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February 14, 2019

Mr. D. Christle
Secretary and Executive Director
Public Utilities Board
400-330 Portage Avenue
Winnipeg, Manitoba
R3C 0C4

Dear Mr. Christle:

RE: MANITOBA HYDRO 2019/20 ELECTRIC RATE APPLICATION – PUB INFORMATION REQUEST RESPONSES

On December 14, 2018, the Public Utilities Board (“PUB”) posed its Information Requests (IRs) to Manitoba Hydro and on January 31, 2019, Manitoba Hydro filed its responses to PUB Information Requests. Some of the PUB IRs requested information related to third quarter results be provided when the information was available. Today, Manitoba Hydro has filed third quarter results with the Public Utilities Board and as such is updating the responses to the following Information Requests:

- PUB/MH I-7bU – Includes the Q3 Quarterly Report and corresponding details of the income statement and statement of cash flows for the quarter ending December 31, 2018;
- PUB/MH I-15U– Includes Manitoba Hydro’s Quarterly Report on Operating & Administrative Expenses (“O&A”) for the quarter ended December 31, 2018; and,
- PUB/MH I-54U – Manitoba Hydro’s quarterly reports on Major New Generation & Transmission capital projects for the quarter ended December 31, 2018.

Manitoba Hydro will provide an updated to PUB/MH I-7c with responses to Intervener Information Requests on February 28, 2019, as this response requires additional time to prepare.

Manitoba Hydro is also providing revised responses to PUB/MH I-13 a)R and PUB/MH I-14 a)R to include a correction to Capitalized Labour and Other costs for 2018/19. Manitoba Hydro notes that O&A expenses are unchanged in the 2018/19 Current Outlook and 2019/20 Approved Budget compared to the original filing.

Should you have any questions with respect to the foregoing, please do not hesitate to contact the writer at 204-360-3633 or Liz Carriere at 204-360-3591.

Yours truly,

MANITOBA HYDRO LEGAL SERVICES DIVISION

Per:



ODETTE FERNANDES
Barrister and Solicitor
Att.

cc : Marla Boyd, Manitoba Hydro
Bob Peters, Board Counsel
Dayna Steinfeld, Board Counsel
Approved Intervenors

REFERENCE:

Application Appendix 4 Segmented Information

PREAMBLE TO IR (IF ANY):**QUESTION:**

- b) File the Q3 quarterly report when available and provide detail of the income statement and statement of cash flows for the Quarter.

RESPONSE:

- b) Please see the attached quarterly report. The following schedules provide the details of the income statement and statement of cash flows, including actual electric operations results for Q1, Q2 and Q3 of 2018/19 and the 2018/19 Current Outlook filed as part of the Supplement to the Application filed on February 14, 2019 for Q4.

**ELECTRIC OPERATIONS
STATEMENT OF INCOME
QUARTERLY RESULTS FOR THE FISCAL YEAR ENDED MARCH 31, 2019**
(in millions of dollars)

	Three Month Q1	Three Month Q2	Three Month Q3	Projected Three Month Q4	Current Outlook 2019
Revenues					
Domestic revenue	\$332	\$360	\$451	\$515	\$1 659
Extraprovincial	116	133	101	82	432
Other	8	22	27	27	85
	<u>456</u>	<u>515</u>	<u>580</u>	<u>623</u>	<u>2 175</u>
Expenses					
Operating and administrative	123	126	128	123	501
Net finance expense	145	195	188	184	712
Depreciation and amortization	101	120	121	123	465
Water rentals and assessments	27	27	28	32	114
Fuel and power purchased	26	33	38	38	135
Capital and other taxes	36	35	35	32	139
Other expenses	21	25	19	8	73
Corporate allocations	2	2	2	2	8
	<u>481</u>	<u>564</u>	<u>559</u>	<u>544</u>	<u>2 148</u>
Net income (loss) before net movement in regulatory balances	(24)	(48)	21	79	27
Net movement in regulatory balances	17	21	16	11	65
Net Income (Loss)	<u>(\$ 7)</u>	<u>(\$ 27)</u>	<u>\$ 37</u>	<u>\$ 90</u>	<u>\$ 92</u>
Net income (loss) attributable to:					
Manitoba Hydro	(\$ 5)	(\$ 27)	\$ 38	\$ 90	\$ 95
Non-controlling interests	(2)	(0)	(1)	(0)	(3)
	<u>(\$ 7)</u>	<u>(\$ 27)</u>	<u>\$ 37</u>	<u>\$ 90</u>	<u>\$ 92</u>

**ELECTRIC OPERATIONS
CASH FLOW STATEMENT - INDIRECT
QUARTERLY RESULTS FOR THE FISCAL YEAR ENDED MARCH 31, 2019**
(in millions of dollars)

	Three Month Q1	Three Month Q2	Three Month Q3	Projected Three Month Q4	Current Outlook
Operating Activities					
Net income (loss)	(\$7)	(\$27)	\$37	\$90	\$92
Add back:					
Depreciation and amortization	101	120	121	123	465
Net finance expense	145	195	188	184	712
Net movement impacts on depreciation, amortization and finance expense	6	7	5	3	21
Adjustments for non-cash items	(2)	(21)	(20)	60	17
Adjustments for changes in non-cash working capital accounts	(92)	(6)	(52)	118	(32)
Interest received	8	8	8	(9)	14
Interest paid	(299)	(273)	(115)	(277)	(964)
Cash (used for) provided by operating activities	(139)	1	171	292	326
Investing Activities					
Additions to property, plant and equipment	(487)	(457)	(457)	(532)	(1 933)
Additions to intangible assets	(55)	(19)	(56)	(88)	(219)
Additions to regulatory deferral balances	(23)	(29)	(22)	(13)	(87)
Contributions received	62	15	8	(23)	62
Cash paid to the City of Winnipeg	-	(16)	-	-	(16)
Cash paid for mitigation and major development activities	(7)	(6)	(7)	(84)	(104)
Other	(5)	2	(1)	4	(1)
Cash used for investing activities	(516)	(510)	(535)	(737)	(2 298)
Financing Activities					
Proceeds from short and long-term debt	1 686	990	216	960	3 852
Retirement of short and long-term debt	(851)	(528)	(242)	(154)	(1 775)
Advances to external parties and related parties	(21)	(37)	(22)	28	(52)
Proceeds from partnership issuances	14	14	13	11	51
Sinking fund payments	-	-	-	-	-
Cash provided by financing activities	827	439	(35)	845	2 076
Net increase (decrease) in cash and cash equivalents	172	(70)	(399)	401	104
Cash and cash equivalents, beginning of year	629	801	731	332	579
Cash and cash equivalents, end of period	801	731	332	732	683

The Manitoba Hydro-Electric Board

Quarterly Report

for the nine months ended
December 31, 2018





Report from **The Chair of the Board** and by **The President and Chief Executive Officer**

Financial Overview

Manitoba Hydro's consolidated net loss was \$1 million for the first nine months of the 2018-19 fiscal year compared to a net loss of \$47 million for the same period last year. The decrease in the net loss is primarily attributable to lower restructuring costs when compared to restructuring costs incurred for a significant cost reduction program in the prior year. Excluding restructuring expenses, Manitoba Hydro would have reported net income of \$3 million compared to a net loss of \$2 million in the prior year. The \$5 million improvement is mostly attributable to weather and rate impacts resulting in an increase in domestic electric revenue, an increase in other revenue due to the recognition of the Bipole III reserve into income as well as a decrease in operating and administrative expenses associated with savings from the Voluntary Departure Program (VDP). These improvements were partially offset by an increase in net financing costs associated with higher interest on debt as well as higher depreciation and amortization expense as new assets were placed in-service. The cost of natural gas is a flow through cost passed onto customers through rates approved by the Public Utilities Board (PUB) and therefore is not a driver for the decrease in net loss compared to the prior year.

The consolidated net loss was comprised of a \$5 million net profit in the electricity segment, a \$12 million loss in the natural gas segment, a \$4 million net profit in the other segment and a \$2 million profit impact in adjustments and eliminations. The loss in the natural gas segment is the result of seasonal variations in the demand for natural gas and is expected to be recouped over the winter heating season.

Manitoba Hydro's budgeted net income for 2018-19 is \$136 million; however Manitoba Hydro is currently projecting net income to be approximately \$100 million. The lower expected net income factors in the impact of the PUB's decision to grant a 3.6% rate increase rather than the requested 7.9% rate increase partially offset by favourable weather impacts throughout the first nine months. The projection for the remainder of the year assumes average water flow conditions and normal winter weather.

Electric Segment

Revenues from electricity sales within Manitoba totaled \$1 144 million for the nine-month period, which was \$122 million or 12% higher than the same period last year. The increase in domestic revenue was primarily attributable to the impacts of weather and revenues previously deferred in the Bipole III deferral account which are now recognized as revenue compared to the prior year. Extraprovincial revenues of \$350 million were \$16 million or 4% lower than the same period last year reflecting lower U.S. opportunity and dependable sales volumes primarily as a result of lower generation due to less favourable water conditions compared to 2017-18, partially offset by modestly higher export prices. Overall, energy sold in the export market was 5.2 billion kilowatt-hours compared to 8.5 billion kilowatt-hours sold in the same period last year. Other revenues of \$58 million were \$39 million or 205% higher than the same period last year due to the amortization of the Bipole III reserve into income.

Expenses attributable to electricity operations, including the net movement in regulatory deferral balances, totaled \$1 549 million for the nine-month period. This represented an increase of \$97 million or 7% as compared to the same period last year. Excluding restructuring charges, expenses increased \$136 million over the prior year. The increase was primarily due to an \$86 million increase in net finance expense due to interest associated with Bipole III and higher debt volumes and a \$46 million increase in depreciation largely due to Bipole III going into service at the beginning of July. There was also an increase in fuel and power purchase costs as a result of a one-time \$9 million write off of coal inventory as the Brandon Thermal Generating Station is no longer operational as a coal powered generator. Amortization of regulatory deferrals increased \$14 million due to amortization of the Conawapa deferral and ineligible overhead as per direction from the PUB. This was partially offset by a decrease of \$11 million in operating and administrative expenses due to a reduction in employee related expenditures as a result of the VDP and a \$13 million decrease in water rentals and assessments due to lower hydraulic generation.

The net loss before net movement in regulatory balances was \$52 million. The net movement in regulatory balances captures the timing differences of revenues and expenses for financial reporting purposes and those amounts approved by the PUB for rate-setting purposes. After considering the net movement of \$54 million in the regulatory deferral balances, there is a net income of \$2 million, of which \$5 million is attributable to Manitoba Hydro and \$3 million net loss is attributable to non-controlling interest. The non-controlling interest represents Taskinagahp Power Corporation's 33% share of the Wuskwatim Power Limited Partnership's operating results for the first nine months of the 2018-19 fiscal year.

Expenditures for capital construction for the nine-month period amounted to \$1 584 million compared to \$2 136 million for the same period last year. Expenditures for the current period included \$1 021 million related to construction of the Keeyask Project and \$178 million for the Bipole III Reliability Project. The remaining capital expenditures were predominantly incurred for ongoing system additions and modifications necessary to meet the electrical service requirements of customers throughout the province. The corporation also incurred \$53 million for electric demand side management programs.

Natural Gas Segment

The net loss in the natural gas segment was \$12 million for the nine-month period compared to a \$17 million net loss for the same period last year. The lower net loss is primarily due to increased gross margin due to weather impacts, lower restructuring costs and lower operating and administrative expenses as a result of the VDP. Delivered gas volumes were 1 347 million cubic metres compared to 1 218 million cubic metres for the same period last year.

Expenses attributable to natural gas operations excluding cost of gas sold amounted to \$111 million compared to \$114 million for the same period last year. The decrease in expenses is primarily attributable to lower current year employee related expenditures as a result of the VDP and higher restructuring charges in the prior year.

The net loss before net movement in regulatory balances is \$20 million. After considering the net movement of \$8 million in the regulatory balances, there is a net loss of \$12 million.

Capital expenditures in the natural gas segment were \$30 million for the current nine-month period compared to \$27 million for the same period last year. Capital expenditures are related to system improvements and other expenditures necessary to meet the natural gas service requirements of customers throughout the province. The corporation also incurred \$8 million for gas demand side management programs.

Other Segment

The other segment includes Manitoba Hydro International Ltd., Manitoba Hydro Utility Services, Minell Pipelines Ltd. and Teshmont Holdings Ltd. The net income was \$4 million in the other segment for the nine-month period compared to net income of \$5 million in the same period last year. Revenue was \$42 million compared to \$47 million for the same period last year. Expenses attributable to the other segment amounted to \$38 million which was \$4 million lower than the prior year. The decrease in both revenue and expenses is primarily due to fewer projects undertaken at Manitoba Hydro International Ltd. compared to the prior year.

There is also a \$2 million profit impact in adjustments and eliminations as a result of the requirement to harmonize accounting policies between electric and natural gas operations related to the gas meter exchange program.

Keeyask Project Completes 2018 Milestones

Located approximately 725 kilometres north of Winnipeg on the lower Nelson River, the Keeyask Project is a 695-megawatt hydroelectric generating station being developed in a partnership between Manitoba Hydro and four Keeyask Cree Nation (KCN) communities: Tataskweyak Cree Nation, War Lake First Nation, York Factory First Nation and Fox Lake Cree Nation.

With the 2018 construction season wrapped up, the Keeyask Project achieved all of its 2018 goals, and even exceeded some targets. Work completed included the Spillway and river diversion; placement of more than 113 000 cubic meters (m³) of concrete, exceeding the goal of 105 000 m³; opening of the South Access Road to construction traffic; placement of 3.6 million m³ of earth material (equivalent to 180 000 truckloads); and the installation of the planned embedded turbine and generator components on Units 1, 2 and 3 and enclosure of Units 4 and 5.

With progress to date, the anticipated in-service date for the first unit is October 2020. With the advances in the construction schedule at end of December 2018, the project is currently tracking towards meeting the established \$8.7 billion project control budget. Three years of work remain on the project.

Manitoba Hydro to Sell 215 MW of Renewable Hydroelectricity to SaskPower

October 29, 2018, Manitoba Hydro announced a term sheet had been signed between Manitoba Hydro and SaskPower which will see up to 215 megawatts of renewable hydroelectricity flow from Manitoba to Saskatchewan beginning in 2022.

The sale will last a minimum of 18 years with a potential extension up to a total of 30 years, bringing long-term benefits to electricity customers in both provinces. The sale is the largest of three recent major power deals between the two provinces. By 2022, Manitoba Hydro will be supplying up to 315 megawatts of hydroelectricity to Saskatchewan.

Revenues from the sale will assist in keeping electricity rates affordable for Manitoba customers, and help SaskPower expand and diversify its renewable energy supply. SaskPower's goal is to reduce greenhouse gas emissions by 40% by 2030.

The sale to SaskPower will utilize capacity provided by a new 230 000 volt transmission line planned for construction between Birtle, Manitoba and Tantallon, Saskatchewan. When complete, the 80 kilometre line, announced in 2015, will also improve the reliability of the electrical grid, benefiting customers in both provinces. The line is anticipated to be in service in 2021.

Upgrading Aging Infrastructure in Winnipeg

In November 2018, Manitoba Hydro began a year-long project to upgrade electrical service to customers in the Glenwood area of south-east Winnipeg. The project involves upgrading power lines originating out of Dunraven Station, located at 25 Dunraven Ave., from 4 000 volts to 24 000 volts. Many critical components of the infrastructure in the area are more than 60 years old and reaching the end of their life span. In addition to this work, about 250 old wood poles in the area will also be replaced to ensure the continued safe ground clearance and mechanical support of power lines and energized equipment. This work is part of the utility's infrastructure renewal projects throughout the province to ensure the reliability and security of electrical service to Manitobans.

Outside of Winnipeg, Manitoba Hydro is improving the reliability of service and enhancing the capacity of its system. In many cases, renewal projects involve upgrading distribution stations and power lines originally built during the Farm Electrification Program that followed World War II.

Manitoba Hydro's \$10 Instant Rebate for Approved Carbon Monoxide Alarms

During the month of November 2018, Manitoba Hydro offered a \$10 rebate on carbon monoxide alarms through 100 participating retailers throughout the province. The rebate, applied immediately at time of purchase, saw 4 381 units sold. The beginning of the rebate program coincided with National Carbon Monoxide Awareness Week, aimed at telling homeowners and businesses about carbon monoxide (CO) exposure and safety.

The goal of the rebate program, supported by Manitoba's Office of the Fire Commissioner and the Winnipeg Fire and Paramedic Service, was to get more Manitobans to install CO alarms in their homes and businesses, and to replace CO alarms older than 10 years. Safety materials included information on proper use and maintenance of your natural gas furnace and other fuel-burning appliances.

Participating retailers in Manitoba Hydro's rebate program were: Canadian Tire (15 locations); Costco (three locations); EG Penner Building Centres Ltd. (Steinbach); Grunthal Lumber; Home Depot (six locations); Home Hardware (45 locations); London Drugs (1225 St. Mary Rd.); McMunn & Yates (15 locations); Rona (12 locations); and WM Dyck & Sons (Niverville).



Marina R. James

Chair of the Board

A handwritten signature in black ink, appearing to be 'M. James'.



Jay Grewal

President and
Chief Executive Officer

February 14, 2019

A handwritten signature in black ink, appearing to be 'Jay Grewal'.

Consolidated Statement of Income

In Millions of Dollars (Unaudited)

	Nine Months Ended December 31		Three Months Ended December 31	
	2018	2017	2018	2017
Revenues				
Domestic – Electric	1 144	1 022	452	393
– Gas	210	202	118	114
Extraprovincial	350	366	101	91
Other	95	60	41	21
	<u>1 799</u>	<u>1 650</u>	<u>712</u>	<u>619</u>
Expenses				
Cost of gas sold	121	116	75	63
Operating and administrative	431	444	147	141
Finance expense (net)	556	471	197	147
Depreciation and amortization	363	316	128	106
Water rentals and assessments	82	95	28	31
Fuel and power purchased	97	93	38	36
Capital and other taxes	120	111	40	37
Other expenses	95	135	30	36
	<u>1 865</u>	<u>1 781</u>	<u>683</u>	<u>597</u>
Net loss before net movement in regulatory balances	(66)	(131)	29	22
Net movement in regulatory balances	62	76	21	23
Net Income (Loss)	<u>(4)</u>	<u>(55)</u>	<u>50</u>	<u>45</u>
Net income (loss) attributable to:				
Manitoba Hydro	(1)	(47)	51	46
Non-controlling interest	(3)	(8)	(1)	(1)
	<u>(4)</u>	<u>(55)</u>	<u>50</u>	<u>45</u>

Consolidated Statement of Financial Position

In Millions of Dollars (Unaudited)

	As at December 31	As at March 31	As at December 31
	2018	2018	2017
Assets			
Current assets	915	1 221	1 235
Property, plant and equipment	23 291	21 979	21 673
Non-current assets	1 100	925	854
Total assets before regulatory deferral balance	25 306	24 125	23 762
Regulatory deferral balance	1 100	1 044	635
	<u>26 406</u>	<u>25 169</u>	<u>24 397</u>
Liabilities and Equity			
Current liabilities	847	2 080	2 247
Long-term debt	20 560	18 200	17 285
Other long-term liabilities	1 627	1 591	1 571
Deferred revenue	864	769	776
Non-controlling interest	243	205	193
Retained earnings	2 935	2 936	2 852
Accumulated other comprehensive loss	(740)	(688)	(597)
Total liabilities and equity before regulatory deferral balance	26 336	25 093	24 327
Regulatory deferral balance	70	76	70
	<u>26 406</u>	<u>25 169</u>	<u>24 397</u>

Consolidated Cash Flow Statement

In Millions of Dollars (Unaudited)

	<i>Nine Months Ended December 31</i>		<i>Three Months Ended December 31</i>	
	2018	2017	2018	2017
Operating Activities	55	(153)	181	84
Investing Activities	(1 609)	(2 017)	(553)	(666)
Financing Activities	1 258	2 189	(30)	633
Net increase (decrease) in cash	(296)	19	(402)	51
Cash at beginning of period	642	646	748	614
Cash at end of period	<u>346</u>	<u>665</u>	<u>346</u>	<u>665</u>

Consolidated Statement of Comprehensive Income (Loss)

In Millions of Dollars (Unaudited)

	<i>Nine Months Ended December 31</i>		<i>Three Months Ended December 31</i>	
	2018	2017	2018	2017
Net Income (Loss) attributable to Manitoba Hydro	<u>(1)</u>	<u>(47)</u>	<u>51</u>	<u>46</u>
Other Comprehensive Income (Loss)				
Items that will be reclassified to income				
Unrealized foreign exchange gains (losses) on debt in cash flow hedges	(73)	95	(67)	(9)
Items that have been reclassified to income				
Realized foreign exchange losses on debt in cash flow hedges	21	17	7	4
	<u>(52)</u>	<u>112</u>	<u>(60)</u>	<u>(5)</u>
Comprehensive Income (Loss) attributable to Manitoba Hydro	<u>(53)</u>	<u>65</u>	<u>(9)</u>	<u>41</u>

Segmented Information

In Millions of Dollars (Unaudited)

	Electric segment		Natural gas segment		Other segment		Eliminations		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
<i>Nine Months Ended December 31</i>										
Revenue	1 551	1 407	212	203	42	47	(6)	(7)	1 799	1 650
Expenses	1 603	1 518	232	230	38	42	(8)	(9)	1 865	1 781
Net income (loss) before net movement in regulatory balances	(52)	(111)	(20)	(27)	4	5	2	2	(66)	(131)
Net movement in regulatory balances	54	66	8	10	-	-	-	-	62	76
Net Income (Loss)	2	(45)	(12)	(17)	4	5	2	2	(4)	(55)
Net income (loss) attribute to:										
Manitoba Hydro	5	(37)	(12)	(17)	4	5	2	2	(1)	(47)
Non-controlling interest	(3)	(8)	-	-	-	-	-	-	(3)	(8)
	2	(45)	(12)	(17)	4	5	2	2	(4)	(55)
<i>Three Months Ended December 31</i>										
Revenue	579	491	119	114	15	17	(1)	(3)	712	619
Expenses	559	485	113	102	13	14	(2)	(4)	683	597
Net income before net movement in regulatory balances	20	6	6	12	2	3	1	1	29	22
Net movement in regulatory balances	16	26	5	(3)	-	-	-	-	21	23
Net Income	36	32	11	9	2	3	1	1	50	45
Net income (loss) attribute to:										
Manitoba Hydro	37	33	11	9	2	3	1	1	51	46
Non-controlling interest	(1)	(1)	-	-	-	-	-	-	(1)	(1)
	36	32	11	9	2	3	1	1	50	45
Total assets	25 786	23 802	770	756	101	95	(251)	(256)	26 406	24 397

Generation and Delivery Statistics

	Nine Months Ended December 31		Three Months Ended December 31	
	2018	2017	2018	2017
Electricity in gigawatt-hours				
Hydraulic generation	22 569	26 302	7 642	8 376
Thermal generation	8	37	3	26
Scheduled energy imports	471	108	386	73
Wind purchases (Manitoba)	622	729	229	301
Total system supply	23 670	27 176	8 260	8 776
Gas in millions of cubic metres				
Gas sales	804	747	504	484
Gas transportation	543	471	204	204
	1 347	1 218	708	688

The Manitoba Hydro-Electric Board

Quarterly Report

for the nine months ended
December 31, 2018

For further information contact:

Manitoba Hydro
Public Affairs
360 Portage Ave. (2)
Winnipeg, Manitoba, Canada
R3C 0G8
Telephone: 1-204-360-3233



Available in accessible formats upon request.

REFERENCE:

Appendix 8, 2017/18 GRA Tab 6 Figure 6.4 Operating and Administrative Expense breakdown

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Update Figure 6.14 from the 2017/18 GRA including actuals, and updated detailed forecast for 2017/18, 2018/19 and provide the compound annual growth by cost element from 2016/17 actual to 2018/19 forecast.
- b) Update (a) and include the detail of 2019/20 Interim Budget OM&A expenditures by cost element and provide the compound annual growth from 2016/17 actual to 2019/20 forecast and explain all variances.

RESPONSE:

- a) The following table provides an update to Figure 6.14 of the 2017/18 GRA to include actual expenditures for 2016/17 and 2017/18, the 2018/19 Outlook and the compound annual growth by cost element from 2016/17 to 2018/19. As discussed during the 2017/18 GRA, a detailed forecast for 2017/18 was not prepared, and therefore, cannot be provided, as the corporation was undergoing a restructuring program which affected the structure and responsibilities/accountabilities of the Corporate/Operating groups.

**MANITOBA HYDRO
OPERATING AND ADMINISTRATIVE COSTS BY COST ELEMENT
(000's)**

	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Outlook	Compound Annual Growth 2016/17-2018/19
Employee Related Expenditures						
Wages & salaries	\$ 493 346	\$ 506 811	\$ 517 311	\$ 493 691	\$ 469 597	-4.7%
Overtime	69 541	67 982	72 256	75 095	76 642	3.0%
Employee benefits	166 854	159 363	165 924	156 884	145 225	-6.4%
Other	73 067	70 832	71 943	68 233	73 421	1.0%
Total Employee Related Expenditures	802,809	804,988	827,435	793,903	764,885	-3.9%
Less: Capitalized Labor & Overhead	(313 931)	(322 144)	(345 763)	(336 397)	(332 292)	-2.0%
Operational Employee Related Expenditures	488 877	482 844	481 672	457 507	432 593	-5.2%
External services and materials	126 850	127 711	126 024	122 843	130 905	1.9%
Donations, sponsorships & grants	2 804	2 592	2 134	2 434	2 140	0.2%
Uncollectible accounts	4 890	5 748	4 266	12 375	4 265	0.0%
Other	452	6 215	2 820	1 200	9 188	80.5%
Cost recoveries	(15 115)	(15 789)	(15 706)	(16 387)	(14 593)	-3.6%
O&A charged to gas operations	(70 355)	(66 607)	(65 384)	(63 112)	(63 315)	-1.6%
b) Operating and Administrative expenses	\$ 538 404	\$ 542 714	\$ 535 825	\$ 516 859	\$ 501 183	-3.30%

It is noted that the compound annual growth of 80.5% in the Other line item in the above table is primarily due to funds for transitional business requirements as a result of the voluntary departure program included in the 2018/19 Outlook.

- c) The 2019/20 Interim Budget of \$511.1 million reflects an inflationary increase of 2% over the 2018/19 Outlook, which is aligned with the Manitoba Consumer Price Index. The details underlying each line item included in the 2019/20 Interim Budget are not available. Following Provincial and MHEB approval of the final 2019/20 budget, Manitoba Hydro will begin developing the detailed forecasts for each component of its 2019/20 budget; these details will be filed with Manitoba Hydro's next full General Rate Application. As indicated on page 28 of the Application, Manitoba Hydro is committed to achieving the O&A forecast included in the 2019/20 Interim Budget.

The following table provides an annual summary of Operating and Administrative actual expenditures from 2014/15 through 2017/18, the 2018/19 Outlook and the 2019/20

Interim Budget. The compound annual growth from 2016/17 to 2019/20 is a decrease of -1.6%, primarily due to the reduction in Manitoba Hydro's workforce.

**MANITOBA HYDRO
OPERATING AND ADMINISTRATIVE COSTS BY COST ELEMENT
(000's)**

	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Outlook	Compound Annual Growth 2016/17-2018/19	2019/20 Interim Budget	Compound Annual Growth 2016/17-2019/20
Operating and Administrative expenses	\$ 538 404	\$ 542 714	\$ 535 825	\$ 516 859	\$ 501 183	-3.30%	\$ 511 100	-1.60%

REFERENCE:

Appendix 8, pg. 6 of 6

PREAMBLE TO IR (IF ANY):**QUESTION:**

- a) Provide a schedule detailing the forecast for OM&A for 2018/19 by quarter (Q3 & Q4) for the year and the total forecast for the end of the 2018/19 outlook year.
- b) Provide detailed breakdowns by cost element and business unit of the OM&A budgets for 2018/9 and 2019/20 Interim Budget.
- c) Provide detail of Other Employee related expenditures
- d) Provide details of the external service and material by cost element.
- e) Provide details of the capitalized labour, overtime and benefits, and overhead by year.

RESPONSE:

- a) The following table provides the 2018/19 year-to-date forecast by quarter

**MANITOBA HYDRO
OPERATING AND ADMINISTRATIVE COSTS BY COST ELEMENT
(000's)**

	June 2018	September 2018	December 2018	March 2019	2018/19 Outlook
Employee Related Expenditures					
Wages & salaries	\$ 116 922	\$ 235 672	\$ 353 226	\$ 469 597	\$ 469 597
Overtime	21 069	39 423	58 912	76 642	76 642
Employee benefits	38 877	71 778	104 098	145 225	145 225
Other	18 275	36 345	54 691	73 421	73 421
Total Employee Related Expenditures	195 142	383 218	570 927	764 885	764 885
Less: Capitalized Labor & Overhead	(83 837)	(167 570)	(245 559)	(332 292)	(332 292)
Operational Employee Related Expenditures	111 305	215 649	325 368	432 593	432 593
External services and materials	32 227	65 038	97 279	130 905	130 905
Donations, sponsorships & grants	535	1 070	1 605	2 140	2 140
Uncollectible accounts	1 066	2 133	3 199	4 265	4 265
Other	2 005	4 399	6 794	9 188	9 188
Cost recoveries	(3 648)	(7 296)	(10 944)	(14 593)	(14 593)
O&A charged to gas operations	(16 088)	(31 676)	(47 251)	(63 315)	(63 315)
Operating & Administrative Expenses	\$ 127 402	\$ 249 317	\$ 376 050	\$ 501 183	\$ 501 183

*Reflects the cumulative Year-to-Date Forecast by quarter; March 2019 reflects the Annual 2018/19 O&A Forecast

- b) The details underlying each line item included in the 2019/20 Interim Budget are not available. Following Provincial and MHEB approval of the final 2019/20 budget, Manitoba Hydro will begin developing the detailed forecasts for each component of its 2019/20 budget; these details will be filed with Manitoba Hydro's next full General Rate Application. As indicated on page 28 of the Application, Manitoba Hydro is committed to achieving the O&A forecast included in the 2019/20 Interim Budget.

The following tables provide a more detailed breakdown by cost element (compared to the table provided in response to part a) as well as a breakdown by Corporate/Operating group for the 2018/19 Forecast Year.

MANITOBA HYDRO
OPERATING AND ADMINISTRATIVE COSTS BY COST ELEMENT
(000's)

	2018/19 Outlook
Employee Related Expenditures	
Wages & salaries	\$ 469 597
Overtime	76 642
Employee benefits	145 225
Employee training & safety	4 294
Travel expenses	30 545
Motor vehicles	29 870
Office expenses	8 712
Other	73 421
Total Employee Related Expenditures	764 885
Less: Capital activities	(312 992)
Less: Capitalized overhead	(19 300)
Less: Capitalized Labor & Overhead	(332 292)
Operational Employee Related Expenditures	432 593
Materials & tools	25 752
Consulting & professional fees	17 071
Construction & maintenance services	18 439
Building & property costs	29 656
Equipment maintenance & rentals	19 691
Consumer services	5 272
Customer & public relations	2 178
Sponsored memberships	1 714
Computer services	1 151
Communication systems	1 861
Research & development costs	2 029
Administrative services	6 091
External services and materials	130 905
Donations, sponsorships & grants	2 140
Uncollectible accounts	4 265
Miscellaneous expense	5
Contingency & planning	9 183
Other	9 188
Corporate recoveries	(463)
Operating expense recovery	(14 130)
Cost recoveries	(14 593)
O&A charged to gas operations	(63 315)
Operating & Administrative Expenses	\$ 501 183

MANITOBA HYDRO

OPERATING AND ADMINISTRATIVE COSTS BY CORPORATE/OPERATING GROUP

(000's)

	2018/19 Outlook
President & CEO	\$ 4 141
General Counsel & Corporate Secretary	3 546
Human Resource & Corporate Services	106 045
Indigenous Relations	6 084
Finance & Strategy	23 597
Generation & Wholesale	138 151
Transmission	144 539
Marketing & Customer Service	182 188
Corporate/Operating Group	\$ 608 290
Capitalized Overhead	(19 300)
Corporate Allocations & Adjustments	(24 491)
Operating & Administration Charged to Centra	(63 315)
O&A Costs Attributable to Electric Operations	\$ 501 183

- c) The following table provides a breakdown of 2018/19 Other Employee Related Expenditures. As noted in the response to part b), the details underlying this line item included in the 2019/20 Interim Budget are not available.

MANITOBA HYDRO
OTHER EMPLOYEE RELATED EXPENDITURES
(000's)

	2018/19 Outlook
Employee Related Expenditures	
Employee training & safety	4 294
Travel expenses	30 545
Motor vehicles	29 870
Office expenses	8 712
Other	<u>73 421</u>

- d) The following table provides a breakdown of 2018/19 External services and materials. As noted in the response to part b), the details underlying this line item included in the 2019/20 Interim Budget are not available.

MANITOBA HYDRO
EXTERNAL SERVICES AND MATERIALS
(000's)

	2018/19 Outlook
Materials & tools	25 752
Consulting & professional fees	17 071
Construction & maintenance services	18 439
Building & property costs	29 656
Equipment maintenance & rentals	19 691
Consumer services	5 272
Customer & public relations	2 178
Sponsored memberships	1 714
Computer services	1 151
Communication systems	1 861
Research & development costs	2 029
Administrative services	6 091
External services and materials	<u>130 905</u>

e) The following table provides a breakdown of 2018/19 Capitalized Labor and Overhead. The straight time and overtime activity rates calculated to capitalize labour include benefit costs, and as such, benefit costs cannot be segregated from straight time and overtime capital activities.

As noted in the response to part b), the details underlying this line item included in the 2019/20 Interim Budget are not available

MANITOBA HYDRO
CAPITALIZED LABOR & OVERHEAD
 (000's)

	2018/19 Forecast
Less: Capital straight time activities	(253 986)
Less: Capital overtime activities	(59 006)
Less: Capitalized overhead	<u>(19 300)</u>
Less: Capitalized Labor & Overhead	<u>(332 292)</u>

REFERENCE:

Application Appendix 8

PREAMBLE TO IR (IF ANY):**QUESTION:**

Provide the quarterly OM&A Report for the 3rd quarter of 2018/19 when available.

RESPONSE:

Please see the attached for Manitoba Hydro's Quarterly Report on Operating & Administrative Expenses for the quarter ended December 31 which was filed with the PUB on February 14, 2019 in accordance with Directive 14 of Order 73/15.

RESPONSE TO DIRECTIVE #14 – BOARD ORDER 73/15

For the Quarter Ended December 31, 2018

14. *Manitoba Hydro shall file quarterly updates regarding its Operation, Maintenance & Administration (OM&A) expenditures and the actual OM&A expenditures compared to Manitoba Hydro's target.*

Manitoba Hydro's Operating and Administrative (O&A) expenses for Electric Operations for the third quarter of 2018/19 were \$378.0 million, as compared to a forecast of \$376.1 million. The 0.5% variance continues to be attributable to higher employee related expenditures primarily due to lower than anticipated capitalization of resources, partially offset by unallocated contingency funds for transitional requirements which may be required as a result of the Voluntary Departure Program (VDP), as well as the timing of consulting and professional fee requirements.

Compared to the same 9 month period last year, O&A expenditures were lower by \$10.9 million or 2.9%. The decrease is primarily related to a reduction in employee related expenditures as a result of the VDP. This was partially offset by an increase in external services and materials primarily due to unscheduled maintenance requirements, as well as externally contracted training for Bipole III converter station equipment and the Enterprise Asset Management system. In addition, there was an increase in biophysical monitoring requirements for Wuskwatim and an environmental investigation at Sutherland.

A summary of Manitoba Hydro's actual and forecast O&A expenditures by cost element with a comparison to the 2017/18 third quarter expenditures has been provided in the table below, as well as the annual O&A forecast for 2018/19.

ELECTRIC OPERATIONS
OPERATING & ADMINISTRATIVE COSTS BY COST ELEMENT
FOR THE QUARTER ENDED DECEMBER 31, 2018
(in Thousands of Dollars)

	2017/18 Q3 Actual	2018/19 Annual Forecast	2018/19 Q3 Actual	2018/19 Q3 Forecast	Favourable (Unfavourable) Variance
Employee Related Expenditures					
Wages & salaries	\$377 247	\$469 597	\$345 088	\$353 226	\$8 138
Overtime	58 024	76 642	55 503	58 912	3 409
Employee benefits	117 879	145 225	105 703	104 098	(1 605)
Other	50 065	73 421	51 781	54 691	2 910
Total Employee Related Expenditures	603 215	764 885	558 075	570 927	12 852
Less: Capitalized labour and overhead	(248 096)	(332 292)	(221 505)	(245 559)	(24 054)
Operational Employee Related Expenditures	355 119	432 593	336 570	325 368	(11 202)
External services and materials	89 489	130 905	94 104	97 279	3 175
Donations, sponsorships & grants	1 702	2 140	1 408	1 605	197
Uncollectible accounts	3 279	4 265	3 214	3 199	(15)
Other	557	9 188	1 731	6 794	5 063
Cost recoveries	(11 666)	(14 593)	(12 188)	(10 944)	1 244
O&A charged to gas operations	(49 545)	(63 315)	(46 814)	(47 251)	(437)
Operating & Administrative Expenses	388 935	501 183	378 025	376 050	(1 975)

REFERENCE:

Application Appendix 7

PREAMBLE TO IR (IF ANY):

QUESTION:

File the public and CSI quarterly reports on major new generation and transmission projects in response to Order 59/18 Directive 16 for the period October 1 to December 31, 2018 when available.

RESPONSE:

Please see the attached for Manitoba Hydro's quarterly reports on Major New Generation & Transmission ("MNG&T") capital projects for the quarter ended December 31, 2018 which were filed with the PUB on February 14, 2019 in accordance with Directive 16 of Order 59/18.

Consistent with the PUB's ruling as set forth in its letter of February 5, 2019, Manitoba Hydro also filed in confidence pursuant to Rule 13(2) of the PUB Rules of Practice and Procedure, the detailed Confidential Quarterly Reports on MNG&T projects as these reports contained commercially sensitive information which if publicly disclosed would harm Manitoba Hydro's ability to manage and execute the work according to the commercial terms agreed to by contract, would affect future negotiations and put Manitoba Hydro at risk of undue financial loss.

Manitoba Hydro Update on Major Projects to the Public Utilities Board

Bipole III Project Update

Q3 Update ending December 31, 2018



Bipole III transmission tower - N4 –addition of corona ring stiffeners

EXECUTIVE SUMMARY

Project Description

Bipole III is a high voltage direct current transmission line that delivers renewable energy to southern Manitoba. Bipole III went into operation in July of 2018.

The Bipole III project included:

- A 1,384-kilometre, 500,000-volt direct current transmission line;
- The Keewatinohk Converter Station in northern Manitoba, northeast of Gillam;
- The Riel Converter Station, east of Winnipeg;
- 230 kV collector lines (5); and,
- Two ground electrodes at each of the new converter stations.

Bipole III adds 2,000 megawatts to Manitoba Hydro's high voltage direct transmission and strengthens the reliability of Manitoba's electricity supply by reducing dependency on existing high voltage direct current transmission lines and the Dorsey Converter Station. Prior to Bipole III, the two existing Bipole lines delivered over 70 per cent of the electricity produced in the province.

Due to its heavy reliance on one transmission corridor and a single converter station in the south (Dorsey), Manitoba Hydro's electricity system was vulnerable to extensive power outages from severe weather (major ice storm, extreme wind event, tornado), fires, or other events. The Riel Converter Station established a second converter station in southern Manitoba, to provide another major point of power injection into the transmission and distribution system.

Background

The Bipole III Project Environment Act Licence was issued August 14, 2013. In fall 2016, a review of the Bipole III budget and schedule was conducted and the budget was increased to \$5.04 billion with an in-service date of July 2018.

Keewatinohk and Riel Converter Stations

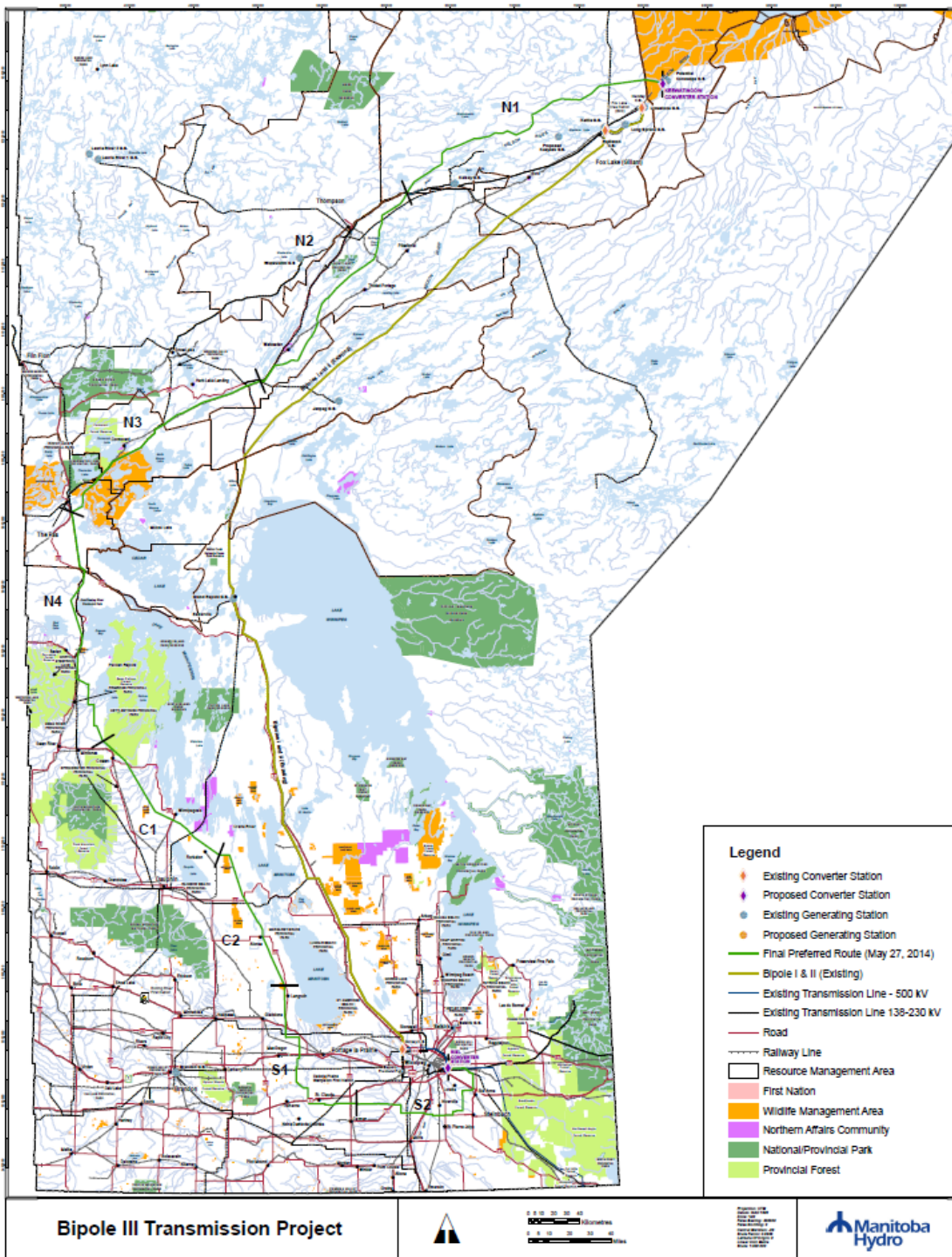
The Bipole III transmission line originates at a new northern converter facility, the Keewatinohk Converter Station, and terminates at a new southern converter facility, the Riel Converter Station. In addition to the new transmission line and the new converter stations, the project included new collector lines linking the Keewatinohk Converter Station to the northern collector system at the existing switchyards at Henday Converter Station and Long Spruce Generating Stations. Each of those facilities required some modifications for these new "collector lines". Each of the new converter stations required the development of a separate ground electrode, connected to the station by a low voltage feeder line.

Transmission Line Construction

The Keewatinohk Converter Station and the Riel Converter Station are linked by a new +/- 500 kV HVDC transmission line approximately 1,384 km in length, centered on a 66 meter wide right-of-way following a route west of lakes Winnipegosis and Manitoba. This new transmission line has been routed as far as practical, sufficiently far from the existing Bipole I and II lines so as to decrease the probability that a single catastrophic weather event or natural disaster would damage both the new transmission line and Bipoles I and II.

Below please find a map of the transmission line segments.

Map of the Bipole III Project



PROJECT UPDATE

On July 4, 2018 Bipole III was turned over for commercial service to Manitoba Hydro operations. With Bipole III now in-service, Manitoba Hydro has been balancing the transmission of HVDC power from northern Manitoba across Bipoles I, II and III.

Construction of the fourth and final synchronous condenser at the Riel Converter Station was completed and turned over for commercial service on November 17, 2018.

The remaining work on the Bipole III Project includes final clean up and the decommissioning of temporary construction infrastructure. At the Keewatinohk Converter Station, work also continues on the construction of the permanent staff accommodations and the water treatment plant.

As part of the decommissioning of the Keewatinohk Lodge, a contract for brokering the sale of the Keewatinohk Lodge was awarded in November, 2018. It is expected the Lodge will be publicly advertised for sale in January 2019.

At the Riel Converter Station site, the contractor's field office trailers and associated temporary infrastructure and the temporary construction power have been decommissioned and removed.

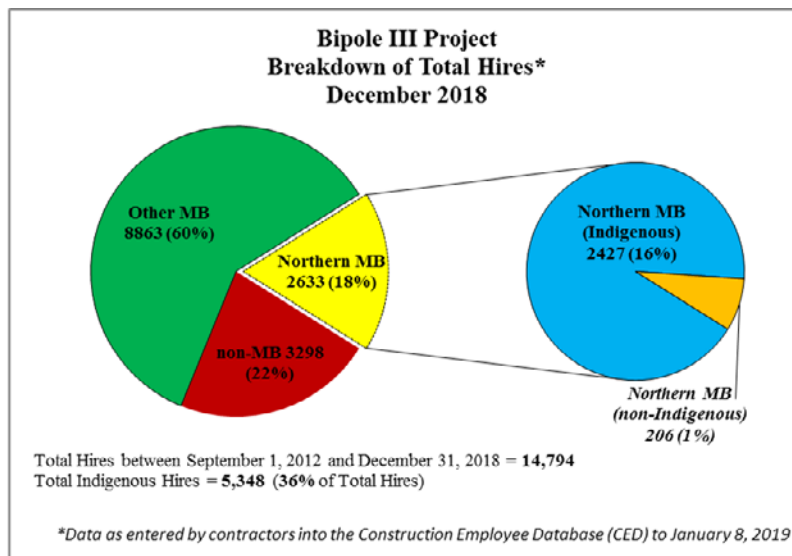
Total Hires: – as of December 31, 2018

- Since September 2012 there have been a total of 14,794 hires to the Bipole III project.
- Of the total hires, 78% have been Manitoban, including 18% northern Manitobans.
- 36% of total hires have self-declared as being Indigenous.
 - 38% of Keewatinohk, 16% of Riel and 46% of the hires for the transmission line have self-declared as being Indigenous.

Active hires are no longer being reported under the Project.

The number of total hires will be updated as contractors submit their final employment reports.

Additional information is provided below regarding the percentage of project hires (Manitoban – both Northern and Other, along with non-Manitobans).



FINANCIAL SUMMARY

- A Recommendation was approved by Manitoba Hydro’s Major Project Executive Committee (MPEC) on August 28, 2018 to reduce the Bipole III control budget by \$271.8 million from \$5.04 billion to approximately \$4.77 billion. The new control budget will be updated to reflect this number in IFF19/CEF19.
- Expenditures were \$4.467 Billion to the end of December 31, 2018.

Table A - Bipole III Budget Summary (in Billions \$)			
Item #	Item	Current Approved Budget (2016\$)	Actuals to Dec 31, 2018
1.1	Transmission Line	1.457	1.510
1.2	Converter Stations	2.285	2.276
1.3	Collector Lines	0.199	0.193
1.4	Community Development Initiative	0.053	0.053
1.5	Escalation @ CPI	0.052	0.000
1.6	Interest (Capitalized)	0.487	0.435
1.7	Contingency	0.509	0.000
1.8	Total	5.042	4.467
Table A Notes:			
<p><i>1. The Escalation and Contingency Components (1.5 and 1.7) will have no actual costs incurred against them; these costs will form part of the actual costs in the Transmission Line, Converter Stations, Collector Lines, Community Development Initiative and Interest Components (1.1, 1.2, 1.3, 1.4 and 1.6).</i></p>			

Manitoba Hydro Update on Major Projects to the Public Utilities Board

Keeyask Project Update

Q3 Update ending December 31, 2018



EXECUTIVE SUMMARY

- Entering the 2018 construction season, the project required at least a 10% improvement in the General Civil Contract (“GCC”) performance for the remainder of their work and no substantive risks to materialize to achieve the control budget.
- Significant progress was achieved in the 2018 construction season and all key milestones were achieved. In 2018, the GCC placed 32% more concrete and moved 27% more earth material than in 2017. As a result of the strong performance in 2018, the cost of the project is tracking to the \$8.7B control budget. The first unit In-Service Date (ISD) is trending towards 10 months ahead of schedule. Schedule advances have helped to lower the forecasted project costs and are the main reason the project is now tracking to meet its budget of \$8.7B. Even with these advances, Manitoba Hydro is committed to find ways to lower costs as there is still a lot of work and risks remaining.
- The control budget for the project remains at \$8.7B. There are currently no changes in budget that would impact domestic revenue requirements or Manitoba Hydro’s financial forecasts.
- Actual expenditures to the end of December 31, 2018 were \$5.53 billion.

PROJECT UPDATE

Background

- The Keeyask Generating Station is a 7 unit, 695-megawatt hydroelectric generating station under construction at Gull Rapids on the lower Nelson River in northern Manitoba.
- The Keeyask Project is a collaborative effort between Manitoba Hydro and four Manitoba First Nations, working together as the Keeyask Hydropower Limited Partnership.
- Keeyask will be Manitoba's fourth largest generating station and the sixth on the Nelson River.
- Construction of the Keeyask Generating Station commenced on July 16, 2014 after receipt of all required licenses and approvals.
- The Keeyask Project includes construction of the generating station as well as construction of supporting infrastructure. Most of the supporting infrastructure was constructed in advance of commencement of construction of the generating station under the Keeyask Infrastructure Project (KIP).
- The General Civil Works contract, the largest contract on the project, was awarded to BBE Hydro Constructors Limited Partnership consisting of Bechtel Canada Co., Barnard Construction of Canada Ltd. and EllisDon Civil Ltd. The General Civil Works contractor is responsible for rock excavation, concrete for the powerhouse and spillway, earth structures, electrical and mechanical work, and the construction and removal of temporary cofferdams needed to manage the river flow during construction.

Generating Station

- The General Civil Works Contractor (GCC) exceeded the 2018 goal of 105,000 m³ of concrete, placing more than 113,000 m³ this year. This volume represents a year-over-year improvement of approximately 32% over 2017. In total there has been approximately 276,000 m³ of concrete placed on the project; approximately 85 per cent of the total volume of concrete required for the Keeyask Project.
- In addition to the significant concrete progress, all 2018 milestones were met or exceeded. The key milestones achieved in 2018 include the following:
 - completion of the Spillway, River Diversion and opening/operation of the Spillway in August 2018;
 - opening of the South Access Road to construction traffic;
 - placement of 3.6 million m³ of earth material (equivalent to 180,000 truckloads), exceeding the 2017 earthworks production by 27%;
 - installation of the planned embedded Turbine and Generator (T&G) components on units 1,2&3;

- enclosure of units 4&5 to allow for the installation of embedded T&G components over the winter 2019.
- The top risks include:
 - Execution/productivity rates of the GCC and/or the T&G contractor;
 - Loss of site access/work stoppages due to a blockade or a major safety/environmental event;
 - Unseasonable weather that shortens the warm construction season.
- By the end of 2018, excavation has progressed for the South Dam and South Dyke to the point where unexpected geotechnical/geological conditions for these structures is no longer considered a top risk item for the project.

Infrastructure

- There are no infrastructure updates for the project over the previous quarter.

Note: Construction activities, milestones and unit ISDs reflect Manitoba Hydro's current forecast schedule. Presently, the forecast for the unit ISDs is in advance of the Control ISDs (August 2021 for first unit ISD).

* This is a summary of MH's current plan broken down to the major component of construction and significant contractors, and how these components and milestones relate to river management and impoundment.

* "Control ISD" reflects MH communicated In-Service-Date ("ISD") dates, while "Current ISD" reflects current planned ISD dates which are currently 10 months ahead of the control ISD.

* Powerhouse concrete remains the project critical path driving the water impoundment. Construction of the dams and dykes are currently off the critical path.

*MH and Voith are working together to rework the Turbine and Generator schedule.

Legend:

U = Unit

ISD = In Service Date

SW = Spillway

U/S = Up Stream

C/D = Cofferdam

D/S = Downstream

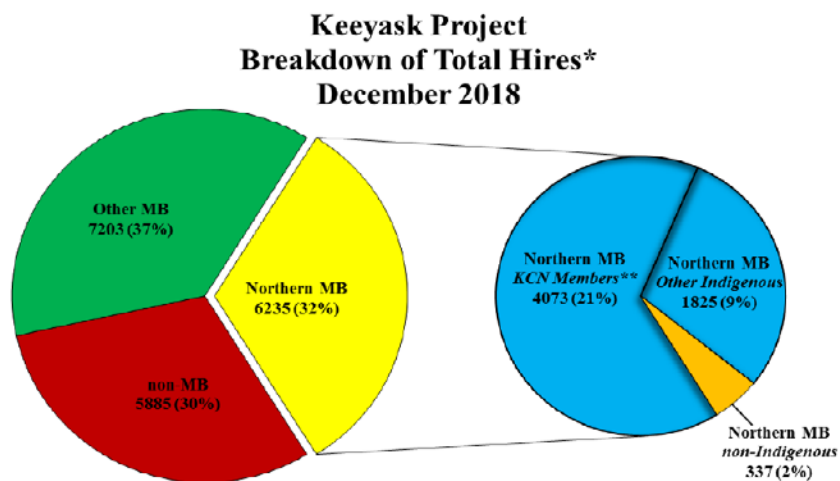
T&G = Turbine and Generator

PH = Powerhouse

CM = Contract Milestone

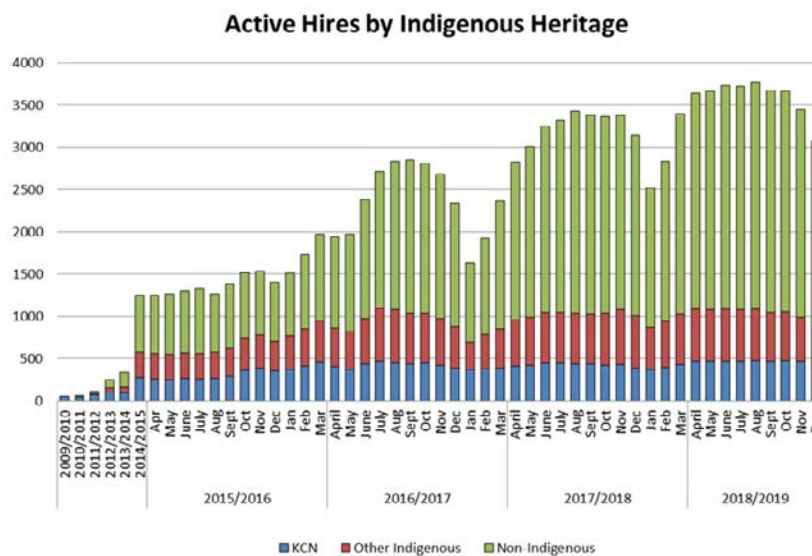
GCC = General Civil Contract

Total Project Hires – as of December 31, 2018



- As of December 31, 2018, there have been a total of 19,323 hires on the Keeyask Project. Of these total hires, 70% (13,438) are Manitobans, 43% (8,270) have self-declared as being Indigenous persons and 21% (4,093) of the total hires are Keeyask Cree Nation (“KCN”) members.

Active Hires – as of December 31, 2018



- As of December 31, 2018 there were 3,068 active hires on the Keeyask Project. Of these active hires, 55% (1,677) are Manitobans, 29% (875) have self-declared as being Indigenous persons and 13% (399) are KCN members.

FINANCIAL SUMMARY

- Actual expenditures to the end of December 31, 2018 were \$5.53 billion.

Table A - Keeyask Budget Summary (in Billions \$)			
Item #	Item	Current Approved Budget (2016\$)	Actuals to December 31, 2018
1.1	Generating Station	5.948	4.624
1.2	Generation Outlet Transmission (GOT)	0.202	0.144
1.3	Escalation @ CPI	0.249	0.000
1.4	Interest (including Interest on Equity)	1.749	0.761
1.5	Contingency	0.578	0.000
	Total	8.726	5.529

Table A Notes:

1. The Escalation and Contingency Components (1.3 and 1.5) will have no actual costs incurred against them; these costs will form part of the actual costs in the Generating Station, Generation Outlet Transmission and Interest Components (1.1, 1.2 and 1.4).

RECENT PHOTOS

The following photos are intended to represent the progress achieved in during the 2018 construction season. Photos from earlier and later in the year are provided.

Photo #1: Powerhouse Construction with Units 1 to 3 Enclosed – January 25, 2018



Photo #2: Powerhouse Construction with Units 4 and 5 Now Enclosed – December 9, 2018



Photo #3: Unit 1 Draft Tube Liner Lifted Into Place – January 21, 2018



Photo #4: Powerhouse Interior, Embedded Parts for Units 1-3 Installed – November 5, 2018

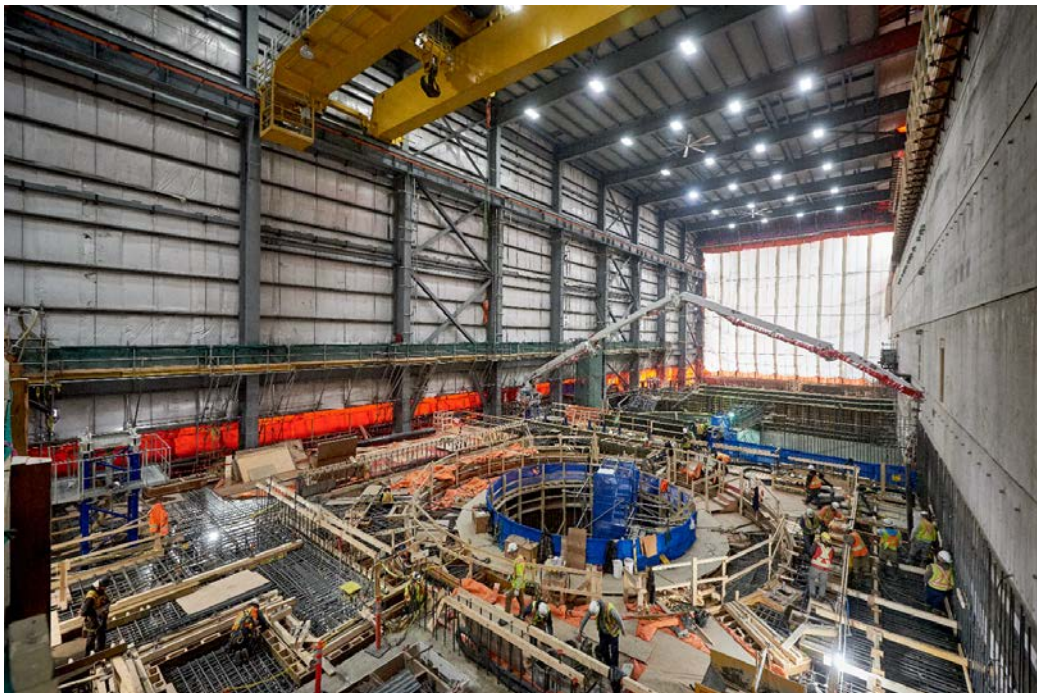


Photo #5: Intake Construction – January 20, 2018



Photo #6: Intake Construction – November 21, 2018



Photo #7: Spillway – June 24, 2018



Photo #8: Spillway – December 12, 2018



Photo #9: Central Dam – May 21, 2018



Photo #10: Central Dam – October 23, 2018



Photo #11: South Dam – early July 2018



Photo #12: South Dam – December 5, 2018



MMTP Project Description

Manitoba Hydro's capital expenditure forecast includes the construction of a new 500kV Transmission Line between Winnipeg and Duluth, Minnesota (MMTP).

The MMTP transmission line will originate at Dorsey Converter station located near Rosser, northwest of Winnipeg and extend 213 km south around Winnipeg to the Manitoba-Minnesota border, near Piney, Manitoba. The MMTP also includes associated upgrades at Dorsey, Riel and Glenboro stations.

The U.S. portion of the 500 kV line will initiate at the border and terminate at Iron Range Station near Grand Rapids, Minnesota. This project is known as the Great Northern Transmission Line (GNTL), and is being constructed by Minnesota Power.

MMTP Project Update

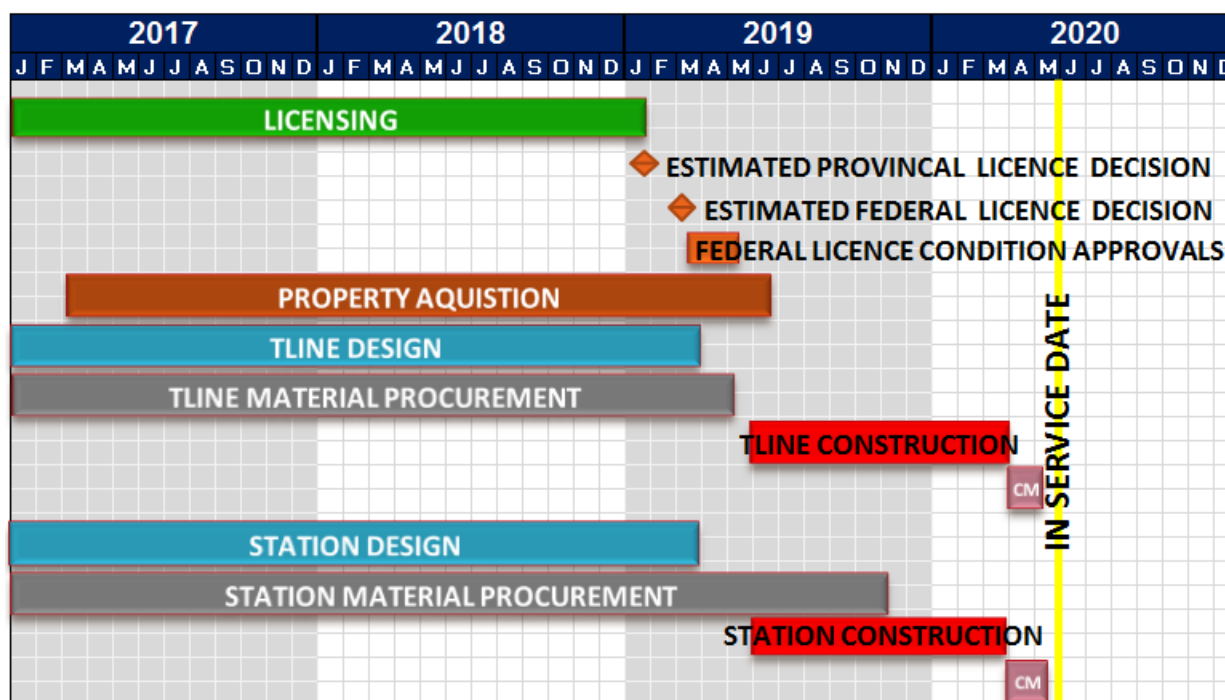
- Manitoba Hydro is awaiting a licensing decision by Manitoba Sustainable Development. Sagkeeng First Nation has put their request for judicial review of MMTP into abeyance until licensing decisions have been made.
- On November 15, 2018, the National Energy Board (NEB) released its Reasons for Decision report on MMTP determining "the Project is and will be required by the present and future public convenience and necessity" and recommending the Governor in Council (GIC) issue a certificate for the Project. There were 28 recommended conditions attached to the decision.
- Manitoba Hydro now awaits a decision on the approval of the issuance of a certificate by the GIC.
- Property acquisition is continuing and over 80% of the private land owners along the proposed transmission line route between Vivian, Manitoba and the U.S. Border have signed easement agreements.
- In order to secure the project in-service date Manitoba Hydro must move forward with long lead time items such as the material contracts prior to receiving Provincial and Federal regulatory approvals. Failure to do so would result in substantial project delays. Should Manitoba Hydro receive notification that the project will not receive its necessary regulatory approvals, materials may be re-used on future transmission projects in order to recover sunk costs.
- Tower steel began to arrive at the material storage yard in November and will continue to be delivered into January 2019.
- Regulatory approvals were not received in time to start construction in December 2018 as anticipated, therefore contractors who submitted proposals for the construction contracts were asked to update their pricing and plans for a later construction start date of June 2019. Contractors were asked to submit this information by December 19, 2018. Construction Contracts will not be awarded until receipt of regulatory approvals.
- The control budget will be reviewed later this year once regulatory approvals and conditions have been received, and construction start established.

MMTP Budget

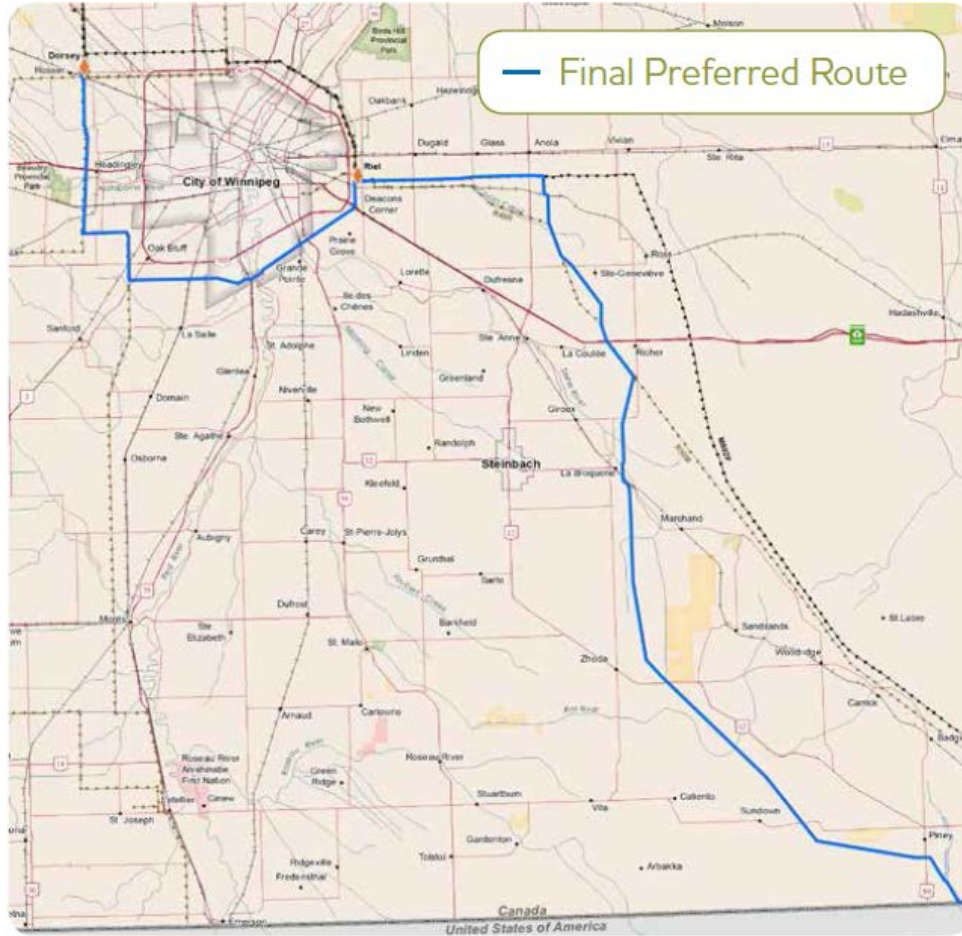
MMTP Budget Summary (in Millions \$)			
Item #	Item	Total Project Control Budget	Actual costs to Dec 31, 2018
1.1	Licensing & Environmental	31.5	22.8
1.2	500 kV Transmission Line *	213.6	61.3
1.3	Station Upgrades*	112.8	24.6
1.4	Contingency	95.3	-
1.5	Total	453.2	108.7

*No construction contracts above \$50 million are currently in place.

MMTP Project Schedule



MMTP Project Route



Birtle Project Description

Construction of the Manitoba portion of a new 230kV Transmission Line between Birtle, Manitoba and Tantallon, Saskatchewan is known as the Birtle Transmission Project. The Birtle transmission line (B71T) will originate at Birtle South Station and extend 46 km to the Manitoba-Saskatchewan border. The Birtle Transmission Project also includes upgrades to transmission line P52E as well as upgrades at Raven Lake, Virden West, and The Pas Ralls Island stations.

Birtle Project Update

- Manitoba Hydro filed the Environmental Act Proposal for the project on January 30, 2018. Manitoba Sustainable Development is continuing with the Section 35 consultation process. Manitoba Hydro has been granted permission to conduct geotechnical drilling in advance of receipt of the Environmental License for this project, which aids in advancing completion of design and material procurement. As a result, Manitoba Hydro has explored options of advancing construction timelines for new the Birtle Transmission Line B71T, and determined construction may possibly be advanced, pending receipt of License as well as property and materials being procured as required.
- Material procurement for tubular steel towers is underway. Contract documents are currently being drafted; the tender is targeted to be posted on MERX in February, 2019.
- In order to secure the project in-service date Manitoba Hydro must move forward with long lead time items such as the material contracts prior to receiving Provincial regulatory approvals. Failure to do so would result in substantial project delays. Should Manitoba Hydro receive notification that the project will not receive its necessary regulatory approvals, materials may be re-used on future transmission projects in order to recover sunk costs.
- Manitoba Hydro has identified two relatively minor re-routes that will be required for the Birtle Transmission Line B71T.
- Land appraisals for easements required for B71T are continuing. Manitoba Hydro's land agent started landowner discussions in December, 2018.
- Telecommunication design activities are continuing. Procurement of Optical Ground Wire (OPGW) conductor is underway, with tender award anticipated by January, 2019.
- Automation Control Engineering for Birtle South Station is expected to continue until June, 2019. Design of foundations and structures will be initiated in January, 2019. Construction at Birtle South Station is anticipated to start in the summer of 2019 pending receipt of the Environmental License for the project.
- The overall project budget is currently under review

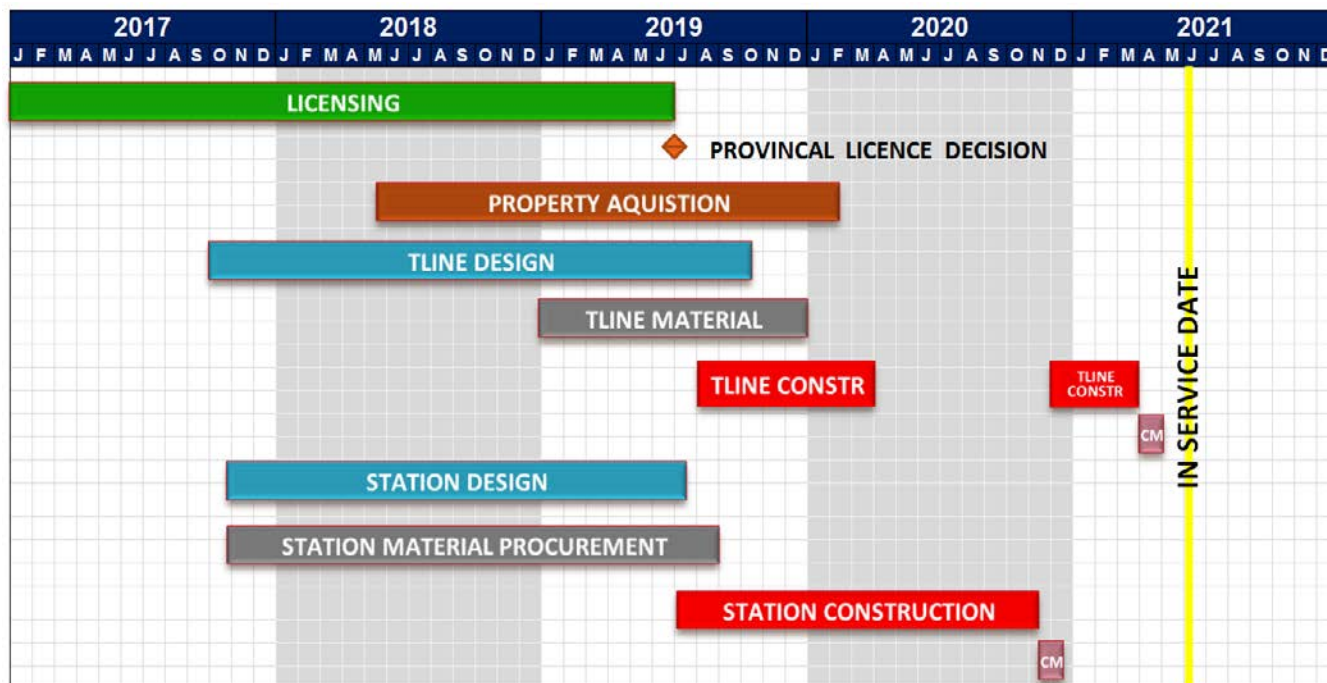
Birtle Budget

Birtle Budget Summary (in Millions \$)			
Item #	Item	Total Project Control Budget	Actual costs to Sept 30, 2018
1.1	Licensing & Environmental	4.65	2.18
1.2	Transmission line ¹	43.83	0.68
1.3	Station Upgrades	7.94	0.44
1.4	Total¹	56.5	3.30

1. In the current control budget contingency is built into the project costs.

Note: there are no construction contracts or contracts above \$50 million currently in place.

Birtle Project Schedule



Birtle Final Preferred Route Map

