0.00095	0.99905	99.65
7.5	25,487,799	20,783	0.00082	0.99918	99.56
8.5	23,814,970	15,028	0.00063	0.99937	99.48
9.5	22,394,455	641,949	0.02867	0.97133	99.42
10.5	20,105,414	11,016	0.00055	0.99945	96.57
11.5	18,538,272	19,431	0.00105	0.99895	96.52
12.5	17,167,565	18,491	0.00108	0.99892	96.42
13.5	16,210,531	15,057	0.00093	0.99907	96.32
14.5	14,678,728	42,496	0.00290	0.99710	96.23
15.5	13,061,296	11,419	0.00087	0.99913	95.95
16.5	11,889,692	13,139	0.00111	0.99889	95.87
17.5	11,083,083	10,108	0.00091	0.99909	95.76
18.5	10,925,457	14,644	0.00134	0.99866	95.67
19.5	10,487,214	7,242	0.00069	0.99931	95.54
20.5	9,969,388	9,092	0.00091	0.99909	95.47
21.5	9,497,132	8,441	0.00089	0.99911	95.38
22.5	9,014,707	4,251	0.00047	0.99953	95.30
23.5	8,599,902	3,347	0.00039	0.99961	95.26
24.5	8,186,748	5,918	0.00072	0.99928	95.22
25.5	7,661,154	8,169	0.00107	0.99893	95.15
26.5	7,093,315	8,166	0.00115	0.99885	95.05

ATCO Electric Yukon

Account 365.00 - Overhead Conductors and Devices

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

27.5	6,727,520	4,296	0.00064	0.99936	94.94
28.5	6,264,153	2,196	0.00035	0.99965	94.88
29.5	5,469,512	2,262	0.00041	0.99959	94.85
30.5	4,983,052	3,286	0.00066	0.99934	94.81
31.5	4,461,370	3,859	0.00086	0.99914	94.75
32.5	3,778,485	54,761	0.01449	0.98551	94.67
33.5	3,391,438	3,202	0.00094	0.99906	93.30
34.5	3,149,051	9,949	0.00316	0.99684	93.21
35.5	2,812,683	3,977	0.00141	0.99859	92.92
36.5	2,675,025	418	0.00016	0.99984	92.79
37.5	1,996,707	3,034	0.00152	0.99848	92.78
38.5	1,873,951	1,986	0.00106	0.99894	92.64
39.5	1,739,918	1,368	0.00079	0.99921	92.54
40.5	1,528,902	24,533	0.01605	0.98395	92.47
41.5	1,419,642	290	0.00020	0.99980	90.99
42.5	1,298,294	1,587	0.00122	0.99878	90.97
43.5	1,221,920	8,207	0.00672	0.99328	90.86
44.5	1,125,779	3,522	0.00313	0.99687	90.25
45.5	978,567	800	0.00082	0.99918	89.97
46.5	871,636	3,224	0.00370	0.99630	89.90
47.5	724,084	340	0.00047	0.99953	89.57
48.5	667,510	920	0.00138	0.99862	89.53
49.5	580,556	2,140	0.00369	0.99631	89.41
50.5	470,450	1,282	0.00273	0.99727	89.08
51.5	450,513	1,295	0.00287	0.99713	88.84
52.5	423,823	4,140	0.00977	0.99023	88.59
53.5	302,051	461	0.00153	0.99847	87.72
54.5	237,045	1,012	0.00427	0.99573	87.59
55.5	202,158	516	0.00255	0.99745	87.22
56.5	157,875	0	0.00000	1.00000	87.00
57.5	143,341	0	0.00000	1.00000	87.00

ATCO Electric Yukon
Account 365.00 - Overhead Conductors and Devices

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

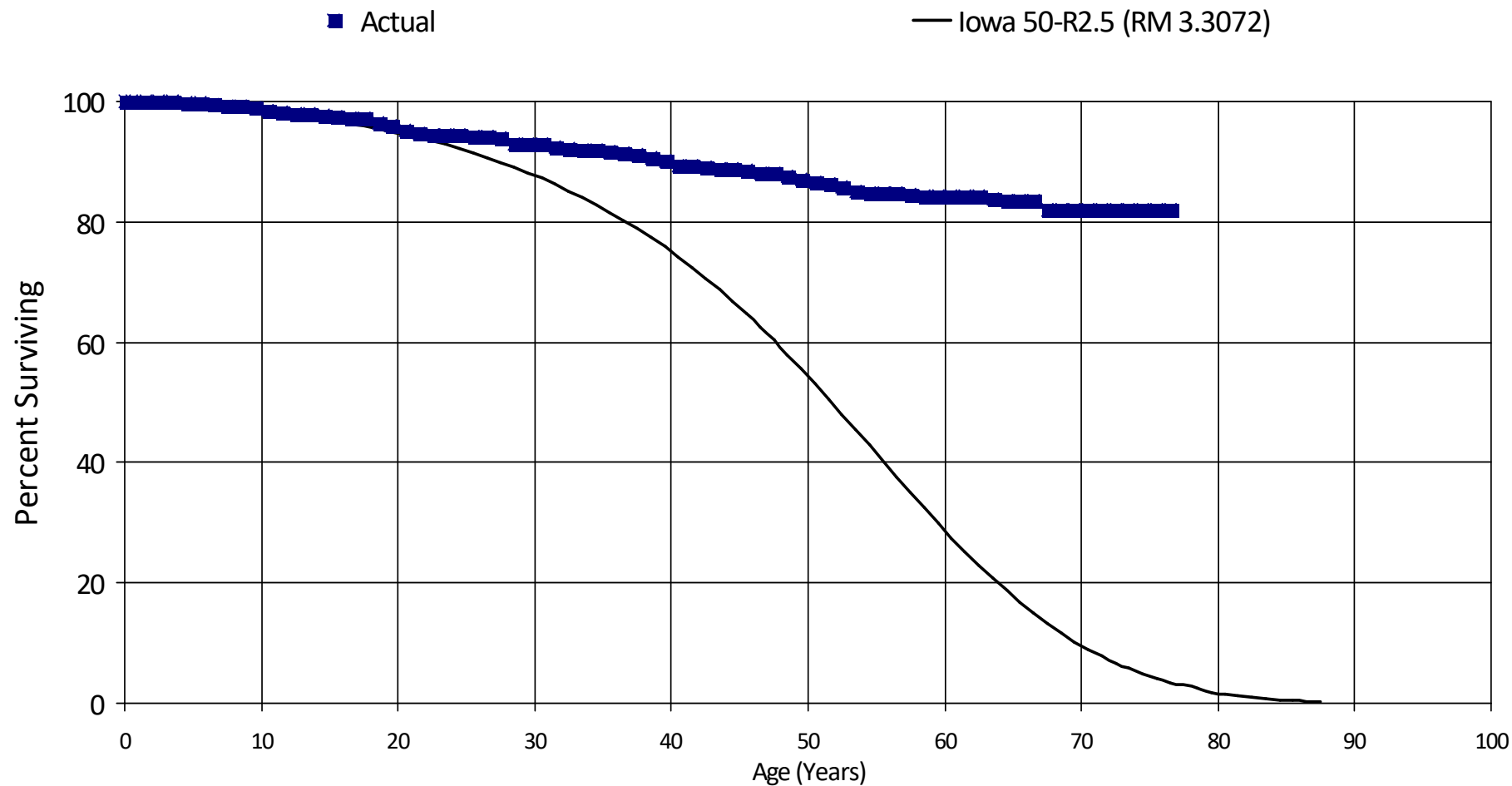
58.5	132,800	0	0.00000	1.00000	87.00
59.5	118,557	47	0.00040	0.99960	87.00
60.5	106,673	779	0.00730	0.99270	86.97
61.5	96,601	1,021	0.01057	0.98943	86.34
62.5	23,607	608	0.02576	0.97424	85.43
63.5	14,960	528	0.03530	0.96470	83.23
64.5	8,873	398	0.04486	0.95514	80.29
65.5	7,553	116	0.01536	0.98464	76.69
66.5	4,694	0	0.00000	1.00000	75.51
67.5	4,276	0	0.00000	1.00000	75.51
68.5	1,638	0	0.00000	1.00000	75.51
69.5	506	0	0.00000	1.00000	75.51
70.5	300	0	0.00000	1.00000	75.51
71.5	161	0	0.00000	1.00000	75.51
72.5	145	0	0.00000	1.00000	75.51
73.5	33	0	0.00000	1.00000	75.51
74.5	0	0	0.00000	0.00000	75.51
Totals:		1,162,604			

ATCO Electric Yukon

Account 365.10 - Overhead Services

Placement Band - 1945 - 2022 Experience Band - 1962 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 365.10 - Overhead Services

Placement Band - 1945 - 2022 Experience Band - 1962 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	5,429,138	0	0.00000	1.00000	100.00
0.5	4,999,214	529	0.00011	0.99989	100.00
1.5	4,532,773	590	0.00013	0.99987	99.99
2.5	4,322,405	3,539	0.00082	0.99918	99.98
3.5	4,005,208	4,653	0.00116	0.99884	99.90
4.5	3,680,193	1,641	0.00045	0.99955	99.78
5.5	3,404,588	9,422	0.00277	0.99723	99.74
6.5	3,231,487	5,949	0.00184	0.99816	99.46
7.5	3,206,499	5,332	0.00166	0.99834	99.28
8.5	3,183,193	4,101	0.00129	0.99871	99.12
9.5	3,062,597	13,556	0.00443	0.99557	98.99
10.5	2,913,692	9,329	0.00320	0.99680	98.55
11.5	2,684,454	4,323	0.00161	0.99839	98.23
12.5	2,651,382	6,072	0.00229	0.99771	98.07
13.5	2,516,283	5,359	0.00213	0.99787	97.85
14.5	2,294,470	2,997	0.00131	0.99869	97.64
15.5	2,106,185	4,847	0.00230	0.99770	97.51
16.5	1,942,942	3,519	0.00181	0.99819	97.29
17.5	1,880,136	11,318	0.00602	0.99398	97.11
18.5	1,804,756	11,264	0.00624	0.99376	96.53
19.5	1,740,047	13,760	0.00791	0.99209	95.93
20.5	1,669,795	6,805	0.00408	0.99592	95.17
21.5	1,640,342	4,472	0.00273	0.99727	94.78
22.5	1,608,950	2,074	0.00129	0.99871	94.52
23.5	1,570,133	1,887	0.00120	0.99880	94.40
24.5	1,524,193	458	0.00030	0.99970	94.29
25.5	1,482,103	1,484	0.00100	0.99900	94.26
26.5	1,480,619	4,401	0.00297	0.99703	94.17

ATCO Electric Yukon Account 365.10 - Overhead Services

Placement Band - 1945 - 2022 Experience Band - 1962 - 2022

27.5	1,422,592	14,663	0.01031	0.98969	93.89
28.5	1,344,290	1,186	0.00088	0.99912	92.92
29.5	1,231,448	725	0.00059	0.99941	92.84
30.5	1,071,172	4,805	0.00449	0.99551	92.79
31.5	973,288	3,486	0.00358	0.99642	92.37
32.5	881,754	716	0.00081	0.99919	92.04
33.5	802,128	1,318	0.00164	0.99836	91.97
34.5	734,631	1,700	0.00231	0.99769	91.82
35.5	665,326	1,835	0.00276	0.99724	91.61
36.5	613,045	1,800	0.00294	0.99706	91.36
37.5	579,003	2,733	0.00472	0.99528	91.09
38.5	536,840	3,659	0.00682	0.99318	90.66
39.5	493,077	3,691	0.00749	0.99251	90.04
40.5	460,976	670	0.00145	0.99855	89.37
41.5	411,017	474	0.00115	0.99885	89.24
42.5	370,011	1,086	0.00294	0.99706	89.14
43.5	318,657	388	0.00122	0.99878	88.88
44.5	256,551	426	0.00166	0.99834	88.77
45.5	214,866	1,048	0.00488	0.99512	88.62
46.5	176,462	479	0.00271	0.99729	88.19
47.5	142,571	623	0.00437	0.99563	87.95
48.5	122,685	683	0.00557	0.99443	87.57
49.5	108,607	691	0.00636	0.99364	87.08
50.5	95,063	165	0.00174	0.99826	86.53
51.5	83,380	553	0.00663	0.99337	86.38
52.5	71,215	630	0.00885	0.99115	85.81
53.5	63,164	172	0.00272	0.99728	85.05
54.5	55,620	27	0.00049	0.99951	84.82
55.5	48,955	56	0.00114	0.99886	84.78
56.5	44,338	43	0.00097	0.99903	84.68
57.5	41,099	146	0.00355	0.99645	84.60

ATCO Electric Yukon Account 365.10 - Overhead Services

Placement Band - 1945 - 2022 Experience Band - 1962 - 2022

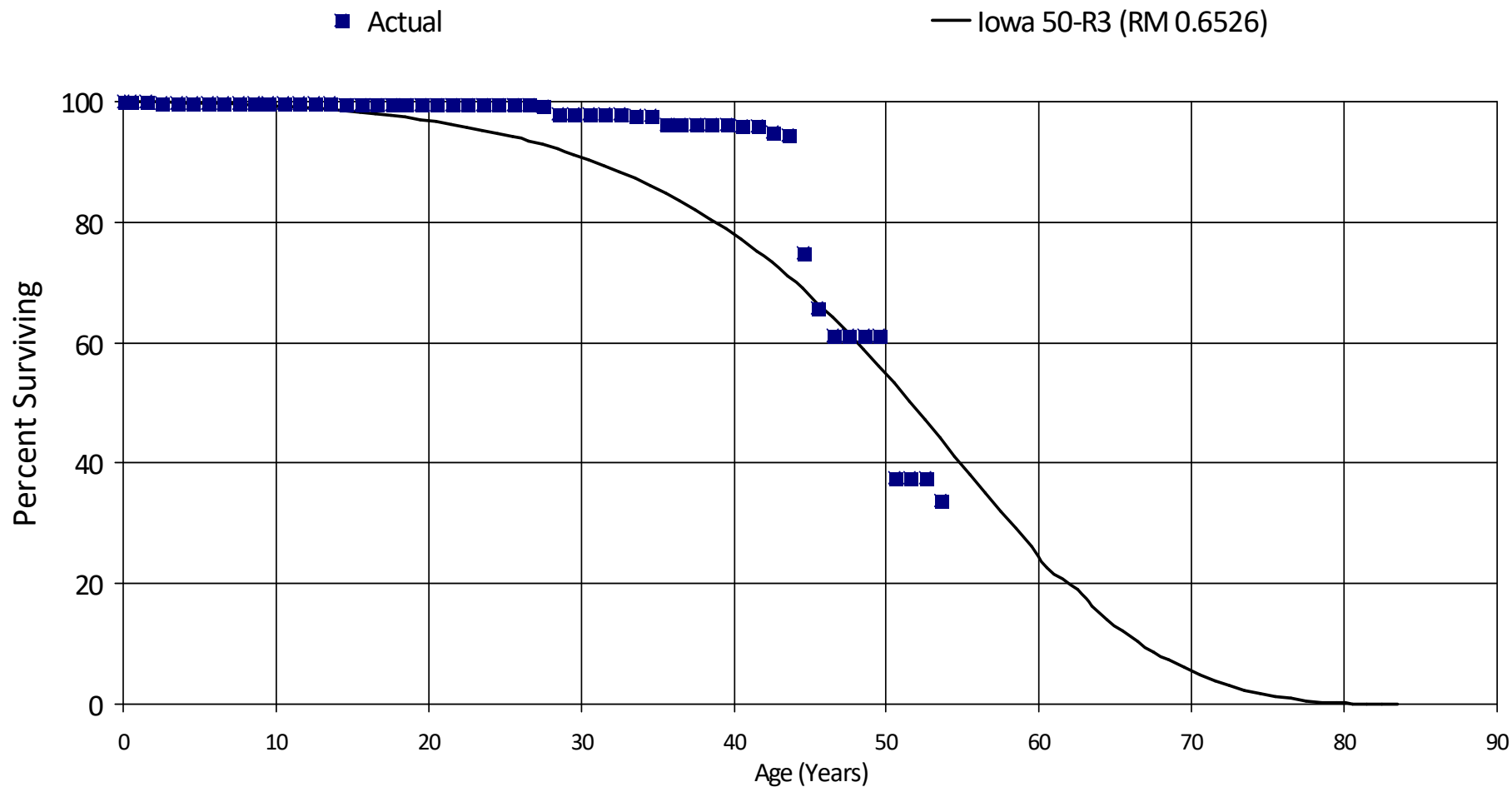
58.5	36,548	7	0.00019	0.99981	84.30
59.5	34,045	4	0.00012	0.99988	84.28
60.5	28,768	2	0.00007	0.99993	84.27
61.5	27,017	23	0.00085	0.99915	84.26
62.5	25,463	140	0.00550	0.99450	84.19
63.5	23,935	34	0.00142	0.99858	83.73
64.5	22,767	21	0.00092	0.99908	83.61
65.5	19,157	22	0.00115	0.99885	83.53
66.5	15,814	274	0.01733	0.98267	83.43
67.5	12,771	0	0.00000	1.00000	81.98
68.5	9,576	0	0.00000	1.00000	81.98
69.5	7,138	0	0.00000	1.00000	81.98
70.5	5,772	0	0.00000	1.00000	81.98
71.5	4,871	0	0.00000	1.00000	81.98
72.5	4,063	0	0.00000	1.00000	81.98
73.5	3,389	0	0.00000	1.00000	81.98
74.5	2,820	0	0.00000	1.00000	81.98
75.5	2,344	0	0.00000	1.00000	81.98
76.5	1,929	0	0.00000	1.00000	81.98
Totals:		194,885			

ATCO Electric Yukon

Account 367.00 - Underground Conductor and Devices

Placement Band - 1961 - 2022 Experience Band - 1985 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon
Account 367.00 - Underground Conductor and Devices
 Placement Band - 1961 - 2022 Experience Band - 1985 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	34,530,047	306	0.00001	0.99999	100.00
0.5	33,538,857	12,233	0.00036	0.99964	100.00
1.5	33,082,930	42,602	0.00129	0.99871	99.96
2.5	31,558,844	7	0.00000	1.00000	99.83
3.5	28,417,507	6,351	0.00022	0.99978	99.83
4.5	27,208,629	3,780	0.00014	0.99986	99.81
5.5	26,761,499	314	0.00001	0.99999	99.80
6.5	26,026,340	14,174	0.00054	0.99946	99.80
7.5	25,174,853	6,986	0.00028	0.99972	99.75
8.5	24,213,227	3,242	0.00013	0.99987	99.72
9.5	23,406,185	80	0.00000	1.00000	99.71
10.5	20,944,391	1,186	0.00006	0.99994	99.71
11.5	20,099,471	4,560	0.00023	0.99977	99.70
12.5	19,466,113	20	0.00000	1.00000	99.68
13.5	18,247,592	30,567	0.00168	0.99832	99.68
14.5	17,421,214	2,151	0.00012	0.99988	99.51
15.5	16,592,557	525	0.00003	0.99997	99.50
16.5	15,853,145	41	0.00000	1.00000	99.50
17.5	15,128,606	490	0.00003	0.99997	99.50
18.5	14,130,504	3,674	0.00026	0.99974	99.50
19.5	12,976,714	12	0.00000	1.00000	99.47
20.5	11,965,460	81	0.00001	0.99999	99.47
21.5	10,241,565	72	0.00001	0.99999	99.47
22.5	9,713,950	11	0.00000	1.00000	99.47
23.5	8,838,860	38	0.00000	1.00000	99.47
24.5	8,180,689	660	0.00008	0.99992	99.47
25.5	7,059,632	3	0.00000	1.00000	99.46
26.5	6,526,369	9,259	0.00142	0.99858	99.46

ATCO Electric Yukon

Account 367.00 - Underground Conductor and Devices

Placement Band - 1961 - 2022 Experience Band - 1985 - 2022

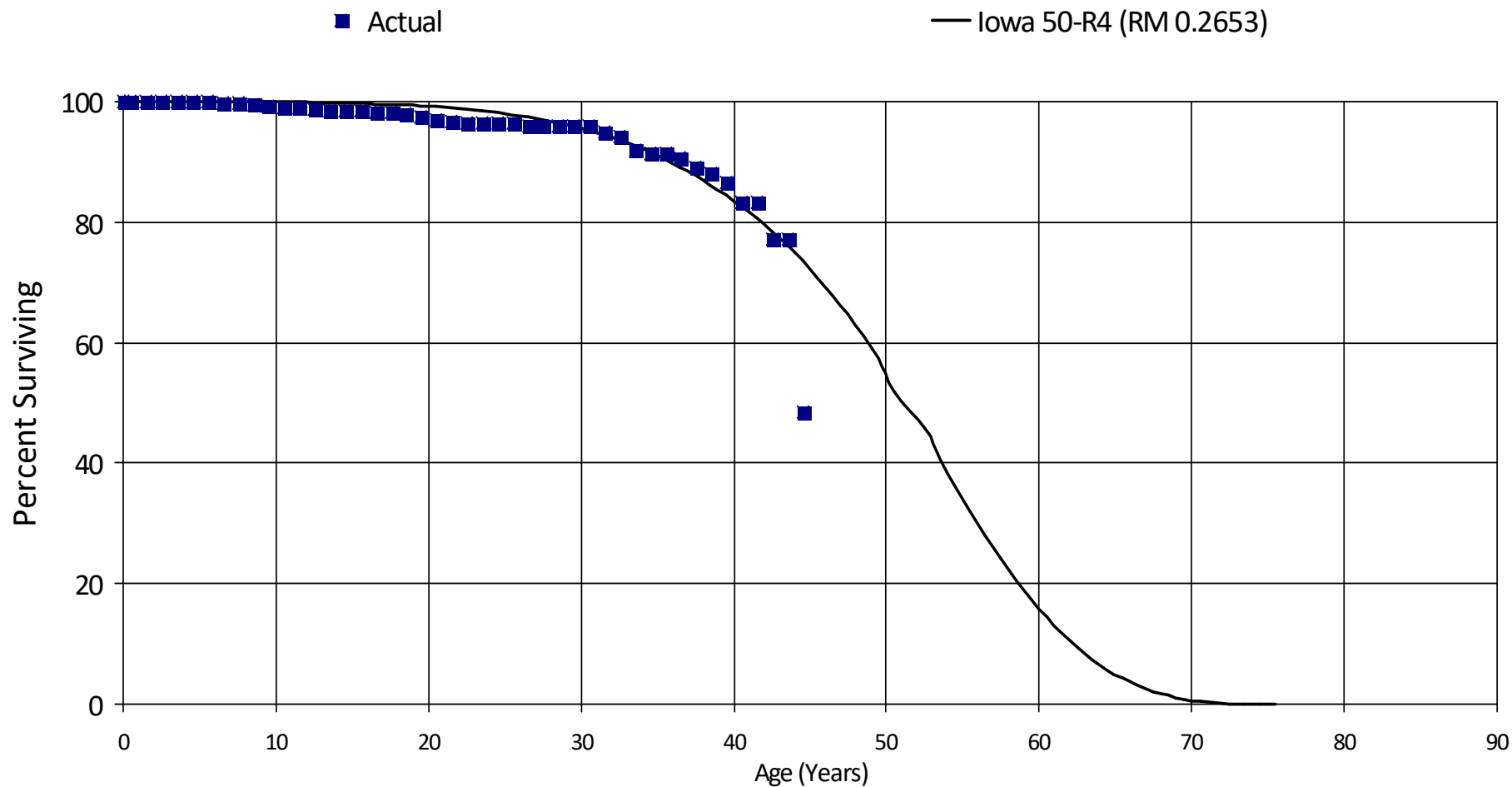
27.5	5,392,396	77,437	0.01436	0.98564	99.32
28.5	5,047,137	19	0.00000	1.00000	97.89
29.5	4,050,578	14	0.00000	1.00000	97.89
30.5	3,314,086	590	0.00018	0.99982	97.89
31.5	3,218,201	656	0.00020	0.99980	97.87
32.5	2,986,658	443	0.00015	0.99985	97.85
33.5	1,605,302	2,081	0.00130	0.99870	97.84
34.5	1,532,959	21,894	0.01428	0.98572	97.71
35.5	1,329,942	0	0.00000	1.00000	96.31
36.5	1,307,976	2,684	0.00205	0.99795	96.31
37.5	1,244,062	0	0.00000	1.00000	96.11
38.5	1,211,386	0	0.00000	1.00000	96.11
39.5	1,143,740	2,077	0.00182	0.99818	96.11
40.5	1,092,352	0	0.00000	1.00000	95.94
41.5	1,090,557	10,200	0.00935	0.99065	95.94
42.5	368,459	2,544	0.00690	0.99310	95.04
43.5	350,786	72,974	0.20803	0.79197	94.38
44.5	78,470	9,478	0.12078	0.87922	74.75
45.5	68,460	4,701	0.06867	0.93133	65.72
46.5	4,992	0	0.00000	1.00000	61.21
47.5	4,992	0	0.00000	1.00000	61.21
48.5	4,992	0	0.00000	1.00000	61.21
49.5	299	115	0.38436	0.61564	61.21
50.5	184	0	0.00000	1.00000	37.68
51.5	119	0	0.00000	1.00000	37.68
52.5	119	12	0.10084	0.89916	37.68
53.5	0	0	0.00000	0.00000	33.88
Totals:		351,344			

ATCO Electric Yukon

Account 367.10 - Underground Services

Placement Band - 1971 - 2022 Experience Band - 1991 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 367.10 - Underground Services

Placement Band - 1971 - 2022 Experience Band - 1991 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	6,383,755	0	0.00000	1.00000	100.00
0.5	5,682,344	168	0.00003	0.99997	100.00
1.5	5,257,229	143	0.00003	0.99997	100.00
2.5	4,719,543	1,930	0.00041	0.99959	100.00
3.5	4,187,361	626	0.00015	0.99985	99.96
4.5	3,895,485	659	0.00017	0.99983	99.95
5.5	3,663,083	2,690	0.00073	0.99927	99.93
6.5	3,296,706	7,591	0.00230	0.99770	99.86
7.5	3,284,152	3,991	0.00122	0.99878	99.63
8.5	3,256,130	7,053	0.00217	0.99783	99.51
9.5	3,122,147	8,856	0.00284	0.99716	99.29
10.5	2,967,628	4,111	0.00139	0.99861	99.01
11.5	2,750,626	2,928	0.00106	0.99894	98.87
12.5	2,654,249	4,746	0.00179	0.99821	98.77
13.5	2,610,945	2,466	0.00094	0.99906	98.59
14.5	2,517,300	1,931	0.00077	0.99923	98.50
15.5	2,357,953	2,502	0.00106	0.99894	98.42
16.5	2,124,944	2,119	0.00100	0.99900	98.32
17.5	1,977,315	7,391	0.00374	0.99626	98.22
18.5	1,765,291	8,318	0.00471	0.99529	97.85
19.5	1,685,372	7,586	0.00450	0.99550	97.39
20.5	1,608,413	3,767	0.00234	0.99766	96.95
21.5	1,541,876	3,134	0.00203	0.99797	96.72
22.5	1,526,061	946	0.00062	0.99938	96.52
23.5	1,455,005	662	0.00045	0.99955	96.46
24.5	1,355,997	289	0.00021	0.99979	96.42
25.5	1,231,754	4,908	0.00398	0.99602	96.40
26.5	1,005,676	847	0.00084	0.99916	96.02

ATCO Electric Yukon Account 367.10 - Underground Services

Placement Band - 1971 - 2022 Experience Band - 1991 - 2022

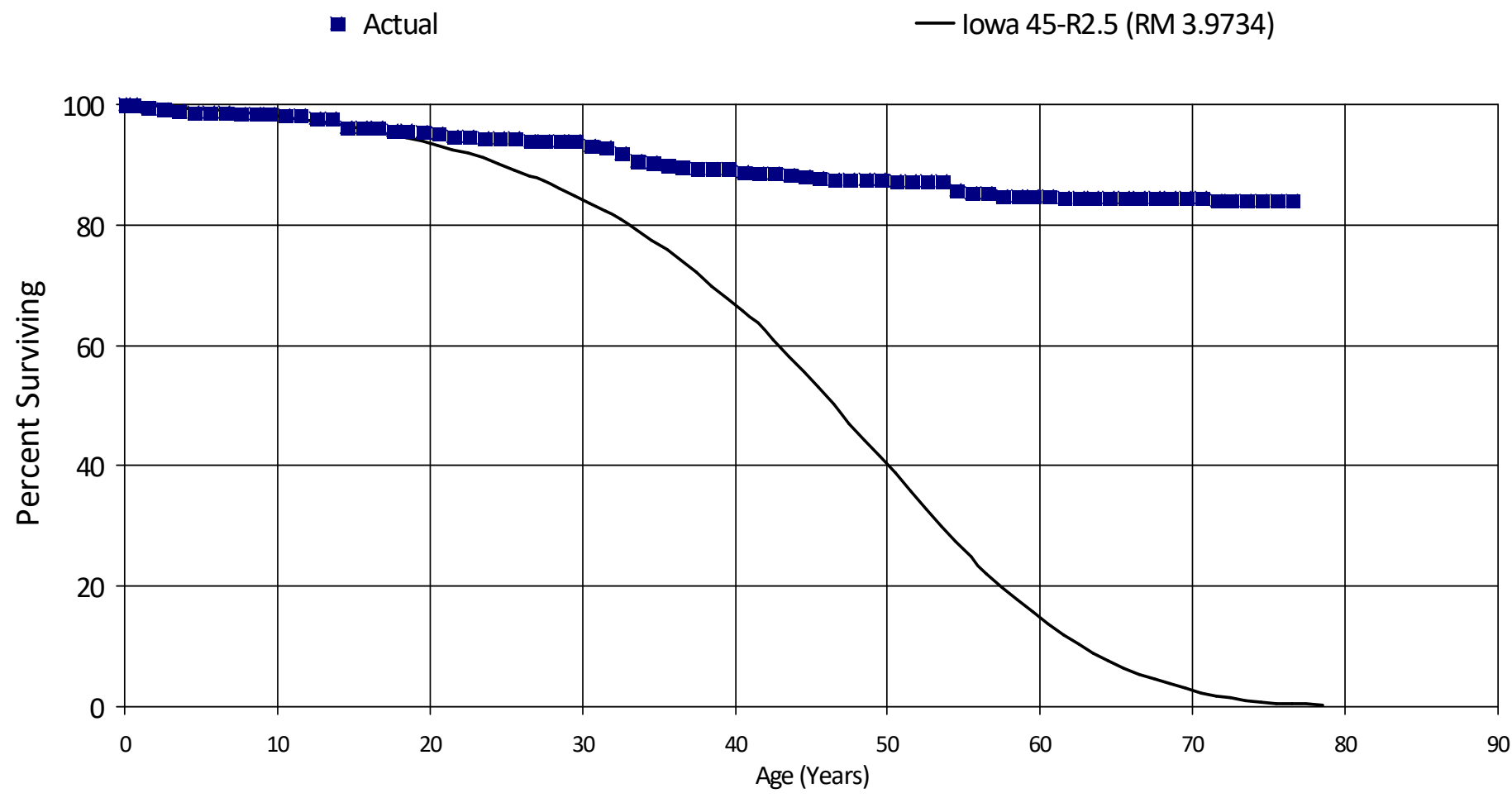
27.5	881,685	468	0.00053	0.99947	95.94
28.5	797,197	297	0.00037	0.99963	95.89
29.5	598,852	208	0.00035	0.99965	95.85
30.5	447,651	4,318	0.00965	0.99035	95.82
31.5	358,107	3,161	0.00883	0.99117	94.90
32.5	293,519	6,883	0.02345	0.97655	94.06
33.5	224,395	1,084	0.00483	0.99517	91.85
34.5	168,007	68	0.00040	0.99960	91.41
35.5	103,745	980	0.00945	0.99055	91.37
36.5	60,218	899	0.01493	0.98507	90.51
37.5	57,486	746	0.01298	0.98702	89.16
38.5	51,006	856	0.01678	0.98322	88.00
39.5	46,105	1,799	0.03902	0.96098	86.52
40.5	39,150	0	0.00000	1.00000	83.14
41.5	25,975	1,844	0.07099	0.92901	83.14
42.5	19,760	0	0.00000	1.00000	77.24
43.5	4,394	1,638	0.37279	0.62721	77.24
44.5	0	0	0.00000	0.00000	48.45
Totals:		117,607			

ATCO Electric Yukon

Account 368.00 - Line Transformers

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 368.00 - Line Transformers

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	42,481,376	16,453	0.00039	0.99961	100.00
0.5	40,724,724	235,917	0.00579	0.99421	99.96
1.5	39,325,913	68,120	0.00173	0.99827	99.38
2.5	37,799,329	119,528	0.00316	0.99684	99.21
3.5	35,778,791	33,502	0.00094	0.99906	98.90
4.5	34,054,712	15,825	0.00046	0.99954	98.81
5.5	33,209,136	49,801	0.00150	0.99850	98.76
6.5	31,512,153	26,316	0.00084	0.99916	98.61
7.5	30,069,962	13,073	0.00043	0.99957	98.53
8.5	28,844,046	23,928	0.00083	0.99917	98.49
9.5	27,376,000	17,000	0.00062	0.99938	98.41
10.5	25,149,586	23,299	0.00093	0.99907	98.35
11.5	23,337,913	126,515	0.00542	0.99458	98.26
12.5	21,798,103	10,249	0.00047	0.99953	97.73
13.5	20,072,205	282,874	0.01409	0.98591	97.68
14.5	17,842,018	24,232	0.00136	0.99864	96.30
15.5	16,231,430	16,276	0.00100	0.99900	96.17
16.5	14,737,246	51,508	0.00350	0.99650	96.07
17.5	13,299,330	21,390	0.00161	0.99839	95.73
18.5	12,203,874	25,865	0.00212	0.99788	95.58
19.5	11,437,897	27,263	0.00238	0.99762	95.38
20.5	10,873,232	42,314	0.00389	0.99611	95.15
21.5	10,373,620	23,456	0.00226	0.99774	94.78
22.5	10,028,589	11,096	0.00111	0.99889	94.57
23.5	9,656,041	7,163	0.00074	0.99926	94.47
24.5	9,154,820	5,176	0.00057	0.99943	94.40
25.5	8,696,838	36,969	0.00425	0.99575	94.35
26.5	8,006,875	2,829	0.00035	0.99965	93.95

ATCO Electric Yukon

Account 368.00 - Line Transformers

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

27.5	7,535,731	4,155	0.00055	0.99945	93.92
28.5	7,028,239	2,598	0.00037	0.99963	93.87
29.5	6,085,068	51,479	0.00846	0.99154	93.84
30.5	5,349,612	11,879	0.00222	0.99778	93.05
31.5	4,573,820	51,133	0.01118	0.98882	92.84
32.5	3,849,475	53,407	0.01387	0.98613	91.80
33.5	3,312,509	5,799	0.00175	0.99825	90.53
34.5	3,002,484	20,697	0.00689	0.99311	90.37
35.5	2,487,850	4,560	0.00183	0.99817	89.75
36.5	2,281,090	3,631	0.00159	0.99841	89.59
37.5	2,079,999	1,711	0.00082	0.99918	89.45
38.5	2,021,005	2,574	0.00127	0.99873	89.38
39.5	1,954,791	12,348	0.00632	0.99368	89.27
40.5	1,818,630	2,243	0.00123	0.99877	88.71
41.5	1,635,253	1,678	0.00103	0.99897	88.60
42.5	1,445,831	2,990	0.00207	0.99793	88.51
43.5	1,253,861	2,261	0.00180	0.99820	88.33
44.5	1,117,998	5,651	0.00505	0.99495	88.17
45.5	1,019,439	644	0.00063	0.99937	87.72
46.5	948,660	763	0.00080	0.99920	87.66
47.5	843,854	344	0.00041	0.99959	87.59
48.5	776,225	223	0.00029	0.99971	87.55
49.5	710,198	1,150	0.00162	0.99838	87.52
50.5	633,134	0	0.00000	1.00000	87.38
51.5	566,009	185	0.00033	0.99967	87.38
52.5	520,297	0	0.00000	1.00000	87.35
53.5	483,804	9,005	0.01861	0.98139	87.35
54.5	297,727	1,573	0.00528	0.99472	85.72
55.5	234,241	21	0.00009	0.99991	85.27
56.5	197,630	1,343	0.00680	0.99320	85.26
57.5	182,560	0	0.00000	1.00000	84.68

ATCO Electric Yukon

Account 368.00 - Line Transformers

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

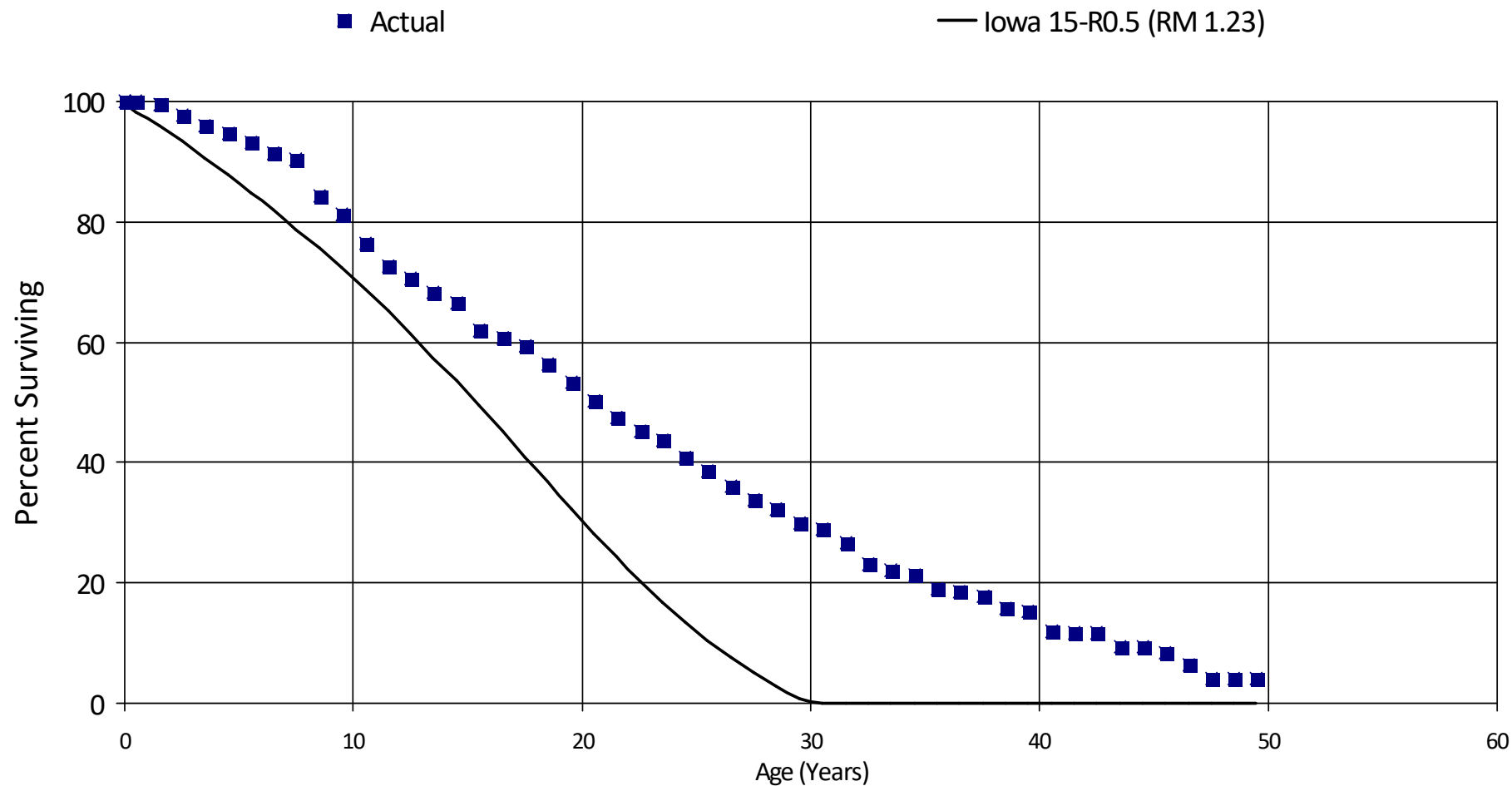
58.5	175,565	0	0.00000	1.00000	84.68
59.5	151,035	0	0.00000	1.00000	84.68
60.5	141,599	67	0.00047	0.99953	84.68
61.5	130,709	0	0.00000	1.00000	84.64
62.5	93,693	0	0.00000	1.00000	84.64
63.5	74,967	0	0.00000	1.00000	84.64
64.5	72,712	0	0.00000	1.00000	84.64
65.5	72,712	0	0.00000	1.00000	84.64
66.5	68,983	0	0.00000	1.00000	84.64
67.5	47,657	0	0.00000	1.00000	84.64
68.5	42,204	0	0.00000	1.00000	84.64
69.5	39,446	0	0.00000	1.00000	84.64
70.5	18,546	163	0.00879	0.99121	84.64
71.5	2,952	0	0.00000	1.00000	83.90
72.5	2,923	0	0.00000	1.00000	83.90
73.5	2,923	0	0.00000	1.00000	83.90
74.5	1,306	0	0.00000	1.00000	83.90
75.5	63	0	0.00000	1.00000	83.90
76.5	0	0	0.00000	0.00000	83.90
Totals:		1,614,212			

ATCO Electric Yukon

Account 370.00 - Conventional Meters

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 370.00 - Conventional Meters

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	4,883,862	5,978	0.00122	0.99878	100.00
0.5	4,797,002	16,389	0.00342	0.99658	99.88
1.5	4,752,338	84,872	0.01786	0.98214	99.54
2.5	4,551,542	80,702	0.01773	0.98227	97.76
3.5	4,361,337	58,257	0.01336	0.98664	96.03
4.5	4,240,531	70,575	0.01664	0.98336	94.75
5.5	4,014,363	80,869	0.02014	0.97986	93.17
6.5	3,784,815	43,035	0.01137	0.98863	91.29
7.5	3,470,926	227,214	0.06546	0.93454	90.25
8.5	3,069,168	113,375	0.03694	0.96306	84.34
9.5	2,619,839	159,563	0.06091	0.93909	81.22
10.5	2,162,614	105,304	0.04869	0.95131	76.27
11.5	1,855,210	52,818	0.02847	0.97153	72.56
12.5	1,646,445	52,955	0.03216	0.96784	70.49
13.5	1,578,449	37,115	0.02351	0.97649	68.22
14.5	1,533,170	105,235	0.06864	0.93136	66.62
15.5	1,407,829	31,564	0.02242	0.97758	62.05
16.5	1,367,580	29,535	0.02160	0.97840	60.66
17.5	1,322,049	65,548	0.04958	0.95042	59.35
18.5	1,142,478	62,723	0.05490	0.94510	56.41
19.5	985,525	56,748	0.05758	0.94242	53.31
20.5	896,237	48,500	0.05412	0.94588	50.24
21.5	810,308	38,261	0.04722	0.95278	47.52
22.5	661,242	24,705	0.03736	0.96264	45.28
23.5	564,914	34,454	0.06099	0.93901	43.59
24.5	485,754	28,152	0.05796	0.94204	40.93
25.5	441,466	28,996	0.06568	0.93432	38.56
26.5	403,852	26,561	0.06577	0.93423	36.03

ATCO Electric Yukon

Account 370.00 - Conventional Meters

Placement Band - 1945 - 2022 Experience Band - 1960 - 2022

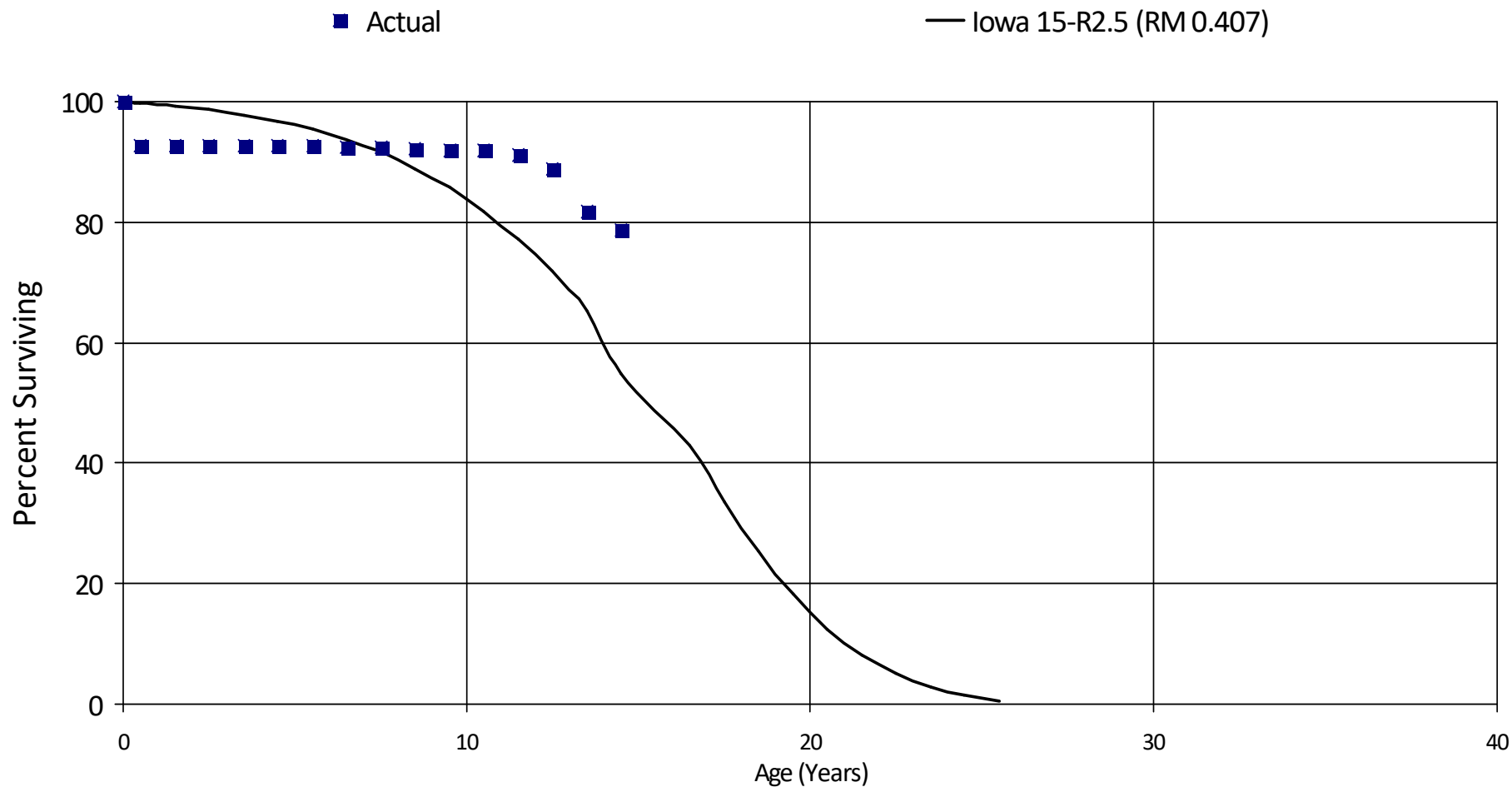
27.5	367,494	16,408	0.04465	0.95535	33.66
28.5	344,881	22,624	0.06560	0.93440	32.16
29.5	259,689	9,485	0.03652	0.96348	30.05
30.5	215,131	16,303	0.07578	0.92422	28.95
31.5	189,131	26,506	0.14015	0.85985	26.76
32.5	151,007	6,110	0.04046	0.95954	23.01
33.5	117,449	4,602	0.03918	0.96082	22.08
34.5	104,253	11,312	0.10851	0.89149	21.21
35.5	84,331	2,021	0.02397	0.97603	18.91
36.5	77,740	3,316	0.04265	0.95735	18.46
37.5	69,843	7,984	0.11431	0.88569	17.67
38.5	59,590	1,909	0.03204	0.96796	15.65
39.5	57,118	12,135	0.21245	0.78755	15.15
40.5	39,751	1,008	0.02536	0.97464	11.93
41.5	35,154	164	0.00467	0.99533	11.63
42.5	30,646	5,998	0.19572	0.80428	11.58
43.5	24,180	0	0.00000	1.00000	9.31
44.5	20,433	1,970	0.09641	0.90359	9.31
45.5	16,303	3,989	0.24468	0.75532	8.41
46.5	9,542	3,450	0.36157	0.63843	6.35
47.5	3,956	0	0.00000	1.00000	4.05
48.5	2,891	0	0.00000	1.00000	4.05
49.5	0	0	0.00000	0.00000	4.05
Totals:		1,927,297			

ATCO Electric Yukon

Account 371.00 - Automated Meters

Placement Band - 2007 - 2022 Experience Band - 2007 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon
Account 371.00 - Automated Meters

Placement Band - 2007 - 2022 Experience Band - 2007 - 2022

RETIREMENT RATE ANALYSIS

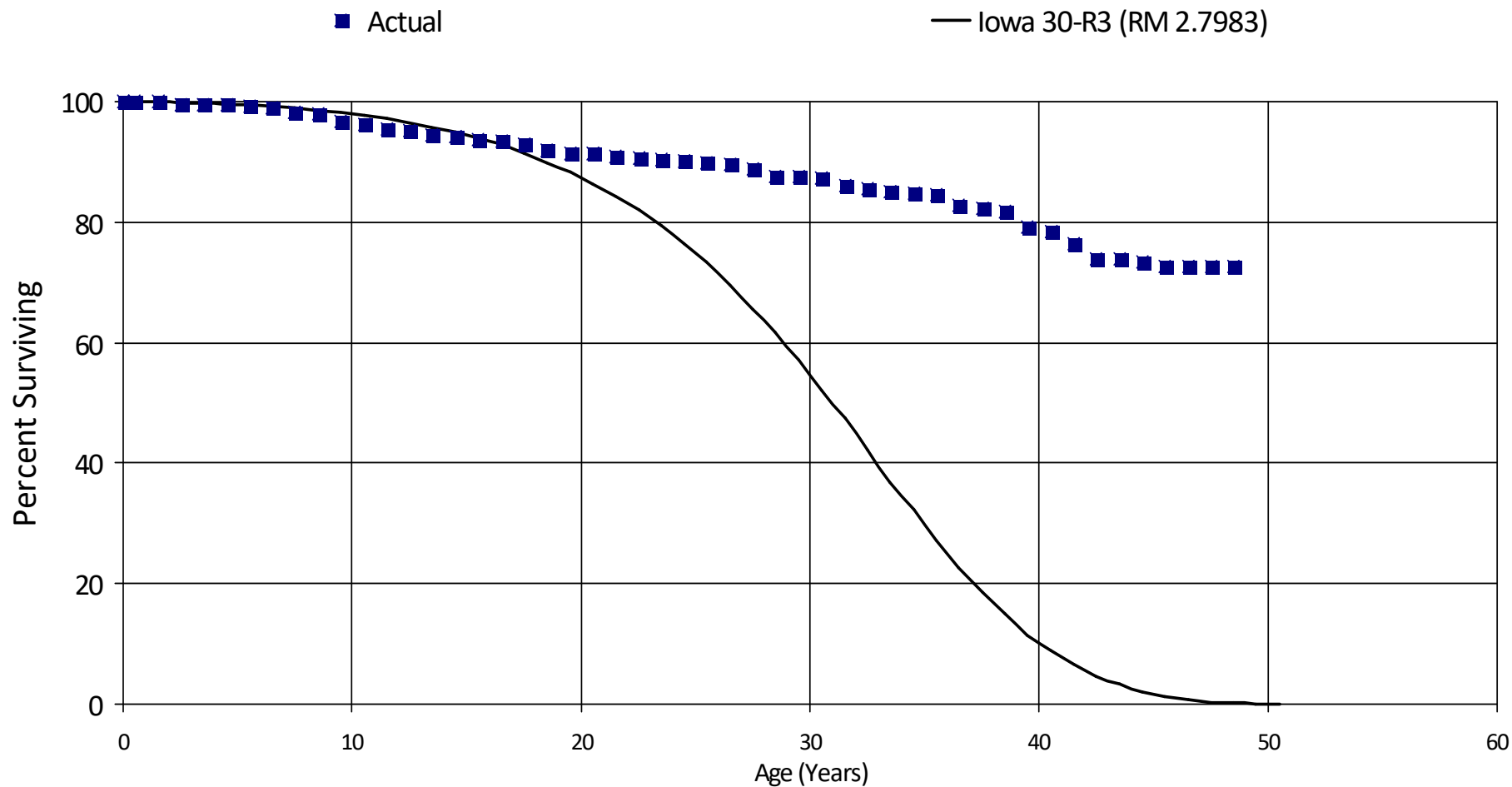
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	195,667	14,524	0.07423	0.92577	100.00
0.5	112,346	0	0.00000	1.00000	92.58
1.5	112,346	0	0.00000	1.00000	92.58
2.5	109,164	0	0.00000	1.00000	92.58
3.5	103,879	0	0.00000	1.00000	92.58
4.5	100,465	31	0.00031	0.99969	92.58
5.5	100,433	219	0.00218	0.99782	92.55
6.5	99,911	0	0.00000	1.00000	92.35
7.5	98,507	252	0.00256	0.99744	92.35
8.5	84,653	126	0.00149	0.99851	92.11
9.5	68,755	0	0.00000	1.00000	91.97
10.5	68,755	629	0.00915	0.99085	91.97
11.5	61,907	1,508	0.02436	0.97564	91.13
12.5	47,042	3,864	0.08214	0.91786	88.91
13.5	31,372	1,131	0.03605	0.96395	81.61
14.5	1,099	314	0.28562	0.71438	78.67
	Totals:	22,598			

ATCO Electric Yukon

Account 373.00 - Street Lights

Placement Band - 1957 - 2022 Experience Band - 1958 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 373.00 - Street Lights

Placement Band - 1957 - 2022 Experience Band - 1958 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	14,745,030	1,271	0.00009	0.99991	100.00
0.5	14,511,333	13,001	0.00090	0.99910	99.99
1.5	14,118,032	40,841	0.00289	0.99711	99.90
2.5	13,278,452	21,610	0.00163	0.99837	99.61
3.5	12,383,716	9,632	0.00078	0.99922	99.45
4.5	11,912,464	30,382	0.00255	0.99745	99.37
5.5	11,434,648	29,496	0.00258	0.99742	99.12
6.5	11,034,700	57,751	0.00523	0.99477	98.86
7.5	10,728,735	34,627	0.00323	0.99677	98.34
8.5	10,560,238	138,033	0.01307	0.98693	98.02
9.5	10,101,028	60,507	0.00599	0.99401	96.74
10.5	9,525,536	72,572	0.00762	0.99238	96.16
11.5	8,993,572	23,390	0.00260	0.99740	95.43
12.5	8,784,056	59,898	0.00682	0.99318	95.18
13.5	8,146,708	22,418	0.00275	0.99725	94.53
14.5	7,907,787	51,353	0.00649	0.99351	94.27
15.5	7,346,898	17,568	0.00239	0.99761	93.66
16.5	6,532,043	35,730	0.00547	0.99453	93.44
17.5	6,391,384	70,313	0.01100	0.98900	92.93
18.5	5,816,344	32,648	0.00561	0.99439	91.91
19.5	5,195,502	5,660	0.00109	0.99891	91.39
20.5	4,995,085	25,298	0.00506	0.99494	91.29
21.5	4,613,474	10,664	0.00231	0.99769	90.83
22.5	4,395,504	12,509	0.00285	0.99715	90.62
23.5	4,133,243	14,538	0.00352	0.99648	90.36
24.5	3,906,330	8,352	0.00214	0.99786	90.04
25.5	3,487,281	11,841	0.00340	0.99660	89.85
26.5	3,368,217	22,551	0.00670	0.99330	89.54

ATCO Electric Yukon Account 373.00 - Street Lights

Placement Band - 1957 - 2022 Experience Band - 1958 - 2022

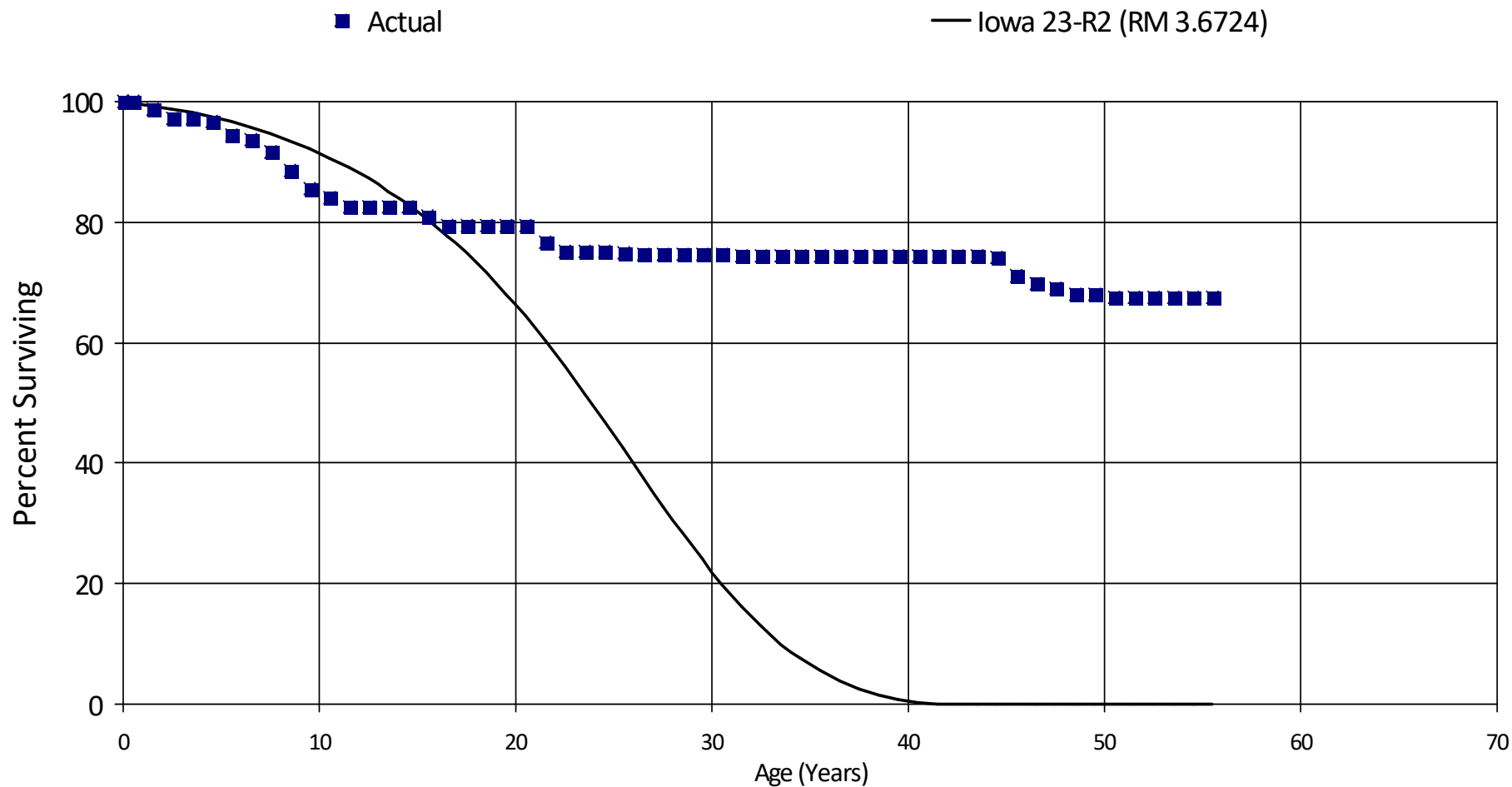
27.5	3,041,454	42,970	0.01413	0.98587	88.94
28.5	2,762,185	3,780	0.00137	0.99863	87.68
29.5	2,411,202	4,298	0.00178	0.99822	87.56
30.5	2,319,637	38,977	0.01680	0.98320	87.40
31.5	2,132,105	7,226	0.00339	0.99661	85.93
32.5	1,861,227	13,032	0.00700	0.99300	85.64
33.5	1,275,432	3,210	0.00252	0.99748	85.04
34.5	1,062,259	5,277	0.00497	0.99503	84.83
35.5	927,406	17,285	0.01864	0.98136	84.41
36.5	569,916	3,501	0.00614	0.99386	82.84
37.5	537,591	3,875	0.00721	0.99279	82.33
38.5	440,062	13,514	0.03071	0.96929	81.74
39.5	312,560	2,942	0.00941	0.99059	79.23
40.5	240,533	6,728	0.02797	0.97203	78.48
41.5	206,030	6,320	0.03068	0.96932	76.28
42.5	69,720	0	0.00000	1.00000	73.94
43.5	60,201	570	0.00947	0.99053	73.94
44.5	38,597	383	0.00992	0.99008	73.24
45.5	2,440	0	0.00000	1.00000	72.51
46.5	2,440	0	0.00000	1.00000	72.51
47.5	2,210	0	0.00000	1.00000	72.51
48.5	0	0	0.00000	0.00000	72.51
Totals:		1,108,342			

ATCO Electric Yukon

Account 373.10 - Sentinel Lights

Placement Band - 1963 - 2022 Experience Band - 1967 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon Account 373.10 - Sentinel Lights

Placement Band - 1963 - 2022 Experience Band - 1967 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	386,531	0	0.00000	1.00000	100.00
0.5	386,531	5,205	0.01347	0.98653	100.00
1.5	379,939	5,705	0.01502	0.98498	98.65
2.5	372,300	90	0.00024	0.99976	97.17
3.5	372,210	1,359	0.00365	0.99635	97.15
4.5	367,301	9,199	0.02504	0.97496	96.80
5.5	358,102	3,074	0.00858	0.99142	94.38
6.5	355,028	7,104	0.02001	0.97999	93.57
7.5	347,924	11,746	0.03376	0.96624	91.70
8.5	336,178	11,318	0.03367	0.96633	88.60
9.5	324,860	6,348	0.01954	0.98046	85.62
10.5	318,512	5,466	0.01716	0.98284	83.95
11.5	313,046	0	0.00000	1.00000	82.51
12.5	313,046	0	0.00000	1.00000	82.51
13.5	313,046	0	0.00000	1.00000	82.51
14.5	313,046	5,706	0.01823	0.98177	82.51
15.5	307,340	5,978	0.01945	0.98055	81.01
16.5	301,362	55	0.00018	0.99982	79.43
17.5	301,307	0	0.00000	1.00000	79.42
18.5	301,307	0	0.00000	1.00000	79.42
19.5	301,307	374	0.00124	0.99876	79.42
20.5	300,933	10,539	0.03502	0.96498	79.32
21.5	290,394	5,540	0.01908	0.98092	76.54
22.5	284,854	0	0.00000	1.00000	75.08
23.5	284,697	0	0.00000	1.00000	75.08
24.5	284,697	407	0.00143	0.99857	75.08
25.5	268,417	812	0.00303	0.99697	74.97
26.5	267,605	23	0.00009	0.99991	74.74

ATCO Electric Yukon Account 373.10 - Sentinel Lights

Placement Band - 1963 - 2022 Experience Band - 1967 - 2022

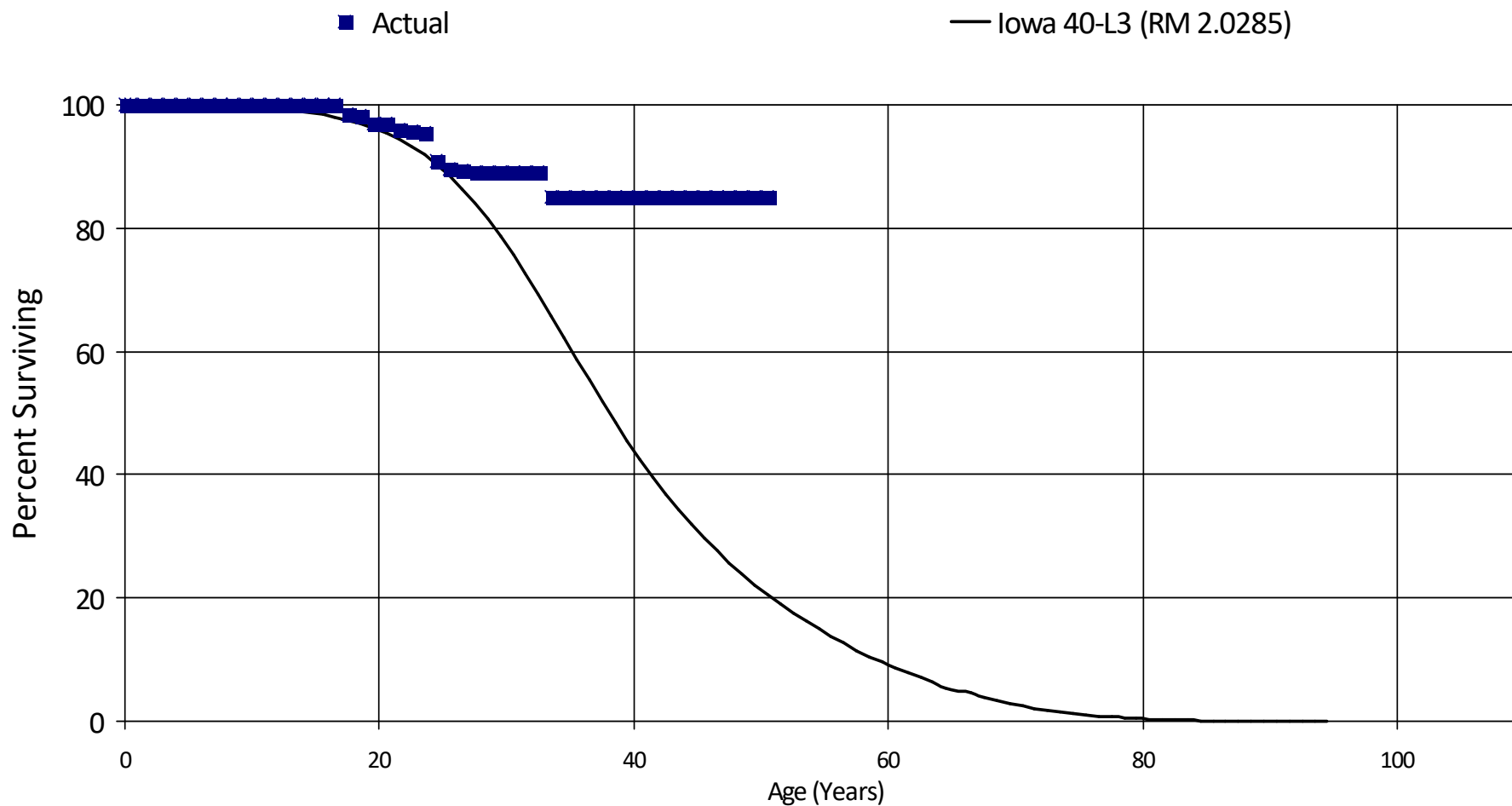
27.5	267,582	0	0.00000	1.00000	74.73
28.5	267,582	129	0.00048	0.99952	74.73
29.5	267,453	121	0.00045	0.99955	74.69
30.5	257,681	663	0.00257	0.99743	74.66
31.5	254,454	0	0.00000	1.00000	74.47
32.5	251,789	123	0.00049	0.99951	74.47
33.5	244,274	0	0.00000	1.00000	74.43
34.5	230,778	19	0.00008	0.99992	74.43
35.5	216,671	199	0.00092	0.99908	74.42
36.5	184,560	0	0.00000	1.00000	74.35
37.5	174,049	0	0.00000	1.00000	74.35
38.5	155,180	0	0.00000	1.00000	74.35
39.5	144,345	0	0.00000	1.00000	74.35
40.5	135,210	0	0.00000	1.00000	74.35
41.5	118,173	0	0.00000	1.00000	74.35
42.5	99,203	92	0.00093	0.99907	74.35
43.5	69,790	142	0.00203	0.99797	74.28
44.5	53,717	2,132	0.03969	0.96031	74.13
45.5	41,045	733	0.01786	0.98214	71.19
46.5	25,700	369	0.01436	0.98564	69.92
47.5	20,577	254	0.01234	0.98766	68.92
48.5	3,987	0	0.00000	1.00000	68.07
49.5	2,516	17	0.00676	0.99324	68.07
50.5	2,499	0	0.00000	1.00000	67.61
51.5	2,499	0	0.00000	1.00000	67.61
52.5	2,499	0	0.00000	1.00000	67.61
53.5	2,499	0	0.00000	1.00000	67.61
54.5	2,499	0	0.00000	1.00000	67.61
55.5	0	0	0.00000	0.00000	67.61
Totals:		101,041			

ATCO Electric Yukon

Account 390.00 - Structures and Improvements

Placement Band - 1957 - 2022 Experience Band - 1978 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 390.00 - Structures and Improvements

Placement Band - 1957 - 2022 Experience Band - 1978 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	5,574,539	0	0.00000	1.00000	100.00
0.5	5,554,660	0	0.00000	1.00000	100.00
1.5	5,554,660	0	0.00000	1.00000	100.00
2.5	5,450,317	0	0.00000	1.00000	100.00
3.5	5,408,654	0	0.00000	1.00000	100.00
4.5	5,378,176	0	0.00000	1.00000	100.00
5.5	5,317,218	0	0.00000	1.00000	100.00
6.5	5,283,283	0	0.00000	1.00000	100.00
7.5	5,253,783	0	0.00000	1.00000	100.00
8.5	4,339,628	3,305	0.00076	0.99924	100.00
9.5	3,828,322	258	0.00007	0.99993	99.92
10.5	3,641,413	0	0.00000	1.00000	99.91
11.5	3,576,488	0	0.00000	1.00000	99.91
12.5	3,478,360	0	0.00000	1.00000	99.91
13.5	3,471,025	1,089	0.00031	0.99969	99.91
14.5	3,393,910	0	0.00000	1.00000	99.88
15.5	3,370,873	0	0.00000	1.00000	99.88
16.5	3,286,335	48,471	0.01475	0.98525	99.88
17.5	3,234,574	4,237	0.00131	0.99869	98.41
18.5	3,181,667	38,779	0.01219	0.98781	98.28
19.5	3,142,888	2,018	0.00064	0.99936	97.08
20.5	3,115,428	31,722	0.01018	0.98982	97.02
21.5	3,072,193	13,273	0.00432	0.99568	96.03
22.5	3,007,988	5,188	0.00172	0.99828	95.62
23.5	2,993,781	142,096	0.04746	0.95254	95.46
24.5	2,768,109	42,533	0.01537	0.98463	90.93
25.5	2,669,846	8,514	0.00319	0.99681	89.53
26.5	2,635,556	4,613	0.00175	0.99825	89.24

ATCO Electric Yukon

Account 390.00 - Structures and Improvements

Placement Band - 1957 - 2022 Experience Band - 1978 - 2022

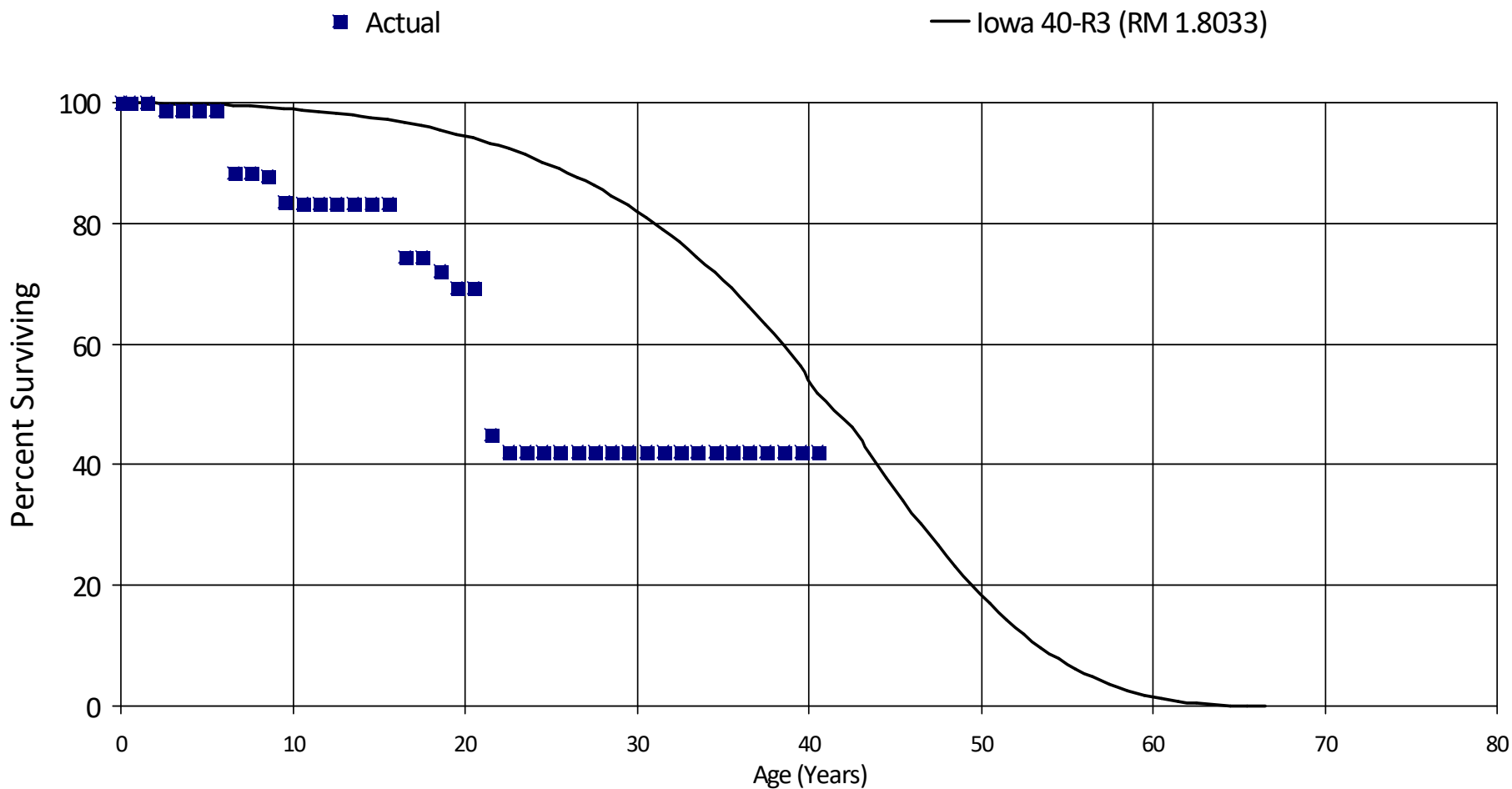
27.5	2,599,190	0	0.00000	1.00000	89.08
28.5	2,582,874	0	0.00000	1.00000	89.08
29.5	2,473,800	230	0.00009	0.99991	89.08
30.5	2,172,585	0	0.00000	1.00000	89.07
31.5	748,151	0	0.00000	1.00000	89.07
32.5	702,898	30,940	0.04402	0.95598	89.07
33.5	668,459	0	0.00000	1.00000	85.15
34.5	580,601	0	0.00000	1.00000	85.15
35.5	201,406	0	0.00000	1.00000	85.15
36.5	198,627	0	0.00000	1.00000	85.15
37.5	198,627	0	0.00000	1.00000	85.15
38.5	174,342	0	0.00000	1.00000	85.15
39.5	174,342	0	0.00000	1.00000	85.15
40.5	152,636	0	0.00000	1.00000	85.15
41.5	140,174	0	0.00000	1.00000	85.15
42.5	140,174	0	0.00000	1.00000	85.15
43.5	125,367	0	0.00000	1.00000	85.15
44.5	125,367	0	0.00000	1.00000	85.15
45.5	124,352	0	0.00000	1.00000	85.15
46.5	122,852	0	0.00000	1.00000	85.15
47.5	122,852	0	0.00000	1.00000	85.15
48.5	76,117	0	0.00000	1.00000	85.15
49.5	59,482	0	0.00000	1.00000	85.15
50.5	0	0	0.00000	0.00000	85.15
Totals:		377,266			

ATCO Electric Yukon

Account 390.01 - Structures and Improvements - Houses

Placement Band - 1981 - 2022 Experience Band - 2015 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 390.01 - Structures and Improvements - Houses

Placement Band - 1981 - 2022 Experience Band - 2015 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	703,006	0	0.00000	1.00000	100.00
0.5	703,006	0	0.00000	1.00000	100.00
1.5	703,006	9,750	0.01387	0.98613	100.00
2.5	680,443	0	0.00000	1.00000	98.61
3.5	680,443	0	0.00000	1.00000	98.61
4.5	680,443	0	0.00000	1.00000	98.61
5.5	648,536	67,223	0.10365	0.89635	98.61
6.5	525,399	6	0.00001	0.99999	88.39
7.5	484,726	3,070	0.00633	0.99367	88.39
8.5	478,661	23,798	0.04972	0.95028	87.83
9.5	447,814	1,572	0.00351	0.99649	83.46
10.5	444,817	0	0.00000	1.00000	83.17
11.5	444,449	0	0.00000	1.00000	83.17
12.5	437,103	0	0.00000	1.00000	83.17
13.5	435,559	0	0.00000	1.00000	83.17
14.5	378,670	0	0.00000	1.00000	83.17
15.5	330,538	34,871	0.10550	0.89450	83.17
16.5	268,879	0	0.00000	1.00000	74.40
17.5	258,938	8,071	0.03117	0.96883	74.40
18.5	250,868	9,706	0.03869	0.96131	72.08
19.5	237,193	0	0.00000	1.00000	69.29
20.5	237,193	83,756	0.35311	0.64689	69.29
21.5	153,436	9,631	0.06277	0.93723	44.82
22.5	135,112	0	0.00000	1.00000	42.01
23.5	113,551	0	0.00000	1.00000	42.01
24.5	113,551	0	0.00000	1.00000	42.01
25.5	104,230	0	0.00000	1.00000	42.01
26.5	101,196	0	0.00000	1.00000	42.01

ATCO Electric Yukon

Account 390.01 - Structures and Improvements - Houses

Placement Band - 1981 - 2022 Experience Band - 2015 - 2022

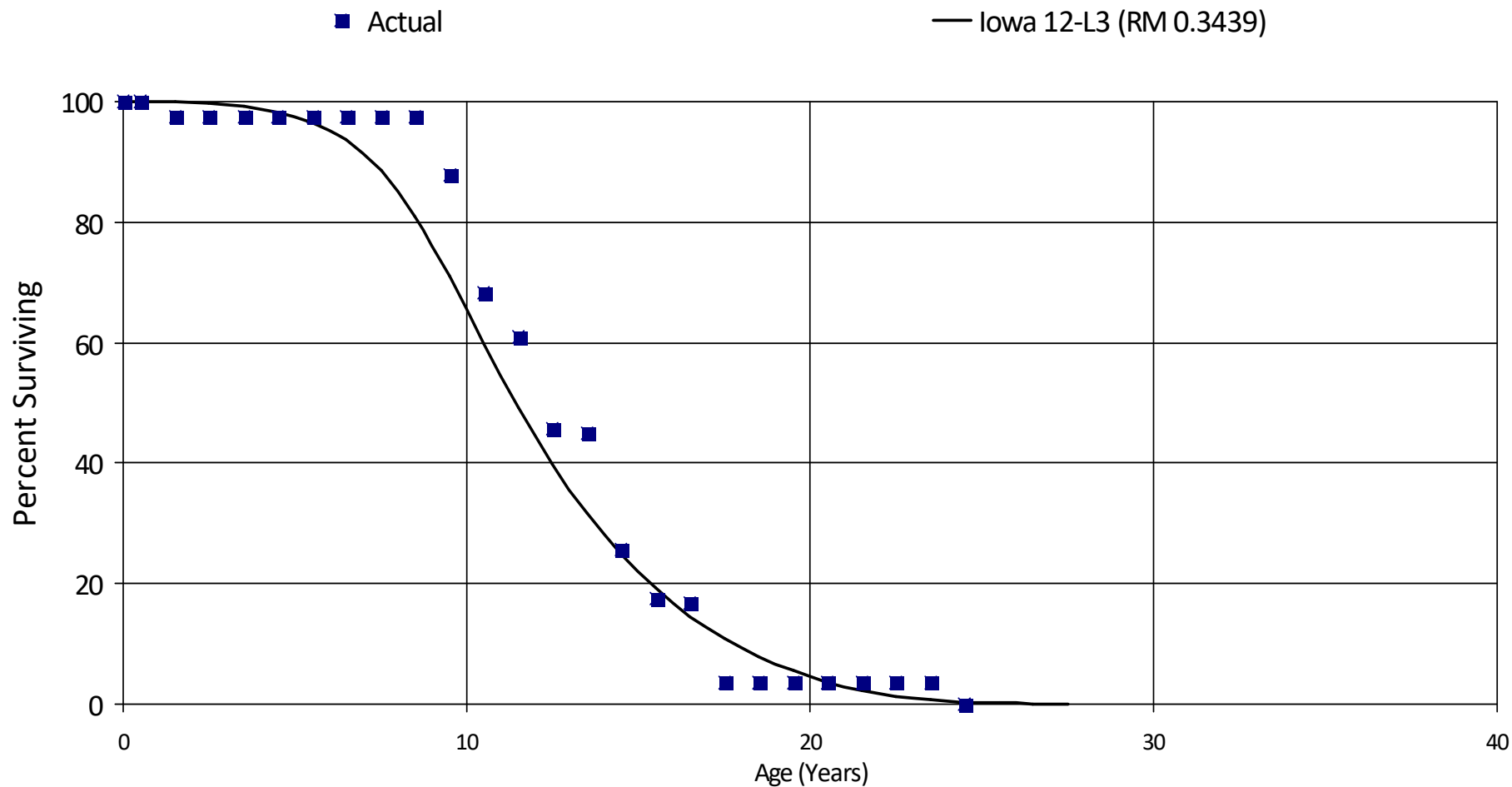
27.5	99,326	0	0.00000	1.00000	42.01
28.5	51,727	0	0.00000	1.00000	42.01
29.5	51,727	0	0.00000	1.00000	42.01
30.5	51,727	0	0.00000	1.00000	42.01
31.5	51,727	0	0.00000	1.00000	42.01
32.5	51,727	0	0.00000	1.00000	42.01
33.5	49,577	0	0.00000	1.00000	42.01
34.5	21,698	0	0.00000	1.00000	42.01
35.5	21,698	0	0.00000	1.00000	42.01
36.5	8,776	0	0.00000	1.00000	42.01
37.5	8,776	0	0.00000	1.00000	42.01
38.5	8,776	0	0.00000	1.00000	42.01
39.5	5,448	0	0.00000	1.00000	42.01
40.5	5,448	0	0.00000	1.00000	42.01
Totals:		251,454			

ATCO Electric Yukon

Account 392.20 - Transportation Equipment, Fleet Vehicles, Category 2

Placement Band - 1992 - 2022 Experience Band - 2007 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 392.20 - Transportation Equipment, Fleet Vehicles, Category 2

Placement Band - 1992 - 2022 Experience Band - 2007 - 2022

RETIREMENT RATE ANALYSIS

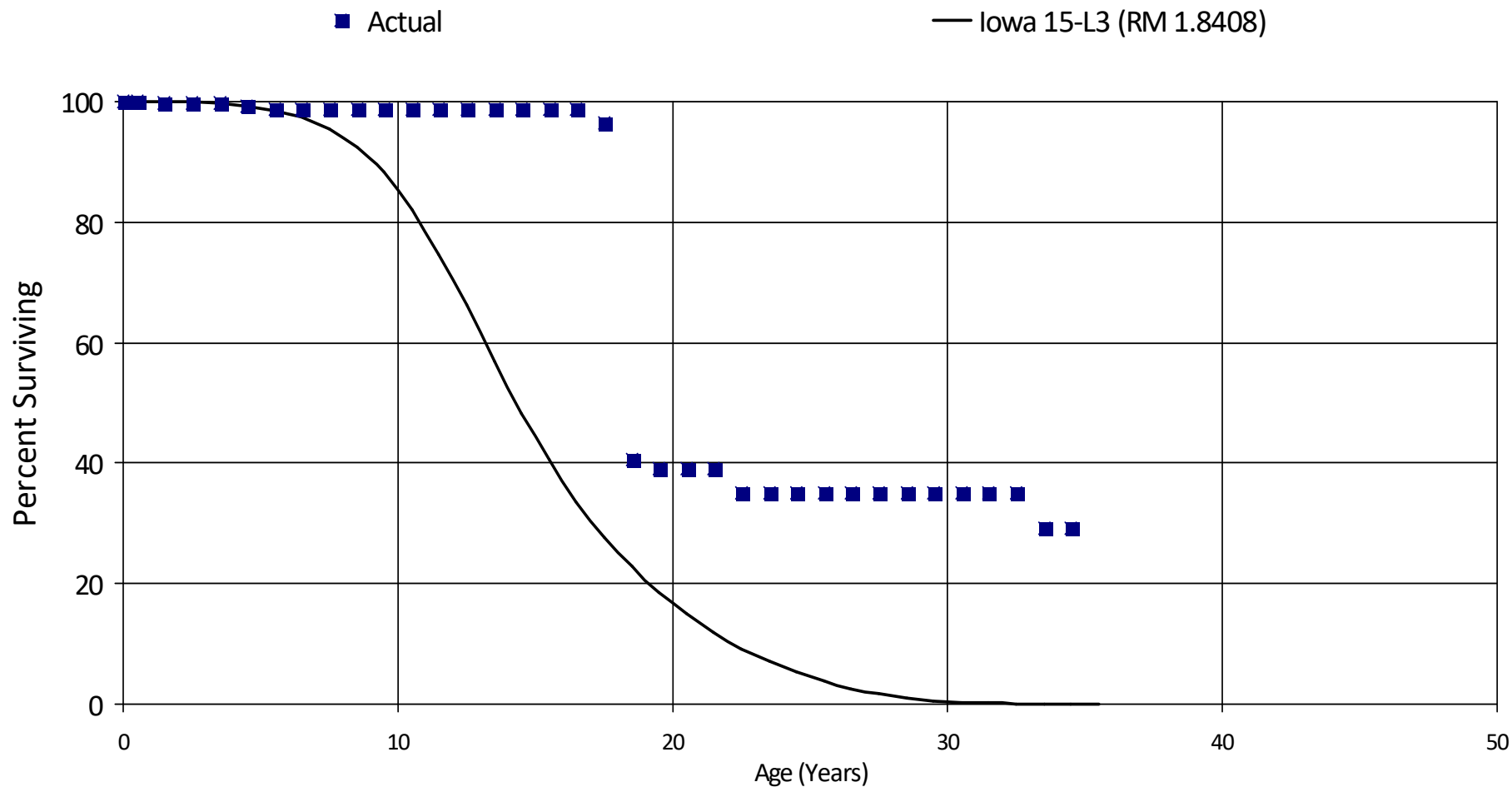
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,845,430	0	0.00000	1.00000	100.00
0.5	3,396,099	86,892	0.02559	0.97441	100.00
1.5	3,002,101	0	0.00000	1.00000	97.44
2.5	2,775,965	0	0.00000	1.00000	97.44
3.5	2,629,690	0	0.00000	1.00000	97.44
4.5	2,448,515	0	0.00000	1.00000	97.44
5.5	2,342,239	0	0.00000	1.00000	97.44
6.5	2,342,239	0	0.00000	1.00000	97.44
7.5	2,205,281	1,767	0.00080	0.99920	97.44
8.5	1,664,133	163,573	0.09829	0.90171	97.36
9.5	1,196,280	266,476	0.22275	0.77725	87.79
10.5	549,167	59,383	0.10813	0.89187	68.23
11.5	489,784	122,043	0.24918	0.75082	60.85
12.5	285,347	4,224	0.01480	0.98520	45.69
13.5	239,928	103,574	0.43169	0.56831	45.01
14.5	136,354	42,354	0.31062	0.68938	25.58
15.5	79,420	4,006	0.05044	0.94956	17.63
16.5	35,458	27,672	0.78042	0.21958	16.74
17.5	7,786	0	0.00000	1.00000	3.68
18.5	7,786	0	0.00000	1.00000	3.68
19.5	7,786	0	0.00000	1.00000	3.68
20.5	7,786	0	0.00000	1.00000	3.68
21.5	7,786	0	0.00000	1.00000	3.68
22.5	7,786	0	0.00000	1.00000	3.68
23.5	7,786	7,786	1.00004	-0.00004	3.68
24.5	0	0	0.00000	0.00000	0.00
Totals:		889,750			

ATCO Electric Yukon

Account 392.30 - Transportation Equipment, Fleet Vehicles, Category 3

Placement Band - 1974 - 2022 Experience Band - 2007 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 392.30 - Transportation Equipment, Fleet Vehicles, Category 3

Placement Band - 1974 - 2022 Experience Band - 2007 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,069,126	0	0.00000	1.00000	100.00
0.5	3,035,626	4,935	0.00163	0.99837	100.00
1.5	3,023,886	0	0.00000	1.00000	99.84
2.5	2,693,379	0	0.00000	1.00000	99.84
3.5	2,552,717	16,266	0.00637	0.99363	99.84
4.5	2,536,451	14,916	0.00588	0.99412	99.20
5.5	2,167,965	0	0.00000	1.00000	98.62
6.5	1,758,862	0	0.00000	1.00000	98.62
7.5	1,011,826	0	0.00000	1.00000	98.62
8.5	971,713	0	0.00000	1.00000	98.62
9.5	881,733	0	0.00000	1.00000	98.62
10.5	881,733	0	0.00000	1.00000	98.62
11.5	881,733	0	0.00000	1.00000	98.62
12.5	853,984	0	0.00000	1.00000	98.62
13.5	853,984	0	0.00000	1.00000	98.62
14.5	853,984	0	0.00000	1.00000	98.62
15.5	480,491	0	0.00000	1.00000	98.62
16.5	418,743	9,606	0.02294	0.97706	98.62
17.5	409,137	236,565	0.57820	0.42180	96.36
18.5	172,572	6,533	0.03786	0.96214	40.64
19.5	166,039	0	0.00000	1.00000	39.10
20.5	166,039	0	0.00000	1.00000	39.10
21.5	166,039	17,728	0.10677	0.89323	39.10
22.5	148,311	0	0.00000	1.00000	34.93
23.5	148,311	0	0.00000	1.00000	34.93
24.5	148,311	0	0.00000	1.00000	34.93
25.5	148,311	0	0.00000	1.00000	34.93
26.5	148,311	0	0.00000	1.00000	34.93

ATCO Electric Yukon

Account 392.30 - Transportation Equipment, Fleet Vehicles, Category 3

Placement Band - 1974 - 2022 Experience Band - 2007 - 2022

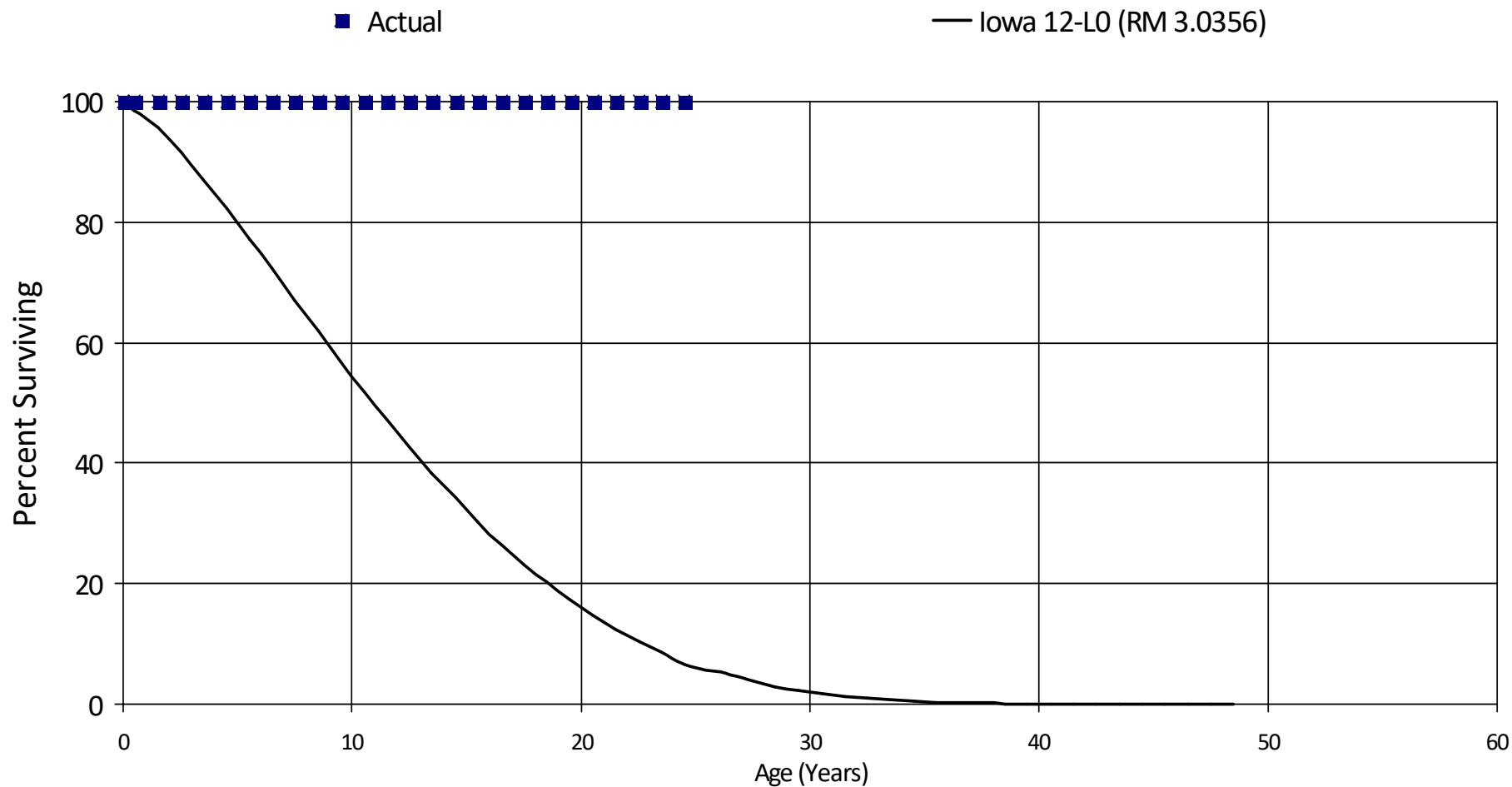
27.5	148,311	0	0.00000	1.00000	34.93
28.5	34,695	0	0.00000	1.00000	34.93
29.5	34,695	0	0.00000	1.00000	34.93
30.5	34,695	0	0.00000	1.00000	34.93
31.5	34,695	0	0.00000	1.00000	34.93
32.5	34,695	5,605	0.16155	0.83845	34.93
33.5	4,868	0	0.00000	1.00000	29.29
34.5	0	0	0.00000	0.00000	29.29
Totals:		312,154			

ATCO Electric Yukon

Account 392.40 - Transportation Equipment, Fleet Vehicles, Category 4

Placement Band - 1997 - 2022 Experience Band - 2022 - 2022

Actual and Smooth Survivor Curves



ATCO Electric Yukon

Account 392.40 - Transportation Equipment, Fleet Vehicles, Category 4

Placement Band - 1997 - 2022 Experience Band - 2022 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	231,503	0	0.00000	1.00000	100.00
0.5	231,503	0	0.00000	1.00000	100.00
1.5	231,503	0	0.00000	1.00000	100.00
2.5	214,943	0	0.00000	1.00000	100.00
3.5	180,657	0	0.00000	1.00000	100.00
4.5	180,657	0	0.00000	1.00000	100.00
5.5	180,657	0	0.00000	1.00000	100.00
6.5	180,657	0	0.00000	1.00000	100.00
7.5	180,657	0	0.00000	1.00000	100.00
8.5	51,315	0	0.00000	1.00000	100.00
9.5	51,315	0	0.00000	1.00000	100.00
10.5	29,596	0	0.00000	1.00000	100.00
11.5	29,596	0	0.00000	1.00000	100.00
12.5	8,262	0	0.00000	1.00000	100.00
13.5	8,262	0	0.00000	1.00000	100.00
14.5	8,262	0	0.00000	1.00000	100.00
15.5	8,262	0	0.00000	1.00000	100.00
16.5	8,262	0	0.00000	1.00000	100.00
17.5	8,262	0	0.00000	1.00000	100.00
18.5	8,262	0	0.00000	1.00000	100.00
19.5	8,262	0	0.00000	1.00000	100.00
20.5	8,262	0	0.00000	1.00000	100.00
21.5	8,262	0	0.00000	1.00000	100.00
22.5	8,262	0	0.00000	1.00000	100.00
23.5	8,262	0	0.00000	1.00000	100.00
24.5	8,262	0	0.00000	1.00000	100.00
Totals:		0			



SECTION 7

7 NET SALVAGE

ATCO ELECTRIC YUKON

ACCOUNT 331.00 Structures and Improvements

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2013	109,652	6,908	6		0	(6,908)	(6)					(6,908)	(6)
2014	508	11,899	2,342		0	(11,899)	(2,342)					(9,404)	(17)
2015	-	33,691				(33,691)		-17,499	(48)			(17,499)	(48)
2016	-					0		-15,197	(8,974)			(17,499)	(48)
2017	-					0		-11,230	0	(10,500)	(48)	(17,499)	(48)
2018	-					0		0	0	(9,118)	(8,974)	(17,499)	(48)
2019	21,521	20,954	97		0	(20,954)	(97)	-6,985	(97)	(10,929)	(254)	(18,363)	(56)
2020	-	(10,978)				10,978		-3,326	(46)	(1,995)	(46)	(12,495)	(47)
2021	-					0		-3,326	(46)	(1,995)	(46)	(12,495)	(47)
2022	-					0		3,659	0	(1,995)	(46)	(12,495)	(47)
TOTAL	131,681	62,475	47	0	0	-62,475	(47)						

ATCO ELECTRIC YUKON

ACCOUNT 332.00 Reservoirs, Dams and Waterways

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2019	746,264	44,309	6		0	(44,309)	(6)					(44,309)	(6)
2020	83,351	857	1		0	(857)	(1)					(22,583)	(5)
2021		3				(3)		-15,056	(5)			(15,056)	(5)
2022	4,793	732	15		0	(732)	(15)	-531	(2)			(11,475)	(6)
TOTAL	834,408	45,901	6	0	0	-45,901	(6)						

ATCO ELECTRIC YUKON

ACCOUNT 333.00 Water Wheels, Turbines and Generators

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2013	401,965	25,324	6			(25,324)						(25,324)	(6)
2014												(12,662)	(6)
2015								-8,441	(6)			(8,441)	(6)
2016								0	0			(6,331)	(6)
2017								0	0	(5,065)	(6)	(5,065)	(6)
2018								0	0	0	0	(4,221)	(6)
2019	70,109	9,304	13		0	(9,304)	(13)	-3,101	(13)	(1,861)	(13)	(4,947)	(7)
2020	60,188	3,064	5		0	(3,064)	(5)	-4,122	(9)	(2,473)	(9)	(4,711)	(7)
2021		2				(2)		-4,123	(9)	(2,474)	(9)	(4,188)	(7)
2022	6,855	3,076	45		0	(3,076)	(45)	-2,047	(9)	(3,089)	(11)	(4,077)	(8)
TOTAL	539,117	40,769	8	0	0	-40,769	(8)						

ATCO ELECTRIC YUKON

ACCOUNT 334.00 Accessory Electric Equipment

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2013	76,622	4,827	6			(4,827)						(4,827)	(6)
2014												(2,414)	(6)
2015								-1,609	(6)			(1,609)	(6)
2016								0	0			(1,207)	(6)
2017								0	0	(965)	(6)	(965)	(6)
2018								0	0	0	0	(805)	(6)
2019								0	0	0	0	(690)	(6)
2020								0	0	0	0	(603)	(6)
2021								0	0	0	0	(536)	(6)
2022								0	0	0	0	(483)	(6)
TOTAL	76,622	4,827	6	0	0	-4,827	(6)						

ATCO ELECTRIC YUKON

ACCOUNT 335.00 Miscellaneous Power Plant Equipment

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2013	64,492	4,063	6		0	(4,063)	(6)					(4,063)	(6)
2014												(2,031)	(6)
2015								-1,354	(6)			(1,354)	(6)
2016								0	0			(1,016)	(6)
2017								0	0	(813)	(6)	(813)	(6)
2018								0	0	0	0	(677)	(6)
2019	17,231	1,216	7		0	(1,216)	(7)	-405	(7)	(243)	(7)	(754)	(6)
2020	-	-				0		-405	(7)	(243)	(7)	(754)	(6)
2021	-	-				0		-405	(7)	(243)	(7)	(754)	(6)
2022	24,664	2,317				(2,317)		-772	(9)	(707)	(8)	(949)	(7)
TOTAL	106,387	7,596	7	0	0	-3,533	(3)						

ATCO ELECTRIC YUKON

ACCOUNT 341.20 OTHER PRODUCTION - STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2003	10,000	-	0	0	0	0	0						0
2004	2,028	-	0	0	0	0	0						0
2005		-				0		0	0				0
2006		-				0		0	0				0
2007		-				0		0	0	0	0		0
2008		-				0		0	0	0	0		0
2009		-		(809)		809		270	0	162	0	809	7
2010		5,300				(5,300)		-1,497	0	(898)	0	(2,245)	(37)
2011	170	-	0		0	0	0	-1,497	(2,642)	(898)	(2,642)	(2,245)	(37)
2012						0		-1,767	(3,118)	(898)	(2,642)	(2,245)	(37)
2013						0		0	0	(898)	(2,642)	(2,245)	(37)
2014						0		0	0	(1,060)	(3,118)	(2,245)	(37)
2015						0		0	0	0	0	(2,245)	(37)
2016						0		0	0	0	0	(2,245)	(37)
2017						0		0	0	0	0	(2,245)	(37)
2018						0		0	0	0	0	(2,245)	(37)
2019	14,558	8,694	60		0	(8,694)	(60)	-2,898	(60)	(1,739)	(60)	(4,395)	(49)
2020	23,031	- 69	(0)		0	69	0	-2,875	(23)	(1,725)	(23)	(3,279)	(26)
2021	1,208	554	46		0	(554)	(46)	-3,060	(24)	(1,836)	(24)	(2,734)	(27)
2022	13,931		0		0	0	0	-162	(1)	(1,836)	(17)	(2,734)	(21)
TOTAL	64,927	14,480	22	-809	(1)	-13,670	(21)						

ATCO ELECTRIC YUKON
ACCOUNT 342.20 INT COMBUST FUEL HOLDERS, PRODUCERS AND ACCESSORIES
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1983	2		0 -	2	(100)	2	100					2	100
1984	-			-		0						2	100
1985	-			-		0		1	100			2	100
1986	-			-		0		0	0			2	100
1987	3,626		0 -	2,000	(55)	2,000	55	667	55	400	55	1,001	55
1988	1,203		0 -	2,400	(200)	2,400	200	1,467	91	880	91	1,467	91
1989	-			-		0		1,467	91	880	91	1,467	91
1990	-			-		0		800	200	880	91	1,467	91
1991	-			-		0		0	0	880	91	1,467	91
1992	302		0 -	142	(47)	142	47	47	47	508	169	1,136	89
1993	-			-		0		47	47	28	47	1,136	89
1994	-			-		0		47	47	28	47	1,136	89
1995	-			-		0		0	0	28	47	1,136	89
1996	-			-		0		0	0	28	47	1,136	89
1997	120		0 -	213	(178)	213	178	71	178	43	178	951	91
1998	10,000	18,319	183 -	3,000	(30)	(15,319)	(153)	-5,035	(149)	(3,021)	(149)	(1,760)	(69)
1999	-			-		0		-5,035	(149)	(3,021)	(149)	(1,760)	(69)
2000	-			-		0		-5,106	(153)	(3,021)	(149)	(1,760)	(69)
2001	-			-		0		0	0	(3,021)	(149)	(1,760)	(69)
2002	-			-		0		0	0	(3,064)	(153)	(1,760)	(69)
2003	10,000		0 -	-	0	0	0	0	0	0	0	(1,760)	(42)
2004	9,322		0 -	2,500	(27)	2,500	27	833	13	500	13	(1,152)	(23)
2005	-			-		0		833	13	500	13	(1,152)	(23)
2006	-			-		0		833	27	500	13	(1,152)	(23)
2007	3,200		0 -	-	0	0	0	0	0	500	11	(1,152)	(21)
2008	-			-		0		0	0	500	20	(1,152)	(21)
2009	-			-		0		0	0	0	0	(1,152)	(21)
2010	-			-		0		0	0	0	0	(1,152)	(21)
2011	23,752		0 -	-	0	0	0	0	0	0	0	(1,152)	(13)
2012						0		0	0	0	0	(1,152)	(13)
2013						0		0	0	0	0	(1,152)	(13)
2014						0		0	0	0	0	(1,152)	(13)
2015						0		0	0	0	0	(1,152)	(13)
2016	13,457	7,937	59		0	(7,937)	(59)	-2,646	(59)	(1,587)	(59)	(2,000)	(21)
2017						0		-2,646	(59)	(1,587)	(59)	(2,000)	(21)
2018	3,250	1,000	31		0	(1,000)	(31)	-2,979	(53)	(1,787)	(53)	(1,889)	(22)
2019	18,039	3,188	18		0	(3,188)	(18)	-1,396	(20)	(2,425)	(35)	(2,019)	(21)
2020	1,551	1,149	74		0	(1,149)	(74)	-1,779	(23)	(2,655)	(37)	(1,940)	(22)
2021						0		-1,446	(22)	(1,067)	(23)	(1,940)	(22)
2022	8,911	1,415	16		0	(1,415)	(16)	-855	(25)	(1,350)	(21)	(1,896)	(21)
TOTAL	106,734	33,008	31 -	10,257	(10)	-22,751	(21)						

ATCO ELECTRIC YUKON

ACCOUNT 343.20 Int Combust Fuel Holders, Producers and Accessories

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2013	1,325	12,401	936		0	(12,401)						(12,401)	(936)
2014	836,417	33,211	4		0	(33,211)						(22,806)	(5)
2015	205,880	2,457	1	3,541	2	(5,998)		-17,203	(5)			(17,203)	(5)
2016	55,963	8,278	15		0	(8,278)		-15,829	(4)			(14,972)	(5)
2017	720,532	27,744	4		0	(27,744)		-14,007	(4)	(17,526)	(5)	(17,526)	(5)
2018	95,104	16,306	17		0	(16,306)		-17,443	(6)	(18,307)	(5)	(17,323)	(5)
2019	235,583	8,712	4		0	(8,712)	(4)	-17,587	(5)	(13,408)	(5)	(16,093)	(5)
2020	1,184,263	58,383	5		0	(58,383)		-27,800	(6)	(23,885)	(5)	(21,379)	(5)
2021	464,567	33,513			0	(33,513)		-33,536	(5)	(28,932)	(5)	(22,727)	(5)
2022	741,491	271,337	37		0	(271,337)		-121,078	(15)	(77,650)	(14)	(47,588)	(10)
TOTAL	4,541,124	472,342	10	3,541	0	-475,882	(10)						

ATCO ELECTRIC YUKON
ACCOUNT 345.20 Int Combust Accessory
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2013	13,370	6,000	45		0	(6,000)						(6,000)	(45)
2014	9,303	3,401	37		0	(3,401)						(4,701)	(41)
2015	-	-			0	0		-3,134	(41)			(4,701)	(41)
2016	80,439	4,059	5		0	(4,059)		-2,487	(8)			(4,487)	(13)
2017	-	-			0	0		-1,353	(5)	(2,692)	(13)	(4,487)	(13)
2018	13,504	3,724	28		0	(3,724)		-2,594	(8)	(2,237)	(11)	(4,296)	(15)
2019	75,555	4,922	7		0	(4,922)	(7)	-2,882	(10)	(2,541)	(7)	(4,421)	(12)
2020	-	-			0	0		-2,882	(10)	(2,541)	(7)	(4,421)	(12)
2021	- 3,236	-			0	0		-1,641	(7)	(1,729)	(10)	(4,421)	(12)
2022	-	-			0	0		0	0	(1,729)	(10)	(4,421)	(12)
TOTAL	188,934	22,106	12	0	0	-22,106	(12)						

ATCO ELECTRIC YUKON
ACCOUNT 346.20 INT COMBUST MISCELLANEOUS
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1992	1,327		0 -	227	(17)	227	17					227	17
1993	-					0						227	17
1994	-					0		76	17			227	17
1995	-					0		0	0			227	17
1996	-					0		0	0	45	17	227	17
1997	-					0		0	0	0	0	227	17
1998	-					0		0	0	0	0	227	17
1999	-					0		0	0	0	0	227	17
2000	-					0		0	0	0	0	227	17
2001	-					0		0	0	0	0	227	17
2002	-					0		0	0	0	0	227	17
2003	-					0		0	0	0	0	227	17
2004	-					0		0	0	0	0	227	17
2005	-					0		0	0	0	0	227	17
2006	-					0		0	0	0	0	227	17
2007	-					0		0	0	0	0	227	17
2008	-					0		0	0	0	0	227	17
2009	-					0		0	0	0	0	227	17
2010	-					0		0	0	0	0	227	17
2011	14,213		0		0	0	0	0	0	0	0	227	1
2012						0		0	0	0	0	227	1
2013		12,000				(12,000)		-4,000	(84)	(2,400)	(84)	(5,887)	(76)
2014		72				(72)		-4,024	0	(2,414)	(85)	(3,948)	(76)
2015						0		-4,024	0	(2,414)	(85)	(3,948)	(76)
2016						0		-24	0	(2,414)	0	(3,948)	(76)
2017						0		0	0	(2,414)	0	(3,948)	(76)
2018						0		0	0	(14)	0	(3,948)	(76)
2019	9,353	2,638	28		0	(2,638)	(28)	-879	(28)	(528)	(28)	(3,621)	(58)
2020	12,592	2,924	23		0	(2,924)	(23)	-1,854	(25)	(1,112)	(25)	(3,481)	(46)
2021	3,376	897	27		0	(897)	(27)	-2,153	(26)	(1,292)	(26)	(3,051)	(45)
2022	855	1,193	139		0	(1,193)	(139)	-1,671	(30)	(1,530)	(29)	(2,785)	(47)
TOTAL	41,716	19,724	47 -	227	(1)	-19,497	(47)						

ATCO ELECTRIC YUKON
ACCOUNT 362.00 STATION EQUIPMENT
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1985	82		0		0	0	0						0
1986	1,791		0		0	0	0						0
1987	1,598		0		0	0	0	0	0				0
1988	7,226		0		0	0	0	0	0				0
1989	1,929		0		0	0	0	0	0	0	0		0
1990	21,481		0		0	0	0	0	0	0	0		0
1991	2,331		0		0	0	0	0	0	0	0		0
1992						0		0	0	0	0		0
1993						0		0	0	0	0		0
1994						0		0	0	0	0		0
1995						0		0	0	0	0		0
1996						0		0	0	0	0		0
1997	40		0		0	0	0	0	0	0	0		0
1998						0		0	0	0	0		0
1999						0		0	0	0	0		0
2000						0		0	0	0	0		0
2001						0		0	0	0	0		0
2002						0		0	0	0	0		0
2003						0		0	0	0	0		0
2004						0		0	0	0	0		0
2005						0		0	0	0	0		0
2006						0		0	0	0	0		0
2007						0		0	0	0	0		0
2008						0		0	0	0	0		0
2009						0		0	0	0	0		0
2010						0		0	0	0	0		0
2011						0		0	0	0	0		0
2012						0		0	0	0	0		0
2013						0		0	0	0	0		0
2014						0		0	0	0	0		0
2015						0		0	0	0	0		0
2016						0		0	0	0	0		0
2017						0		0	0	0	0		0
2018	15,280	1,160	8		0	(1,160)	(8)	-387	(8)	(232)	(8)	(1,160)	(2)
2019	77,490	36,358	47		0	(36,358)	(47)	-12,506	(40)	(7,504)	(40)	(18,759)	(29)
2020	102,353	51,794	51		0	(51,794)	(51)	-29,771	(46)	(17,862)	(46)	(29,771)	(39)
2021						0		-29,384	(49)	(17,862)	(46)	(29,771)	(39)
2022	39,644	12,461	31		0	(12,461)	(31)	-21,419	(45)	(20,355)	(43)	(25,443)	(38)
TOTAL	271,245	101,773	38	-	0	-101,773	(38)						

ATCO ELECTRIC YUKON

ACCOUNT 362.10 System Communication & Control

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2019	10,904	2,893	27		0	(2,893)	(27)					(2,893)	(27)
2020		-			0							(1,446)	(27)
2021	15,484	578.62	4		0	(579)	(4)	-1,157	(13)			(1,157)	(13)
2022	1,977	251.01	13		0	(251)	(13)	-277	(5)			(931)	(13)
TOTAL	28,365	3,723	13	0	0	-3,723	(13)						

ATCO ELECTRIC YUKON
ACCOUNT 364.00 POLES AND FIXTURES
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1983	20,711	5,124	25 -	20,115	(97)	14,991	72					14,991	72
1984	7,236	420	6 -	5,128	(71)	4,708	65					9,850	70
1985	1,877	1,316	70 -	1,588	(85)	272	14	6,657	67			6,657	67
1986	22,910	3,807	17 -	16,234	(71)	12,427	54	5,802	54			8,100	61
1987	23,502	7,352	31 -	16,371	(70)	9,019	38	7,239	45	8,283	54	8,283	54
1988	40,922	9,880	24 -	12,307	(30)	2,427	6	7,958	27	5,771	30	7,307	37
1989	45,150	15,886	35 -	12,360	(27)	(3,526)	(8)	2,640	7	4,124	15	5,760	25
1990	18,256	15,088	83 -	6,810	(37)	(8,278)	(45)	-3,126	(9)	2,414	8	4,005	18
1991	9,785	46,744	478 -	1,917	(20)	(44,827)	(458)	-18,877	(77)	(9,037)	(33)	(1,421)	(7)
1992	25,423	29,690	117 -	11,447	(45)	(18,243)	(72)	-23,783	(133)	(14,489)	(52)	(3,103)	(14)
1993	8,882	5,186	58 -	7,881	(89)	2,695	30	-20,125	(137)	(14,436)	(67)	(2,576)	(13)
1994	6,278	2,381	38 -	3,098	(49)	717	11	-4,944	(37)	(13,587)	(99)	(2,302)	(12)
1995	26,696	33,075	124 -	6,477	(24)	(26,598)	(100)	-7,729	(55)	(17,251)	(112)	(4,170)	(21)
1996	47,596	21,610	45 -	2,263	(5)	(19,347)	(41)	-15,076	(56)	(12,155)	(53)	(5,255)	(24)
1997	77,714	74,426	96 -	9,635	(12)	(64,791)	(83)	-36,912	(73)	(21,465)	(64)	(9,224)	(36)
1998	41,059	52,607	128 -	1,890	(5)	(50,717)	(124)	-44,952	(81)	(32,147)	(81)	(11,817)	(45)
1999	60,317	43,513	72 -	2,778	(5)	(40,735)	(68)	-52,081	(87)	(40,438)	(80)	(13,518)	(47)
2000	85,489	113,379	133 -	870	(1)	(112,509)	(132)	-67,987	(109)	(57,620)	(92)	(19,018)	(60)
2001	53,805	143,160	266 -	2,294	(4)	(140,866)	(262)	-98,037	(147)	(81,924)	(129)	(25,431)	(77)
2002	38,328	26,830	70 -	593	(2)	(26,237)	(68)	-93,204	(157)	(74,213)	(133)	(25,471)	(77)
2003	102,578	86,536	84 -	846	(1)	(85,690)	(84)	-84,264	(130)	(81,207)	(119)	(28,338)	(78)
2004	15,636	11,410	73 -	362	(2)	(11,048)	(71)	-40,992	(79)	(75,270)	(127)	(27,553)	(78)
2005	72,802	32,567	45 -	1,150	(2)	(31,417)	(43)	-42,718	(67)	(59,052)	(104)	(27,721)	(75)
2006	65,718	113,990	173 -	2,037	(3)	(111,953)	(170)	-51,473	(100)	(53,269)	(90)	(31,230)	(82)
2007	11,321	27,121	240 -	866	(8)	(26,255)	(232)	-56,542	(113)	(53,273)	(99)	(31,031)	(83)
2008	89,967	12,500	14 -	715	(1)	(11,785)	(13)	-49,998	(90)	(38,492)	(75)	(30,291)	(77)
2009	57,349	21,618	38 -	1,631	(3)	(19,988)	(35)	-19,343	(37)	(40,280)	(68)	(29,909)	(75)
2010	124,362	109,892	88 -	5,508	(4)	(104,384)	(84)	-45,386	(50)	(54,873)	(79)	(32,569)	(76)
2011	11,824	56,938	482 -	1,516	(13)	(55,422)	(469)	-59,931	(93)	(43,567)	(74)	(33,357)	(80)
2012	57,125	34,748	61 -	2,231	(4)	(32,517)	(57)	-64,108	(99)	(44,819)	(66)	(33,329)	(79)
2013	72,957	121,243	166 -	613	(1)	(120,630)	(165)	-69,523	(147)	(66,588)	(103)	(36,145)	(83)
2014	74,298	75,359	101 -	6,649	(9)	(68,710)	(92)	-73,953	(109)	(76,333)	(112)	(37,163)	(84)
2015	159,814	48,401	30 -	2,486	(2)	(45,915)	(29)	-78,418	(77)	(64,639)	(86)	(37,428)	(78)
2016	86,402	49,977	58 -	417	(0)	(49,560)	(57)	-54,729	(51)	(63,467)	(70)	(37,785)	(77)
2017	24,220	38,691	160 -	114	(0)	(38,577)	(159)	-44,684	(50)	(64,678)	(77)	(37,808)	(78)
2018	51,940	136,514	263	0	0	(136,514)	(263)	-74,884	(138)	(67,855)	(86)	(40,550)	(84)
2019	173,860	249,900	144	0	0	(249,900)	(144)	-141,664	(170)	(104,093)	(105)	(46,208)	(89)
2020	108,560	150,354	138	0	0	(150,354)	(138)	-178,923	(161)	(124,981)	(140)	(48,948)	(92)
2021	77,372	143,978	186	0	0	(143,978)	(186)	-181,411	(151)	(143,864)	(165)	(51,385)	(95)
2022	86,970	255,952	294	0	0	(255,952)	(294)	-183,428	(202)	(187,339)	(188)	(56,499)	(103)
TOTAL	2,187,012	2,429,163	111 -	169,196	(8)	-2,259,967	(103)						

ATCO ELECTRIC YUKON
ACCOUNT 365.00 OVERHEAD CONDUCTOR AND DEVICES
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1983	4,695	5,047	107 -	4,443	(95)	(604)	(13)					(604)	(13)
1984	3,222	181	6 -	2,361	(73)	2,180	68					788	20
1985	1,735	1,242	72 -	1,572	(91)	330	19	635	20			635	20
1986	5,966	4,180	70 -	2,685	(45)	(1,495)	(25)	338	9			103	3
1987	6,180	17,556	284 -	4,098	(66)	(13,458)	(218)	-4,874	(105)	(2,609)	(60)	(2,609)	(60)
1988	8,891	5,511	62 -	3,200	(36)	(2,311)	(26)	-5,755	(82)	(2,951)	(57)	(2,560)	(50)
1989	18,522	12,800	69 -	2,387	(13)	(10,413)	(56)	-8,727	(78)	(5,469)	(66)	(3,682)	(52)
1990	15,824	8,228	52 -	2,754	(17)	(5,474)	(35)	-6,066	(42)	(6,630)	(60)	(3,906)	(48)
1991	3,620	21,364	590 -	424	(12)	(20,940)	(578)	-12,276	(97)	(10,519)	(99)	(5,798)	(76)
1992	6,046	11,136	184 -	1,181	(20)	(9,955)	(165)	-12,123	(143)	(9,819)	(93)	(6,214)	(83)
1993	5,173	5,309	103 -	708	(14)	(4,601)	(89)	-11,832	(239)	(10,277)	(104)	(6,067)	(84)
1994	1,515	1,316	87 -	910	(60)	(406)	(27)	-4,987	(117)	(8,275)	(129)	(5,596)	(83)
1995	5,600	4,644	83 -	152	(3)	(4,492)	(80)	-3,166	(77)	(8,079)	(184)	(5,511)	(82)
1996	8,691	4,811	55 -	654	(8)	(4,157)	(48)	-3,018	(57)	(4,722)	(87)	(5,414)	(79)
1997	19,144	24,656	129 -	1,339	(7)	(23,317)	(122)	-10,655	(96)	(7,395)	(92)	(6,608)	(86)
1998	8,386	16,419	196 -	339	(4)	(16,080)	(192)	-14,518	(120)	(9,690)	(112)	(7,200)	(93)
1999	12,271	6,801	55 -	1,642	(13)	(5,159)	(42)	-14,852	(112)	(10,641)	(98)	(7,080)	(89)
2000	14,527	12,330	85 -	213	(1)	(12,117)	(83)	-11,119	(95)	(12,166)	(97)	(7,359)	(88)
2001	9,337	14,459	155 -	121	(1)	(14,338)	(154)	-10,538	(87)	(14,202)	(112)	(7,727)	(92)
2002	8,187	4,938	60 -	857	(10)	(4,081)	(50)	-10,179	(95)	(10,355)	(98)	(7,544)	(90)
2003	59,749	55,901	94 -	156	(0)	(55,745)	(93)	-24,721	(96)	(18,288)	(88)	(9,840)	(91)
2004	4,049	2,435	60 -	289	(7)	(2,146)	(53)	-20,657	(86)	(17,685)	(92)	(9,490)	(90)
2005	2,976	12,992	437 -	1,512	(51)	(11,480)	(386)	-23,124	(104)	(17,558)	(104)	(9,576)	(94)
2006	974	40,889	4,198 -	916	(94)	(39,973)	(4,104)	-17,866	(670)	(22,685)	(149)	(10,843)	(111)
2007	132	10,846	8,217 -	778	(589)	(10,068)	(7,627)	-20,507	(1,507)	(23,882)	(176)	(10,812)	(115)
2008	37,893	18,603	49 -	2,996	(8)	(15,607)	(41)	-21,883	(168)	(15,855)	(172)	(10,996)	(105)
2009	388	8,000	2,062 -	638	(164)	(7,362)	(1,897)	-11,012	(86)	(16,898)	(199)	(10,862)	(107)
2010	18,541	8,400	45 -	1,977	(11)	(6,423)	(35)	-9,797	(52)	(15,886)	(137)	(10,703)	(103)
2011	2,687	11,351	422 -	1,385	(52)	(9,965)	(371)	-7,917	(110)	(9,885)	(83)	(10,678)	(105)
2012	373	605	162 -	132	(35)	(473)	(127)	-5,620	(78)	(7,966)	(67)	(10,338)	(105)
2013	3,144	7,385	235 -	113	(4)	(7,272)	(231)	-5,903	(285)	(6,299)	(125)	(10,239)	(106)
2014	663,670	46,319	7 -	871	(0)	(45,448)	(7)	-17,731	(8)	(13,916)	(10)	(11,339)	(38)
2015	13,963	4,898	(35) -	215	(2)	5,113	37	-15,869	(7)	(11,609)	(8)	(10,840)	(37)
2016	10,578	10,712	101 -	1,618	(15)	(9,094)	(86)	-16,476	(7)	(11,435)	(8)	(10,789)	(37)
2017	1,974	3,040	154 -	66	(3)	(2,974)	(151)	-2,318	(26)	(11,935)	(9)	(10,566)	(37)
2018	8,006	60,591	757	0	(60,591)	(757)	(24,220)	(353)	(22,599)	(16)	(11,955)	(43)	
2019	29,172	63,239	217	0	(63,239)	(217)	(42,268)	(324)	(26,157)	(205)	(13,341)	(48)	
2020	17,430	30,965	178	0	(30,965)	(178)	(51,598)	(283)	(33,372)	(248)	(13,805)	(50)	
2021	7,738	16,818	217	0	(16,818)	(217)	(37,007)	(204)	(34,917)	(271)	(13,882)	(52)	
2022	35,566	36,901	104	0	(36,901)	(104)	(28,228)	(139)	(41,703)	(213)	(14,458)	(53)	
TOTAL	1,086,536	624,020	57 -	45,703	(4)	(578,318)	(53)						

ATCO ELECTRIC YUKON
ACCOUNT 365.10 OVERHEAD SERVICES
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1996	-	1,062				(1,062)						(1,062)	0
1997	-					0						(1,062)	0
1998	-					0		-354	0			(1,062)	0
1999	-					0		0	0			(1,062)	0
2000	-					0		0	0	(212)	0	(1,062)	0
2001	-					0		0	0	0	0	(1,062)	0
2002	-					0		0	0	0	0	(1,062)	0
2003	-					0		0	0	0	0	(1,062)	0
2004	-					0		0	0	0	0	(1,062)	0
2005	-					0		0	0	0	0	(1,062)	0
2006	-					0		0	0	0	0	(1,062)	0
2007	-					0		0	0	0	0	(1,062)	0
2008	16		0 -	27	(169)	27	169	9	169	5	169	(517)	(6,468)
2009	-		-	81		81		36	672	22	672	(318)	(5,965)
2010	44,294		0 -	26	(0)	26	0	44	0	27	0	(232)	(2)
2011	20,219		0		0	0	0	35	0	27	0	(232)	(1)
2012	4,370		0		0	0	0	9	0	27	0	(232)	(1)
2013			-	21		21		7	0	26	0	(181)	(1)
2014						0		7	0	9	0	(181)	(1)
2015						0		7	0	4	0	(181)	(1)
2016						0		0	0	4	0	(181)	(1)
2017						0		0	0	4	0	(181)	(1)
2018	65,797	6,705	10		0	(6,705)	(10)	-2,235	(10)	(1,341)	(10)	(1,269)	(6)
2019	23,830	27,957	117		0	(27,957)	(117)	-11,554	(39)	(6,932)	(39)	(5,081)	(22)
2020	13,380	35,704	267		0	(35,704)	(267)	-23,455	(68)	(14,073)	(68)	(8,909)	(41)
2021	6,499	18,281	281		0	(18,281)	(281)	-27,314	(187)	(17,729)	(81)	(9,950)	(50)
2022	7,517	18,373	244		0	(18,373)	(244)	-24,119	(264)	(21,404)	(91)	(10,793)	(58)
TOTAL	185,923	108,081	58 -	155	(0)	-107,927	(58)						

ATCO ELECTRIC YUKON
ACCOUNT 367.00 UNDERGROUND CONDUCTOR AND DEVICES
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1985	193	20	10 -	121	(63)	101	52					101	52
1986	-	-		-		0						101	52
1987	-	-		-		0		34	52			101	52
1988	5	-	0 -	8	(160)	8	160	3	160			55	55
1989	9	2	22 -	6	(67)	4	44	4	86	23	55	38	55
1990	11	-	0 -	11	(100)	11	100	8	92	5	92	31	57
1991	13	-	0 -	12	(92)	12	92	9	82	7	92	27	59
1992	483	-	0 -	483	(100)	483	100	169	100	104	99	103	87
1993	64	-	0 -	56	(88)	56	88	184	98	113	98	96	87
1994	81	-	0 -	13	(16)	13	16	184	88	115	88	86	80
1995	908	1,125	124	-	0	(1,125)	(124)	-352	(100)	(112)	(36)	(49)	(25)
1996	252	114	45 -	470	(187)	356	141	-252	(61)	(43)	(12)	(8)	(4)
1997	621	464	75 -	42	(7)	(422)	(68)	-397	(67)	(224)	(58)	(46)	(19)
1998	52	33,870	65,135 -	5	(10)	(33,865)	(65,125)	-11,310	(3,668)	(7,009)	(1,831)	(2,864)	(1,277)
1999	2,708	2,159	80	-	0	(2,159)	(80)	-12,149	(1,078)	(7,443)	(820)	(2,810)	(676)
2000	1,455	1,680	115 -	174	(12)	(1,506)	(104)	-12,510	(890)	(7,519)	(739)	(2,717)	(555)
2001	428	317	74 -	292	(68)	(25)	(6)	-1,230	(80)	(7,595)	(721)	(2,537)	(523)
2002	328	2,981	909 -	307	(94)	(2,674)	(815)	-1,402	(190)	(8,046)	(809)	(2,546)	(535)
2003	525	62,881	11,977 -	139	(26)	(62,742)	(11,951)	-21,814	(5,109)	(13,821)	(1,269)	(6,087)	(1,272)
2004	2,120	23	1 -	1	(0)	(22)	(1)	-21,813	(2,201)	(13,394)	(1,379)	(5,750)	(1,009)
2005	-	-		-		0		-20,921	(2,373)	(13,093)	(1,925)	(5,750)	(1,009)
2006	967	-	0	-	0	0	0	-7	(1)	(13,088)	(1,661)	(5,750)	(922)
2007	-	-	-	23		23		8	2	(12,548)	(1,737)	(5,446)	(922)
2008	-	5,211	-	21		(5,189)		-1,722	(534)	(1,038)	(168)	(5,433)	(968)
2009	-	6,174	-	23		(6,152)		-3,773	0	(2,264)	(1,170)	(5,467)	(1,023)
2010	1,862	7,500	403	-	0	(7,500)	(403)	-6,280	(1,012)	(3,764)	(665)	(5,560)	(935)
2011	703	687	98 -	69	(10)	(618)	(88)	-4,756	(556)	(3,887)	(758)	(5,345)	(892)
2012	438	3,359	767		0	(3,359)	(767)	-3,826	(382)	(4,564)	(760)	(5,262)	(888)
2013	4,742	18,700	394 -	51	(1)	(18,649)	(393)	-7,542	(385)	(7,256)	(468)	(5,798)	(764)
2014	6,749	-	0 -	23	(0)	23	0	-7,328	(184)	(6,021)	(208)	(5,574)	(563)
2015	17,721	2,391	13		0	(2,391)	(13)	-7,006	(72)	(4,999)	(82)	(5,456)	(339)
2016	45,012	52,980	118		0	(52,980)	(118)	-18,449	(80)	(15,471)	(104)	(7,153)	(226)
2017	27,184	4,060	15		0	(4,060)	(15)	-19,810	(66)	(15,611)	(77)	(7,046)	(177)
2018	1,675	2,000	119		0	(2,000)	(119)	-19,680	(80)	(12,281)	(62)	(6,878)	(176)
2019	90,958	42,120	46		0	(42,120)	(46)	-16,060	(40)	(20,710)	(57)	(8,015)	(119)
2020	23,299	58,600	252		0	(58,600)	(252)	-34,240	(89)	(31,952)	(85)	(9,596)	(133)
2021	12,376	20,132	163		0	(20,132)	(163)	-40,284	(95)	(25,382)	(82)	(9,915)	(134)
2022	107,405	180,570	168		0	(180,570)	(168)	-86,434	(181)	(60,684)	(129)	(14,934)	(145)
TOTAL	351,346	510,119	145 -	2,350	(1)	-507,770	(145)						

ATCO ELECTRIC YUKON
ACCOUNT 367.10 UNDERGROUND SERVICES
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2010	30,641		0		0	0	0						0
2011	11,415		0		0	0	0						0
2012	3,023		0		0	0	0	0	0				0
2013						0		0	0				0
2014						0		0	0	0	0		0
2015						0		0	0	0	0		0
2016						0		0	0	0	0		0
2017						0		0	0	0	0		0
2018	44,363		0		0	0	0	0	0	0	0		0
2019	4,849	2,793	58		0	(2,793)	(58)	-931	(6)	(559)	(6)	(2,793)	(3)
2020	13,367	4,721	35		0	(4,721)	(35)	-2,505	(12)	(1,503)	(12)	(3,757)	(7)
2021	2,096	628	(30)		0	628	30	-2,295	(34)	(1,377)	(11)	(2,295)	(6)
2022	7,849	21,763	277		0	(21,763)	(277)	-8,619	(111)	(5,730)	(40)	(7,162)	(24)
TOTAL	117,604	28,650	24	-	0	-28,650	(24)						

ATCO ELECTRIC YUKON
ACCOUNT 368.00 LINE TRANSFORMERS
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1995	9,037	1,864	21 -	216	(2)	(1,648)	(18)					(1,648)	(18)
1996	4,704	1,665	35 -	12,154	(258)	10,489	223					4,421	64
1997	13,006	14,315	110 -	6,217	(48)	(8,098)	(62)	248	3			248	3
1998	16,313	102,096	626 -	43,956	(269)	(58,140)	(356)	-18,583	(164)			(14,349)	(133)
1999	22,755	18,376	81 -	4,927	(22)	(13,449)	(59)	-26,562	(153)	(14,169)	(108)	(14,169)	(108)
2000	5,299	36,373	686 -	1,632	(31)	(34,741)	(656)	-35,443	(240)	(20,788)	(167)	(17,598)	(148)
2001	6,332	85,733	1,354 -	499	(8)	(85,234)	(1,346)	-44,475	(388)	(39,932)	(313)	(27,260)	(246)
2002	4,381	64,644	1,476 -	4,313	(98)	(60,331)	(1,377)	-60,102	(1,126)	(50,379)	(457)	(31,394)	(307)
2003	50,239	96,478	192 -	1,666	(3)	(94,812)	(189)	-80,126	(394)	(57,713)	(324)	(38,440)	(262)
2004	2,646	21,106	798 -	2,520	(95)	(18,586)	(702)	-57,910	(303)	(58,741)	(426)	(36,455)	(271)
2005	15,096	1,157	8 -	10,201	(68)	9,044	60	-34,785	(154)	(49,984)	(318)	(32,319)	(237)
2006	18,276	6,720	37 -	7,943	(43)	1,223	7	-2,773	(23)	(32,692)	(180)	(29,524)	(211)
2007	2,609	4,872	187 -	14,690	(563)	9,818	376	6,695	56	(18,663)	(105)	(26,497)	(202)
2008	3,275	2,914	89 -	27,924	(853)	25,010	764	12,017	149	5,302	63	(22,818)	(184)
2009	2,605	3,777	145 -	10,319	(396)	6,542	251	13,790	487	10,327	123	(20,861)	(177)
2010	29,655	31,563	106 -	17,262	(58)	(14,301)	(48)	5,750	49	5,658	50	(20,451)	(159)
2011	20,596	8,792	43 -	3,893	(19)	(4,899)	(24)	-4,219	(24)	4,434	38	(19,536)	(146)
2012	13,430	18,291	136 -	7,123	(53)	(11,168)	(83)	-10,123	(48)	237	2	(19,071)	(143)
2013	141,542	32,979	23 -	4,570	(3)	(28,409)	(20)	-14,825	(25)	(10,447)	(25)	(19,563)	(97)
2014	385,048	300,493	78 -	6,907	(2)	(293,587)	(76)	-111,055	(62)	(70,473)	(60)	(33,264)	(87)
2015	15,593	13,267	85 -	16,093	(103)	2,826	18	-106,390	(59)	(67,047)	(58)	(31,545)	(85)
2016	215,405	18,417	9 -	26,834	(12)	8,417	4	-94,115	(46)	(64,384)	(42)	(29,729)	(66)
2017	19,222	19,459	101 -	7,365	(38)	(12,094)	(63)	-284	(0)	(64,569)	(42)	(28,962)	(65)
2018	80,325	37,220	46		0	(37,220)	(46)	-13,632	(13)	(66,331)	(46)	(29,306)	(64)
2019	2,450	76,997	3,142		0	(76,997)	(3,142)	-42,104	(124)	(23,014)	(35)	(31,214)	(71)
2020	18,891	41,432	219 -	9,446	(50)	(31,987)	(169)	-48,735	(144)	(29,976)	(45)	(31,244)	(73)
2021	306	50,389	16,493		0	(50,389)	(16,493)	-53,124	(736)	(41,737)	(172)	(31,953)	(77)
2022	107,961	107,895	100			(107,895)	(100)	-63,423	(150)	(60,898)	(145)	(34,665)	(79)
TOTAL	1,226,998	1,219,285	99 -	248,669	(20)	-970,616	(79)						

ATCO ELECTRIC YUKON

ACCOUNT 370.00 Conventional Meters

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2012	16,429	7,036	43		0	(7,036)						(7,036)	(43)
2013	50,959	10,567	21			(10,567)						(8,802)	(26)
2014		4,903			0	(4,903)		-7,502	(33)			(7,502)	(33)
2015		482			0	(482)		-5,317	(31)			(5,747)	(34)
2016	995	17,400	1,748	181	18	(17,581)		-7,655	(2,307)	(8,114)	(59)	(8,114)	(59)
2017	-	-			0	0		-6,021	(1,815)	(8,114)	(59)	(8,114)	(59)
2018	268,224	-	0		0	0		-5,860	(7)	(4,593)	(9)	(8,114)	(12)
2019	59,657	99	0		0	(99)	(0)	-33	(0)	(3,632)	(6)	(6,778)	(10)
2020	62,560	-	0		0	0		-33	(0)	(3,536)	(5)	(6,778)	(9)
2021	78,147	5,167	7		0	(5,167)		-1,756	(3)	(1,053)	(1)	(6,548)	(9)
2022	8,385	-	0		0	0		-1,722	(3)	(1,053)	(1)	(6,548)	(8)
TOTAL	545,358	45,655	8	181	0	-45,835	(8)						

ATCO ELECTRIC YUKON
ACCOUNT 371.00 AMR METERS
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2007	14,525		0	0		0							0
2008						0							0
2009						0		0	0				0
2010						0		0	0				0
2011						0		0	0	0	0		0
2012						0		0	0	0	0		0
2013						0		0	0	0	0		0
2014						0		0	0	0	0		0
2015						0		0	0	0	0		0
2016						0		0	0	0	0		0
2017						0		0	0	0	0		0
2018	346		0	0		0	0	0	0	0	0		0
2019	1,885		0	0		0	0	0	0	0	0		0
2020	3,832		0	0		0	0	0	0	0	0		0
2021	1,414	15,405	1,089	0	(15,405)	(1,089)		-5,135	(216)	(3,081)	(206)	(15,405)	(70)
2022	596	28,222	4,735	0	(28,222)	(4,735)		-14,542	(747)	(8,725)	(540)	(21,814)	(193)
TOTAL	22,598	43,627	193	-	0	-43,627	(193)						

ATCO ELECTRIC YUKON
ACCOUNT 373.00 STREET LIGHTS
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1995	1,239		0 -	25	(2)	25	2					25	2
1996	3,797	866	23 -	804	(21)	(62)	(2)					(19)	(1)
1997	16,117	14,758	92 -	1,250	(8)	(13,508)	(84)	-4,515	(64)			(4,515)	(64)
1998	5,155	8,178	159 -	1,341	(26)	(6,837)	(133)	-6,802	(81)			(5,096)	(77)
1999	4,049	1,147	28 -	8	(0)	(1,139)	(28)	-7,161	(85)	(4,304)	(71)	(4,304)	(71)
2000	7,272	3,651	50 -	100	(1)	(3,551)	(49)	-3,842	(70)	(5,019)	(69)	(4,179)	(67)
2001	11,919	15,075	126 -	1,018	(9)	(14,057)	(118)	-6,249	(81)	(7,818)	(88)	(5,590)	(79)
2002	127	162	128 -	229	(180)	67	53	-5,847	(91)	(5,103)	(89)	(4,883)	(79)
2003	25,297	2,439	10 -	551	(2)	(1,888)	(7)	-5,293	(43)	(4,114)	(42)	(4,550)	(55)
2004	11,383	750	7	-	0	(750)	(7)	-857	(7)	(4,036)	(36)	(4,170)	(48)
2005	5,110	1,054	21 -	117	(2)	(937)	(18)	-1,192	(9)	(3,513)	(33)	(3,876)	(47)
2006	5,302	7,164	135 -	1,156	(22)	(6,008)	(113)	-2,565	(35)	(1,903)	(20)	(4,054)	(50)
2007	4,493	594	13 -	1,028	(23)	434	10	-2,170	(44)	(1,830)	(18)	(3,709)	(48)
2008	963	-	0 -	960	(100)	960	100	-1,538	(43)	(1,260)	(23)	(3,375)	(46)
2009	2,195	1,934	88 -	556	(25)	(1,378)	(63)	5	0	(1,386)	(38)	(3,242)	(47)
2010	7,288	13,390	184 -	49	(1)	(13,341)	(183)	-4,586	(132)	(3,866)	(96)	(3,873)	(55)
2011	6,524	17,293	265 -	995	(15)	(16,297)	(250)	-10,338	(194)	(5,924)	(138)	(4,604)	(66)
2012	10,065	385	4		0	(385)	(4)	-10,008	(126)	(6,088)	(113)	(4,370)	(61)
2013	5,871	26,889	458		0	(26,889)	(458)	-14,524	(194)	(11,658)	(182)	(5,555)	(79)
2014	13,416	1,350	10 -	1,754	(13)	404	3	-8,957	(92)	(11,301)	(131)	(5,257)	(71)
2015	12,985	18,896	146 -	573	(4)	(18,323)	(141)	-14,936	(139)	(12,298)	(126)	(5,879)	(77)
2016	53,206	36,017	68		0	(36,017)	(68)	-17,978	(68)	(16,242)	(85)	(7,249)	(75)
2017	30,324	33,618	111		0	(33,618)	(111)	-29,319	(91)	(22,888)	(99)	(8,395)	(79)
2018	68,212	40,589	60		0	(40,589)	(60)	-36,741	(73)	(25,628)	(72)	(9,737)	(75)
2019	85,843	54,966	64		0	(54,966)	(64)	-43,058	(70)	(36,703)	(73)	(11,546)	(72)
2020	32,311	35,960	111		0	(35,960)	(111)	-43,839	(71)	(40,230)	(75)	(12,485)	(75)
2021	17,676	34,319	194		0	(34,319)	(194)	-41,749	(92)	(39,891)	(85)	(13,294)	(80)
2022	43,614	27,429	63		0	(27,429)	(63)	-32,570	(104)	(38,653)	(78)	(13,798)	(79)
TOTAL	491,754	398,873	81 -	12,515	(3)	-386,358	(79)						

ATCO ELECTRIC YUKON
ACCOUNT 373.10 SENTINEL LIGHTS
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
1983	9,341	1,820	19 -	8,405	(90)	6,585	70					6,585	70
1984	4,476	674	15 -	5,464	(122)	4,790	107					5,688	82
1985	2,601	101	4 -	2,792	(107)	2,691	103	4,689	86			4,689	86
1986	7,458	1,219	16 -	13,112	(176)	11,893	159	6,458	133			6,490	109
1987	3,051	-	0 -	1,950	(64)	1,950	64	5,511	126	5,582	104	5,582	104
1988	2,486	128	5 -	1,261	(51)	1,133	46	4,992	115	4,491	112	4,840	99
1989	565	139	25 -	423	(75)	284	50	1,122	55	3,590	111	4,189	98
1990	-	-	-	-	-	0	0	472	46	3,052	113	4,189	98
1991	-	-	-	-	-	0	0	95	50	673	55	4,189	98
1992	560	-	0 -	346	(62)	346	62	115	62	353	49	3,709	97
1993	-	-	-	-	-	0	0	115	62	126	56	3,709	97
1994	936	4,130	441 -	468	(50)	(3,662)	(391)	-1,105	(222)	(663)	(222)	2,890	83
1995	83	-	0	0	0	0	0	-1,221	(359)	(663)	(210)	2,890	82
1996	-	-	-	-	-	0	0	-1,221	(359)	(663)	(210)	2,890	82
1997	-	-	-	-	-	0	0	0	0	(732)	(359)	2,890	82
1998	-	-	-	-	-	0	0	0	0	(732)	(359)	2,890	82
1999	-	-	-	-	-	0	0	0	0	0	0	2,890	82
2000	-	131	-	-	-	(131)	(131)	-44	0	(26)	0	2,588	82
2001	-	1,483	-	-	-	(1,483)	(1,483)	-538	0	(323)	0	2,218	77
2002	-	-	-	-	-	0	0	-538	0	(323)	0	2,218	77
2003	-	-	-	-	-	0	0	-494	0	(323)	0	2,218	77
2004	-	-	-	-	-	0	0	0	0	(323)	0	2,218	77
2005	-	-	-	-	-	0	0	0	0	(297)	0	2,218	77
2006	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2007	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2008	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2009	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2010	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2011	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2012	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2013	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2014	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2015	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2016	-	-	-	-	-	0	0	0	0	0	0	2,218	77
2017	109	-	0	0	0	0	0	0	0	0	0	2,218	77
2018	812	1,101	136	0	(1,101)	(136)	(136)	-367	(119)	(220)	(119)	1,941	72
2019	1,891	509	27	0	(509)	(27)	(27)	-537	(57)	(322)	(57)	1,753	66
2020	1,389	2,288	165	0	(2,288)	(165)	(165)	-1,299	(95)	(779)	(93)	1,464	57
2021	1,273	299	23	0	(299)	(23)	(23)	-1,032	(68)	(839)	(77)	1,347	55
2022	646	451	70	0	(451)	(70)	(70)	-1,012	(92)	(929)	(77)	1,234	52
TOTAL	37,678	14,472	38 -	34,221	(91)	19,749	52						

ATCO ELECTRIC YUKON

ACCOUNT 390.00 Structures and Improvements

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2015		(2,400)				2,400						2,400	
2016		-				0						2,400	
2017		-				0		800	0			2,400	
2018		61,727				(61,727)		-20,576	0			(29,664)	
2019	52,896	2,025	4		0	(2,025)	(4)	-21,251	(121)	(12,270)	(116)	(20,451)	(116)
2020	82,876	6,844	8		0	(6,844)		-23,532	(52)	(14,119)	(52)	(17,049)	(50)
2021	-	(3,138)			0	3,138		-1,910	(4)	(13,492)	(50)	(13,012)	(48)
2022		-				0		-1,235	(4)	(13,492)	(50)	(13,012)	(48)
TOTAL	135,773	65,058	48	0	0	-65,058	(48)						

ATCO ELECTRIC YUKON

ACCOUNT 390.01 STRUCTURES AND IMPROVEMENTS - Houses

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2021	9,619	2,147				(2,147)	(22)					(2,147)	(22)
2022						0						(2,147)	(22)
TOTAL	9,619	2,147	22	0	0	-2,147	(22)						

ATCO ELECTRIC YUKON

ACCOUNT 392.20 TRANSPORTATION EQUIPMENT, FLEET VEHICLES CATEGORY 2

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2007	975		0		0	0	0						0
2008	43,079		0		0	0	0						0
2009	98,623		0		0	0	0	0	0				0
2010	139,866		0		0	0	0	0	0				0
2011	4,517		0		0	0	0	0	0	0	0		0
2012						0		0	0	0	0		0
2013		12,656	-	41,238		28,582		9,527	633	5,716	12	28,582	10
2014		6,708				(6,708)		7,291	0	4,375	15	10,937	8
2015			-	45,271		45,271		22,382	0	13,429	1,487	22,382	23
2016						0		12,854	0	13,429	0	22,382	23
2017						0		15,090	0	13,429	0	22,382	23
2018						0		0	0	7,713	0	22,382	23
2019	37,022		0		0	0	0	0	0	9,054	122	22,382	21
2020	45,795		0		0	0	0	0	0	0	0	22,382	18
2021						0		0	0	0	0	22,382	18
2022	519,872		0 -	84,109	(16)	84,109	16	28,036	15	16,822	14	37,814	17
TOTAL	889,749	19,364	2 -	170,619	(19)	151,255	17						

ATCO ELECTRIC YUKON

ACCOUNT 392.30 TRANSPORTATION EQUIPMENT, FLEET VEHICLES CATEGORY 3

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent
2007	287,561		0	0	0	0	0						0
2008						0							0
2009	9,606		0	0	0	0	0	0	0				0
2010	71		0	0	0	0	0	0	0				0
2011						0		0	0	0	0		0
2012						0		0	0	0	0		0
2013						0		0	0	0	0		0
2014						0		0	0	0	0		0
2015						0		0	0	0	0		0
2016						0		0	0	0	0		0
2017						0		0	0	0	0		0
2018		125	-	27,975		27,850		9,283	0	5,570	0	27,850	9
2019	14,916		0	0	0	0	0	9,283	187	5,570	187	27,850	9
2020						0		9,283	187	5,570	187	27,850	9
2021						0		0	0	5,570	187	27,850	9
2022						0		0	0	5,570	187	27,850	9
TOTAL	312,154	125	0 -	27,975	(9)	27,850	9						



SECTION 8

8 DETAILED DEPRECIATION CALCULATIONS

ELG - Whole Life

Survivor Curve: R2

ASL: 70

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 331.00 - Structures and Improvements

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1971	5,331.19	1.29%	69	0.6638	3,539	51.5	26.08
1987	14,910.00	1.43%	213	0.5061	7,546	35.5	34.64
1989	5,378.39	1.44%	78	0.4837	2,602	33.5	35.76
1991	106.58	1.46%	2	0.4607	49	31.5	36.87
1994	12,000.00	1.49%	179	0.4250	5,100	28.5	38.56
2000	10,832.25	1.55%	168	0.3494	3,785	22.5	41.90
2010	0.00	1.68%	0	0.2099	0	12.5	47.06
2011	132,359.88	1.69%	2,243	0.1949	25,794	11.5	47.51
2012	15,637.71	1.71%	268	0.1797	2,810	10.5	47.93
2013	68,185.74	1.73%	1,179	0.1643	11,201	9.5	48.33
2014	1,247,563.64	1.75%	21,813	0.1486	185,408	8.5	48.69
2018	155,730.17	1.85%	2,882	0.0833	12,967	4.5	49.54
TOTAL	1,668,035.55		29,092		260,801		
NET SALVAGE ADJUSTMENT			1,455		13,040		
TOTAL			30,546		273,841		

COMPOSITE ANNUAL ACCRUAL RATE	1.83%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.16
COMPOSITE AVERAGE AGE (YEARS)	9.12
ELG COMPOSITE REMAINING LIFE (YEARS)	48.30

ATCO Electric Yukon

Account #: 332.00 - Reservoirs, Dams and Waterways

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 100
Net Salvage: -5%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1987	0.01	1.06%	0	0.3780	0	35.5	58.41
1989	24,275.82	1.07%	260	0.3586	8,705	33.5	59.92
1992	2,414.61	1.08%	26	0.3289	794	30.5	62.22
1993	0.00	1.08%	0	0.3189	0	29.5	62.99
1996	0.00	1.09%	0	0.2886	0	26.5	65.33
1997	0.00	1.09%	0	0.2784	0	25.5	66.11
2002	5,759.86	1.10%	64	0.2264	1,304	20.5	70.05
2003	1,394.16	1.11%	15	0.2158	301	19.5	70.84
2004	21,099.47	1.11%	234	0.2052	4,331	18.5	71.64
2005	0.00	1.11%	0	0.1946	0	17.5	72.43
2007	98,112.46	1.12%	1,096	0.1731	16,988	15.5	74.02
2008	23,435.54	1.12%	262	0.1624	3,805	14.5	74.81
2010	781,176.00	1.12%	8,788	0.1406	109,852	12.5	76.39
2011	330,357.65	1.13%	3,726	0.1297	42,844	11.5	77.17
2012	606,582.21	1.13%	6,858	0.1187	72,006	10.5	77.95
2013	41,937.80	1.13%	475	0.1077	4,516	9.5	78.73
2014	2,330,275.93	1.14%	26,483	0.0966	225,110	8.5	79.49
2016	3,093,766.79	1.14%	35,367	0.0743	229,882	6.5	80.98
2018	679,829.21	1.15%	7,826	0.0518	35,216	4.5	82.37
2019	12,866.69	1.16%	149	0.0405	521	3.5	83.00
2020	766,146.57	1.16%	8,904	0.0291	22,261	2.5	83.54
TOTAL	8,819,430.78		100,533		778,435		
NET SALVAGE ADJUSTMENT			5,027		38,922		
TOTAL			105,560		817,356		

COMPOSITE ANNUAL ACCRUAL RATE	1.20%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.09
COMPOSITE AVERAGE AGE (YEARS)	7.77
ELG COMPOSITE REMAINING LIFE (YEARS)	79.96

ELG - Whole Life

Survivor Curve: R3

ASL: 85

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 333.00 - Water Wheels, Turbines and Generators

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1987	74,090.62	1.23%	913	0.4373	32,400	35.5	45.68
2000	89,392.44	1.28%	1,145	0.2883	25,771	22.5	55.55
2009	124,172.24	1.31%	1,630	0.1773	22,011	13.5	62.66
2010	463,321.15	1.32%	6,100	0.1646	76,253	12.5	63.45
2011	19,166.87	1.32%	253	0.1518	2,910	11.5	64.24
2012	1,445,098.55	1.32%	19,133	0.1390	200,894	10.5	65.03
2013	139,283.19	1.33%	1,849	0.1261	17,569	9.5	65.81
2015	21,819.91	1.34%	291	0.1002	2,186	7.5	67.36
2016	622,400.65	1.34%	8,342	0.0871	54,221	6.5	68.11
2018	217,682.68	1.35%	2,939	0.0608	13,227	4.5	69.56
2019	13,256.58	1.36%	180	0.0475	629	3.5	70.23
2020	58,522.97	1.36%	798	0.0341	1,995	2.5	70.82
2021	4,975.59	1.37%	68	0.0206	103	1.5	71.27

TOTAL 3,293,183.44 43,643 450,170

NET SALVAGE ADJUSTMENT 2,182 22,508

TOTAL 45,825 472,678

COMPOSITE ANNUAL ACCRUAL RATE 1.39%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.14

COMPOSITE AVERAGE AGE (YEARS) 10.39

ELG COMPOSITE REMAINING LIFE (YEARS) 65.09

ELG - Whole Life

Survivor Curve: R2.5

ASL: 40

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 334.00 - Accessory Electric Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1987	27,185.00	2.16%	588	0.7682	20,885	35.5	10.71
1991	12,366.51	2.26%	280	0.7122	8,807	31.5	12.73
1998	28,793.83	2.43%	698	0.5942	17,109	24.5	16.73
2000	12,896.50	2.47%	319	0.5562	7,172	22.5	17.96
TOTAL	81,241.84		1,885		53,973		
NET SALVAGE ADJUSTMENT			0		0		
TOTAL			1,885		53,973		

COMPOSITE ANNUAL ACCRUAL RATE	2.32%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.66
COMPOSITE AVERAGE AGE (YEARS)	28.93
ELG COMPOSITE REMAINING LIFE (YEARS)	14.30

ELG - Whole Life

Survivor Curve: R4

ASL: 51

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 335.00 - Miscellaneous Power Plant Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1987	0.00	1.93%	0	0.6856	0	35.5	16.28
2008	1,999.86	2.07%	41	0.2995	599	14.5	33.91
2012	19,043.35	2.07%	395	0.2178	4,147	10.5	37.72
2015	13,764.19	2.08%	286	0.1559	2,145	7.5	40.62
2018	37,650.72	2.08%	784	0.0937	3,527	4.5	43.54
2019	2,517.81	2.08%	52	0.0729	184	3.5	44.51
2020	7,166.06	2.08%	149	0.0521	373	2.5	45.49
2021	10,877.94	2.09%	227	0.0313	340	1.5	46.46
2022	16,826.25	2.09%	351	0.0104	176	0.5	47.41
TOTAL	109,846.18		2,286		11,491		
NET SALVAGE ADJUSTMENT			114		575		
TOTAL			2,400		12,066		

COMPOSITE ANNUAL ACCRUAL RATE	2.19%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.11
COMPOSITE AVERAGE AGE (YEARS)	5.03
ELG COMPOSITE REMAINING LIFE (YEARS)	43.02

ATCO Electric Yukon

Account #: 341.20 - Int Combust Structures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R2
ASL: 40
Net Salvage: -10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1971	149,480.65	1.73%	2,593	0.8933	133,533	51.5	6.15
1974	8,707.10	1.80%	157	0.8730	7,602	48.5	7.05
1976	15,576.34	1.85%	287	0.8580	13,364	46.5	7.70
1978	170.40	1.89%	3	0.8415	143	44.5	8.38
1982	55,338.07	1.98%	1,098	0.8039	44,486	40.5	9.88
1983	42,062.15	2.01%	845	0.7935	33,375	39.5	10.28
1985	13,952.01	2.06%	287	0.7713	10,761	37.5	11.12
1986	22,121.90	2.08%	460	0.7596	16,803	36.5	11.55
1987	283,571.11	2.11%	5,970	0.7474	211,939	35.5	12.00
1988	39,385.22	2.13%	839	0.7348	28,939	34.5	12.45
1989	29,819.59	2.15%	642	0.7217	21,521	33.5	12.92
1991	1,409.87	2.20%	31	0.6942	979	31.5	13.88
1992	10,141.91	2.23%	226	0.6798	6,894	30.5	14.37
1993	59,158.97	2.25%	1,333	0.6649	39,332	29.5	14.87
1996	8,908.07	2.33%	208	0.6174	5,500	26.5	16.42
1997	53,204.86	2.36%	1,253	0.6007	31,962	25.5	16.95
1998	54,144.48	2.38%	1,290	0.5836	31,596	24.5	17.48
1999	29,783.20	2.41%	717	0.5659	16,855	23.5	18.03
2001	186.47	2.46%	5	0.5293	99	21.5	19.12
2004	1,001.91	2.55%	25	0.4708	472	18.5	20.79
2005	243,013.04	2.57%	6,255	0.4504	109,459	17.5	21.35
2006	221,326.80	2.60%	5,762	0.4295	95,069	16.5	21.91
2007	181,455.77	2.63%	4,778	0.4082	74,066	15.5	22.47
2008	322,680.35	2.66%	8,597	0.3863	124,663	14.5	23.03
2009	18,137.02	2.70%	489	0.3640	6,602	13.5	23.59
2010	30,304.59	2.73%	827	0.3412	10,339	12.5	24.14
2011	28,306.73	2.76%	782	0.3178	8,997	11.5	24.68
2012	258,315.67	2.80%	7,232	0.2940	75,940	10.5	25.22
2013	176,150.60	2.84%	4,999	0.2696	47,489	9.5	25.74
2014	3,364,294.96	2.88%	96,831	0.2446	823,061	8.5	26.24
2016	104,146.90	2.97%	3,092	0.1930	20,099	6.5	27.18
2017	19,355.25	3.02%	585	0.1662	3,217	5.5	27.59
2018	175,464.01	3.08%	5,408	0.1387	24,336	4.5	27.95
2019	38,576.76	3.15%	1,217	0.1104	4,258	3.5	28.21
2020	41,907.61	3.24%	1,360	0.0811	3,399	2.5	28.32

ELG - Whole Life

Survivor Curve: R2

ASL: 40

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 341.20 - Int Combust Structures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	6,101,560.34		166,485		2,087,147		
NET SALVAGE ADJUSTMENT			16,648		208,715		
TOTAL			183,133		2,295,862		

COMPOSITE ANNUAL ACCRUAL RATE 3.00%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.38

COMPOSITE AVERAGE AGE (YEARS) 13.67

ELG COMPOSITE REMAINING LIFE (YEARS) 23.55

ATCO Electric Yukon

Account #: 342.20 - Int Combust Fuel Holders, Producers and Accessories

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 40
Net Salvage: -15%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1971	2,905.24	1.81%	52	0.9299	2,702	51.5	3.88
1973	5,061.79	1.86%	94	0.9187	4,650	49.5	4.38
1976	8,400.29	1.93%	162	0.8994	7,555	46.5	5.20
1978	0.00	1.99%	0	0.8843	0	44.5	5.82
1982	52,075.44	2.09%	1,090	0.8475	44,135	40.5	7.29
1985	1.00	2.17%	0	0.8136	1	37.5	8.59
1986	7,089.08	2.19%	156	0.8010	5,678	36.5	9.07
1987	12,913.19	2.22%	287	0.7877	10,172	35.5	9.57
1988	86,979.73	2.24%	1,951	0.7739	67,314	34.5	10.08
1989	9,936.21	2.27%	225	0.7595	7,546	33.5	10.61
1990	14,133.96	2.29%	324	0.7444	10,521	32.5	11.16
1993	126,332.65	2.36%	2,980	0.6958	87,899	29.5	12.90
1994	92,190.19	2.38%	2,195	0.6785	62,548	28.5	13.51
1996	5,470.27	2.42%	133	0.6423	3,513	26.5	14.76
1997	54,613.60	2.44%	1,335	0.6234	34,048	25.5	15.40
1998	168,890.65	2.47%	4,164	0.6041	102,025	24.5	16.06
1999	179,776.07	2.49%	4,470	0.5843	105,036	23.5	16.72
2003	349,382.62	2.57%	8,963	0.5003	174,781	19.5	19.48
2004	816,503.82	2.58%	21,102	0.4781	390,388	18.5	20.19
2005	685,038.50	2.60%	17,832	0.4555	312,067	17.5	20.92
2006	100,239.51	2.62%	2,628	0.4325	43,358	16.5	21.65
2007	0.00	2.64%	0	0.4091	0	15.5	22.39
2008	52,742.00	2.66%	1,401	0.3853	20,320	14.5	23.14
2009	152,591.16	2.67%	4,081	0.3610	55,091	13.5	23.89
2012	109,665.17	2.72%	2,988	0.2860	31,369	10.5	26.21
2017	1,635.01	2.80%	46	0.1542	252	5.5	30.16
2018	128,056.02	2.82%	3,613	0.1270	16,257	4.5	30.95
2019	197,425.78	2.84%	5,606	0.0994	19,620	3.5	31.72
2020	10,678.66	2.86%	305	0.0715	764	2.5	32.46

ELG - Whole Life

Survivor Curve: R3

ASL: 40

Net Salvage: -15%

Truncation Year:

ATCO Electric Yukon

Account #: 342.20 - Int Combust Fuel Holders, Producers and Accessories

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	3,430,727.61		88,181		1,619,609		
NET SALVAGE ADJUSTMENT			13,227		242,941		
TOTAL			101,409		1,862,551		

COMPOSITE ANNUAL ACCRUAL RATE 2.96%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.54

COMPOSITE AVERAGE AGE (YEARS) 18.80

ELG COMPOSITE REMAINING LIFE (YEARS) 20.24

ATCO Electric Yukon

Account #: 343.20 - Int Combust Generators

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: S2
ASL: 26
Net Salvage: -10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1970	1,791.00	0.00%	0	1.0000	1,791	52.5	0.00
1971	18,448.00	0.00%	0	1.0000	18,448	51.5	0.00
1972	2,059.02	1.96%	40	0.9902	2,039	50.5	0.50
1973	6,287.07	2.00%	126	0.9881	6,212	49.5	0.60
1974	16,354.04	2.03%	332	0.9850	16,109	48.5	0.74
1975	7,547.20	2.07%	156	0.9814	7,407	47.5	0.90
1976	0.00	2.10%	0	0.9775	0	46.5	1.07
1977	27,873.45	2.14%	596	0.9732	27,126	45.5	1.25
1981	4,599.09	2.30%	106	0.9534	4,385	41.5	2.03
1982	22,695.13	2.34%	531	0.9477	21,508	40.5	2.24
1983	8,025.17	2.38%	191	0.9416	7,557	39.5	2.45
1984	6,948.44	2.43%	169	0.9353	6,499	38.5	2.66
1985	1,157.99	2.48%	29	0.9285	1,075	37.5	2.89
1986	62,113.75	2.52%	1,568	0.9214	57,229	36.5	3.12
1987	155.25	2.57%	4	0.9138	142	35.5	3.35
1988	48,440.16	2.63%	1,272	0.9057	43,873	34.5	3.59
1989	180,373.20	2.68%	4,831	0.8972	161,827	33.5	3.84
1990	80,983.83	2.73%	2,213	0.8881	71,922	32.5	4.09
1991	763,897.82	2.79%	21,303	0.8785	671,055	31.5	4.36
1992	5,536.31	2.85%	158	0.8682	4,807	30.5	4.63
1993	762,082.20	2.91%	22,146	0.8573	653,309	29.5	4.91
1994	2,361.74	2.97%	70	0.8456	1,997	28.5	5.20
1996	282,528.27	3.09%	8,742	0.8199	231,657	26.5	5.82
1997	622,890.67	3.16%	19,683	0.8058	501,922	25.5	6.15
1998	335,951.52	3.23%	10,842	0.7907	265,631	24.5	6.49
1999	94,533.12	3.30%	3,116	0.7745	73,219	23.5	6.84
2000	33,218.56	3.37%	1,118	0.7573	25,156	22.5	7.21
2002	6,723.20	3.51%	236	0.7191	4,835	20.5	8.01
2003	14,852.10	3.58%	532	0.6981	10,368	19.5	8.43
2004	4,873.74	3.65%	178	0.6756	3,293	18.5	8.88
2009	3,165.49	4.00%	126	0.5394	1,708	13.5	11.53
2010	148,128.20	4.06%	6,010	0.5072	75,123	12.5	12.15
2011	424,408.76	4.11%	17,462	0.4731	200,809	11.5	12.81
2012	369,281.16	4.17%	15,387	0.4375	161,559	10.5	13.50
2013	2,223,240.63	4.21%	93,674	0.4003	889,902	9.5	14.23
2014	2,772,344.30	4.25%	117,937	0.3616	1,002,466	8.5	15.01
2015	12,339.24	4.29%	529	0.3216	3,968	7.5	15.82
2016	1,882,812.94	4.32%	81,256	0.2805	528,164	6.5	16.67
2017	1,380,815.06	4.34%	59,877	0.2385	329,324	5.5	17.56

ELG - Whole Life

Survivor Curve: S2

ASL: 26

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 343.20 - Int Combust Generators

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2018	524,663.61	4.35%	22,828	0.1958	102,725	4.5	18.48
2019	410,659.95	4.36%	17,905	0.1526	62,668	3.5	19.44
2020	2,356,513.06	4.37%	102,862	0.1091	257,156	2.5	20.41
2021	2,743,838.51	4.37%	119,823	0.0655	179,735	1.5	21.40
2022	1,834,555.08	4.37%	80,123	0.0218	40,062	0.5	22.40
TOTAL	20,512,067.03		836,086		6,737,766		
NET SALVAGE ADJUSTMENT			83,609		673,777		
TOTAL			919,695		7,411,542		

COMPOSITE ANNUAL ACCRUAL RATE 4.48%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.36

COMPOSITE AVERAGE AGE (YEARS) 9.27

ELG COMPOSITE REMAINING LIFE (YEARS) 15.81

ELG - Whole Life

Survivor Curve: R3

ASL: 35

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 345.20 - Int Combust Accessory

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1971	48,892.21	1.87%	916	0.9652	47,192	51.5	1.86
1972	16,367.43	1.90%	311	0.9602	15,715	50.5	2.10
1973	12,675.52	1.93%	245	0.9549	12,104	49.5	2.34
1974	698.38	1.96%	14	0.9495	663	48.5	2.58
1976	782.05	2.02%	16	0.9384	734	46.5	3.05
1977	4,720.32	2.05%	97	0.9325	4,402	45.5	3.30
1981	3,895.02	2.18%	85	0.9057	3,528	41.5	4.32
1982	24,651.92	2.22%	546	0.8978	22,132	40.5	4.61
1983	5,928.99	2.25%	133	0.8893	5,273	39.5	4.92
1984	9,095.34	2.29%	208	0.8801	8,005	38.5	5.24
1986	24,622.41	2.36%	580	0.8596	21,166	36.5	5.96
1987	141,423.26	2.39%	3,379	0.8482	119,959	35.5	6.35
1989	87,504.88	2.46%	2,150	0.8230	72,015	33.5	7.21
1990	111,324.63	2.49%	2,772	0.8091	90,074	32.5	7.67
1991	14,955.00	2.52%	377	0.7944	11,881	31.5	8.15
1992	27,277.24	2.55%	697	0.7789	21,246	30.5	8.66
1993	44,604.10	2.59%	1,153	0.7626	34,014	29.5	9.18
1994	9,356.98	2.62%	245	0.7455	6,975	28.5	9.73
1997	126,077.88	2.70%	3,410	0.6897	86,950	25.5	11.48
1998	118,939.57	2.73%	3,251	0.6696	79,644	24.5	12.09
1999	151,423.93	2.76%	4,181	0.6489	98,258	23.5	12.72
2000	173,520.80	2.79%	4,839	0.6275	108,886	22.5	13.36
2001	152,758.70	2.82%	4,302	0.6055	92,492	21.5	14.01
2002	30,735.63	2.84%	874	0.5828	17,913	20.5	14.67
2003	0.00	2.87%	0	0.5595	0	19.5	15.35
2004	2,950.64	2.90%	85	0.5357	1,581	18.5	16.04
2005	4,960.69	2.92%	145	0.5112	2,536	17.5	16.74
2006	20,447.09	2.95%	602	0.4861	9,939	16.5	17.45
2007	60,561.92	2.97%	1,799	0.4604	27,884	15.5	18.16
2008	192,279.65	2.99%	5,758	0.4342	83,487	14.5	18.89
2009	8,766.27	3.02%	265	0.4074	3,572	13.5	19.64
2010	3,223.43	3.04%	98	0.3801	1,225	12.5	20.38
2011	52,856.96	3.06%	1,619	0.3523	18,621	11.5	21.14
2012	247,936.82	3.09%	7,650	0.3240	80,322	10.5	21.91
2013	666,567.05	3.11%	20,709	0.2951	196,734	9.5	22.69
2014	448,398.89	3.13%	14,025	0.2659	119,215	8.5	23.47
2015	1,109,061.65	3.15%	34,921	0.2362	261,906	7.5	24.26
2016	107,466.12	3.17%	3,406	0.2060	22,139	6.5	25.05
2017	55,750.31	3.19%	1,779	0.1755	9,782	5.5	25.85

ELG - Whole Life

Survivor Curve: R3

ASL: 35

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 345.20 - Int Combust Accessory

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2018	832,342.86	3.21%	26,732	0.1445	120,294	4.5	26.64

TOTAL 5,155,802.54 154,372 1,940,458

NET SALVAGE ADJUSTMENT 15,437 194,046

TOTAL 169,810 2,134,504

COMPOSITE ANNUAL ACCRUAL RATE 3.29%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.41

COMPOSITE AVERAGE AGE (YEARS) 13.51

ELG COMPOSITE REMAINING LIFE (YEARS) 20.24

ATCO Electric Yukon

Account #: 346.20 - Int Combust Miscellaneous

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 40
Net Salvage: -5%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1971	2,835.14	1.81%	51	0.9299	2,636	51.5	3.88
1979	4,179.21	2.01%	84	0.8759	3,661	43.5	6.16
1982	20,317.08	2.09%	425	0.8475	17,219	40.5	7.29
1987	14,434.04	2.22%	320	0.7877	11,370	35.5	9.57
1991	31,443.29	2.31%	727	0.7288	22,914	31.5	11.72
1992	92,241.67	2.34%	2,155	0.7125	65,726	30.5	12.30
1993	198.09	2.36%	5	0.6958	138	29.5	12.90
1996	76.70	2.42%	2	0.6423	49	26.5	14.76
1997	0.00	2.44%	0	0.6234	0	25.5	15.40
1998	18,203.30	2.47%	449	0.6041	10,996	24.5	16.06
1999	7,529.37	2.49%	187	0.5843	4,399	23.5	16.72
2000	0.00	2.51%	0	0.5640	0	22.5	17.40
2003	18.90	2.57%	0	0.5003	9	19.5	19.48
2004	0.00	2.58%	0	0.4781	0	18.5	20.19
2005	18,356.25	2.60%	478	0.4555	8,362	17.5	20.92
2006	31,692.32	2.62%	831	0.4325	13,708	16.5	21.65
2007	266,783.79	2.64%	7,042	0.4091	109,145	15.5	22.39
2008	26,941.49	2.66%	716	0.3853	10,380	14.5	23.14
2009	37,878.94	2.67%	1,013	0.3610	13,676	13.5	23.89
2010	8,942.89	2.69%	241	0.3364	3,008	12.5	24.66
2011	105,116.94	2.71%	2,846	0.3114	32,734	11.5	25.43
2012	36,847.20	2.72%	1,004	0.2860	10,540	10.5	26.21
2013	25,406.83	2.74%	696	0.2603	6,614	9.5	26.99
2014	647.69	2.76%	18	0.2343	152	8.5	27.78
2015	68,491.52	2.77%	1,899	0.2079	14,240	7.5	28.57
2016	74,067.02	2.79%	2,065	0.1812	13,422	6.5	29.37
2017	42,550.52	2.80%	1,193	0.1542	6,563	5.5	30.16
2018	41,985.76	2.82%	1,184	0.1270	5,330	4.5	30.95
2019	19,928.53	2.84%	566	0.0994	1,980	3.5	31.72
2020	76,081.28	2.86%	2,176	0.0715	5,440	2.5	32.46
2021	35,281.60	2.89%	1,018	0.0433	1,528	1.5	33.14
2022	5,275.19	2.93%	155	0.0147	77	0.5	33.62

ELG - Whole Life

Survivor Curve: R3

ASL: 40

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 346.20 - Int Combust Miscellaneous

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	1,113,752.55		29,547		396,019		
NET SALVAGE ADJUSTMENT			1,477		19,801		
TOTAL			31,024		415,820		

COMPOSITE ANNUAL ACCRUAL RATE 2.79%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.37

COMPOSITE AVERAGE AGE (YEARS) 14.07

ELG COMPOSITE REMAINING LIFE (YEARS) 23.83

ELG - Whole Life

Survivor Curve: R3

ASL: 25

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 347.20 - Renewable Energy Storage

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2021	3,536,262.09	4.58%	161,951	0.0687	242,926	1.5	20.34

TOTAL 3,536,262.09 161,951 242,926

NET SALVAGE ADJUSTMENT 0 0

TOTAL 161,951 242,926

COMPOSITE ANNUAL ACCRUAL RATE 4.58%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.07

COMPOSITE AVERAGE AGE (YEARS) 1.50

ELG COMPOSITE REMAINING LIFE (YEARS) 20.34

ATCO Electric Yukon

Account #: 353.00 - Station Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 50
Net Salvage: 0%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1957	8,481.84	1.43%	121	0.9348	7,929	65.5	4.57
1960	3,229.85	1.47%	48	0.9217	2,977	62.5	5.31
1961	657.80	1.49%	10	0.9170	603	61.5	5.56
1963	1,015.95	1.52%	15	0.9070	921	59.5	6.10
1964	213.85	1.54%	3	0.9016	193	58.5	6.39
1965	410.15	1.56%	6	0.8959	367	57.5	6.68
1966	62.60	1.57%	1	0.8899	56	56.5	6.99
1967	5,878.36	1.59%	94	0.8835	5,194	55.5	7.32
1968	14,018.01	1.61%	226	0.8769	12,292	54.5	7.65
1969	25,261.00	1.63%	411	0.8699	21,973	53.5	8.00
1970	17,772.00	1.64%	292	0.8625	15,328	52.5	8.37
1971	3,930.00	1.66%	65	0.8547	3,359	51.5	8.76
1974	41,250.75	1.71%	705	0.8290	34,198	48.5	10.00
1975	1,183.87	1.73%	20	0.8197	970	47.5	10.45
1981	4,153.38	1.82%	76	0.7550	3,136	41.5	13.47
1982	3,210.00	1.83%	59	0.7429	2,385	40.5	14.02
1984	9,590.00	1.86%	179	0.7175	6,881	38.5	15.16
1985	14,603.26	1.88%	274	0.7042	10,284	37.5	15.75
1986	43,015.79	1.89%	814	0.6907	29,709	36.5	16.35
1988	21,596.39	1.92%	415	0.6625	14,307	34.5	17.58
1989	18,476.14	1.93%	357	0.6479	11,970	33.5	18.21
1992	231,307.73	1.97%	4,566	0.6021	139,278	30.5	20.15
1993	460,428.37	1.99%	9,150	0.5863	269,934	29.5	20.82
1996	147,978.24	2.03%	2,998	0.5369	79,443	26.5	22.86
1997	442.56	2.04%	9	0.5198	230	25.5	23.56
1999	62,040.09	2.06%	1,280	0.4848	30,077	23.5	24.97
2000	4,081.39	2.08%	85	0.4669	1,906	22.5	25.69

TOTAL 1,144,289.37 22,279 705,900

NET SALVAGE ADJUSTMENT 0 0

TOTAL 22,279 705,900

COMPOSITE ANNUAL ACCRUAL RATE 1.95%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.62

COMPOSITE AVERAGE AGE (YEARS) 32.16

ELG COMPOSITE REMAINING LIFE (YEARS) 19.42

ATCO Electric Yukon

Account #: 360.10 - Land Rights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 75
Net Salvage: 0%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1971	1,500.00	1.28%	19	0.6600	990	51.5	26.53
1979	198.05	1.33%	3	0.5782	115	43.5	31.73
1994	12,700.80	1.41%	179	0.4020	5,106	28.5	42.40
1995	44,975.18	1.42%	637	0.3893	17,507	27.5	43.15
1996	46,085.52	1.42%	655	0.3764	17,348	26.5	43.90
1997	140,113.75	1.43%	1,997	0.3635	50,928	25.5	44.66
1998	50,522.14	1.43%	723	0.3504	17,703	24.5	45.42
1999	50,004.19	1.44%	718	0.3372	16,863	23.5	46.19
2000	49,670.66	1.44%	715	0.3240	16,091	22.5	46.95
2001	55,348.17	1.44%	799	0.3106	17,189	21.5	47.73
2002	34,647.85	1.45%	502	0.2971	10,293	20.5	48.51
2003	61,972.64	1.45%	901	0.2835	17,568	19.5	49.29
2004	65,843.58	1.46%	960	0.2698	17,764	18.5	50.07
2005	204,323.33	1.46%	2,989	0.2560	52,307	17.5	50.86
2006	46,254.29	1.47%	679	0.2421	11,199	16.5	51.65
2007	69,728.37	1.47%	1,026	0.2281	15,908	15.5	52.44
2008	103,657.56	1.48%	1,530	0.2141	22,191	14.5	53.23
2009	72,924.99	1.48%	1,080	0.1999	14,580	13.5	54.02
2010	86,743.57	1.49%	1,289	0.1857	16,107	12.5	54.82
2011	75,648.81	1.49%	1,127	0.1714	12,963	11.5	55.61
2012	62,943.96	1.49%	941	0.1569	9,878	10.5	56.40
2013	50,400.79	1.50%	756	0.1424	7,179	9.5	57.19
2014	69,137.10	1.50%	1,040	0.1279	8,840	8.5	57.98
2015	128,628.27	1.51%	1,941	0.1132	14,561	7.5	58.75
2016	121,651.61	1.51%	1,843	0.0984	11,977	6.5	59.52
2017	73,745.00	1.52%	1,121	0.0836	6,166	5.5	60.28
2018	104,499.46	1.53%	1,595	0.0687	7,179	4.5	61.00
2019	64,342.86	1.53%	987	0.0537	3,454	3.5	61.70
2020	80,416.36	1.54%	1,240	0.0386	3,101	2.5	62.33
2021	66,128.16	1.55%	1,028	0.0233	1,542	1.5	62.82
2022	65,932.17	1.58%	1,039	0.0079	520	0.5	62.94

ELG - Whole Life

Survivor Curve: R3

ASL: 75

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 360.10 - Land Rights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	2,160,689.19		32,059		425,115		
NET SALVAGE ADJUSTMENT			0		0		
TOTAL			32,059		425,115		

COMPOSITE ANNUAL ACCRUAL RATE 1.48%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.20

COMPOSITE AVERAGE AGE (YEARS) 13.47

ELG COMPOSITE REMAINING LIFE (YEARS) 53.97

ATCO Electric Yukon

Account #: 362.00 - Station Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R2.5
ASL: 40
Net Salvage: -10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1960	2,946.56	1.53%	45	0.9547	2,813	62.5	2.97
1968	15,739.76	1.69%	266	0.9220	14,512	54.5	4.61
1969	882.00	1.71%	15	0.9172	809	53.5	4.83
1971	39,959.05	1.76%	704	0.9071	36,247	51.5	5.27
1972	2,089.52	1.79%	37	0.9017	1,884	50.5	5.51
1973	56,550.00	1.81%	1,024	0.8959	50,666	49.5	5.75
1974	446.22	1.83%	8	0.8899	397	48.5	6.00
1976	333,091.33	1.89%	6,280	0.8767	292,014	46.5	6.54
1977	70,884.17	1.91%	1,354	0.8694	61,629	45.5	6.83
1979	14,954.00	1.96%	293	0.8535	12,764	43.5	7.47
1980	80,834.73	1.99%	1,607	0.8448	68,289	42.5	7.81
1981	126,329.84	2.01%	2,543	0.8356	105,555	41.5	8.17
1985	41,957.20	2.11%	887	0.7930	33,270	37.5	9.79
1986	90,153.83	2.14%	1,929	0.7809	70,400	36.5	10.24
1987	335,797.16	2.16%	7,267	0.7682	257,975	35.5	10.71
1988	60,907.24	2.19%	1,333	0.7550	45,988	34.5	11.19
1989	36,582.03	2.21%	809	0.7413	27,118	33.5	11.69
1990	132,200.60	2.24%	2,957	0.7270	96,109	32.5	12.20
1991	247,175.42	2.26%	5,588	0.7122	176,030	31.5	12.73
1992	98,559.29	2.28%	2,252	0.6968	68,677	30.5	13.27
1993	126,853.41	2.31%	2,928	0.6809	86,380	29.5	13.82
1994	36,541.56	2.33%	852	0.6646	24,284	28.5	14.38
1996	196,092.49	2.38%	4,664	0.6303	123,605	26.5	15.54
1997	1,451.70	2.40%	35	0.6125	889	25.5	16.13
1999	43,128.94	2.45%	1,056	0.5754	24,817	23.5	17.34
2000	47,547.61	2.47%	1,175	0.5562	26,444	22.5	17.96
2001	166,569.67	2.50%	4,156	0.5364	89,356	21.5	18.58
2005	467,741.65	2.59%	12,109	0.4530	211,910	17.5	21.13
2006	22,338.61	2.61%	584	0.4311	9,630	16.5	21.78
2012	1,375,919.17	2.76%	37,996	0.2900	398,960	10.5	25.71
2015	372,901.66	2.85%	10,613	0.2135	79,601	7.5	27.63
2016	302,795.93	2.88%	8,714	0.1871	56,641	6.5	28.25
2017	1,466,640.79	2.91%	42,713	0.1602	234,924	5.5	28.84
2018	559,239.43	2.95%	16,503	0.1328	74,264	4.5	29.39
2019	64,783.18	3.00%	1,941	0.1049	6,793	3.5	29.88
2020	390,668.04	3.05%	11,923	0.0763	29,807	2.5	30.27
2021	60,901.41	3.13%	1,906	0.0469	2,859	1.5	30.45
2022	53,317.60	3.28%	1,746	0.0164	873	0.5	30.03

ELG - Whole Life

Survivor Curve: R2.5

ASL: 40

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 362.00 - Station Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	7,543,472.80		198,816		2,905,181		
NET SALVAGE ADJUSTMENT			19,882		290,518		
TOTAL			218,697		3,195,700		

COMPOSITE ANNUAL ACCRUAL RATE 2.90%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.42

COMPOSITE AVERAGE AGE (YEARS) 16.53

ELG COMPOSITE REMAINING LIFE (YEARS) 22.24

ELG - Whole Life

Survivor Curve: SQ

ASL: 15

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 362.10 - System Communication & Control

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2008	59,380.00	6.67%	3,959	0.9667	57,401	14.5	0.50
2009	47,209.25	6.67%	3,147	0.9000	42,488	13.5	1.50
2010	225,923.88	6.67%	15,062	0.8333	188,270	12.5	2.50
2011	49,344.03	6.67%	3,290	0.7667	37,830	11.5	3.50
2012	72,958.39	6.67%	4,864	0.7000	51,071	10.5	4.50
2013	76,752.11	6.67%	5,117	0.6333	48,610	9.5	5.50
2014	34,478.58	6.67%	2,299	0.5667	19,538	8.5	6.50
2015	141,922.35	6.67%	9,461	0.5000	70,961	7.5	7.50
2016	66,684.33	6.67%	4,446	0.4333	28,897	6.5	8.50
2017	132,217.11	6.67%	8,814	0.3667	48,480	5.5	9.50
2018	32,252.50	6.67%	2,150	0.3000	9,676	4.5	10.50
2019	10,356.22	6.67%	690	0.2333	2,416	3.5	11.50
2020	23,127.58	6.67%	1,542	0.1667	3,855	2.5	12.50
2021	3,895.49	6.67%	260	0.1000	390	1.5	13.50

TOTAL 976,501.82 65,100 609,881

NET SALVAGE ADJUSTMENT 6,510 60,988

TOTAL 71,610 670,870

COMPOSITE ANNUAL ACCRUAL RATE 7.33%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.69

COMPOSITE AVERAGE AGE (YEARS) 9.37

ELG COMPOSITE REMAINING LIFE (YEARS) 5.63

ATCO Electric Yukon

Account #: 364.00 - Poles, Towers and Fixtures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R2
ASL: 50
Net Salvage: -50%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1958	3,014.82	1.39%	42	0.8940	2,695	64.5	7.65
1959	3,422.64	1.40%	48	0.8889	3,042	63.5	7.94
1960	48,394.05	1.41%	684	0.8836	42,759	62.5	8.24
1961	19,369.15	1.43%	277	0.8781	17,007	61.5	8.54
1962	16,975.57	1.44%	245	0.8724	14,809	60.5	8.85
1963	22,284.97	1.46%	325	0.8665	19,310	59.5	9.17
1964	25,277.40	1.47%	372	0.8604	21,748	58.5	9.49
1965	20,974.41	1.49%	312	0.8540	17,913	57.5	9.83
1966	70,219.67	1.50%	1,053	0.8475	59,510	56.5	10.17
1967	30,279.07	1.51%	459	0.8407	25,455	55.5	10.52
1968	71,615.07	1.53%	1,095	0.8336	59,701	54.5	10.88
1969	97,453.67	1.54%	1,505	0.8263	80,530	53.5	11.24
1970	10,075.57	1.56%	157	0.8188	8,250	52.5	11.62
1971	13,083.50	1.57%	206	0.8110	10,610	51.5	12.00
1972	111,428.67	1.59%	1,772	0.8029	89,466	50.5	12.40
1973	78,641.88	1.61%	1,262	0.7946	62,485	49.5	12.80
1974	70,225.46	1.62%	1,138	0.7859	55,193	48.5	13.21
1975	134,478.26	1.64%	2,200	0.7770	104,495	47.5	13.63
1976	91,446.88	1.65%	1,510	0.7679	70,218	46.5	14.06
1977	219,000.94	1.67%	3,650	0.7584	166,091	45.5	14.49
1978	188,718.82	1.68%	3,175	0.7487	141,286	44.5	14.94
1979	188,249.29	1.70%	3,196	0.7386	139,047	43.5	15.39
1980	87,518.64	1.71%	1,500	0.7283	63,741	42.5	15.85
1981	112,395.13	1.73%	1,944	0.7177	80,667	41.5	16.32
1982	343,923.89	1.75%	6,002	0.7068	243,090	40.5	16.80
1983	131,949.30	1.76%	2,324	0.6956	91,787	39.5	17.28
1984	252,092.60	1.78%	4,480	0.6841	172,469	38.5	17.77
1985	742,058.44	1.79%	13,305	0.6724	498,946	37.5	18.27
1986	255,348.72	1.81%	4,620	0.6603	168,612	36.5	18.78
1987	399,533.43	1.83%	7,293	0.6480	258,885	35.5	19.29
1988	323,554.52	1.84%	5,958	0.6353	205,562	34.5	19.80
1989	564,635.35	1.86%	10,490	0.6224	351,421	33.5	20.33
1990	1,075,712.07	1.87%	20,162	0.6092	655,276	32.5	20.85
1991	756,376.28	1.89%	14,302	0.5956	450,523	31.5	21.38
1992	1,129,199.31	1.91%	21,541	0.5818	656,989	30.5	21.92
1993	1,568,659.94	1.92%	30,188	0.5677	890,543	29.5	22.46
1994	976,175.31	1.94%	18,952	0.5533	540,125	28.5	23.01
1995	881,718.03	1.96%	17,269	0.5386	474,903	27.5	23.56
1996	897,955.88	1.98%	17,743	0.5236	470,188	26.5	24.11

ATCO Electric Yukon

Account #: 364.00 - Poles, Towers and Fixtures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R2
ASL: 50
Net Salvage: -50%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1997	747,239.51	1.99%	14,896	0.5083	379,847	25.5	24.66
1998	669,970.32	2.01%	13,475	0.4928	330,129	24.5	25.22
1999	762,510.42	2.03%	15,473	0.4769	363,619	23.5	25.78
2000	587,731.35	2.05%	12,034	0.4607	270,763	22.5	26.34
2001	627,376.35	2.07%	12,962	0.4442	278,687	21.5	26.90
2002	980,485.00	2.09%	20,443	0.4274	419,086	20.5	27.46
2003	771,498.94	2.10%	16,235	0.4103	316,576	19.5	28.02
2004	1,279,261.04	2.12%	27,172	0.3929	502,675	18.5	28.58
2005	967,663.42	2.14%	20,749	0.3752	363,099	17.5	29.14
2006	1,346,983.76	2.16%	29,161	0.3572	481,155	16.5	29.69
2007	1,069,384.07	2.19%	23,379	0.3389	362,377	15.5	30.24
2008	1,603,024.45	2.21%	35,399	0.3202	513,282	14.5	30.78
2009	1,575,100.28	2.23%	35,142	0.3012	474,412	13.5	31.32
2010	1,861,322.87	2.25%	41,970	0.2819	524,624	12.5	31.85
2011	3,221,077.74	2.28%	73,432	0.2622	844,463	11.5	32.37
2012	3,862,446.32	2.31%	89,065	0.2421	935,181	10.5	32.87
2013	2,647,222.93	2.33%	61,779	0.2217	586,898	9.5	33.35
2014	2,569,305.46	2.36%	60,725	0.2009	516,166	8.5	33.81
2015	1,516,396.25	2.40%	36,329	0.1797	272,468	7.5	34.24
2016	1,432,647.42	2.43%	34,831	0.1580	226,402	6.5	34.63
2017	1,298,162.43	2.47%	32,078	0.1359	176,430	5.5	34.97
2018	1,499,163.71	2.52%	37,733	0.1133	169,799	4.5	35.23
2019	2,189,713.59	2.57%	56,320	0.0900	197,119	3.5	35.38
2020	1,899,634.86	2.64%	50,197	0.0661	125,494	2.5	35.34
2021	2,295,289.28	2.74%	62,979	0.0412	94,468	1.5	34.95
2022	1,992,891.28	2.94%	58,553	0.0147	29,276	0.5	33.54

TOTAL 53,306,939.65 1,195,263 17,239,841

NET SALVAGE ADJUSTMENT 597,632 8,619,920

TOTAL 1,792,895 25,859,761

COMPOSITE ANNUAL ACCRUAL RATE 3.36%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.49

COMPOSITE AVERAGE AGE (YEARS) 15.91

ELG COMPOSITE REMAINING LIFE (YEARS) 29.49

ELG - Whole Life

Survivor Curve: R3

ASL: 50

Net Salvage: -25%

Truncation Year:

ATCO Electric Yukon

Account #: 365.00 - Overhead Conductors and Devices

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1948	32.58	1.30%	0	0.9688	32	74.5	2.40
1949	112.48	1.31%	1	0.9653	109	73.5	2.64
1950	15.81	1.33%	0	0.9617	15	72.5	2.88
1951	139.38	1.34%	2	0.9581	134	71.5	3.13
1952	206.23	1.35%	3	0.9544	197	70.5	3.37
1953	1,131.15	1.37%	15	0.9506	1,075	69.5	3.61
1954	2,638.00	1.38%	36	0.9468	2,498	68.5	3.85
1955	418.31	1.40%	6	0.9429	394	67.5	4.09
1956	2,743.00	1.41%	39	0.9389	2,575	66.5	4.33
1957	922.06	1.43%	13	0.9348	862	65.5	4.57
1958	5,559.00	1.44%	80	0.9306	5,173	64.5	4.81
1959	8,040.00	1.46%	117	0.9262	7,447	63.5	5.06
1960	71,973.12	1.47%	1,061	0.9217	66,339	62.5	5.31
1961	9,293.00	1.49%	139	0.9170	8,522	61.5	5.56
1962	11,837.13	1.51%	178	0.9121	10,797	60.5	5.83
1963	14,243.14	1.52%	217	0.9070	12,918	59.5	6.10
1964	10,540.74	1.54%	162	0.9016	9,503	58.5	6.39
1965	14,533.83	1.56%	226	0.8959	13,020	57.5	6.68
1966	43,767.33	1.57%	689	0.8899	38,947	56.5	6.99
1967	33,874.97	1.59%	539	0.8835	29,930	55.5	7.32
1968	64,545.53	1.61%	1,039	0.8769	56,599	54.5	7.65
1969	117,632.09	1.63%	1,913	0.8699	102,323	53.5	8.00
1970	25,394.19	1.64%	417	0.8625	21,902	52.5	8.37
1971	18,655.91	1.66%	310	0.8547	15,945	51.5	8.76
1972	107,966.04	1.68%	1,810	0.8465	91,398	50.5	9.15
1973	86,034.28	1.69%	1,456	0.8380	72,095	49.5	9.57
1974	56,233.32	1.71%	961	0.8290	46,619	48.5	10.00
1975	144,327.88	1.73%	2,491	0.8197	118,300	47.5	10.45
1976	106,131.65	1.74%	1,848	0.8099	85,955	46.5	10.92
1977	143,689.86	1.76%	2,526	0.7997	114,911	45.5	11.40
1978	87,933.75	1.77%	1,559	0.7891	69,392	44.5	11.89
1979	74,787.68	1.79%	1,338	0.7782	58,196	43.5	12.40
1980	121,058.02	1.80%	2,184	0.7668	92,825	42.5	12.93
1981	84,726.45	1.82%	1,541	0.7550	63,970	41.5	13.47
1982	209,647.97	1.83%	3,846	0.7429	155,744	40.5	14.02
1983	132,046.38	1.85%	2,442	0.7304	96,442	39.5	14.58
1984	119,721.59	1.86%	2,231	0.7175	85,898	38.5	15.16
1985	677,899.61	1.88%	12,731	0.7042	477,408	37.5	15.75
1986	133,681.75	1.89%	2,530	0.6907	92,328	36.5	16.35

ATCO Electric Yukon

Account #: 365.00 - Overhead Conductors and Devices

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 50
Net Salvage: -25%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1987	326,419.26	1.91%	6,222	0.6767	220,895	35.5	16.96
1988	239,184.34	1.92%	4,593	0.6625	158,448	34.5	17.58
1989	332,285.34	1.93%	6,426	0.6479	215,272	33.5	18.21
1990	679,027.03	1.95%	13,224	0.6329	429,776	32.5	18.85
1991	518,395.28	1.96%	10,165	0.6177	320,206	31.5	19.50
1992	484,198.03	1.97%	9,559	0.6021	291,551	30.5	20.15
1993	792,443.85	1.99%	15,749	0.5863	464,584	29.5	20.82
1994	459,071.59	2.00%	9,183	0.5701	261,716	28.5	21.49
1995	357,630.07	2.01%	7,200	0.5536	197,994	27.5	22.17
1996	559,669.49	2.03%	11,338	0.5369	300,464	26.5	22.86
1997	519,675.61	2.04%	10,593	0.5198	270,126	25.5	23.56
1998	409,806.91	2.05%	8,404	0.5024	205,905	24.5	24.26
1999	410,555.25	2.06%	8,470	0.4848	199,040	23.5	24.97
2000	473,984.29	2.08%	9,835	0.4669	221,296	22.5	25.69
2001	463,162.81	2.09%	9,666	0.4487	207,814	21.5	26.42
2002	510,584.75	2.10%	10,715	0.4302	219,660	20.5	27.15
2003	423,598.69	2.11%	8,938	0.4115	174,298	19.5	27.89
2004	147,517.61	2.12%	3,129	0.3925	57,895	18.5	28.64
2005	793,470.21	2.13%	16,921	0.3732	296,123	17.5	29.39
2006	1,160,185.18	2.14%	24,869	0.3537	410,337	16.5	30.15
2007	1,574,935.33	2.15%	33,929	0.3339	525,903	15.5	30.92
2008	1,516,746.00	2.16%	32,837	0.3139	476,134	14.5	31.69
2009	938,542.77	2.18%	20,417	0.2937	275,634	13.5	32.47
2010	1,351,276.53	2.19%	29,536	0.2732	369,198	12.5	33.25
2011	1,556,126.35	2.20%	34,173	0.2525	392,987	11.5	34.04
2012	1,647,092.22	2.21%	36,338	0.2316	381,547	10.5	34.83
2013	1,405,487.27	2.22%	31,150	0.2105	295,925	9.5	35.62
2014	1,652,045.73	2.23%	36,782	0.1893	312,651	8.5	36.41
2015	897,321.03	2.24%	20,071	0.1678	150,532	7.5	37.21
2016	748,284.56	2.25%	16,816	0.1461	109,305	6.5	38.00
2017	429,138.61	2.26%	9,691	0.1242	53,300	5.5	38.78
2018	413,292.00	2.27%	9,381	0.1021	42,215	4.5	39.56
2019	405,403.99	2.28%	9,254	0.0799	32,390	3.5	40.31
2020	419,787.60	2.30%	9,646	0.0574	24,115	2.5	41.02
2021	448,877.77	2.32%	10,403	0.0348	15,604	1.5	41.65
2022	583,847.01	2.35%	13,731	0.0118	6,866	0.5	42.02

ELG - Whole Life

Survivor Curve: R3

ASL: 50

Net Salvage: -25%

Truncation Year:

ATCO Electric Yukon

Account #: 365.00 - Overhead Conductors and Devices

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	28,793,205.57		608,054		10,716,439		
NET SALVAGE ADJUSTMENT			152,014		2,679,110		
TOTAL			760,068		13,395,549		

COMPOSITE ANNUAL ACCRUAL RATE	2.64%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.47
COMPOSITE AVERAGE AGE (YEARS)	18.49
ELG COMPOSITE REMAINING LIFE (YEARS)	29.14

ATCO Electric Yukon

Account #: 365.10 - Overhead Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R2.5
ASL: 50
Net Salvage: -10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1945	1,929.05	1.23%	24	0.9530	1,838	77.5	3.82
1946	414.58	1.24%	5	0.9500	394	76.5	4.03
1947	476.35	1.25%	6	0.9469	451	75.5	4.23
1948	569.49	1.27%	7	0.9438	538	74.5	4.43
1949	673.48	1.28%	9	0.9407	634	73.5	4.64
1950	808.02	1.29%	10	0.9374	757	72.5	4.84
1951	900.65	1.31%	12	0.9341	841	71.5	5.05
1952	1,366.00	1.32%	18	0.9306	1,271	70.5	5.25
1953	2,438.26	1.33%	33	0.9271	2,261	69.5	5.46
1954	3,195.49	1.35%	43	0.9235	2,951	68.5	5.68
1955	2,768.70	1.36%	38	0.9197	2,546	67.5	5.89
1956	3,320.78	1.38%	46	0.9159	3,041	66.5	6.11
1957	3,589.68	1.39%	50	0.9119	3,273	65.5	6.33
1958	1,132.87	1.41%	16	0.9077	1,028	64.5	6.56
1959	1,388.10	1.42%	20	0.9034	1,254	63.5	6.79
1960	1,530.98	1.44%	22	0.8989	1,376	62.5	7.03
1961	1,748.81	1.45%	25	0.8943	1,564	61.5	7.27
1962	5,272.12	1.47%	78	0.8894	4,689	60.5	7.53
1963	2,496.71	1.49%	37	0.8842	2,208	59.5	7.79
1964	4,404.72	1.50%	66	0.8788	3,871	58.5	8.07
1965	3,196.13	1.52%	49	0.8732	2,791	57.5	8.35
1966	4,560.96	1.53%	70	0.8672	3,955	56.5	8.65
1967	6,638.16	1.55%	103	0.8610	5,715	55.5	8.96
1968	7,372.66	1.57%	116	0.8544	6,299	54.5	9.29
1969	7,420.34	1.58%	118	0.8475	6,289	53.5	9.62
1970	11,612.42	1.60%	186	0.8403	9,758	52.5	9.98
1971	11,518.03	1.62%	186	0.8327	9,591	51.5	10.35
1972	12,853.22	1.63%	210	0.8248	10,601	50.5	10.73
1973	13,394.75	1.65%	221	0.8165	10,937	49.5	11.13
1974	19,262.84	1.67%	321	0.8078	15,561	48.5	11.54
1975	33,412.56	1.68%	562	0.7988	26,691	47.5	11.96
1976	37,355.41	1.70%	634	0.7894	29,490	46.5	12.40
1977	41,260.07	1.71%	707	0.7797	32,170	45.5	12.86
1978	61,717.22	1.73%	1,067	0.7696	47,496	44.5	13.32
1979	50,268.17	1.75%	877	0.7591	38,158	43.5	13.81
1980	40,531.56	1.76%	714	0.7483	30,328	42.5	14.30
1981	49,288.64	1.78%	875	0.7371	36,330	41.5	14.80
1982	28,410.17	1.79%	509	0.7256	20,613	40.5	15.32
1983	40,104.53	1.81%	725	0.7137	28,622	39.5	15.85

ELG - Whole Life

Survivor Curve: R2.5

ASL: 50

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 365.10 - Overhead Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1984	39,429.28	1.82%	718	0.7015	27,659	38.5	16.38
1985	32,242.68	1.84%	592	0.6890	22,214	37.5	16.93
1986	50,445.94	1.85%	934	0.6761	34,106	36.5	17.49
1987	67,604.35	1.87%	1,262	0.6629	44,816	35.5	18.05
1988	66,178.57	1.88%	1,246	0.6494	42,978	34.5	18.62
1989	78,911.26	1.90%	1,497	0.6356	50,157	33.5	19.21
1990	88,047.57	1.91%	1,684	0.6215	54,721	32.5	19.79
1991	93,078.97	1.93%	1,794	0.6071	56,505	31.5	20.39
1992	159,551.04	1.94%	3,099	0.5923	94,508	30.5	20.99
1993	111,656.42	1.96%	2,185	0.5773	64,460	29.5	21.60
1994	63,639.22	1.97%	1,255	0.5620	35,764	28.5	22.21
1995	53,625.79	1.99%	1,065	0.5464	29,299	27.5	22.83
1997	41,631.73	2.02%	840	0.5142	21,409	25.5	24.09
1998	44,053.07	2.03%	895	0.4977	21,927	24.5	24.72
1999	36,742.54	2.05%	752	0.4809	17,671	23.5	25.36
2000	26,920.52	2.06%	555	0.4639	12,488	22.5	26.00
2001	22,647.94	2.08%	470	0.4465	10,112	21.5	26.65
2002	56,491.98	2.09%	1,182	0.4289	24,227	20.5	27.30
2003	53,444.89	2.11%	1,126	0.4109	21,961	19.5	27.95
2004	64,062.25	2.12%	1,360	0.3927	25,157	18.5	28.61
2005	59,287.17	2.14%	1,268	0.3742	22,185	17.5	29.27
2006	158,396.21	2.15%	3,412	0.3554	56,296	16.5	29.92
2007	185,287.16	2.17%	4,021	0.3364	62,322	15.5	30.58
2008	216,453.65	2.19%	4,732	0.3170	68,618	14.5	31.24
2009	129,027.25	2.20%	2,842	0.2974	38,371	13.5	31.90
2010	28,748.64	2.22%	638	0.2775	7,977	12.5	32.55
2011	219,908.43	2.24%	4,920	0.2573	56,582	11.5	33.19
2012	135,348.46	2.26%	3,053	0.2368	32,055	10.5	33.84
2013	116,495.95	2.27%	2,650	0.2161	25,172	9.5	34.47
2014	17,974.34	2.29%	412	0.1950	3,505	8.5	35.08
2015	19,038.89	2.32%	441	0.1737	3,307	7.5	35.68
2016	163,679.17	2.34%	3,828	0.1520	24,882	6.5	36.26
2017	273,963.53	2.36%	6,477	0.1300	35,623	5.5	36.80
2018	320,361.54	2.39%	7,666	0.1077	34,497	4.5	37.29
2019	313,658.74	2.43%	7,612	0.0849	26,643	3.5	37.70
2020	209,778.04	2.47%	5,181	0.0617	12,953	2.5	37.99
2021	465,911.33	2.53%	11,790	0.0380	17,684	1.5	38.02
2022	429,924.71	2.64%	11,371	0.0132	5,685	0.5	37.31

ELG - Whole Life
Survivor Curve: R2.5
ASL: 50
Net Salvage: -10%
Truncation Year:

ATCO Electric Yukon

Account #: 365.10 - Overhead Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	5,234,251.90		115,638		1,654,681		
NET SALVAGE ADJUSTMENT			11,564		165,468		
TOTAL			127,202		1,820,149		

COMPOSITE ANNUAL ACCRUAL RATE	2.43%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.35
COMPOSITE AVERAGE AGE (YEARS)	16.17
ELG COMPOSITE REMAINING LIFE (YEARS)	29.90

ATCO Electric Yukon

Account #: 367.00 - Underground Conductor and Devices

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 50
Net Salvage: -25%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1969	106.98	1.63%	2	0.8699	93	53.5	8.00
1971	65.00	1.66%	1	0.8547	56	51.5	8.76
1973	4,692.37	1.69%	79	0.8380	3,932	49.5	9.57
1974	0.00	1.71%	0	0.8290	0	48.5	10.00
1975	0.00	1.73%	0	0.8197	0	47.5	10.45
1976	58,767.26	1.74%	1,024	0.8099	47,595	46.5	10.92
1977	531.59	1.76%	9	0.7997	425	45.5	11.40
1978	199,341.50	1.77%	3,535	0.7891	157,307	44.5	11.89
1979	15,128.96	1.79%	271	0.7782	11,773	43.5	12.40
1980	711,898.34	1.80%	12,844	0.7668	545,872	42.5	12.93
1981	1,794.32	1.82%	33	0.7550	1,355	41.5	13.47
1982	49,311.39	1.83%	905	0.7429	36,633	40.5	14.02
1983	67,646.31	1.85%	1,251	0.7304	49,407	39.5	14.58
1984	32,676.52	1.86%	609	0.7175	23,445	38.5	15.16
1985	61,229.70	1.88%	1,150	0.7042	43,121	37.5	15.75
1986	21,965.42	1.89%	416	0.6907	15,171	36.5	16.35
1987	181,124.12	1.91%	3,453	0.6767	122,571	35.5	16.96
1988	70,261.38	1.92%	1,349	0.6625	46,545	34.5	17.58
1989	1,380,913.06	1.93%	26,705	0.6479	894,628	33.5	18.21
1990	230,887.64	1.95%	4,496	0.6329	146,135	32.5	18.85
1991	95,294.60	1.96%	1,869	0.6177	58,862	31.5	19.50
1992	736,477.56	1.97%	14,540	0.6021	443,456	30.5	20.15
1993	996,540.23	1.99%	19,805	0.5863	584,239	29.5	20.82
1994	267,822.74	2.00%	5,357	0.5701	152,685	28.5	21.49
1995	1,124,713.96	2.01%	22,643	0.5536	622,672	27.5	22.17
1996	533,259.01	2.03%	10,803	0.5369	286,285	26.5	22.86
1997	1,120,397.24	2.04%	22,838	0.5198	582,379	25.5	23.56
1998	658,133.08	2.05%	13,497	0.5024	330,676	24.5	24.26
1999	875,078.79	2.06%	18,053	0.4848	424,244	23.5	24.97
2000	527,543.67	2.08%	10,947	0.4669	246,302	22.5	25.69
2001	1,723,813.98	2.09%	35,974	0.4487	773,450	21.5	26.42
2002	1,011,242.38	2.10%	21,222	0.4302	435,049	20.5	27.15
2003	1,150,116.13	2.11%	24,269	0.4115	473,238	19.5	27.89
2004	997,611.57	2.12%	21,164	0.3925	391,526	18.5	28.64
2005	724,497.68	2.13%	15,450	0.3732	270,382	17.5	29.39
2006	738,887.65	2.14%	15,838	0.3537	261,332	16.5	30.15
2007	826,505.65	2.15%	17,806	0.3339	275,987	15.5	30.92
2008	795,810.82	2.16%	17,229	0.3139	249,819	14.5	31.69
2009	1,218,501.00	2.18%	26,508	0.2937	357,853	13.5	32.47

ELG - Whole Life

Survivor Curve: R3

ASL: 50

Net Salvage: -25%

Truncation Year:

ATCO Electric Yukon

Account #: 367.00 - Underground Conductor and Devices

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2010	628,798.14	2.19%	13,744	0.2732	171,801	12.5	33.25
2011	843,733.02	2.20%	18,528	0.2525	213,078	11.5	34.04
2012	2,461,714.22	2.21%	54,310	0.2316	570,253	10.5	34.83
2013	803,799.81	2.22%	17,815	0.2105	169,240	9.5	35.62
2014	954,641.21	2.23%	21,255	0.1893	180,667	8.5	36.41
2015	837,312.69	2.24%	18,729	0.1678	140,465	7.5	37.21
2016	734,845.18	2.25%	16,514	0.1461	107,342	6.5	38.00
2017	443,348.74	2.26%	10,012	0.1242	55,065	5.5	38.78
2018	1,202,526.65	2.27%	27,296	0.1021	122,831	4.5	39.56
2019	3,141,330.31	2.28%	71,708	0.0799	250,978	3.5	40.31
2020	1,481,484.45	2.30%	34,041	0.0574	85,103	2.5	41.02
2021	443,693.84	2.32%	10,283	0.0348	15,424	1.5	41.65
2022	990,884.19	2.35%	23,304	0.0118	11,652	0.5	42.02

TOTAL	34,178,702.05		731,480		11,460,397		
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NET SALVAGE ADJUSTMENT			182,870		2,865,099		
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TOTAL			914,350		14,325,496		
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COMPOSITE ANNUAL ACCRUAL RATE 2.68%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.42

COMPOSITE AVERAGE AGE (YEARS) 16.31

ELG COMPOSITE REMAINING LIFE (YEARS) 30.59

ELG - Whole Life

Survivor Curve: R4

ASL: 50

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 367.10 - Underground Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1978	2,755.57	1.85%	51	0.8211	2,262	44.5	9.70
1979	15,366.53	1.86%	286	0.8087	12,427	43.5	10.29
1980	4,370.91	1.87%	82	0.7959	3,479	42.5	10.90
1981	13,175.01	1.89%	249	0.7828	10,313	41.5	11.52
1982	5,156.15	1.90%	98	0.7693	3,966	40.5	12.15
1983	4,044.66	1.91%	77	0.7554	3,055	39.5	12.79
1984	5,734.88	1.93%	110	0.7412	4,251	38.5	13.44
1985	1,832.94	1.94%	36	0.7267	1,332	37.5	14.10
1986	42,547.17	1.95%	830	0.7118	30,283	36.5	14.78
1987	64,194.61	1.96%	1,259	0.6965	44,709	35.5	15.47
1988	55,304.09	1.97%	1,091	0.6808	37,651	34.5	16.18
1989	62,240.43	1.98%	1,235	0.6648	41,375	33.5	16.89
1990	61,426.79	1.99%	1,225	0.6484	39,826	32.5	17.63
1991	85,226.42	2.01%	1,709	0.6316	53,829	31.5	18.37
1992	150,993.79	2.01%	3,042	0.6145	92,785	30.5	19.13
1993	198,047.92	2.02%	4,008	0.5971	118,245	29.5	19.91
1994	84,018.97	2.03%	1,708	0.5793	48,671	28.5	20.70
1995	123,144.19	2.04%	2,513	0.5612	69,110	27.5	21.50
1996	221,170.72	2.05%	4,531	0.5428	120,060	26.5	22.32
1997	123,953.81	2.06%	2,548	0.5242	64,975	25.5	23.15
1998	98,346.70	2.06%	2,028	0.5053	49,692	24.5	23.99
1999	70,109.27	2.07%	1,450	0.4861	34,082	23.5	24.84
2000	12,680.25	2.07%	263	0.4667	5,918	22.5	25.71
2001	62,770.30	2.08%	1,305	0.4471	28,067	21.5	26.58
2002	69,373.01	2.08%	1,446	0.4273	29,647	20.5	27.47
2003	71,600.96	2.09%	1,496	0.4074	29,169	19.5	28.37
2004	204,633.43	2.09%	4,284	0.3873	79,245	18.5	29.27
2005	145,509.78	2.10%	3,051	0.3670	53,399	17.5	30.19
2006	230,506.56	2.10%	4,842	0.3466	79,887	16.5	31.11
2007	157,416.61	2.10%	3,311	0.3260	51,325	15.5	32.04
2008	91,178.50	2.11%	1,921	0.3054	27,847	14.5	32.98
2009	38,558.89	2.11%	813	0.2847	10,978	13.5	33.92
2010	93,447.69	2.11%	1,973	0.2639	24,660	12.5	34.87
2011	212,890.85	2.11%	4,499	0.2430	51,736	11.5	35.82
2012	145,662.97	2.12%	3,081	0.2221	32,349	10.5	36.78
2013	126,930.93	2.12%	2,687	0.2011	25,525	9.5	37.74
2014	24,030.73	2.12%	509	0.1801	4,327	8.5	38.71
2015	4,963.38	2.12%	105	0.1590	789	7.5	39.68
2016	363,687.24	2.12%	7,714	0.1379	50,138	6.5	40.65

ELG - Whole Life

Survivor Curve: R4

ASL: 50

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 367.10 - Underground Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2017	231,742.56	2.12%	4,918	0.1167	27,048	5.5	41.62
2018	291,250.91	2.12%	6,184	0.0955	27,828	4.5	42.60
2019	530,252.08	2.12%	11,264	0.0744	39,425	3.5	43.57
2020	537,542.63	2.13%	11,425	0.0531	28,564	2.5	44.55
2021	424,947.06	2.13%	9,038	0.0319	13,557	1.5	45.52
2022	701,411.17	2.13%	14,932	0.0106	7,466	0.5	46.47
TOTAL	6,266,150.02		131,227		1,615,271		
NET SALVAGE ADJUSTMENT			6,561		80,764		
TOTAL			137,788		1,696,035		

COMPOSITE ANNUAL ACCRUAL RATE	2.20%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.27
COMPOSITE AVERAGE AGE (YEARS)	12.54
ELG COMPOSITE REMAINING LIFE (YEARS)	35.23

ELG - Whole Life

Survivor Curve: R2.5

ASL: 45

Net Salvage: -10%

Truncation Year:

Yukon Electric Company Limited

Account #: 368.00 - Line Transformers

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1946	63.09	1.28%	1	0.9797	62	76.5	1.58
1947	1,242.88	1.29%	16	0.9735	1,210	75.5	2.05
1948	1,616.79	1.30%	21	0.9696	1,568	74.5	2.34
1950	28.96	1.33%	0	0.9622	28	72.5	2.84
1951	15,430.61	1.34%	207	0.9588	14,795	71.5	3.07
1952	20,900.00	1.36%	283	0.9555	19,969	70.5	3.29
1953	2,758.00	1.37%	38	0.9521	2,626	69.5	3.50
1954	5,453.44	1.39%	76	0.9487	5,174	68.5	3.70
1955	21,326.43	1.40%	299	0.9453	20,160	67.5	3.91
1956	3,729.00	1.42%	53	0.9419	3,512	66.5	4.11
1958	2,255.00	1.45%	33	0.9346	2,107	64.5	4.51
1959	18,726.00	1.47%	274	0.9308	17,430	63.5	4.72
1960	37,016.01	1.48%	549	0.9268	34,308	62.5	4.93
1961	10,822.00	1.50%	162	0.9228	9,987	61.5	5.14
1962	9,436.00	1.52%	143	0.9186	8,668	60.5	5.36
1963	24,530.00	1.54%	377	0.9143	22,427	59.5	5.58
1964	6,995.00	1.56%	109	0.9098	6,364	58.5	5.80
1965	13,727.00	1.57%	216	0.9051	12,424	57.5	6.03
1966	36,590.20	1.59%	583	0.9002	32,937	56.5	6.27
1967	61,913.07	1.61%	998	0.8950	55,413	55.5	6.51
1968	177,071.34	1.63%	2,890	0.8896	157,521	54.5	6.76
1969	36,493.00	1.65%	603	0.8839	32,256	53.5	7.03
1970	45,527.28	1.67%	761	0.8779	39,967	52.5	7.30
1971	67,125.06	1.69%	1,136	0.8715	58,501	51.5	7.59
1972	75,913.83	1.71%	1,300	0.8648	65,651	50.5	7.89
1973	65,804.62	1.73%	1,140	0.8577	56,442	49.5	8.21
1974	67,285.46	1.75%	1,180	0.8502	57,208	48.5	8.54
1975	104,042.68	1.77%	1,845	0.8423	87,636	47.5	8.89
1976	70,134.81	1.79%	1,258	0.8340	58,491	46.5	9.26
1977	92,907.67	1.81%	1,685	0.8252	76,669	45.5	9.64
1978	133,602.57	1.83%	2,450	0.8160	109,020	44.5	10.03
1979	188,980.12	1.85%	3,503	0.8063	152,381	43.5	10.45
1980	187,743.62	1.87%	3,517	0.7962	149,485	42.5	10.88
1981	181,134.58	1.89%	3,429	0.7857	142,310	41.5	11.32
1982	123,812.27	1.91%	2,368	0.7747	95,912	40.5	11.78
1983	63,640.58	1.93%	1,230	0.7632	48,570	39.5	12.26
1984	57,282.99	1.95%	1,118	0.7513	43,036	38.5	12.75
1985	197,459.74	1.97%	3,891	0.7390	145,914	37.5	13.25
1986	202,199.86	1.99%	4,023	0.7262	146,838	36.5	13.76

ELG - Whole Life

Survivor Curve: R2.5

ASL: 45

Net Salvage: -10%

Truncation Year:

Yukon Electric Company Limited

Account #: 368.00 - Line Transformers

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1987	493,936.52	2.01%	9,921	0.7130	352,185	35.5	14.29
1988	304,226.18	2.03%	6,168	0.6994	212,780	34.5	14.83
1989	483,558.52	2.05%	9,894	0.6854	331,434	33.5	15.38
1990	673,211.99	2.06%	13,899	0.6710	451,726	32.5	15.94
1991	763,913.50	2.08%	15,914	0.6562	501,285	31.5	16.50
1992	683,977.28	2.10%	14,375	0.6410	438,437	30.5	17.08
1993	940,572.96	2.12%	19,941	0.6254	588,267	29.5	17.67
1994	503,337.45	2.14%	10,764	0.6095	306,776	28.5	18.26
1995	468,313.85	2.16%	10,101	0.5932	277,786	27.5	18.86
1996	652,994.55	2.18%	14,205	0.5765	376,429	26.5	19.47
1997	452,806.05	2.19%	9,933	0.5594	253,298	25.5	20.08
1998	494,057.52	2.21%	10,929	0.5420	267,763	24.5	20.71
1999	361,452.09	2.23%	8,062	0.5242	189,465	23.5	21.33
2000	321,574.43	2.25%	7,232	0.5060	162,726	22.5	21.96
2001	457,298.39	2.27%	10,369	0.4875	222,938	21.5	22.60
2002	537,402.29	2.29%	12,285	0.4686	251,848	20.5	23.24
2003	740,112.16	2.30%	17,057	0.4494	332,619	19.5	23.89
2004	1,074,065.92	2.32%	24,956	0.4298	461,681	18.5	24.54
2005	1,386,408.26	2.34%	32,475	0.4099	568,311	17.5	25.19
2006	1,477,907.31	2.36%	34,900	0.3896	575,844	16.5	25.85
2007	1,586,356.93	2.38%	37,766	0.3690	585,379	15.5	26.50
2008	1,947,313.08	2.40%	46,741	0.3480	677,737	14.5	27.16
2009	1,715,648.43	2.42%	41,521	0.3267	560,540	13.5	27.82
2010	1,413,295.11	2.44%	34,490	0.3051	431,130	12.5	28.48
2011	1,788,373.87	2.46%	44,016	0.2830	506,184	11.5	29.13
2012	2,209,414.04	2.48%	54,853	0.2607	575,960	10.5	29.78
2013	1,444,118.65	2.51%	36,176	0.2380	343,671	9.5	30.42
2014	1,193,952.11	2.53%	30,188	0.2149	256,601	8.5	31.05
2015	1,415,874.91	2.55%	36,150	0.1915	271,127	7.5	31.67
2016	1,666,072.76	2.58%	42,983	0.1677	279,389	6.5	32.26
2017	829,750.69	2.61%	21,650	0.1435	119,075	5.5	32.83
2018	1,690,577.00	2.64%	44,670	0.1189	201,015	4.5	33.35
2019	1,901,009.45	2.68%	50,966	0.0938	178,382	3.5	33.80
2020	1,458,464.60	2.73%	39,809	0.0682	99,522	2.5	34.14
2021	1,162,894.01	2.80%	32,535	0.0420	48,803	1.5	34.24
2022	1,740,199.10	2.93%	50,917	0.0146	25,459	0.5	33.68

ELG - Whole Life

Survivor Curve: R2.5

ASL: 45

Net Salvage: -10%

Truncation Year:

Yukon Electric Company Limited

Account #: 368.00 - Line Transformers

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
TOTAL	40,867,163.52		982,579		14,278,547		
NET SALVAGE ADJUSTMENT			98,258		1,427,855		
TOTAL			1,080,836		15,706,402		

COMPOSITE ANNUAL ACCRUAL RATE 2.64%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.38

COMPOSITE AVERAGE AGE (YEARS) 15.83

ELG COMPOSITE REMAINING LIFE (YEARS) 26.32

ELG - Whole Life

Survivor Curve: R0.5

ASL: 15

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 370.00 - Conventional Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1973	2,890.66	0.00%	0	1.0000	2,891	49.5	0.00
1974	1,065.68	0.00%	0	1.0000	1,066	48.5	0.00
1975	2,135.54	0.00%	0	1.0000	2,136	47.5	0.00
1976	2,772.22	0.00%	0	1.0000	2,772	46.5	0.00
1977	2,160.36	0.00%	0	1.0000	2,160	45.5	0.00
1978	3,746.59	0.00%	0	1.0000	3,747	44.5	0.00
1979	468.92	0.00%	0	1.0000	469	43.5	0.00
1980	4,344.54	0.00%	0	1.0000	4,345	42.5	0.00
1981	3,588.21	0.00%	0	1.0000	3,588	41.5	0.00
1982	5,232.71	0.00%	0	1.0000	5,233	40.5	0.00
1983	562.52	0.00%	0	1.0000	563	39.5	0.00
1984	2,268.84	0.00%	0	1.0000	2,269	38.5	0.00
1985	4,581.74	0.00%	0	1.0000	4,582	37.5	0.00
1986	4,570.19	0.00%	0	1.0000	4,570	36.5	0.00
1987	8,609.54	0.00%	0	1.0000	8,610	35.5	0.00
1988	8,594.55	0.00%	0	1.0000	8,595	34.5	0.00
1989	27,447.62	0.00%	0	1.0000	27,448	33.5	0.00
1990	11,618.17	0.00%	0	1.0000	11,618	32.5	0.00
1991	9,697.83	0.00%	0	1.0000	9,698	31.5	0.00
1992	35,072.97	0.00%	0	1.0000	35,073	30.5	0.00
1993	62,568.13	3.33%	2,086	0.9833	61,525	29.5	0.50
1994	6,205.20	3.41%	212	0.9725	6,034	28.5	0.81
1995	9,796.96	3.48%	341	0.9574	9,379	27.5	1.22
1996	8,617.32	3.55%	306	0.9420	8,117	26.5	1.63
1997	16,136.16	3.63%	586	0.9266	14,953	25.5	2.02
1998	44,705.48	3.72%	1,663	0.9112	40,736	24.5	2.39
1999	71,622.77	3.81%	2,729	0.8954	64,132	23.5	2.74
2000	110,805.59	3.91%	4,329	0.8791	97,407	22.5	3.10
2001	37,428.20	4.01%	1,501	0.8620	32,264	21.5	3.44
2002	32,540.02	4.12%	1,340	0.8441	27,466	20.5	3.79
2003	94,230.62	4.23%	3,987	0.8251	77,746	19.5	4.13
2004	114,023.97	4.35%	4,961	0.8049	91,777	18.5	4.48
2005	15,995.63	4.48%	716	0.7834	12,532	17.5	4.84
2006	8,685.31	4.61%	400	0.7606	6,606	16.5	5.19
2007	20,106.31	4.75%	955	0.7362	14,802	15.5	5.55
2008	8,163.63	4.90%	400	0.7102	5,797	14.5	5.92
2009	15,041.35	5.05%	760	0.6824	10,264	13.5	6.28
2010	155,947.42	5.22%	8,144	0.6528	101,799	12.5	6.65
2011	202,099.91	5.40%	10,917	0.6212	125,545	11.5	7.01

ELG - Whole Life

Survivor Curve: R0.5

ASL: 15

Net Salvage: -5%

Truncation Year:

ATCO Electric Yukon

Account #: 370.00 - Conventional Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2012	297,661.19	5.60%	16,656	0.5876	174,892	10.5	7.37
2013	335,954.20	5.81%	19,511	0.5517	185,350	9.5	7.72
2014	174,543.28	6.04%	10,545	0.5135	89,634	8.5	8.05
2015	270,854.06	6.30%	17,077	0.4729	128,075	7.5	8.36
2016	148,678.82	6.61%	9,823	0.4294	63,846	6.5	8.64
2017	155,592.81	6.96%	10,832	0.3829	59,577	5.5	8.86
2018	62,549.42	7.39%	4,625	0.3328	20,814	4.5	9.02
2019	109,502.07	7.95%	8,701	0.2781	30,452	3.5	9.09
2020	115,924.09	8.70%	10,080	0.2174	25,201	2.5	9.00
2021	28,274.80	9.85%	2,785	0.1477	4,177	1.5	8.65
2022	80,881.96	12.22%	9,887	0.0611	4,943	0.5	7.68
TOTAL	2,956,566.08		166,854		1,737,272		
NET SALVAGE ADJUSTMENT			8,343		86,864		
TOTAL			175,197		1,824,136		

COMPOSITE ANNUAL ACCRUAL RATE	5.93%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.62
COMPOSITE AVERAGE AGE (YEARS)	12.39
ELG COMPOSITE REMAINING LIFE (YEARS)	6.53

ELG - Whole Life

Survivor Curve: R2.5

ASL: 15

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 371.00 - Automated Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2007	785.27	5.38%	42	0.8334	654	15.5	3.10
2008	29,141.98	5.56%	1,620	0.8059	23,484	14.5	3.49
2009	11,806.31	5.74%	677	0.7743	9,141	13.5	3.94
2010	13,357.05	5.91%	789	0.7387	9,867	12.5	4.42
2011	6,219.42	6.08%	378	0.6992	4,349	11.5	4.95
2013	15,771.89	6.41%	1,012	0.6094	9,611	9.5	6.09
2014	13,602.37	6.58%	895	0.5593	7,608	8.5	6.70
2015	1,403.85	6.75%	95	0.5060	710	7.5	7.32
2016	303.13	6.91%	21	0.4494	136	6.5	7.96
2018	3,414.18	7.26%	248	0.3267	1,116	4.5	9.27
2019	5,284.98	7.45%	394	0.2607	1,378	3.5	9.93
2020	3,182.36	7.66%	244	0.1915	609	2.5	10.56
2022	68,796.38	8.36%	5,752	0.0418	2,876	0.5	11.46
TOTAL	173,069.17		12,166		71,540		

NET SALVAGE ADJUSTMENT	0	0
TOTAL	12,166	71,540

COMPOSITE ANNUAL ACCRUAL RATE	7.03%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.41
COMPOSITE AVERAGE AGE (YEARS)	6.86
ELG COMPOSITE REMAINING LIFE (YEARS)	7.78

ELG - Whole Life

Survivor Curve: R3

ASL: 30

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 373.00 - Street Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1974	2,209.62	2.04%	45	0.9870	2,181	48.5	0.64
1975	230.46	2.07%	5	0.9827	226	47.5	0.84
1977	35,773.75	2.14%	765	0.9727	34,796	45.5	1.28
1978	21,033.63	2.17%	457	0.9671	20,341	44.5	1.52
1979	9,518.16	2.21%	210	0.9612	9,149	43.5	1.76
1980	129,990.76	2.25%	2,922	0.9552	124,165	42.5	1.99
1981	27,774.85	2.29%	635	0.9489	26,356	41.5	2.23
1982	69,084.60	2.33%	1,608	0.9425	65,110	40.5	2.47
1983	113,988.36	2.37%	2,701	0.9358	106,673	39.5	2.71
1984	93,653.94	2.41%	2,259	0.9288	86,989	38.5	2.95
1985	28,824.06	2.46%	708	0.9214	26,559	37.5	3.20
1986	340,204.29	2.50%	8,515	0.9135	310,780	36.5	3.46
1987	129,576.89	2.55%	3,303	0.9049	117,260	35.5	3.73
1988	209,962.68	2.60%	5,451	0.8956	188,049	34.5	4.02
1989	572,762.96	2.64%	15,139	0.8855	507,172	33.5	4.33
1990	263,652.15	2.69%	7,093	0.8744	230,536	32.5	4.67
1991	148,554.77	2.74%	4,067	0.8623	128,100	31.5	5.03
1992	87,268.15	2.78%	2,430	0.8492	74,104	30.5	5.42
1993	347,202.45	2.83%	9,827	0.8349	289,884	29.5	5.83
1994	236,298.55	2.88%	6,795	0.8196	193,660	28.5	6.27
1995	304,211.37	2.92%	8,884	0.8031	244,298	27.5	6.74
1996	107,223.57	2.96%	3,178	0.7854	84,217	26.5	7.24
1997	410,697.19	3.01%	12,349	0.7667	314,891	25.5	7.76
1998	212,374.34	3.05%	6,474	0.7469	158,625	24.5	8.30
1999	249,752.73	3.09%	7,716	0.7261	181,336	23.5	8.87
2000	207,305.11	3.13%	6,488	0.7042	145,987	22.5	9.45
2001	356,313.06	3.17%	11,292	0.6814	242,781	21.5	10.05
2002	194,757.23	3.21%	6,247	0.6576	128,072	20.5	10.67
2003	588,194.07	3.25%	19,091	0.6329	372,279	19.5	11.31
2004	504,727.00	3.28%	16,570	0.6073	306,539	18.5	11.96
2005	104,929.16	3.32%	3,483	0.5809	60,953	17.5	12.63
2006	797,287.60	3.36%	26,752	0.5536	441,402	16.5	13.30
2007	509,536.19	3.39%	17,275	0.5255	267,769	15.5	13.99
2008	216,502.63	3.42%	7,415	0.4966	107,515	14.5	14.70
2009	577,449.69	3.46%	19,971	0.4669	269,609	13.5	15.41
2010	186,126.57	3.49%	6,498	0.4364	81,227	12.5	16.14
2011	459,391.21	3.52%	16,185	0.4052	186,132	11.5	16.88
2012	514,985.50	3.55%	18,305	0.3732	192,200	10.5	17.63
2013	321,177.04	3.58%	11,513	0.3405	109,375	9.5	18.40

ELG - Whole Life

Survivor Curve: R3

ASL: 30

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 373.00 - Street Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2014	133,869.65	3.61%	4,838	0.3072	41,126	8.5	19.17
2015	248,214.00	3.64%	9,043	0.2732	67,821	7.5	19.95
2016	370,451.51	3.67%	13,601	0.2386	88,407	6.5	20.74
2017	447,433.88	3.70%	16,554	0.2035	91,045	5.5	21.53
2018	461,619.90	3.73%	17,210	0.1678	77,446	4.5	22.32
2019	873,127.13	3.76%	32,810	0.1315	114,834	3.5	23.11
2020	798,738.20	3.79%	30,273	0.0948	75,683	2.5	23.88
2021	380,300.60	3.83%	14,564	0.0574	21,846	1.5	24.61
2022	232,425.69	3.89%	9,047	0.0195	4,523	0.5	25.19
TOTAL	13,636,686.90		448,562		7,020,032		
NET SALVAGE ADJUSTMENT			44,856		702,003		
TOTAL			493,418		7,722,035		

COMPOSITE ANNUAL ACCRUAL RATE	3.62%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.57
COMPOSITE AVERAGE AGE (YEARS)	17.13
ELG COMPOSITE REMAINING LIFE (YEARS)	13.86

ATCO Electric Yukon

Account #: 373.10 - Sentinel Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R2
ASL: 23
Net Salvage: 10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1967	2,498.81	0.00%	0	1.0000	2,499	55.5	0.00
1973	1,471.00	0.00%	0	1.0000	1,471	49.5	0.00
1974	16,335.32	0.00%	0	1.0000	16,335	48.5	0.00
1975	4,754.00	0.00%	0	1.0000	4,754	47.5	0.00
1976	14,611.55	0.00%	0	1.0000	14,612	46.5	0.00
1977	10,540.00	0.00%	0	1.0000	10,540	45.5	0.00
1978	15,931.01	0.00%	0	1.0000	15,931	44.5	0.00
1979	29,321.00	0.00%	0	1.0000	29,321	43.5	0.00
1980	18,970.00	2.33%	441	0.9884	18,749	42.5	0.50
1981	17,037.00	2.38%	406	0.9879	16,831	41.5	0.51
1982	9,135.00	2.43%	222	0.9836	8,985	40.5	0.68
1983	10,835.00	2.48%	268	0.9777	10,593	39.5	0.90
1984	18,869.01	2.52%	476	0.9710	18,321	38.5	1.15
1985	10,510.57	2.57%	270	0.9637	10,129	37.5	1.41
1986	31,912.79	2.62%	836	0.9560	30,510	36.5	1.68
1987	14,087.95	2.67%	376	0.9480	13,355	35.5	1.95
1988	13,496.10	2.72%	368	0.9396	12,682	34.5	2.22
1989	7,391.51	2.78%	205	0.9310	6,882	33.5	2.48
1990	2,665.60	2.84%	76	0.9220	2,458	32.5	2.75
1991	2,562.75	2.90%	74	0.9125	2,339	31.5	3.02
1992	9,651.98	2.96%	286	0.9025	8,711	30.5	3.30
1993	0.00	3.02%	0	0.8918	0	29.5	3.58
1997	15,872.16	3.29%	523	0.8400	13,332	25.5	4.86
1999	157.01	3.44%	5	0.8075	127	23.5	5.60
2018	3,550.54	5.06%	179	0.2275	808	4.5	15.28
2020	1,933.57	5.38%	104	0.1344	260	2.5	16.10
2021	1,386.82	5.62%	78	0.0843	117	1.5	16.30

TOTAL	285,488.05		5,193		270,649
NET SALVAGE ADJUSTMENT			-519		-27,065
TOTAL			4,674		243,584

COMPOSITE ANNUAL ACCRUAL RATE	1.64%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.85
COMPOSITE AVERAGE AGE (YEARS)	38.80
ELG COMPOSITE REMAINING LIFE (YEARS)	1.52

ATCO Electric Yukon

Account #: 390.00 - Structures and Improvements

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: L3
ASL: 40
Net Salvage: -10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1972	59,482.48	1.68%	999	0.8480	50,438	50.5	9.06
1973	16,635.00	1.70%	283	0.8427	14,019	49.5	9.24
1974	46,735.00	1.73%	807	0.8375	39,140	48.5	9.41
1976	1,500.00	1.78%	27	0.8271	1,241	46.5	9.72
1977	1,015.00	1.81%	18	0.8220	834	45.5	9.85
1979	14,807.00	1.87%	276	0.8118	12,020	43.5	10.08
1981	12,462.00	1.93%	241	0.8015	9,988	41.5	10.28
1982	21,706.00	1.97%	427	0.7962	17,282	40.5	10.37
1984	24,285.00	2.04%	495	0.7848	19,060	38.5	10.56
1986	2,778.08	2.12%	59	0.7720	2,145	36.5	10.78
1987	379,195.74	2.15%	8,169	0.7648	290,015	35.5	10.92
1988	87,857.59	2.19%	1,928	0.7570	66,506	34.5	11.08
1989	3,500.00	2.23%	78	0.7484	2,619	33.5	11.26
1990	45,253.00	2.27%	1,029	0.7389	33,440	32.5	11.48
1991	1,424,433.43	2.31%	32,947	0.7286	1,037,845	31.5	11.73
1992	300,985.15	2.35%	7,078	0.7173	215,886	30.5	12.02
1993	109,074.17	2.39%	2,606	0.7049	76,883	29.5	12.35
1994	16,316.02	2.43%	396	0.6914	11,281	28.5	12.72
1995	31,752.72	2.46%	781	0.6767	21,488	27.5	13.14
1996	25,776.27	2.49%	643	0.6610	17,037	26.5	13.59
1997	55,730.18	2.53%	1,408	0.6440	35,892	25.5	14.09
1998	83,574.87	2.56%	2,135	0.6260	52,316	24.5	14.64
1999	9,019.44	2.58%	233	0.6069	5,474	23.5	15.22
2000	50,931.86	2.61%	1,328	0.5867	29,884	22.5	15.85
2001	11,512.98	2.63%	303	0.5657	6,513	21.5	16.51
2002	25,441.90	2.65%	675	0.5438	13,835	20.5	17.20
2003	0.00	2.67%	0	0.5212	0	19.5	17.92
2004	48,669.62	2.69%	1,310	0.4979	24,232	18.5	18.66
2005	3,289.66	2.71%	89	0.4740	1,559	17.5	19.42
2006	84,538.13	2.72%	2,304	0.4496	38,009	16.5	20.20
2007	23,036.74	2.74%	631	0.4247	9,784	15.5	20.99
2008	76,025.95	2.75%	2,094	0.3994	30,365	14.5	21.80
2009	7,335.25	2.77%	203	0.3737	2,741	13.5	22.63
2010	98,128.40	2.78%	2,728	0.3475	34,101	12.5	23.47
2011	64,924.42	2.79%	1,812	0.3210	20,839	11.5	24.33
2012	186,651.84	2.80%	5,228	0.2941	54,892	10.5	25.20
2013	508,000.19	2.81%	14,270	0.2669	135,567	9.5	26.10
2014	914,155.05	2.82%	25,741	0.2393	218,802	8.5	27.01
2015	29,500.77	2.82%	832	0.2116	6,242	7.5	27.95

ELG - Whole Life

Survivor Curve: L3

ASL: 40

Net Salvage: -10%

Truncation Year:

ATCO Electric Yukon

Account #: 390.00 - Structures and Improvements

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2016	33,934.25	2.82%	959	0.1836	6,231	6.5	28.90
2017	60,958.73	2.83%	1,723	0.1555	9,478	5.5	29.87
2018	30,477.69	2.83%	862	0.1273	3,879	4.5	30.86
2019	41,662.51	2.83%	1,178	0.0990	4,124	3.5	31.85
2020	104,343.06	2.83%	2,951	0.0707	7,378	2.5	32.85
2022	19,879.23	2.83%	562	0.0141	281	0.5	34.85
TOTAL	5,197,272.37		130,848		2,691,587		
NET SALVAGE ADJUSTMENT			13,085		269,159		
TOTAL			143,933		2,960,746		

COMPOSITE ANNUAL ACCRUAL RATE	2.77%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.57
COMPOSITE AVERAGE AGE (YEARS)	21.94
ELG COMPOSITE REMAINING LIFE (YEARS)	18.35

ATCO Electric Yukon

Account #: 390.01 - Structures and Improvements - Houses

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION
BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: R3
ASL: 40
Net Salvage: -10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1981	5,448.00	2.07%	113	0.8576	4,672	41.5	6.89
1983	3,328.00	2.12%	71	0.8368	2,785	39.5	7.70
1986	12,922.45	2.19%	284	0.8010	10,350	36.5	9.07
1988	27,878.53	2.24%	625	0.7739	21,575	34.5	10.08
1989	2,150.47	2.27%	49	0.7595	1,633	33.5	10.61
1994	47,598.40	2.38%	1,133	0.6785	32,294	28.5	13.51
1995	1,870.05	2.40%	45	0.6606	1,235	27.5	14.13
1996	3,034.23	2.42%	74	0.6423	1,949	26.5	14.76
1997	9,320.80	2.44%	228	0.6234	5,811	25.5	15.40
1999	21,561.08	2.49%	536	0.5843	12,597	23.5	16.72
2000	8,693.67	2.51%	218	0.5640	4,903	22.5	17.40
2003	3,969.00	2.57%	102	0.5003	1,986	19.5	19.48
2005	9,940.88	2.60%	259	0.4555	4,529	17.5	20.92
2006	26,786.84	2.62%	702	0.4325	11,586	16.5	21.65
2007	48,132.03	2.64%	1,270	0.4091	19,691	15.5	22.39
2008	56,889.23	2.66%	1,512	0.3853	21,918	14.5	23.14
2009	1,543.92	2.67%	41	0.3610	557	13.5	23.89
2010	7,346.76	2.69%	198	0.3364	2,472	12.5	24.66
2011	367.33	2.71%	10	0.3114	114	11.5	25.43
2012	1,425.00	2.72%	39	0.2860	408	10.5	26.21
2013	7,049.02	2.74%	193	0.2603	1,835	9.5	26.99
2014	2,995.65	2.76%	83	0.2343	702	8.5	27.78
2015	40,666.92	2.77%	1,127	0.2079	8,455	7.5	28.57
2016	55,913.72	2.79%	1,559	0.1812	10,133	6.5	29.37
2017	31,907.18	2.80%	895	0.1542	4,921	5.5	30.16
2020	12,813.29	2.86%	366	0.0715	916	2.5	32.46
TOTAL	451,552.45		11,730		190,028		
NET SALVAGE ADJUSTMENT			1,173		19,003		
TOTAL			12,903		209,031		

COMPOSITE ANNUAL ACCRUAL RATE	2.86%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.46
COMPOSITE AVERAGE AGE (YEARS)	16.95
ELG COMPOSITE REMAINING LIFE (YEARS)	21.78

ELG - Whole Life

Survivor Curve: SQ

ASL: 5

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 391.10 - Computer Hardware & Voice and Data Network Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2013	0.00	0.00%	0	1.0000	0	9.5	0.00
2014	0.00	0.00%	0	1.0000	0	8.5	0.00
2015	0.00	0.00%	0	1.0000	0	7.5	0.00
2016	0.00	0.00%	0	1.0000	0	6.5	0.00
2018	10,437.84	20.00%	2,088	0.9000	9,394	4.5	0.50
2019	22,141.40	20.00%	4,428	0.7000	15,499	3.5	1.50
2020	4,566.67	20.00%	913	0.5000	2,283	2.5	2.50
2021	23,561.08	20.00%	4,712	0.3000	7,068	1.5	3.50
TOTAL	60,706.99		12,141		34,245		
NET SALVAGE ADJUSTMENT			0		0		
TOTAL			12,141		34,245		

COMPOSITE ANNUAL ACCRUAL RATE	20.00%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.56
COMPOSITE AVERAGE AGE (YEARS)	2.82
ELG COMPOSITE REMAINING LIFE (YEARS)	2.18

ELG - Whole Life

Survivor Curve: SQ

ASL: 10

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 391.22 - Computer Software and Applications Major (10 YR)

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2008	0.00	0.00%	0	1.0000	0	14.5	0.00
2009	0.00	0.00%	0	1.0000	0	13.5	0.00
2013	46.87	10.00%	5	0.9500	45	9.5	0.50
2014	292,425.70	10.00%	29,243	0.8500	248,562	8.5	1.50
2018	156,905.79	10.00%	15,691	0.4500	70,608	4.5	5.50
2019	258,295.88	10.00%	25,830	0.3500	90,404	3.5	6.50
2020	18,999.17	10.00%	1,900	0.2500	4,750	2.5	7.50
2021	50,751.52	10.00%	5,075	0.1500	7,613	1.5	8.50
TOTAL	777,424.93		77,742		421,980		
NET SALVAGE ADJUSTMENT			0		0		
TOTAL			77,742		421,980		

COMPOSITE ANNUAL ACCRUAL RATE	10.00%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.54
COMPOSITE AVERAGE AGE (YEARS)	5.43
ELG COMPOSITE REMAINING LIFE (YEARS)	4.57

ATCO Electric Yukon

Account #: 392.20 - Transportation Equipment, Fleet Vehicles, Category

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: L3
ASL: 12
Net Salvage: 10%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1998	0.00	3.94%	0	0.9655	0	24.5	0.88
2006	39,956.89	5.27%	2,107	0.8701	34,765	16.5	2.46
2007	14,580.02	5.50%	802	0.8530	12,437	15.5	2.67
2008	0.00	5.76%	0	0.8356	0	14.5	2.85
2009	41,195.57	6.06%	2,497	0.8183	33,712	13.5	3.00
2010	82,394.26	6.41%	5,281	0.8012	66,014	12.5	3.10
2011	0.00	6.81%	0	0.7827	0	11.5	3.19
2012	380,636.44	7.24%	27,548	0.7599	289,252	10.5	3.32
2013	304,280.65	7.68%	23,367	0.7295	221,985	9.5	3.52
2014	539,380.05	8.10%	43,687	0.6885	371,339	8.5	3.85
2015	136,958.23	8.46%	11,593	0.6349	86,951	7.5	4.31
2017	106,276.20	8.98%	9,546	0.4940	52,506	5.5	5.63
2018	181,175.06	9.16%	16,599	0.4123	74,695	4.5	6.41
2019	146,274.50	9.30%	13,608	0.3256	47,628	3.5	7.25
2020	226,136.70	9.40%	21,250	0.2349	53,125	2.5	8.14
2021	307,105.63	9.44%	28,978	0.1415	43,467	1.5	9.10
2022	449,331.34	9.44%	42,414	0.0472	21,207	0.5	10.09

TOTAL 2,955,681.54 249,278 1,409,082

NET SALVAGE ADJUSTMENT -24,928 -140,908

TOTAL 224,350 1,268,174

COMPOSITE ANNUAL ACCRUAL RATE 7.59%

COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR 0.43

COMPOSITE AVERAGE AGE (YEARS) 6.13

ELG COMPOSITE REMAINING LIFE (YEARS) 5.92

ELG - Whole Life

Survivor Curve: L3

ASL: 15

Net Salvage: 0%

Truncation Year:

ATCO Electric Yukon

Account #: 392.30 - Transportation Equipment, Fleet Vehicles, Category

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1988	4,868.01	2.86%	139	0.9853	4,796	34.5	0.52
1989	24,222.19	2.93%	710	0.9823	23,793	33.5	0.60
1994	113,616.41	3.34%	3,795	0.9518	108,144	28.5	1.44
2006	61,748.17	4.93%	3,045	0.8137	50,242	16.5	3.78
2007	373,492.44	5.16%	19,275	0.7999	298,761	15.5	3.88
2010	27,749.48	5.97%	1,657	0.7463	20,709	12.5	4.25
2013	89,979.43	6.75%	6,070	0.6409	57,669	9.5	5.32
2014	40,112.84	6.94%	2,785	0.5901	23,671	8.5	5.90
2015	747,035.98	7.10%	53,051	0.5326	397,884	7.5	6.58
2016	409,103.64	7.23%	29,585	0.4701	192,300	6.5	7.33
2017	353,569.75	7.34%	25,955	0.4038	142,755	5.5	8.12
2019	140,662.00	7.50%	10,546	0.2624	36,911	3.5	9.84
2020	330,506.83	7.54%	24,906	0.1884	62,264	2.5	10.77
2021	6,805.12	7.55%	514	0.1132	770	1.5	11.75
2022	33,500.00	7.55%	2,529	0.0377	1,264	0.5	12.75
TOTAL	2,756,972.29		184,561		1,421,934		

NET SALVAGE ADJUSTMENT	0	0
TOTAL	184,561	1,421,934

COMPOSITE ANNUAL ACCRUAL RATE	6.69%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.52
COMPOSITE AVERAGE AGE (YEARS)	8.75
ELG COMPOSITE REMAINING LIFE (YEARS)	6.87

ELG - Whole Life
Survivor Curve: L0
ASL: 12
Net Salvage: 0%
Truncation Year:

ATCO Electric Yukon

Account #: 392.40 - Transportation Equipment, Fleet Vehicles, Category

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
1997	8,261.55	3.45%	285	0.8805	7,274	25.5	3.46
2010	21,334.86	5.54%	1,183	0.6930	14,785	12.5	5.54
2012	21,718.70	6.12%	1,328	0.6421	13,946	10.5	5.85
2014	129,342.09	6.83%	8,835	0.5806	75,097	8.5	6.14
2019	34,285.70	9.99%	3,426	0.3497	11,991	3.5	6.51
2020	16,560.00	11.16%	1,848	0.2789	4,619	2.5	6.46
TOTAL	231,502.90		16,905		127,712		
NET SALVAGE ADJUSTMENT			0		0		
TOTAL			16,905		127,712		

COMPOSITE ANNUAL ACCRUAL RATE	7.30%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.55
COMPOSITE AVERAGE AGE (YEARS)	8.49
ELG COMPOSITE REMAINING LIFE (YEARS)	6.04

ATCO Electric Yukon

Account #: 394.00 - Tools, Shop, Garage, Stores and Laboratory Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life
Survivor Curve: SQ
ASL: 15
Net Salvage: 0%
Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining Life
		Rate	Amount	Factor	Amount		
2003	0.00	0.00%	0	1.0000	0	19.5	0.00
2004	0.00	0.00%	0	1.0000	0	18.5	0.00
2005	0.00	0.00%	0	1.0000	0	17.5	0.00
2006	0.00	0.00%	0	1.0000	0	16.5	0.00
2008	45,514.89	6.67%	3,034	0.9667	43,998	14.5	0.50
2009	37,388.92	6.67%	2,493	0.9000	33,650	13.5	1.50
2010	176,091.78	6.67%	11,739	0.8333	146,743	12.5	2.50
2011	66,921.00	6.67%	4,461	0.7667	51,306	11.5	3.50
2012	141,609.35	6.67%	9,441	0.7000	99,127	10.5	4.50
2013	85,263.56	6.67%	5,684	0.6333	54,000	9.5	5.50
2014	122,854.15	6.67%	8,190	0.5667	69,617	8.5	6.50
2015	112,105.28	6.67%	7,474	0.5000	56,053	7.5	7.50
2016	152,909.30	6.67%	10,194	0.4333	66,261	6.5	8.50
2017	159,127.83	6.67%	10,609	0.3667	58,347	5.5	9.50
2018	73,418.20	6.67%	4,895	0.3000	22,025	4.5	10.50
2019	208,390.93	6.67%	13,893	0.2333	48,625	3.5	11.50
2020	106,310.28	6.67%	7,087	0.1667	17,718	2.5	12.50
2021	153,811.34	6.67%	10,254	0.1000	15,381	1.5	13.50
2022	70,983.22	6.67%	4,732	0.0333	2,366	0.5	14.50
TOTAL	1,712,700.03		114,180		785,217		
NET SALVAGE ADJUSTMENT			0		0		
TOTAL			114,180		785,217		

COMPOSITE ANNUAL ACCRUAL RATE	6.67%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.46
COMPOSITE AVERAGE AGE (YEARS)	6.88
ELG COMPOSITE REMAINING LIFE (YEARS)	8.12



SECTION 9

9 ESTIMATION OF SURVIVOR CURVES

9.1 Average Service Life

All assets have a service life, which is defined as “the period of time from its installation until it is retired from service”.⁶ All account groups of property are made up of various assets with differing service lives and investment values. To calculate a depreciation rate, one must first calculate an average life for all assets in a single account. This can be done by ascertaining the age at retirement for every asset in an account and plotting it as a percentage of the units surviving at each age interval (a “Survivor Curve”). From the average life for each account, remaining lives can then be found which are then used to calculate the annual depreciation accruals and ultimately depreciation rate. A discussion of the general concept of survivor curves is presented and the Iowa type survivor curves are reviewed.

9.2 Survivor Curves

A survivor curve is defined as “a graph of the percent of units remaining in service expressed as a function of age”.⁷ To calculate the average life of the group, the remaining life expectancy, the probable life and the frequency curve, one must first create a survivor curve. Figure 1 shows a typical 40-R4 smoothed survivor curve as well as the accompanying derived curves. The type 40-R4 refers to the Iowa type curve, whose designation will be explained in further detail in the next section.

To calculate the average service life, one must calculate the area under the survivor curve and divide by the percent surviving at age zero. The remaining life is equal to the area under the survivor curve and to the right of the current age, divided by the percent surviving at the current age. In Figure 1, for example, the hatched area to the right of age 45 divided by 28.9 percent surviving balance represents the remaining life for an asset that has reached that age. The probable life is “the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age.”⁸ 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 is calculated by taking the difference between the percent surviving on successive years on the survivor curve.⁹ Alternatively, frequency can be empirically determined by finding the amount of retirements at any given age. Plotting retirement frequency from the youngest to oldest ages and then taking the cumulative frequencies will generate percent surviving versus age.

⁶ Wolf, Frank K. and W. Chester Fitch, *Depreciation Systems* (Iowa State University Press, 1994), 21.

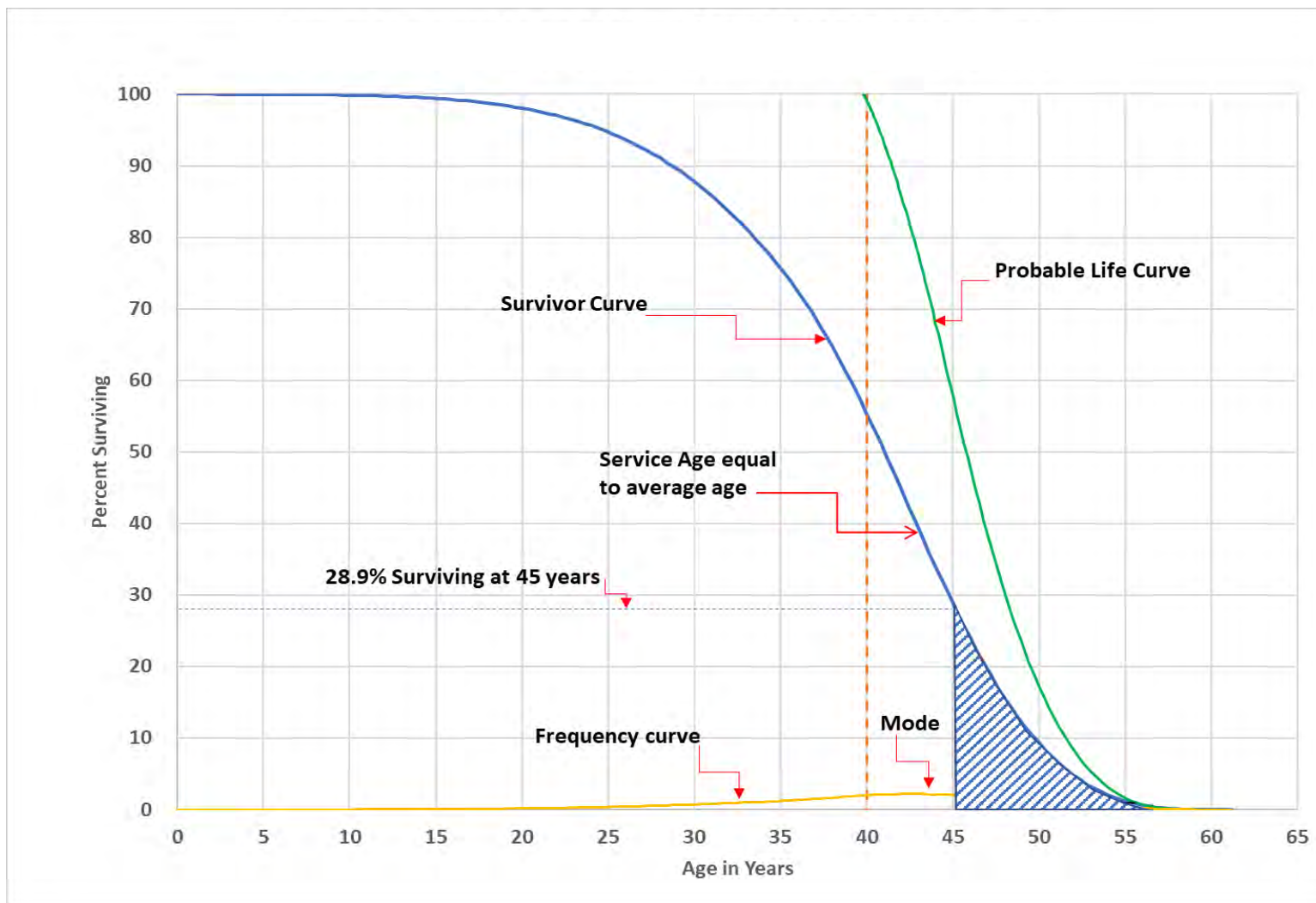
⁷ *Ibid*, 23.

⁸ *Ibid*, 29.

⁹ *Ibid*, 23-24.



FIGURE 1: TYPICAL SURVIVOR CURVE (40-R4) AND DERIVED CURVES





9.3 Iowa Type Curves

In 1931, Robley Winfrey and Edwin Kurtz of the Engineering Research Institute at Iowa State University published Bulletin 103, which laid the groundwork for what would eventually be known as the Iowa Curves. “The 13 type curves can be used as valuable aids in forecasting the probable future service lives of individual items and of groups of items of different kinds of physical equipment”.¹⁰ The 13 curves described in Bulletin 103 eventually became a series of 22 generalized survivor curves which are used throughout the regulated utility industry. These 22 curves were described in Bulletin 125, published in 1967 by Harold A. Cowles, which became known as the Iowa curves.

The Iowa curves are organized with three variables: the average life of the plant; the location of the mode; and the variation of the life. All Iowa curves have both a letter and a number to represent the shape and height of the mode. The L curves, or left-moded curves, are used when the mode of the curve should be to the left of the average life. There are six L curves are presented in Figure 2. The R curves, or right-moded, are used when the mode of the curve should be to the right of the average life. There are five R curves, which are presented in Figure 3. The S curves, or symmetrically-moded, are used when the mode is equal to the average life. There are seven S curves, which are presented in Figure 4. The O curves, or origin curves, are used when the mode occurs at age 0. There are four O curves, which are presented in Figure 5. There are some occasions where it is appropriate to use a half curve. In these cases, the curve is assumed to be exactly half way between the two curves.

In addition to Bulletin 125, Iowa curves have also been presented in subsequent Experiment Station bulletins and in the text Engineering Valuation and Depreciation.¹¹ In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis¹² presenting his development of the fourth family consisting of the four O-type survivor curves.

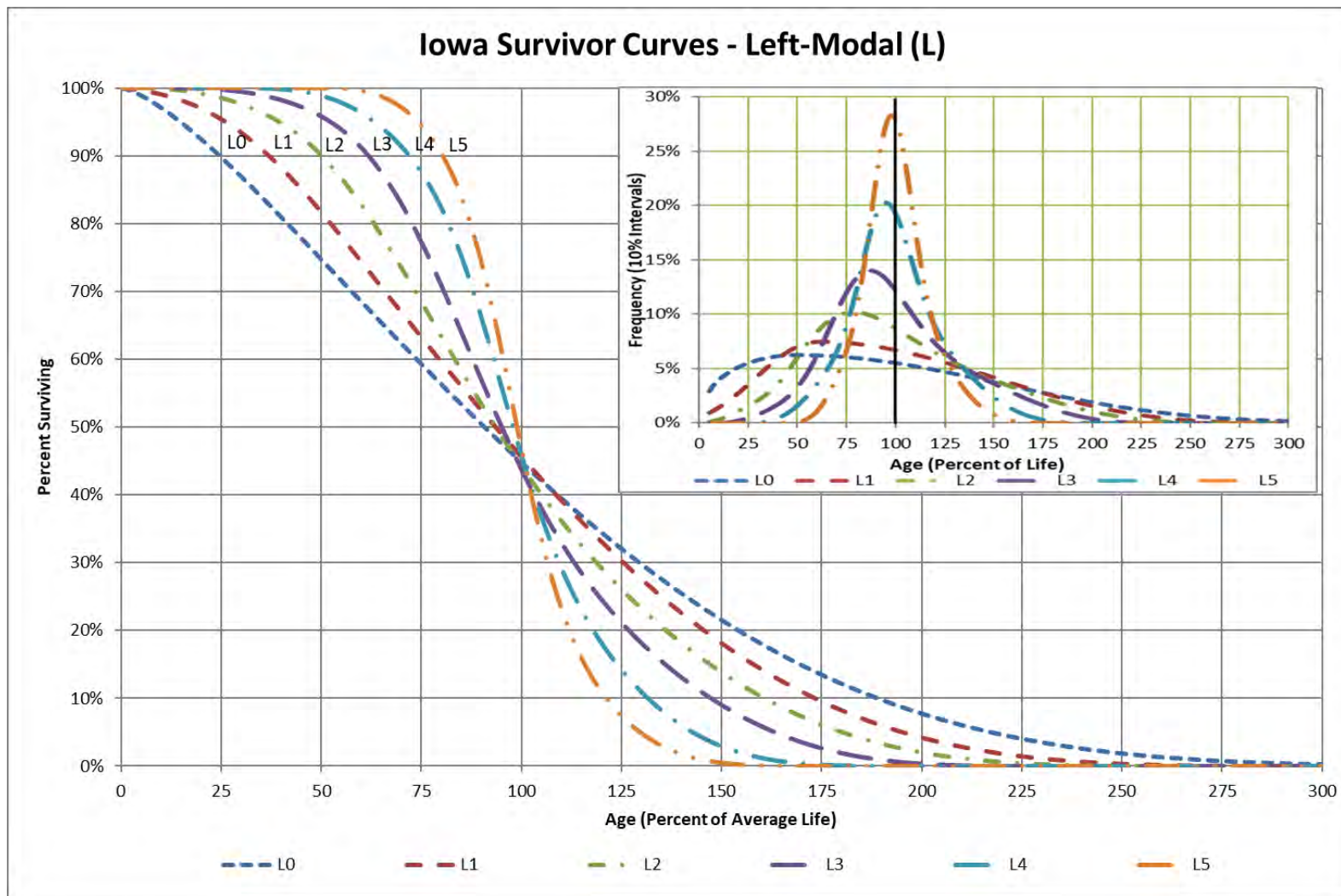
¹⁰ *Ibid*, 21

¹¹ Marston, Anson, Robley Winfrey and Jean C. Hempstead, Engineering Valuation and Depreciation (The Iowa State University Press, 1953)

¹² Couch, Frank V. B., Jr., Classification of Type O Retirement Characteristics of Industrial Property Unpublished M.S. Thesis (Engineering Valuation, Library, Iowa State College, Ames, Iowa, 1957)



FIGURE 2: LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES





ATCO Electric Yukon,
2022 Depreciation Study

FIGURE 3: RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES

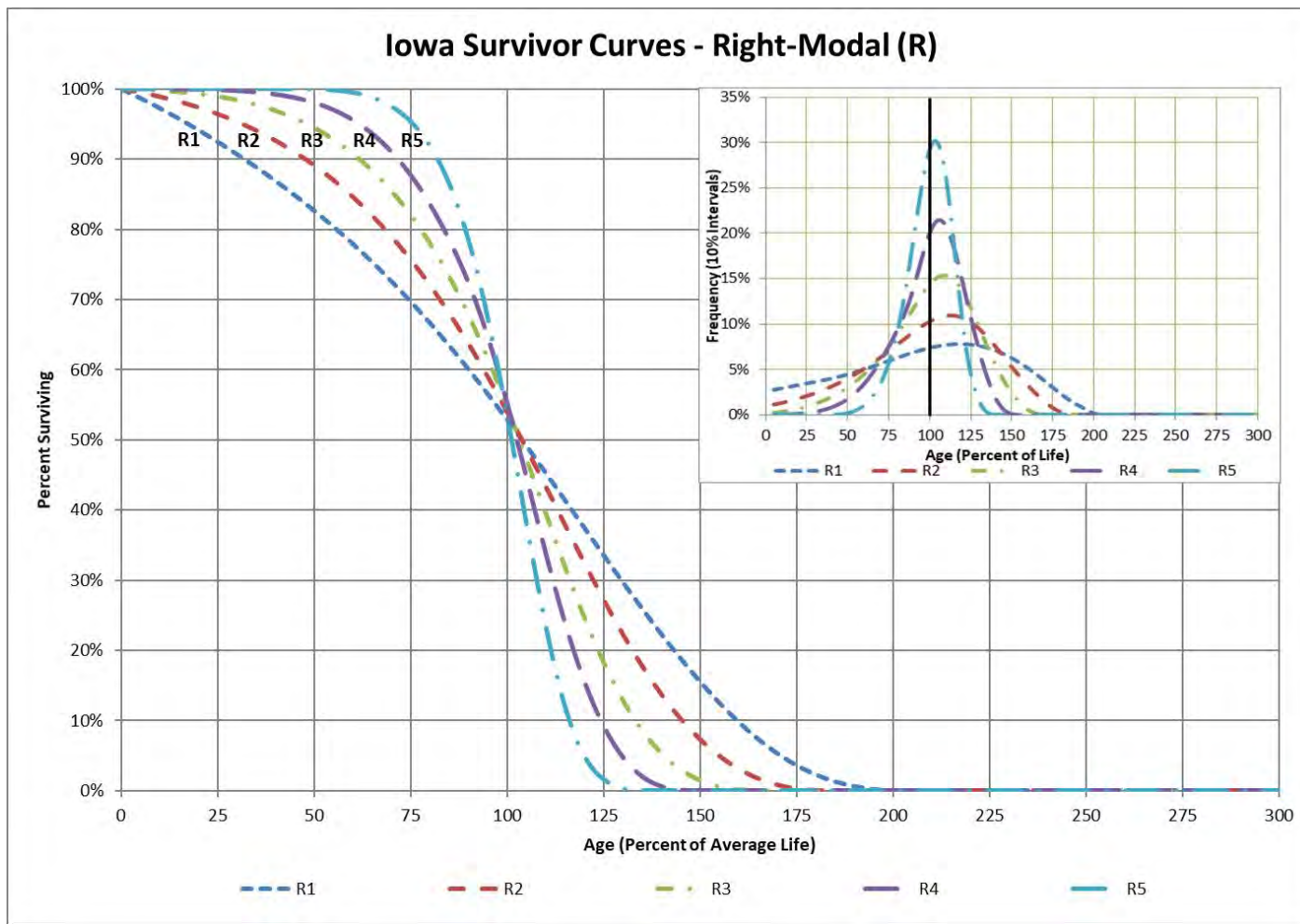




FIGURE 4: SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES

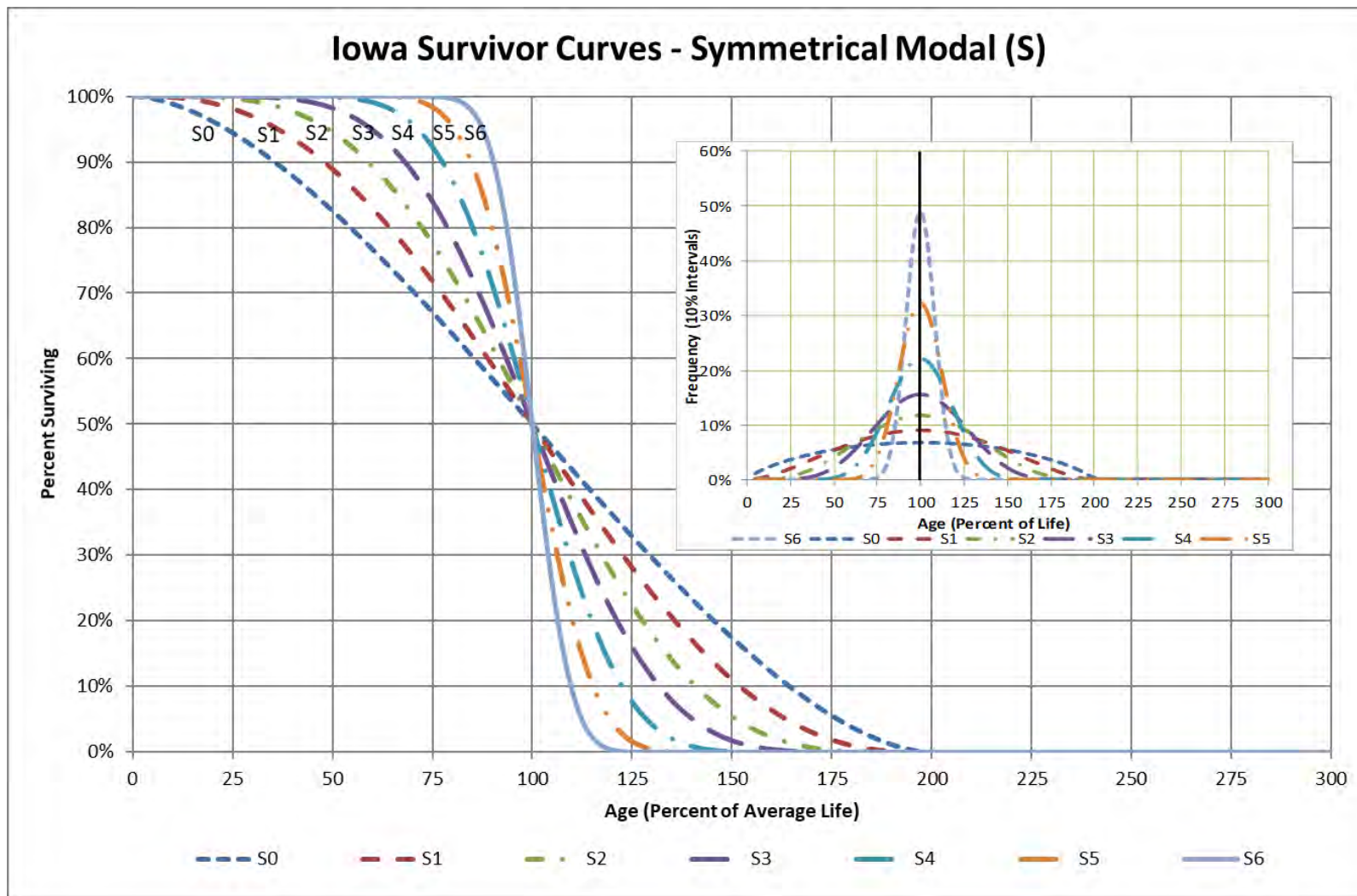
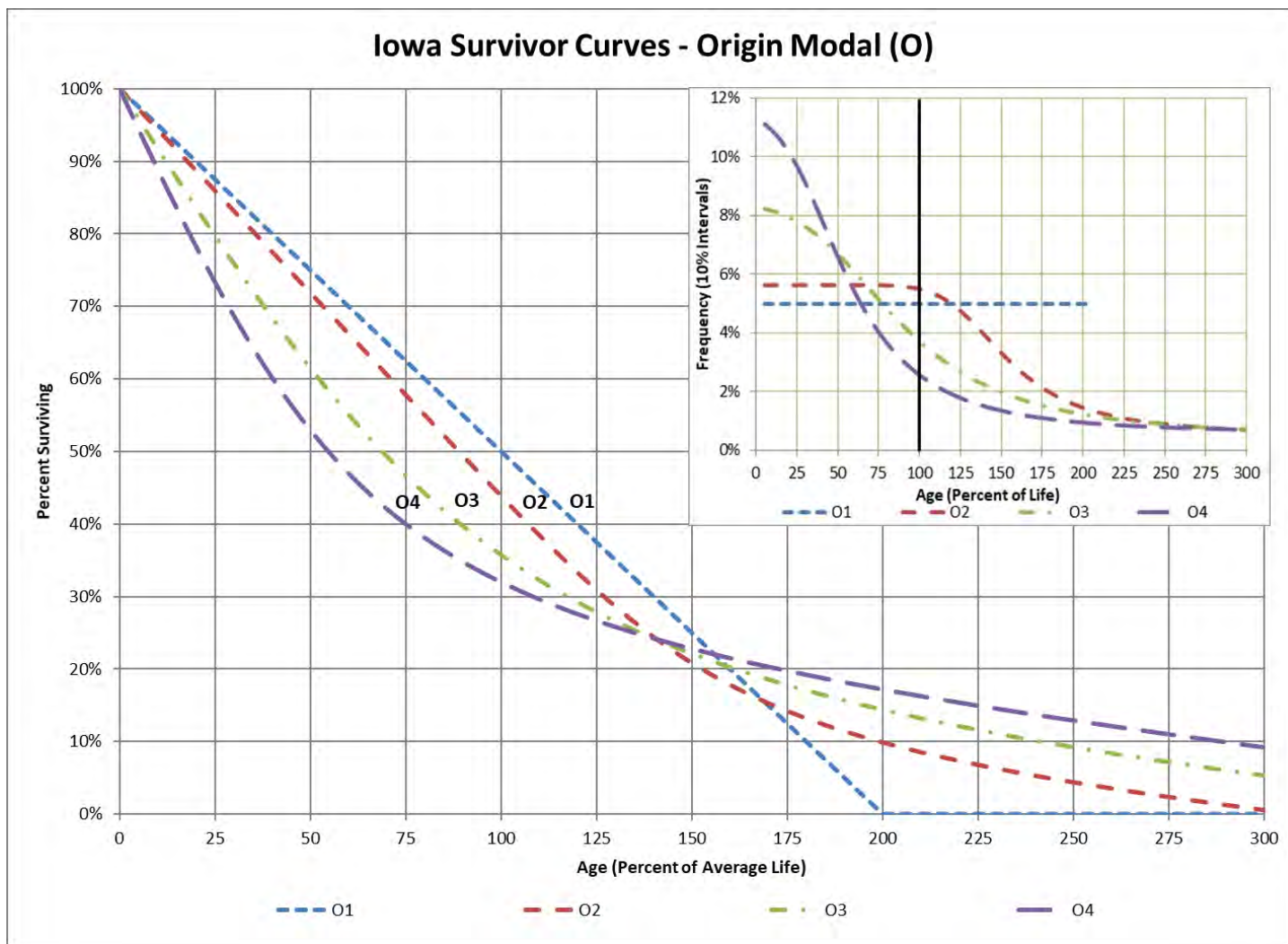




FIGURE 5: ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES





9.4 Retirement Rate Method of Analysis

The retirement rate method is a widely accepted actuarial method used to create survivor curves.¹³ This method is also referred to as an original life table. These survivor curves can then be used to determine the average service life of a plant account. The retirement rate method is thoroughly explained in several publications, including *Statistical Analyses of Industrial Property Retirements*,¹⁴ *Engineering Valuation and Depreciation*¹⁵ and *Depreciation Systems*.¹⁶

The retirement rate method is a subgroup of the placement and the experience band methods, as described in “*Depreciation Systems*”. The placement band method creates a survivor curve which describes the life characteristics of assets placed into service during a selected timeframe. The experience band method creates a survivor curve which describes the life characteristics of assets removed from service during a selected time frame. The retirement rate method creates both placement and experience bands to give the most complete or representative data. 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.

9.5 Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2008-2017 during which there were placements during the years 2003-2017. In order to illustrate the summation of the aged data by age interval, the data was compiled in the manner presented in Schedules 1 and 2. In Schedule 1 (page 9-10), 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 asset invested in 2003 were retired in 2008. The \$10,000 retirement occurred during the age interval between 4 ½ and 5 ½ years (2008 - 2003) on the basis that approximately one-half of the amount of property was installed prior to and after 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 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2008

¹³ The Alberta Utilities Commission in particular has approved the use of the retirement rate method for many decades.

¹⁴ Anson, Winfrey & Hempstead, supra note 7

¹⁵ Anson, Winfrey & Hempstead, supra note 7

¹⁶ Wolf & Fitch, supra note 2



retirements of 2003 installations and ending with the 2016 retirements of the 2011 installations. Thus, the total amount of \$143,000 for age interval 4½-5½ equals the sum of:

$$\$10 + \$12 + \$13 + \$11 + \$13 + \$13 + \$15 + \$17 + \$19 + \$20 = \$143 \text{ k}$$

Other transactions which affect the group are recorded in a similar manner in Schedule 2 (page 9-11). 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 1. RETIREMENTS FOR EACH YEAR 2008-2017 – SUMMARIZED BY AGE INTERVAL

Experience Band 2008-2017

Placement Band 2003-2017

Retirements (Thousands of Dollars)
Annual Survivors at the Beginning of the Year

Year Placed (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)	Total Durring Age Interval (12)	Age Interval (13)
2003	10	11	12	13	14	16	23	24	25	26	26	13½-14½
2004	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2005	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2006	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2007	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2008	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2009		5	11	12	13	14	15	16	18	20	113	7½-8½
2010			6	12	13	15	16	17	19	19	124	6½-7½
2011				6	13	15	16	17	19	19	131	5½-6½
2012					7	14	16	17	19	20	143	4½-5½
2013						8	18	20	22	23	146	3½-4½
2014							9	20	22	25	150	2½-3½
2015								11	23	25	151	1½-2½
2016									11	24	153	½-1½
2017										13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	



SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2008-2017 – SUMMARIZED BY AGE INTERVAL

Experience Band 2008-2017

Placement Band 2003-2017

Acquisitions, Transfers and Sales (Thousands of Dollars)
Annual Survivors at the Beginning of the Year

Year Placed (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)	Total Durring Age Interval (12)	Age Interval (13)
2003	-	-	-	-	-	-	60 ^a	-	-	-	-	13½-14½
2004	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2005	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2006	-	-	-	-	-	-	-	(5) ^b	-	-	60	10½-11½
2007	-	-	-	-	-	-	-	6 ^a	-	-	-	9½-10½
2008	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2009	-	-	-	-	-	-	-	-	-	-	-	7½-8½
2010	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2011	-	-	-	-	-	-	-	(12) ^b	-	-	-	5½-6½
2012	-	-	-	-	-	-	-	-	22 ^a	-	-	4½-5½
2013	-	-	-	-	-	-	-	(19) ^b	-	-	10	3½-4½
2014	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2015	-	-	-	-	-	-	-	-	-	(102) ^c	(121)	1½-2½
2016	-	-	-	-	-	-	-	-	-	-	-	½-1½
2017	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	

^a Transfer Affecting Exposures at Beginning of Year

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses denote Credit amount.



9.6 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 (page 9-13). The surviving plant at the beginning of each year from 2007 through 2016 is recorded by year in the portion of the table titled "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 2013 are calculated in the following manner:

Exposures at age 0	=	amount of addition	=	\$750,000
Exposures at age ½	=	\$750,000 - \$ 8,000	=	\$742,000
Exposures at age 1½	=	\$742,000 - \$18,000	=	\$724,000
Exposures at age 2½	=	\$724,000 - \$20,000 - \$19,000	=	\$685,000
Exposures at age 3½	=	\$685,000 - \$22,000	=	\$663,000

For the entire experience band 2008-2018, 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:

$$\$255 + \$268 + \$ 284 + \$311 + \$334 + \$374 + \$405 + \$448 + \$501 + \$609 = \$3,789k$$



SCHEDULE 3 – PLANT EXPOSED TO RETIREMENT AT THE BEGINNING OF EACH YEAR, 2008 -2017 – SUMMARIZED BY AGE INTERVAL

Experience Band 2008 - 2017

Placement Band 2003-2017

Exposures (Thousands of Dollars)
Annual Survivors at the Beginning of the Year

Year Placed (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)	Total at Beginning of Age Interval (12)	Age Interval (13)
2003	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2004	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2005	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2006	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2007	376	367	257	346	334	321	307	267	280	261	1,097	9½-10½
2008	420 ^a	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2009		460 ^a	455	444	432	419	405	390	374	356	1,952	7½-8½
2010			510 ^a	504	492	479	464	448	431	412	2,463	6½-7½
2011				580 ^a	574	561	546	530	501	482	3,057	5½-6½
2012					660 ^a	653	639	623	628	609	3,789	4½-5½
2013						750 ^a	742	724	685	663	4,332	3½-4½
2014							850 ^a	841	821	799	4,955	2½-3½
2015								960 ^a	949	923	5,719	1½-2½
2016									1,080 ^a	1,069	6,579	½-1½
2017										1,220 ^a	7,490	0-½
Total	1,975	2,382	2,724	3,318	3,872	4,494	5,247	5,987	6,852	7,796	44,780	
^a Additions during the year.												
	1555	1922	2214	2738	3212	3744	4397	5027	5772	6576	44780	
	420	460	510	580	660	750	850	960	1080	1220	0	
	1975	2382	2724	3318	3872	4494	5247	5987	6852	7796	44780	



9.7 Original Life Tables

The original life table, illustrated in Schedule 4 (page 9-15) 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 percent 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 4½ to 5½	=	\$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 2008-2017				Placement Band 2003-2017	
Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	% Surviving at Beginning of Age Interval
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	55.6
12.5	323	44	0.1362	0.8638	48.9
13.5	167	26	0.1557	0.8443	42.24
					35.66
Total	44,780	1,606			

- Exposure and Retirement Amounts are in Thousands of Dollars
- 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.



9.8 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 percent 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 Iowa type curves are used in this study to smooth those original stub curves which are expressed as percentages surviving at ages in years. Each original survivor curve was compared to the Iowa 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 Iowa 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 Iowa 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 A L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

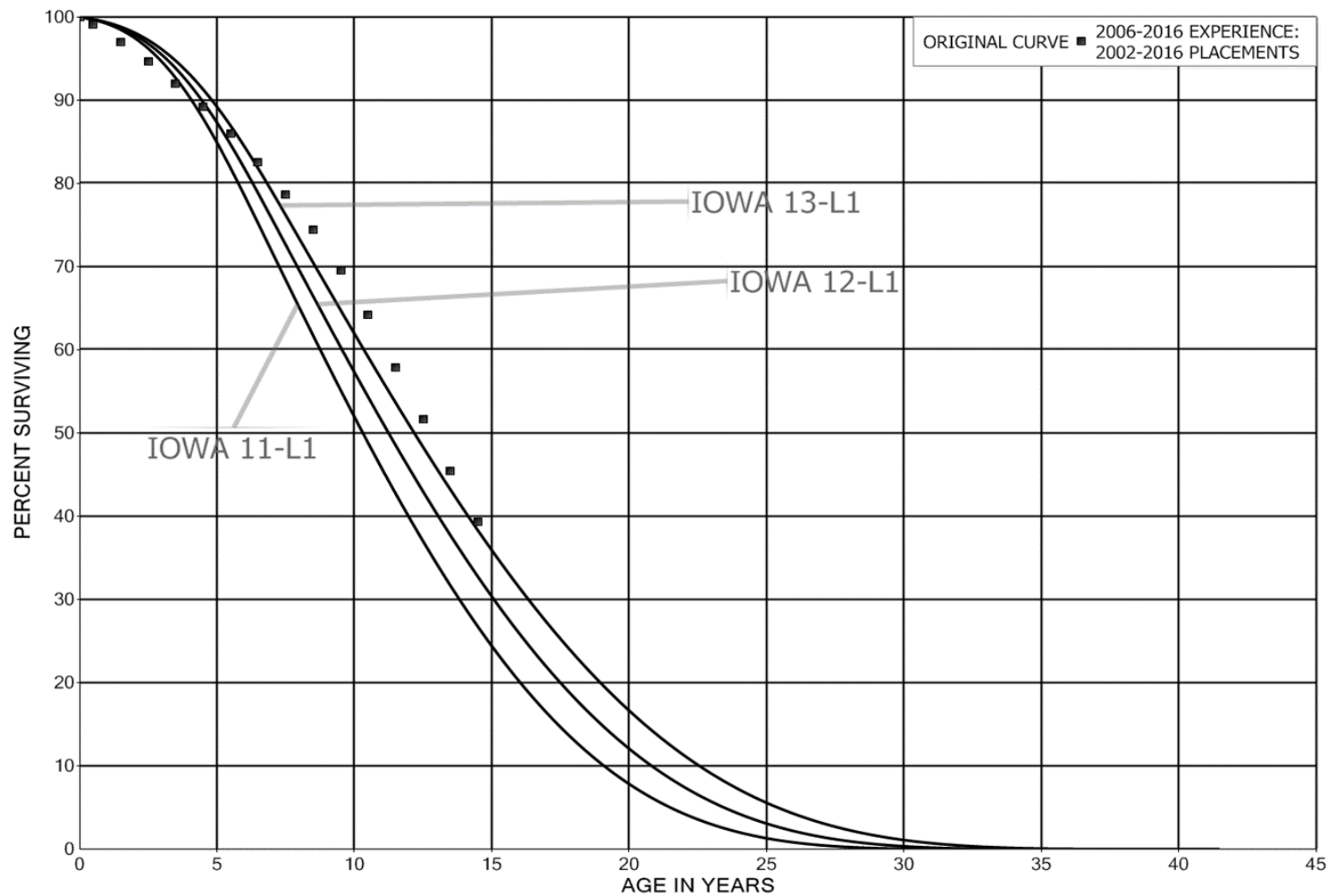




FIGURE 7: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A SO IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

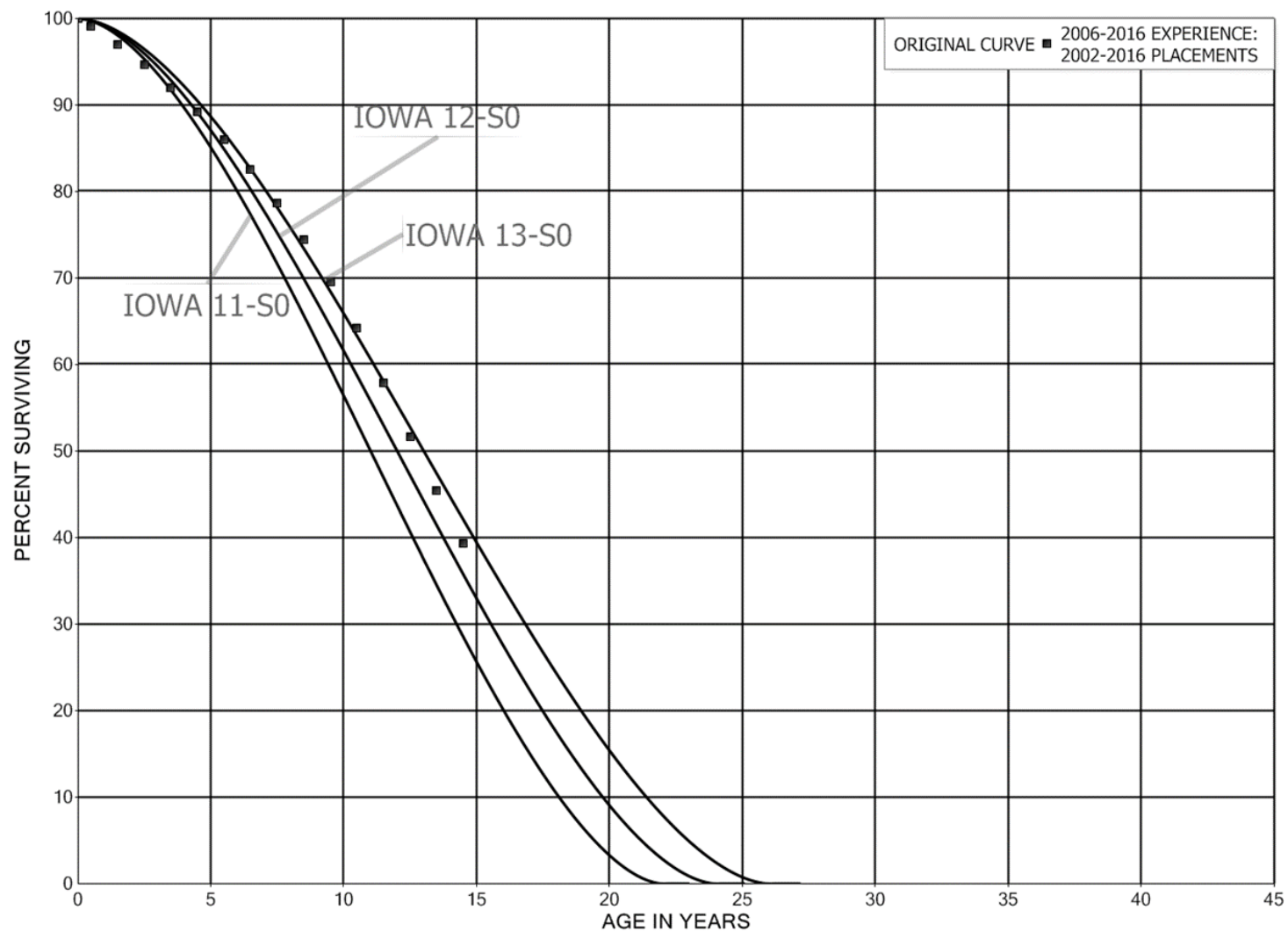




FIGURE 8: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

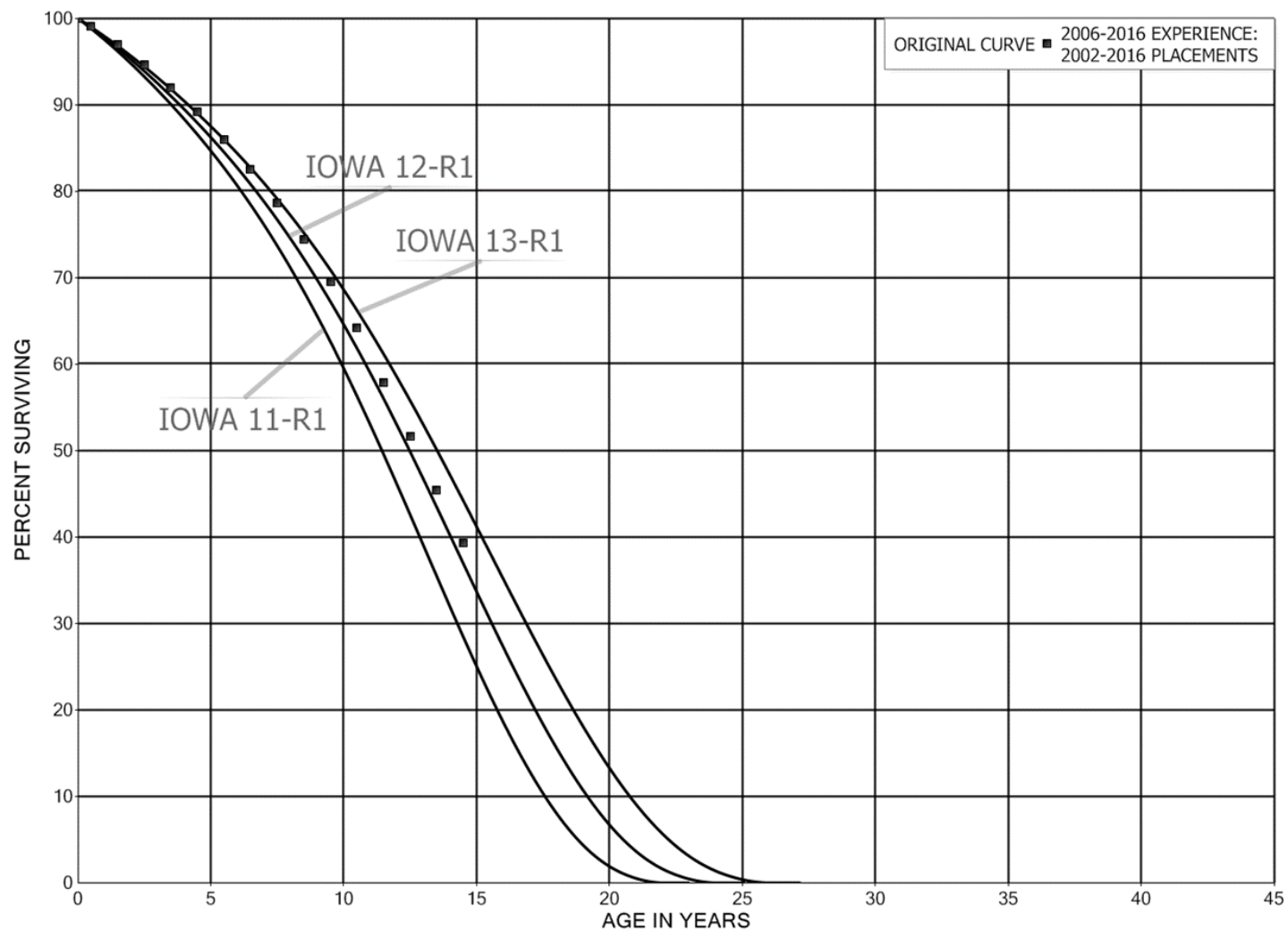
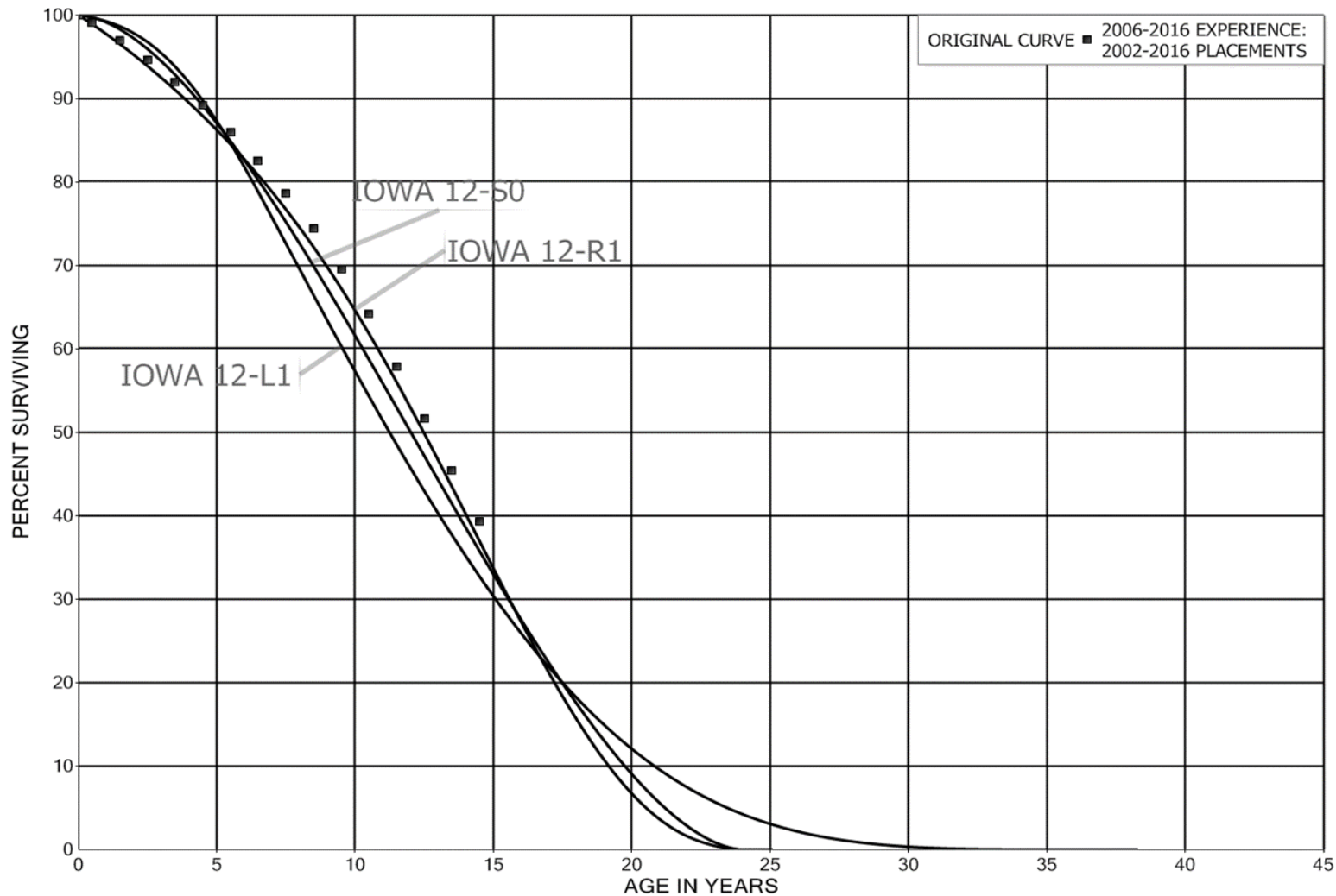




FIGURE 9: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES





SECTION 10

10 ESTIMATION OF NET SALVAGE

The estimates of net salvage were based primarily on the professional judgment of Concentric, based in part on historical data, and in part through a comparison to Canadian peer companies. The analysis of historic net salvage activity considered gross salvage and cost of removal as recorded to the depreciation reserve account. Net salvages as a percentage of the cost of plant retired are calculated for each plant component on both annual and three-year moving average bases.

The net salvage percentages estimated is usually determined using the “Traditional Approach” for net salvage estimation. When a utility retires plant, the plant may be: (1) sold to a third party; (2) reused by the utility for additional service; (3) abandoned in place; or (4) physically removed. In the circumstances where the plant is sold or re-used, a salvage proceeds (or positive salvage amount) is normally recognized. In circumstances where the plant is abandoned in place or physically removed, a cost of removal expenditure (or negative salvage) is incurred. The net of these estimated gross salvage proceeds and the estimated costs of removal are expressed as a percentage of the account’s original cost to determine a net salvage percentage. In the circumstances where the salvage proceeds exceed the costs of retirement, a net positive salvage percentage exists. In the circumstances where the costs of removal exceed the salvage proceeds, a net negative salvage as a percentage of the original cost is the result.

The estimation of the net salvage as a percentage of original cost as developed using the traditional approach, includes the following five steps.

1. The annual retirement, gross salvage and cost of removal transactions for the period of analysis is extracted from the plant accounting systems.
2. A net salvage amount (gross salvage proceeds less cost of retirement) is calculated for each historic year. Additionally, a net salvage amount is also calculated for each historic three-year rolling band and the most recent five-year rolling band.
3. The net salvage amount determined above is compared to the original booked costs retired for each period in the manner described, which results in a net salvage percentage of original costs retired for each year, in addition to three-year rolling bands and the most recent five-year rolling band. The annual, the three-year rolling average, and the most recent five-year rolling average net salvage percentages are analyzed to determine a reasonable estimated net salvage percentage. At this point the net salvage percentage is based purely upon statistical analysis.
4. Each account is then compared to the net salvage percentage currently approved, compared to Canadian peer companies, and discussed with company engineering staff. Based on the statistical analysis, the review of current and Canadian peer company net salvage percentages, and with the professional judgment of Concentric, a net salvage percentage is determined for each account.
5. The net salvage percentage is then used in the depreciation rate calculations in the technical update or report.