

YUKON UTILITIES CONSUMERS' GROUP
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May 3, 2021

Yukon Utilities Board
Box 31728
Whitehorse, Yukon Y1A 6L3

Attention: Deana Lemke, Executive Secretary

**Re: Yukon Energy Corporation – Battery Energy Storage System
Energy Project Certificate and Energy Operation Certificate Application
UCG Cross-Examination Materials**

Dear Ms. Lemke:

During its cross-examination of Yukon Energy Corporation (YEC) witnesses at the upcoming virtual hearing, the Yukon Utilities Consumers' Group (UCG) will be making a general reference to items listed in Schedule 3A (attached) from YEC's 2021 General Rate Application.

If the YUB or YEC requires any clarification with respect to this issue, please direct all inquiries to me by email at rondeau@northwestel.net.

Yours truly,

Roger Rondeau
for Yukon Utilities Consumers' Group

Yukon Energy Corporation
Calculation of Depreciation Expense for 2021
(\$000s)

Schedule 3A
November 2020

Description	Cost at 2020 Year End	2021 Additions	Cost at 2021 Year End	Existing Depreciation Rate (Years)	2021 Existing Forecast Depreciation	Proposed Depreciation Rate (Years)	2021 Proposed Forecast Depreciation
Land							
Hydraulic Production	444.9	0.0	444.9	0	0.0	0	0.0
Diesel Production	27.7	0.0	27.7	0	0.0	0	0.0
Main Transmission Facilities	576.9	0.0	576.9	0	0.0	0	0.0
Distribution System	17.8	0.0	17.8	0	0.0	0	0.0
General Plant	548.0	0.0	548.0	0	0.0	0	0.0
Rights	128.8	0.0	128.8	50	1.6	50	1.6
Depreciation Study Differences					0.0		0.0
Total Land	1,744.0	0.0	1,744.0		1.6		1.6
Hydro Plant							
Structures and Improvements	37,647.8	17,068.5	54,716.3	72	522.9	72	522.9
Buildings and Improvements	10,278.7	0.0	10,278.7	40	257.0	40	257.0
Reservoirs, Dams, and Waterways	173,561.2	300.0	173,861.2	103	1,685.4	103	1,685.4
Overhaul	6,712.1	0.0	6,712.1	10	671.2	10	671.2
Waterwheels, Turbines & Generation	26,904.6	0.0	26,904.6	85	309.9	60	439.0
Accessory Electric Equipment	27,364.1	750.0	28,114.1	45	608.0	40	684.0
Accessory Digital Equipment	837.9	0.0	837.9	20	41.9	20	41.9
Misc Power Plant Equipment	11,791.4	25.0	11,816.4	30	393.0	30	393.0
Fencing	107.1	0.0	107.1	30	2.7	30	2.7
Depreciation Study Differences					-307.6		-140.5
Total Hydro Plant	295,205.0	18,143.5	313,348.5		4,184.4		4,556.6
Diesel Production							
Structures and Improvements	1,562.4	0.0	1,562.4	72	21.7	72	21.7
Buildings and Improvements	466.1	0.0	466.1	55	8.5	55	8.5
Fuel Holders, Products, and ACC	1,688.5	0.0	1,688.5	25	41.6	40	26.0
Generating Equipment and Prime	14,596.8	0.0	14,596.8	40	635.2	40	635.2
Overhaul	2,962.8	580.0	3,542.8	5	592.6	5	592.6
Minto Generating Equipment	243.5	0.0	243.5	12	26.1	12	26.1
Accessory Electric Equipment	9,018.9	0.0	9,018.9	45	199.7	45	199.7
Misc Power Plant Equipment	1,837.7	0.0	1,837.7	30	59.2	30	59.2
Depreciation Study Differences					-80.6		-70.2
Total Diesel Production	32,376.6	580.0	32,956.6		1,503.9		1,498.7
Wind Turbine							
Wind Turbine	0.0	0.0	0.0	0	0.0	0	0.0
Total Wind Turbine	0.0	0.0	0.0		0.0		0.0
Main Transmission Facilities							
Poles and Fixtures	86,010.6	12,855.0	98,865.6	65	1,323.2	50	1,720.2
Brushing	14,082.3	0.0	14,082.3	50	281.6	60	234.7
Survey Costs	4,380.7	0.0	4,380.7	50	238.7	60	198.9
Overhead Conductors / Poles	20,561.3	0.0	20,561.3	50	411.2	60	342.7
Overhead Conductors / Towers	278.0	0.0	278.0	50	5.6	60	4.6
Substation Equipment	81,331.5	300.0	81,631.5	54	1,512.8	45	1,815.3
Substation Buildings	1,536.2	0.0	1,536.2	55	27.9	55	27.9
Substation Fences	274.5	0.0	274.5	20	13.4	30	8.9
Depreciation Study Differences					-53.4		-79.6
Total Main Transmission Facilities	208,455.0	13,155.0	221,610.0		3,761.1		4,273.7
Sub Transmission Lines							
Poles and Fixtures	4,579.6	0.0	4,579.6	45	100.0	50	90.0
25Kv Minto Spur- Structure	2,646.1	0.0	2,646.1	12	0.0	12	0.0
Brushing	41.6	0.0	41.6	50	0.8	60	0.7
Brushing Minto	432.5	0.0	432.5	12	0.0	12	0.0
Survey costs	0.0	0.0	0.0	50	0.0	60	0.0
Survey costs Minto	95.1	0.0	95.1	12	0.0	12	0.0
Overhead Conductors	1,840.4	0.0	1,840.4	45	40.7	60	30.5
Underground Conductors / Conduit	83.9	0.0	83.9	45	1.9	45	1.9
Overhead Conductors Minto	920.7	0.0	920.7	12	0.0	12	0.0
Substation Equipment	8,013.6	0.0	8,013.6	40	200.3	45	178.1
Substation Equipment Minto	7,111.2	0.0	7,111.2	12	74.6	12	74.6
Depreciation Study Differences					-27.4		-45.8
Total Sub Transmission Lines	25,764.8	0.0	25,764.8		391.0		330.0

Yukon Energy Corporation
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November 2020

Description	Cost at 2020 Year End	2021 Additions	Cost at 2021 Year End	Existing Depreciation Rate (Years)	2021 Existing Forecast Depreciation	Proposed Depreciation Rate (Years)	2021 Proposed Forecast Depreciation
Distribution System							
Poles and Fixtures	9,798.1	649.1	10,447.1	35	280.1	40	245.1
Brushing	44.8	0.0	44.8	50	0.9	50	0.9
Survey costs	619.4	0.0	619.4	50	17.7	50	17.7
Overhead conductors - Poles	268.2	0.0	268.2	35	7.7	50	5.4
Overhead Costs	2,117.4	0.0	2,117.4	40	52.9	40	52.9
Underground Services	385.2	0.0	385.2	40	9.6	40	9.6
Underground Conduit	40.5	0.0	40.5	40	1.0	40	1.0
Wind Monitoring Equipment	0.0	0.0	0.0	0	0.0	0	0.0
Meters	312.6	0.0	312.6	30	8.6	16	16.1
Meter Equipment	288.4	0.0	288.4	30	9.2	16	17.2
Substation Equipment	1,287.2	0.0	1,287.2	40	30.3	40	30.3
Substation Buildings	64.8	0.0	64.8	55	1.2	55	1.2
Substation Fences	100.3	0.0	100.3	20	5.0	30	3.3
Street Lights	591.6	0.0	591.6	40	13.8	40	13.8
Line Transformers	4,051.1	0.0	4,051.1	40	98.9	35	113.0
Sentinel Lights	36.4	0.0	36.4	30	1.2	30	1.2
Depreciation Study Differences					-27.6		1.3
Total Distribution System	20,005.9	649.1	20,654.9		510.5		530.1
Building and Other Equipment							
Survey Costs Land	4.3	0.0	4.3	50	0.1	50	0.1
Structures and Improvements (Hydro)	2,791.6	0.0	2,791.6	40	69.4	50	55.5
Building and Improvements	10,632.1	125.0	10,757.1	55	193.3	50	212.6
Office Furniture and Equipment	1,877.4	25.0	1,902.4	20	47.2	20	47.2
Communication Site Towers	19.3	0.0	19.3	30	0.6	40	0.5
Communication Site Fences	64.1	25.0	89.1	20	3.2	30	2.1
Computer Hardware	2,063.4	230.0	2,293.4	5	188.7	7	134.8
Computer Software	0.0	0.0	0.0	5	0.0	5	0.0
Tool and Instruments	2,157.5	490.0	2,647.5	20	84.4	20	84.4
Wind Monitoring Equipment	14.3	0.0	14.3	20	0.7	15	1.0
Communication Equipment	5,615.6	100.0	5,715.6	20	234.1	20	234.1
Company Owned Houses / Land	59.0	0.0	59.0	30	1.7	40	1.3
Company Owned Houses	2,132.4	230.0	2,362.4	30	22.8	40	17.1
Depreciation Study Differences					-29.0		-19.0
Total Building and Other Equipment	27,431.1	1,225.0	28,656.1		817.1		771.6
Transportation							
Utility Vehicles	371.6	30.0	401.6	7	29.3	8	25.6
Sedans and Stationwagons	137.8	0.0	137.8	7	9.4	11	6.0
Trucks & Pole Trailer	11.0	0.0	11.0	31	0.4	25	0.4
Pole Trailers > 10,000 Lbs	53.7	0.0	53.7	25	1.7	25	1.7
Trucks 3/4 to 2 Ton	3,378.4	580.0	3,958.4	10	242.4	9	269.3
Trucks > 3 Ton	1,459.8	185.0	1,644.8	20	58.4	20	58.4
Foremost	1,003.9	0.0	1,003.9	25	40.2	20	50.2
Depreciation Study Differences					-0.7		19.3
Total Transportation	6,416.1	795.0	7,211.1		381.0		431.0
Critical Spares							
Critical Spares	1,193.6	0.0	1,193.6	0	0.0	0	0.0
Total Critical Spares	1,193.6	0.0	1,193.6		0.0		0.0
LNG Production							
Structures and Improvements	6,184.7	0.0	6,184.7	72	85.9	72	85.9
Fuel Holders	13,200.7	0.0	13,200.7	32	412.5	60	220.0
Generator	20,891.0	0.0	20,891.0	40	522.3	40	522.3
Overhaul	343.3	180.0	523.3	2	171.4	2	171.4
Accessory Electric Equipment	3,655.9	0.0	3,655.9	45	81.2	45	81.2
Misc Power Plant Equipment	2,850.6	35.0	2,885.6	30	95.0	30	95.0
Fence	779.7	0.0	779.7	30	26.0	30	26.0
Depreciation Study Differences					0.0		-14.0
Total LNG Production	47,905.9	215.0	48,120.9		1,394.4		1,187.9
Total	666,498.0	34,762.5	701,260.5		12,944.9		13,581.1