MANITOBA HYDRO

2019/20 ELECTRIC RATE APPLICATION

SUPPLEMENT TO THE APPLICATION

INDEX

Appendices

MANITOBA HYDRO
2019/20 ELECTRIC RATE APPLICATION

SUPPLEMENT TO THE APPLICATION

1.0 OVERVIEW

This Supplement to Manitoba Hydro's November 30, 2018 Electric Rate Application ("the Application") provides an update to financial information following the Manitoba Hydro-Electric Board approval of the 2019/20 budget on February 12, 2019. The 2018/19 Outlook and 2019/20 Interim Budget from the Application have been updated to reflect actual financial results and water flow conditions to December 31, 2018, as well as updated planning assumptions for the:

- 2018 Load Forecast,
- Preliminary update to planned 2019/20 Demand Side Management expenditures and activities,
- December 2018 consensus forecast of interest and U.S. exchange rates,
- 2018/19 and 2019/20 projected capital expenditures; and,
- Short-term forecast of export prices at December 31, 2018.

Recognizing that the timetable approved by the PUB in Order 1/19 does not permit an April 1, 2019 implementation of any rate increase approved by the PUB in this Application, this Supplement is based upon a requested June 1, 2019 implementation for the proposed rate increase. This is also aligned with the PUB's views as set out in its correspondence dated November 21, 2018 that , *"…the Board has determined that it can accommodate Hydro's request that the review process be designed with the intention that a final rate increase, if any, be effective in the first quarter of Hydro's 2019/20 fiscal year."*

2.0 REASONS FOR THE RATE INCREASE

Manitoba Hydro is currently projecting net income of $95 million for 2018/19 and $115 million for 2019/20. This compares to the projected net income in the Application of $51 million for 2018/19 and $31 million for 2019/20. The improvement in financial results is due to higher net export revenues resulting from improved water flow conditions, as well as lower levels of capital spending than planned in 2018/19 and the associated lower borrowing requirements and finance expense. Sections 2 and 3 below provide further analyses of the updated forecast revenues and expenses related to Manitoba Hydro's electric operations for 2018/19 and 2019/20, and Section 4 provides an overview of the updated Capital Expenditure Forecast for 2018/19 and 2019/20. Revised financial statements can be found in Appendix 1 Updated to the Application.

Although projected financial results have improved since filing the Application, Manitoba Hydro submits that the 3.5% proposed rate increase continues to be necessary and in the public interest. The following Figure 1 provides a comparison of the revised financial results to Exhibit 93. Figure 1 shows that actual and projected results continue to be $70 million below those forecast in Exhibit 93, inclusive of 3.57% rate increases in each of 2018/19 and 2019/20, which was relied upon by the PUB in approving a 3.6% rate increase for 2018/19 in Order 59/18. Manitoba Hydro is providing as Appendix 14 an update to Figures 2.4 and 2.5 of the Application filed on November 30, 2018, comparing the 2018/19 Current Outlook and 2019/20 Approved Budget with Exhibit 93.

Figure 1: Comparison of Actual and Projected Net Income to Exhibit 93
(In Millions of Dollars)

	2017/18	2018/19	2019/20	Total
Actual & Projected Net Income	18 [1]	95 [2]	115 [3]	228
Exhibit 93 Net Income [4]	94	143	61	298
Increase/(Decrease)	(75)	(48)	54	(70)

[1] 2017/18 Actual net income
[2] 2018/19 Current Outlook (Section 2.0)
[3] 2019/20 Approved Budget including 3.5% proposed rate increase effective June 1/19 (Section 3.0)
[4] Includes a projected 3.57% rate increase effective April 1 of 2018 and 2019

The proposed 3.5% rate increase generated a more modest level of net income based on the lower water flow conditions at the time of the Application. However, the proposed 3.5% rate increase is aligned with the 3.6% rate increase granted in Order 59/18 as well as the projected 3.57% rate increases underlying Exhibit 93, and having regard for the expedited Application process, Manitoba Hydro determined it would accept the lower projected level of net income in its Application in favour of balancing the interests of ratepayers and their bill impacts.

The deterioration in water flow conditions over the 2018 summer described in the Application has been followed by a rapid turnaround in the two months since filing the Application. This demonstrates the extreme variability in earnings Manitoba Hydro can experience over a short period of time. The $115 million in net income currently projected for 2019/20 is based on average net export revenues under all water flow records, and as demonstrated by the recently experienced variability, the likelihood of actual financial results being precisely $115 million for 2019/20 is low. Under less extreme water flow conditions (the 80th and 20th percentiles), net income could be $75 million higher or lower than projected for 2019/20. However, based on the highest and lowest water flows on record, net income could vary as much as $110 million higher or $350 million lower for 2019/20. Under low water flow conditions, a reduction to the 3.5% rate increase would increase the likelihood of a financial loss in 2019/20.

The proposed 3.5% rate increase continues to allow Manitoba Hydro to plan for a modest level of net income in the event of low water flow conditions. Waiting until low water flows occur and providing rate relief after the fact would result in permanent incremental debt and associated financing costs that must be passed through to customers. Further, given the increase in costs attributable to the in-service of Bipole III as well as the anticipated additional net costs associated with the in-service of Keeyask, a financial loss in 2019/20 could result in the exacerbation of financial losses projected in Exhibit 93 and the requirement for significantly higher rate increases in the period following Keeyask in-service. Granting a 3.5% rate increase as requested in this Application reduces the likelihood of future rate shock to ratepayers.

If approved, the June 1, 2019 rate increase would result in a $3.30 increase in the monthly bill of a residential customer without electric space heat using 1,000 kilowatthours ("kWh") per month, and a $6.30 increase in the monthly bill for a residential customer with electric space heat using 2,000 kWh per month.

2.0 2018/19 UPDATED FINANCIAL OUTLOOK

As shown in Figure 2 below, Manitoba Hydro is projecting annual net income for Electric Operations of $95 million in the 2018/19 Current Outlook compared to net income of $51 million in the 2018/19 Outlook filed on November 30, 2018. The 2018/19 Current Outlook incorporates actual financial results and water flow conditions to December 31, 2018 and assumes average water flow conditions and normal winter weather for the remainder of the year.

Figure 2: 2018/19 Current Outlook Compared to the 2018/19 Outlook filed on November 30, 2018 for Electric Operations

ELECTRIC OPERATIONS
PROJECTED OPERATING STATEMENT
(In Millions of Dollars)

	Current Outlook	Nov 30/18 Filing	Increase/ (Decrease)
For the year ended March 31		**2019**	
REVENUES			
Domestic Revenue	1 703	1 701	1
BPIII Reserve Account	14	14	0
Extraprovincial	432	392	40
Other	26	30	(3)
	2 175	2 137	38
EXPENSES			
Operating and Administrative	501	501	0
Net Finance Expense	712	708	4
Depreciation and Amortization	465	473	(8)
Water Rentals and Assessments	114	113	1
Fuel and Power Purchased	135	138	(3)
Capital and Other Taxes	139	142	(2)
Other Expenses	73	78	(5)
Corporate Allocation	8	8	-
	2 148	2 161	(13)
Net Income before Net Movement in Reg. Deferral	27	(24)	51
Net Movement in Regulatory Deferral	65	69	(4)
Net Income	92	45	47
Net Income Attributable to:			
Manitoba Hydro	**95**	**51**	**45**
Non-controlling Interest	(3)	(6)	3
	92	45	47

The increase in net income in the 2018/19 Current Outlook compared to the 2018/19 Outlook filed on November 30, 2018 is primarily due to higher Extraprovincial revenues due to above average precipitation in the fall resulting in improved water flow conditions, as well as higher realized export prices.

The decrease of $8 million in Depreciation Expense is primarily a result of approximately $500 million less costs being placed into service during the year related to the Bipole III

Project. A total of $4.45 billion has been placed in-service to December 31, 2018 compared to the approximate $5 billion assumed in the Outlook filed in November 2018. Cash flows have also been revised over the next two years to address final cleanup costs, staff accommodations and decommissioning requirements. These amounts will be placed into service as the work is completed.

The $45 million increase to the projected net income for 2018/19 demonstrates the level of uncertainty and variability that is inherent in Manitoba Hydro's operating environment. Following nine months of below average precipitation, water conditions improved which is the primary reason for the increase in projected net income for 2018/19. While Manitoba Hydro sets the financial outlook (remaining months) and financial budget assuming average net interchange revenues and generation costs for the historic water flow record in conjunction with a consensus price forecast for export prices, water flow conditions, export prices and export market events (extreme weather events, transmission congestion, generation and transmission outages, etc.) change constantly to both the benefit and detriment of the utility and its ratepayers.

The net export revenue variability is coupled with the completion of the Bipole III reliability project and the ongoing construction of the Keeyask Generating Station and associated transmission projects. Changes to construction schedules and estimates can have material impacts on the financial results based on the sheer size of these projects in relation to the overall capitalization of the company.

2.1 Water Conditions as of December 31, 2018

The total volume of water in reservoir storage was approximately 2% above average at the end of December. However, the water level on Lake Winnipeg, Manitoba Hydro's largest reservoir, was almost one foot below historic average for the end of December; this is approximately a 1 in 4 year low. This is in contrast to December 2017 when the water level on Lake Winnipeg was close to the historic average.

Following nine consecutive months of below average precipitation, water conditions improved significantly in September and October particularly over the Winnipeg River and Lake Winnipeg local basins which were especially dry through the summer. This was followed by near normal snowfall accumulations.

With Lake Winnipeg levels being below average, Manitoba Hydro expects water flows on the Nelson River to be below average through the winter and overall hydraulic generation to be slightly below average for 2018/19. In addition to inflow uncertainty, factors such as weather, export market prices and ice restrictions are drivers of revenue uncertainty for the remainder of the year.

3.0 2019/20 APPROVED BUDGET

Manitoba Hydro is projecting an annual net income for Electric Operations of $115 million for the 2019/20 fiscal year, inclusive of the 3.5% proposed rate increase effective June 1, 2019, compared to net income of $31 million previously projected in the 2019/20 Interim Budget, as shown in the following figure. The 2019/20 Approved Budget shown below in Figure 3 assumes average revenues and costs based on Manitoba Hydro's long term record of water and normal weather for the year.

Figure 3: 2019/20 Approved Budget Compared to the 2019/20 Interim Budget filed on November 30, 2018 for Electric Operations

ELECTRIC OPERATIONS
PROJECTED OPERATING STATEMENT
(In Millions of Dollars)

	Approved Budget	**Interim Budget**	**Increase/ (Decrease)**
For the year ended March 31		**2020**	
REVENUES			
Domestic Revenue	1 749	1 737	12
BPIII Reserve Account	78	78	0
Extraprovincial	418	411	7
Other	27	29	(2)
	2 272	2 255	17
EXPENSES			
Operating and Administrative	511	511	0
Net Finance Expense	741	765	(24)
Depreciation and Amortization	505	508	(3)
Water Rentals and Assessments	117	111	6
Fuel and Power Purchased	127	160	(33)
Capital and Other Taxes	148	150	(2)
Other Expenses	74	111	(37)
Corporate Allocation	8	8	-
	2 232	2 325	(92)
Net Income before Net Movement in Reg. Deferral	40	(70)	110
Net Movement in Regulatory Deferral	71	103	(32)
Net Income	111	33	77
Net Income Attributable to:			
Manitoba Hydro	**115**	**31**	**84**
Non-controlling Interest	(4)	2	(6)
	111	33	77

The increase in net income of $84 million is primarily attributable to lower fuel and power purchases, lower net finance expense and a slightly higher electric load forecast. The decrease of $33 million in Fuel and Power Purchased is due to a higher starting water storage levels and more storage drawn down through the 2019/20 fiscal year resulting in more hydraulic generation, less opportunity import purchases and a reduction to the amount of thermal generation.

The decrease of $24 million to Net Finance Expense is primarily due to lower projected debt issuances as a result of a lower capital requirements in 2018/19 offset partially by a weakening of the Canadian dollar.

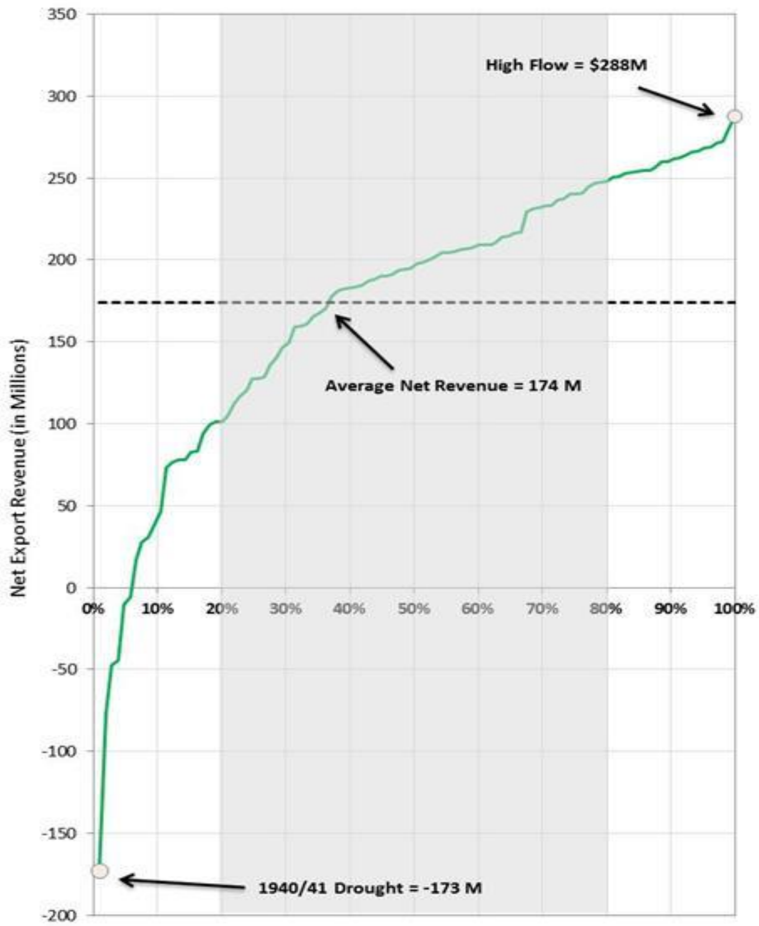
The increase of $12 million to Domestic Revenue reflects slightly higher domestic energy requirements largely due to a delay in the implementation of planned DSM programs as a result of the ongoing transition to Efficiency Manitoba. This is partially offset by a deferral of the 3.5% proposed rate increase to June 1, 2019 from April 1, 2019 which reflects the current regulatory schedule.

The decrease in Other Expenses of $37 million reflects lower planned DSM expenditures and is mainly offset in the Net Movement in Regulatory Deferrals.

As with the 2018/19 Current Outlook, the 2019/20 Approved Budget is exposed to the same uncertainty and variability inherent in the forecast of net interchange revenues and generation costs, the impacts of changes to the major projects construction schedules, estimates on cash requirements and finance expense. While the 2019/20 Approved Budget has improved by $84 million compared to the Interim Budget filed in November 2018, the variability of any one (or combination of) multiple risks contained in Figure 2.10 (page 26) in the November 30th Application continue to exist.

As previously discussed in Section 2.0 and shown in Figure 4 below, changes in water flow conditions alone can shift net income by +$110 million under the highest flow condition on record to -$350 million under the lowest flow condition on record. Even if the extreme outliers are excluded and a more narrow range is considered (20th to 80th percentiles), the potential range in net export revenue remains significant at +/-$75 million from average.

Figure 4: 2019/20 Net Export Revenue Risk



Sections 3.1 to 3.2 below provide a summary of the key changes to the financial and economic inputs underlying the 2019/20 Approved Budget including the electric load forecast, forecast of interest and foreign exchange rates.

3.1 2019/20 General Consumer Sales (GW.h)

The 2019/20 Approved Budget incorporates Manitoba's projected energy requirements from the 2018 Electric Load Forecast. The future program-based DSM savings incorporated in the 2019/20 Approved Budget are based upon preliminary projections for DSM expenditures and activities under discussion with the Province for 2019/20 as contemplated by The Energy Savings Act. The 2019/20 DSM Plan is expected to be finalized in Spring 2019, following final consultations with the Province.

Figure 5 below compares the forecast of General Consumer Sales between the 2019/20 Approved Budget and the 2019/20 Interim Budget.

Figure 5: Comparison of General Consumers Sales Volumes (GW.h)

GW.h	2019/20 Approved Budget (2018 Load Forecast)	2019/20 Interim Budget (2017 Fall Update)	Increase / (Decrease)
Residential	7,891	7,875	16
General Service	14,954	15,074	(120)
Area & Roadway Lighting	72	92	(20)
Sub-Total	**22,917**	**23,041**	**(124)**
Planned DSM Savings	(477)	(834)	(357)
Total	**22,440**	**22,207**	**233**

Excluding future program based DSM savings, the 2018 Electric Load Forecast which underpins the 2019/20 Approved Budget is forecasting slightly lower demand in 2019/20 than the 2017 Electric Load Forecast.

The 2019/20 Interim Budget was based upon planned DSM for the period of 2017/18 to 2019/20, one year more than the 2019/20 Approved Budget. Adjusting for the one year difference accounts for 158 GW.h of the 357 GW.h change in the planned DSM savings. The remaining 199 GW.h reduction to the planned DSM savings is largely due to the delayed implementation of the Conservation Rates initiative, the Fuel Choice Initiative and revised assumptions related to Load Displacement projects.

3.2 2019/20 Interest Rates & Exchange Rates

Figure 6 below compares the interest rate and exchange rate assumptions underpinning the 2019/20 Approved Budget and the 2019/20 Interim Budget.

Figure 6: Comparison of Interest Rates & Exchange Rates

	2019/20 Approved Budget Winter 2018	2019/20 Interim Budget Winter 2017
MH Short Term Interest Rate*	2.20%	2.20%
MH Long Term Interest Rate*		
20 Year WATM	3.80%	4.00%
U.S. – Cdn Exchange Rate	1.30	1.26

*Not including the 1% Provincial Guarantee Fee

While forecast interest rates are largely unchanged, Figure 6 shows a weakening of the Canadian dollar since the winter of 2017. Manitoba Hydro's net income is generally not sensitive to changes in the U.S. exchange rate due to the Corporation's hedging policies and practices.

3.3 2019/20 Approved Budget With and Without 3.5% Rate Increase

Manitoba Hydro is requesting approval of a 3.5% rate increase to be effective June 1, 2019 resulting in net income of $115 million in 2019/20. This increase is projected to generate additional revenues of approximately $50 million assuming implementation on June 1, 2019, compared to $59 million in the 2019/20 Interim Budget which assumed the rate increase to be effective April 1, 2019. Absent the proposed rate increase for 2019/20, Manitoba Hydro is projecting net income of $64 million from Electric Operations, as shown in Figure 7 below.

Figure 7: 2019/20 Approved Budget with and without the 3.5% Rate Increase

ELECTRIC OPERATIONS
PROJECTED OPERATING STATEMENT
(In Millions of Dollars)

	Approved Budget (3.50%)	**Approved Budget (0.00%)**	**Increase/ (Decrease)**
For the year ended March 31		**2020**	
REVENUES			
Domestic Revenue	1 749	1 699	50
BPIII Reserve Account	78	78	-
Extraprovincial	418	418	-
Other	27	27	-
	2 272	2 222	50
EXPENSES			
Operating and Administrative	511	511	-
Net Finance Expense	741	742	(1)
Depreciation and Amortization	505	505	-
Water Rentals and Assessments	117	117	-
Fuel and Power Purchased	127	127	-
Capital and Other Taxes	148	148	0
Other Expenses	74	74	-
Corporate Allocation	8	8	-
	2 232	2 233	(1)
Net Income before Net Movement in Reg. Deferral	40	(11)	51
Net Movement in Regulatory Deferral	71	71	-
Net Income	111	60	51
Net Income Attributable to:			
Manitoba Hydro	**115**	**64**	**51**
Non-controlling Interest	(4)	(4)	0
	111	60	51
Percent Increase	3.50%	0.00%	

4.0 2018/19 & 2019/20 CAPITAL EXPENDITURE FORECAST

Figure 8 provides a comparison of current forecast of capital expenditures for 2018/19 and 2019/20 compared to the Application filed on November 30, 2018.

Figure 8: Capital Expenditure Forecast Comparison

In Millions	**2018/19 Current Outlook**	**2018/19 (Nov 30/18 Filing)**	**2019/20 Approved Budget**	**2019/20 (Nov 30/18 Filing)**
Major Projects				
Keeyask	$1,304	$1,265	$1,119	$1,017
Bipole III	242	663	101	33
MMTP	77	162	276	144
Birtle Transmission	2	2	25	20
Total	**1,625**	**2,092**	**1,521**	**1,214**
Business Operations				
Generation	95	95	95	105
Transmission	110	130	110	130
Distribution	210	210	221	221
Corporate Infrastructure	63	80	52	55
Total	**478**	**515**	**478**	**511**
DSM	63	63	61	94
Total	**2,165**	**2,670**	**2,060**	**1,819**

The capital expenditures related to Major Projects are projected to be $1,625 million and $1,521 million in 2018/19 and 2019/20 respectively which is a decrease of $468 million in 2018/19 and an increase of $307 million in 2019/20. Cash flows for the Keeyask Project have been updated, however there is no change to the projected in-service date or to the $8.7 billion control budget. The Bipole III project was commissioned on July 4, 2018. The control budget is recommended to be reduced by $270 million to $4.77 billion to reflect actual costs incurred to-date and anticipated remaining spending up to project close-out. In addition, cash flows were revised to reflect the scheduling of the final clean-up costs, decommissioning of temporary construction infrastructure, and construction of permanent staff accommodations and water treatment plant. Cash flows related to the MMTP project have been adjusted to reflect a revised construction start due to delays in receiving regulatory approvals; however the control budget of $453 million remains unchanged.

Business operations capital is projected to be $478 million for both the 2018/19 and 2019/20 fiscal years which reflects a decrease of $37 million and $33 million respectively. The forecast reduction reflects the impact of a review of various projects using the Corporate Value Framework to optimize the timing of investments to achieve the best value with available resources. In addition, various projects were impacted by contractor delivery delays, customer project deferrals as well as project completions without the requirement for contingency forecasts for unforeseen risks.

Capital expenditures related to planned DSM programing are expected to be lower by $33 million in 2019/20. The 2019/20 DSM plan reflects the continuation of current DSM program offerings while responsibility for DSM transitions to Efficiency Manitoba. Manitoba Hydro is currently in consultations with the Province as required under the *Energy Savings Act* with the 2019/20 DSM plan expected to be finalized in Spring 2019 following final consultations with the Province.

5.0 DEBT MANAGEMENT

The actual long term financings for the year to date in 2018/19 are CAD $3,271.2 million made up of:

- $1,845.9 million for new borrowing requirements.
- $1,039.8 million to refinance maturing long term debt.
- $385.5 million to refinance maturing underlying debt issues associated with ongoing interest rate swaps.

Since the Application was filed on November 30, 2018, the following debt series have been issued:

- On January 25, 2019, Manitoba Hydro secured long term debt series C166 for GBP £100 million and a December 15, 2022 maturity date. The issue was swapped to CAD $171.2 million and a fixed rate coupon of 2.55% on CAD $151.2 million and 3BA + 0.175% on CAD $20 million. The debt was issued to refinance $69.3 million of debt series BU, $1 million of maturing series 3W and $3.5 million of maturing series 3V with the remaining $97.4 million to finance new borrowing requirements.
- On February 11, 2019, Manitoba Hydro secured long term debt series GW for CAD $150 million and a June 2, 2029 maturity date. GW was issued at a discount with proceeds of $148.8 million (net of commissions), a fixed rate coupon of

2.75%, and an all-in yield of 2.842%. The debt was issued to finance new borrowing requirements.

- It is forecast that a further $480 million will be issued in fiscal 2018/19 for new borrowing requirements.

Compared to debt issuances in the Application filed November 30, 2018, this total debt issued and forecast represents a $810 million reduction to forecast largely due to lower capital expenditures primarily related to Bipole III. In addition, a sinking fund withdrawal of $193 million which was not forecast in the Application was made to pay down a debt maturity in December 2018.

The approved budget for fiscal 2019/20 is $3,078.5 million made up of:

- 1,953.2 million for new borrowing requirements.
- $246.8 million to refinance maturing long term debt.
- $878.5 million to refinance maturing underlying debt issues associated with ongoing interest rate swaps.

Compared to the debt issuances forecast in the November 30, 2018 Application, this represents a $200 million reduction in forecast debt for 2019/20 due to lower cash requirements attributable to lower fuel and power purchases, lower net finance expense and a slightly higher electric load forecast.

6.0 UPDATED PROOF OF REVENUE

Manitoba Hydro is updating Appendix 10 of the Application to provide two Proofs of Revenue for the 2019/20 fiscal year reflecting the 2018 Electric Load Forecast; one providing the revenues based on applying the rate increase effective June 1, 2019, and one providing the annualized revenues assuming the increase was applied to the full fiscal year.