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July 24, 2019

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

Dear Mr. Christle:

RE: CENTRA GAS MANITOBA INC. ("CENTRA") 2019/20 GENERAL RATE APPLICATION – INTEREST RATE FORECAST UPDATE

Pursuant to Revised Timetable included in PUB Order 98/19, Centra is hereby enclosing its Interest Rate Forecast Update. Please find attached the updated Appendix 3.8 "Manitoba Hydro's Forecast of Key Economic and Financial Indicators for 2018-19 and 2019-20", and the following Information Requests:

- PUB/CENTRA I-44
- PUB/CENTRA II-25
- PUB/CENTRA II-28
- PUB/CENTRA II-29
- PUB/CENTRA II-33

If you have any questions or require clarification with respect to this submission, please contact the writer at 204-360-3257 or Paul Chard at 204-360-5146.

Yours truly,

MANITOBA HYDRO LEGAL SERVICES DIVISION

Per:

A handwritten signature in blue ink, appearing to read 'Brent A. Czarnecki'.

BRENT A. CZARNECKI
Barrister & Solicitor

cc: Rachel McMillin, Assistant Associate Secretary
Bob Peters, Board Counsel
Dayna Steinfeld, Board Counsel
Intervenors of Record

Manitoba Hydro's Forecast of Key Economic and Financial Indicators (Summer 2019)

Manitoba Hydro's forecast of key economic and financial indicators are based on a consensus view of several independent sources including Canada's primary financial institutions and several other independent sources, all of which are well known and respected. Consensus forecasts are compiled for employment, population, housing, Manitoba disposable income, real gross domestic product (GDP), the consumer price index (CPI), GDP price deflators, interest rates, and exchange rates. The consensus forecasts of interest rates and exchanges rates are updated quarterly whereas the consensus forecast of economic indicators are typically prepared once a year in the spring.

The economic indicators are derived from the following forecasting sources which were available in the spring of 2019: IHS, The Conference Board of Canada, Stokes Economics (formally Spatial Economics), BMO Nesbitt Burns, CIBC, Desjardins, Laurentian, Royal Bank of Canada, Scotiabank, National Bank, and TD Bank. The forecast of key economic indicators has been provided in Table 1 below.

The 3-month T-bill rate and the Canadian long-term bond 10 year+ rate for 2019/20 has been provided in Table 2 and Table 3 below. The 2019/20 forecast reflects the consensus view from the same forecasting sources, where available, to the beginning of July 2019.

Copies of the publically available source interest rate forecasts are provided at the end of this document. For forecasters that provided end of period rates, rates are adjusted to a comparable average period basis. For example, end of period rates for Q2 and Q3 are averaged for a Q3 average period forecast. The interest rates in Tables 2 & 3 represent a 4-quarter or 12-month average.

The Manitoba credit spread and the Provincial Guarantee Fee (PGF) are added to the consensus Canadian benchmark rate to arrive at Manitoba Hydro's forecasted borrowing costs. Table 4 summarizes Manitoba Hydro's current forecasted borrowing costs for 2019/20 and beyond.

TABLE 1 – MANITOBA/CANADA ECONOMIC INDICATORS (SPRING 2019) – FISCAL YEAR

Year	Manitoba					Canada			US
	Man. Real GDP % chge	Man. CPI % chge	Man. Real Disposable Income % chge	Man. Population '000s	Man. Residential Customers '000s	Cdn. Real GDP % chge	Cdn. CPI % chge	Cdn. GDP Price Deflator % chge	US GDP Price Deflator % chge
1994/95	2.9	1.6	0.0	1,125	396	4.7	0.4	1.7	2.1
1995/96	0.7	2.5	-0.9	1,130	398	1.7	2.1	2.2	2.0
1996/97	3.0	2.5	-0.9	1,135	400	2.4	1.7	1.7	1.8
1997/98	4.4	1.5	0.2	1,136	404	4.5	1.4	0.7	1.6
1998/99	3.7	1.5	2.7	1,139	405	3.8	0.9	-0.1	1.1
1999/00	2.1	2.2	2.5	1,144	408	5.5	2.2	2.8	1.6
2000/01	3.4	2.5	0.9	1,148	411	4.5	2.7	4.5	2.3
2001/02	1.2	2.1	3.2	1,153	413	1.6	2.2	0.2	2.1
2002/03	1.6	2.3	1.4	1,158	415	3.1	3.0	2.9	1.6
2003/04	1.6	0.9	1.6	1,166	419	1.6	1.9	2.4	1.9
2004/05	2.6	2.7	1.5	1,174	422	3.5	2.2	3.5	2.9
2005/06	3.0	2.4	0.8	1,180	426	3.3	2.3	3.1	3.1
2006/07	3.4	2.0	4.2	1,185	430	2.0	1.9	2.7	3.0
2007/08	2.8	1.9	4.6	1,192	434	2.1	2.1	3.5	2.4
2008/09	2.7	2.2	3.3	1,200	440	0.0	2.2	2.2	1.8
2009/10	0.5	0.6	3.4	1,212	444	-2.0	0.4	-0.7	0.6
2010/11	2.4	1.0	3.4	1,224	448	3.4	2.0	2.6	1.5
2011/12	2.6	4.2	0.2	1,238	453	3.0	2.8	3.0	2.1
2012/13	3.0	0.2	4.9	1,254	459	1.6	1.2	1.2	1.9
2013/14	2.7	2.4	1.7	1,268	465	2.6	1.1	1.8	1.8
2014/15	1.8	1.5	1.9	1,282	471	2.7	1.8	1.2	1.7
2015/16	1.2	1.3	3.0	1,298	477	0.4	1.2	-0.7	1.0
2016/17	2.0	1.4	0.7	1,319	483	1.5	1.5	1.5	1.4
2017/18	2.6	1.7	3.1	1,340	489	3.0	1.6	2.2	1.9
2018/19	1.2	2.2	0.7	1,356	495	1.7	2.0	1.5	0.6
Forecast									
2019/20	1.6	2.0	1.5	1,372	502	1.7	1.8	1.8	2.1
2020/21	1.4	2.0	1.2	1,387	508	1.8	2.0	2.1	2.3
2021/22	1.4	1.9	1.3	1,402	514	1.7	1.8	2.0	2.4
2022/23	1.6	1.9	1.4	1,417	519	1.8	1.8	2.1	2.4
2023/24	1.6	2.0	1.5	1,432	525	1.9	1.9	2.0	2.3
2024/25	1.5	1.9	1.6	1,447	530	1.8	2.0	2.0	2.3
2025/26	1.5	1.9	1.5	1,462	536	1.7	2.0	1.9	2.2
2026/27	1.5	1.9	1.5	1,477	541	1.7	2.0	1.9	2.2
2027/28	1.5	1.9	1.5	1,492	547	1.7	2.0	1.9	2.2
2028/29	1.5	1.9	1.5	1,507	552	1.7	2.0	1.9	2.2
2029/30	1.5	1.9	1.5	1,522	558	1.7	2.0	1.9	2.2
2030/31	1.5	1.9	1.5	1,537	563	1.7	2.0	1.9	2.2
2031/32	1.5	1.9	1.5	1,551	568	1.7	2.0	1.9	2.2
2032/33	1.5	1.9	1.5	1,566	574	1.7	2.0	1.9	2.2
2033/34	1.5	1.9	1.5	1,580	579	1.7	2.0	1.9	2.2
2034/35	1.5	1.9	1.5	1,593	584	1.7	2.0	1.9	2.2
2035/36	1.5	1.9	1.5	1,607	589	1.7	2.0	1.9	2.2
2036/37	1.5	1.9	1.5	1,619	593	1.7	2.0	1.9	2.2
2037/38	1.5	1.9	1.5	1,632	598	1.7	2.0	1.9	2.2
2038/39	1.5	1.9	1.5	1,644	602	1.7	2.0	1.9	2.2

TABLE 2 – CANADIAN 3-MONTH T-BILL RATE % (SUMMER 2019)

			Cdn 90 Day T-Bill Rate %			
Forecaster	Date of Forecast	End of Period or Average	2019			2020
			Q2	Q3	Q4	Q1
BMO Nesbitt Burns	11-Jun-19	Average	1.68	1.65	1.65	1.65
CIBC	13-Jun-19	End of Period	1.68	1.68	1.70	1.65
Desjardins	20-Jun-19	End of Period	1.68	1.66	1.65	1.68
Laurentian	10-May-19	End of Period	1.68	1.68	1.73	1.75
National Bank	1-Jun-19	End of Period	1.68	1.67	1.68	1.70
Royal Bank	7-Jun-19	End of Period	1.68	1.66	1.65	1.65
Scotiabank	7-Jun-19	End of Period	1.68	1.66	1.65	1.65
TD Bank	1-Jun-19	End of Period	1.68	1.66	1.65	1.65
IHS Global Insight	5-Jul-19	Average	1.68	1.65	1.67	1.72
Conference Board	1-Jul-19	Average	1.68	1.71	1.71	1.71
			2019/20			
			1.65			

Note: In the case where source forecasts are provided as end of period, the 2019 Q2 end of period actual rate was averaged with the source forecasters' end of period rate for 2019 Q3 in order to approximate an average period 2019 Q3 forecast rate.

TABLE 3 – CANADIAN LONG TERM BOND 10 YR+ RATE % (SUMMER 2019)

			Cdn LT Bond 10 Yr+ Rate %			
Forecaster	Date of Forecast	End of Period or Average	2019			2020
			Q2	Q3	Q4	Q1
BMO Nesbitt Burns	11-Jun-19	Average	1.71	1.58	1.55	1.58
CIBC	13-Jun-19	End of Period	1.71	1.71	1.89	1.90
Desjardins	20-Jun-19	End of Period	1.71	1.55	1.58	1.68
Laurentian	10-May-19	End of Period	1.71	1.82	2.15	2.30
National Bank	1-Jun-19	End of Period	1.71	1.75	2.03	2.15
Royal Bank	7-Jun-19	End of Period	1.71	1.75	1.98	2.08
Scotiabank	7-Jun-19	End of Period	1.71	1.61	1.70	1.79
TD Bank	1-Jun-19	End of Period	1.71	1.62	1.73	1.83
IHS Global Insight	5-Jul-19	Average	1.71	1.53	1.65	1.78
Conference Board	1-Jul-19	Average	1.71	1.98	2.25	2.43
			2019/20			
			1.80			

Note: In the case where source forecasts are provided as end of period, the 2019 Q2 end of period actual rate was averaged with the source forecasters' end of period rate for 2019 Q3 in order to approximate an average period 2019 Q3 forecast rate.

TABLE 4 – MANITOBA HYDRO’S FORECASTED INTEREST AND EXCHANGE RATES (SUMMER 2019)

	CAN Short-Term Interest Rate				CAN Floating Debt Interest Rate						CAN Fixed Debt Interest Rate				U.S. - Cdn Exchange Rate
	Consensus Benchmark 90 Day T-Bill Rate*	Manitoba Spread	PGF	MH Interest Rate	Consensus Benchmark 90 Day T-Bill Rate**	Spread from CAN T-Bill to CAN BA Rate	CAN 90 Day BA Rate	Average Margin Level	PGF	MH Interest Rate	Consensus Benchmark Long Term Bond 10+ Rate**	Manitoba Spread	PGF	MH Interest Rate	
2019/20	1.67		1.00	2.65	1.67	0.33	2.00	0.50	1.00	3.50	1.83	0.88	1.00	3.70	1.32
2020/21	1.75		1.00	2.75	1.75	0.36	2.10	0.50	1.00	3.60	2.13	0.91	1.00	4.05	1.31
2021/22	1.83		1.00	2.85	1.83	0.38	2.20	0.50	1.00	3.70	2.37	0.92	1.00	4.30	1.30
2022/23	1.89		1.00	2.90	1.89	0.38	2.25	0.50	1.00	3.75	2.45	0.92	1.00	4.35	1.29
2023/24	1.98		1.00	3.00	1.98	0.38	2.35	0.50	1.00	3.85	2.52	0.92	1.00	4.45	1.29
2024/25	2.13		1.00	3.15	2.13	0.38	2.50	0.50	1.00	4.00	2.43	0.92	1.00	4.35	1.28
2025/26 & on	2.19		1.00	3.20	2.19	0.38	2.55	0.50	1.00	4.05	2.45	0.92	1.00	4.35	1.28

* 2019/20 consensus rate calculated using 12 month average (2019 Q2 actuals and 2019 Q3, 2019 Q4 & 2020 Q1 forecasts)

** 2019/20 consensus rate calculated using forecast data to the end of the fiscal year (2019 Q3, 2019 Q4 & 2020 Q1 forecasts)

Rates Scenario



Interest Rate Forecasts

Percent (averages)

	Actual	Forecasts					2019	2020			
	2019 May	2019 Jun	Jul	Aug	Sep	Oct	Q4	Q1	Q2	Q3	Q4
Cdn. Yield Curve											
Overnight	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
3 month	1.68	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
6 month	1.71	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
1 year	1.72	1.65	1.65	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.65
2 year	1.58	1.40	1.35	1.35	1.30	1.30	1.25	1.30	1.40	1.50	1.60
3 year	1.57	1.35	1.35	1.35	1.30	1.30	1.30	1.35	1.40	1.50	1.60
5 year	1.54	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.40	1.50	1.55
7 year	1.58	1.35	1.35	1.35	1.35	1.35	1.35	1.40	1.45	1.50	1.50
10 year	1.66	1.45	1.45	1.45	1.45	1.45	1.40	1.45	1.45	1.45	1.50
30 year	1.91	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.75	1.80	1.85
1m BA	1.98	1.95	1.95	1.95	1.95	1.95	1.95	2.00	2.00	2.00	2.00
3m BA	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
6m BA	2.08	2.00	2.00	2.00	2.00	2.00	2.00	2.05	2.05	2.05	2.05
12m BA	2.22	2.10	2.10	2.10	2.10	2.05	2.05	2.05	2.10	2.10	2.10
Prime Rate	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95
U.S. Yield Curve											
Fed funds	2.38	2.38	2.13	2.13	2.13	1.88	1.88	1.88	1.88	1.88	1.88
3 month	2.40	2.30	2.20	2.10	2.05	1.95	1.85	1.80	1.85	1.90	1.90
6 month	2.42	2.15	2.10	2.05	1.95	1.90	1.85	1.80	1.85	1.90	1.95
1 year	2.34	2.00	1.95	1.90	1.85	1.80	1.75	1.80	1.85	1.95	2.05
2 year	2.21	1.85	1.80	1.80	1.75	1.70	1.65	1.70	1.85	1.95	2.10
3 year	2.16	1.80	1.80	1.80	1.75	1.75	1.75	1.80	1.90	2.00	2.10
5 year	2.19	1.85	1.85	1.85	1.85	1.85	1.80	1.85	1.95	2.00	2.10
7 year	2.29	1.95	1.95	1.95	1.95	1.95	1.90	1.95	2.00	2.05	2.10
10 year	2.40	2.10	2.10	2.05	2.05	2.05	2.00	2.00	2.05	2.10	2.10
30 year	2.82	2.60	2.55	2.55	2.55	2.50	2.50	2.50	2.55	2.55	2.60
1m LIBOR	2.44	2.40	2.15	2.15	2.15	1.90	1.90	1.95	1.95	2.00	2.00
3m LIBOR	2.53	2.45	2.35	2.30	2.20	2.10	2.05	2.00	2.05	2.10	2.15
6m LIBOR	2.57	2.40	2.30	2.25	2.15	2.10	2.05	2.00	2.10	2.20	2.25
12m LIBOR	2.65	2.35	2.30	2.25	2.20	2.15	2.15	2.15	2.30	2.40	2.50
Prime Rate	5.50	5.50	5.25	5.25	5.25	5.00	5.00	5.00	5.00	5.00	5.00
Other G7 Yields											
ECB Refi	0.00	0.00 ¹	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10yr Bund	-0.08	-0.15	-0.25	-0.30	-0.40	-0.45	-0.55	-0.55	-0.45	-0.35	-0.25
BoE Repo	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
10yr Gilt	1.06	0.95	0.90	0.80	0.70	0.60	0.55	0.50	0.60	0.70	0.80
BoJ O/N	-0.06	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
10yr JGB	-0.06	-0.05	-0.05	-0.04	-0.04	-0.03	-0.02	0.00	0.00	0.00	0.00

Policy rates are end of period; ¹ actual value for June 2019

MARKET CALL

- With the US economy looking like its slowing down, and with downside risks from tariffs rising, Fed members have started talking about the possibility of cutting interest rates. And with core PCE inflation likely to remain below 2% through the end of the year (see pages 6-7), there's scope for them to do so. Assuming no near-term resolution to the US-China trade dispute, we have brought forward and added to our previous forecast for Fed rate cuts. We now expect two, in Q4 2019 and Q1 2020.
- While we're likely to get some better news on the Canadian economy over the remainder of 2019 (see pages 3-5), the BoC is still relying heavily on exports and business investment to drive the economy by 2020. However, continued global trade uncertainties, combined with a temporary appreciation in the C\$ as the Fed cuts interest rates, could see the BoC reluctantly join in and reduce rates by 25bp in Q2 2020.
- Financial markets may be correct in assuming that interest rate cuts are coming. However, they may be incorrect in just how many will be needed to stabilize growth and inflation. Long-term interest rates appear to be pricing in a much more dire outlook than the 1½% growth rates we forecast for next year. As such, there's scope for 10-year yields to rise even as central banks cut at the short end.

INTEREST & FOREIGN EXCHANGE RATES

END OF PERIOD:	2019			2020			
	12-Jun	Sep	Dec	Mar	Jun	Sep	Dec
CDA Overnight target rate	1.75	1.75	1.75	1.75	1.50	1.50	1.50
98-Day Treasury Bills	1.67	1.70	1.70	1.60	1.40	1.45	1.45
2-Year Gov't Bond	1.46	1.60	1.60	1.50	1.40	1.40	1.45
10-Year Gov't Bond	1.51	1.75	1.85	1.70	1.65	1.50	1.60
30-Year Gov't Bond	1.76	1.95	2.00	2.05	1.95	1.90	1.85
U.S. Federal Funds Rate	2.375	2.375	2.125	1.875	1.875	1.875	1.875
91-Day Treasury Bills	2.25	2.35	2.13	1.80	1.70	1.80	1.88
2-Year Gov't Note	1.88	2.05	2.00	1.90	1.70	1.90	2.00
10-Year Gov't Note	2.13	2.35	2.45	2.20	2.20	2.30	2.40
30-Year Gov't Bond	2.62	2.75	2.75	2.70	2.65	2.65	2.60
Canada - US T-Bill Spread	-0.59	-0.65	-0.43	-0.20	-0.30	-0.35	-0.43
Canada - US 10-Year Bond Spread	-0.62	-0.60	-0.60	-0.50	-0.55	-0.80	-0.80
Canada Yield Curve (10-Year — 2-Year)	0.05	0.15	0.25	0.20	0.25	0.10	0.15
US Yield Curve (10-Year — 2-Year)	0.25	0.30	0.45	0.30	0.50	0.40	0.40
EXCHANGE RATES							
CADUSD	0.75	0.76	0.75	0.75	0.74	0.74	0.72
USDCAD	1.33	1.31	1.34	1.34	1.35	1.36	1.38
USDJPY	108	106	105	104	103	101	100
EURUSD	1.13	1.16	1.18	1.20	1.23	1.23	1.24
GBPUSD	1.27	1.33	1.37	1.41	1.46	1.46	1.46
AUDUSD	0.70	0.70	0.71	0.74	0.76	0.78	0.78
USDCHF	0.99	0.97	0.96	0.94	0.93	0.93	0.94
USDBRL	3.86	3.65	3.80	3.85	3.95	3.90	3.80
USDMXN	19.7	20.1	19.9	20.1	20.4	20.6	20.7



FINANCIAL FORECASTS

Volatility remains relatively high on financial markets since China and the United States resumed trade hostilities in early May. Yet a last-minute deal between the Mexican and U.S. leaders to improve border security helped for now avoid opening a new front in the trade wars. Investor sentiment also improved after the Chair of the Federal Reserve (Fed) confirmed that he was monitoring the situation closely and that he would act in an appropriate manner to ensure continued economic growth. The U.S. monetary authorities have opened the door to an imminent decrease in key rates at their June 19 meeting. We are now counting on two key rate cuts of 0.25% each in the United States, with one in July and one in September, which would help bond yields maintain their current position near rock-bottom levels. The primary aim of the Fed's gestures would be to respond to market pressure and to reaffirm its determination to hold inflation anticipation close to the 2% target. It would be surprising for the Bank of Canada to follow suit, especially since monetary tightening is not as far along in Canada. Therefore, we continue to count on key rates in Canada staying at their current level for a long time as the scenario of a temporary slowdown in the Canadian economy followed by a rebound seems to be coming true even as international threats are on the rise. The favourable change in interest rate spreads could cause the Canadian dollar to appreciate slightly in the coming months.

TABLE 2
Summary of the financial forecasts

END OF PERIOD IN % (EXCEPT IF INDICATED)	2018		2019				2020			
	Q3	Q4	Q1	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
Key interest rate										
United States	2.25	2.50	2.50	2.50	2.00	2.00	2.00	2.00	2.00	2.00
Canada	1.50	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Euro zone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United Kingdom	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Federal bonds										
<u>United States</u>										
2-year	2.82	2.51	2.29	1.75	1.65	1.80	1.90	1.95	2.00	2.00
5-year	2.95	2.49	2.23	1.75	1.65	1.80	1.95	2.00	2.05	2.05
10-year	3.06	2.69	2.41	2.05	1.95	2.05	2.10	2.15	2.20	2.20
30-year	3.21	3.02	2.82	2.55	2.45	2.50	2.55	2.60	2.60	2.60
<u>Canada</u>										
2-year	2.21	1.86	1.55	1.40	1.30	1.45	1.55	1.65	1.70	1.70
5-year	2.33	1.88	1.52	1.35	1.30	1.45	1.60	1.70	1.75	1.75
10-year	2.42	1.96	1.62	1.50	1.45	1.55	1.65	1.75	1.80	1.80
30-year	2.41	2.18	1.90	1.70	1.60	1.70	1.80	1.90	1.95	1.95
Currency market										
Canadian dollar (USD/CAD)	1.29	1.36	1.33	1.32	1.31	1.32	1.31	1.32	1.32	1.32
Canadian dollar (CAD/USD)	0.77	0.73	0.75	0.76	0.77	0.76	0.77	0.76	0.76	0.76
Euro (EUR/USD)	1.16	1.14	1.12	1.13	1.14	1.14	1.15	1.16	1.17	1.17
British pound (GBP/USD)	1.30	1.27	1.30	1.27	1.28	1.30	1.33	1.34	1.36	1.37
Yen (USD/JPY)	114	110	111	109	109	110	111	112	111	110
Stock markets (level and growth)*										
United States – S&P 500	2,507		Target: 3,000 (+19.7%)				Target: 3,150 (+5.0%)			
Canada – S&P/TSX	14,323		Target: 16,750 (+16.9%)				Target: 17,550 (+4.8%)			
Commodities (annual average)										
WTI oil (US\$/barrel)	65 (45*)		57 (58*)				56 (55*)			
Gold (US\$/ounce)	1,269 (1,280*)		1,320 (1,320*)				1,280 (1,240*)			

f. forecasts, WTI: West Texas Intermediate, * End of year.
 Sources: Datastream and Desjardins, Economic Studies

TABLE 8
Medium-term major economic and financial indicators

IN % (EXCEPT IF INDICATED)	ANNUAL AVERAGE							AVERAGES	
	2017	2018	2019 ^f	2020 ^f	2021 ^f	2022 ^f	2023 ^f	2014–2018	2019–2023 ^f
United States									
Real GDP (var in %)	2.2	2.9	2.6	2.1	1.4	1.1	2.2	2.4	1.9
Total inflation rate (var in %)	2.1	2.4	1.8	2.0	1.5	1.2	1.6	1.5	1.6
Unemployment rate	4.4	3.9	3.6	3.4	4.1	4.9	5.0	4.9	4.2
S&P 500 index (var in %) ¹	19.4	-6.2	19.7	5.0	-8.0	10.0	7.0	6.7	6.7
Federal funds rate	1.10	1.90	2.30	2.00	1.75	1.50	1.70	0.80	1.85
Prime rate	4.10	4.90	5.30	5.00	4.75	4.50	4.70	3.80	4.85
Treasury bills – 3-month	0.95	1.97	2.15	1.90	1.60	1.35	1.60	0.66	1.72
Federal bonds – 10-year	2.33	2.91	2.20	2.15	1.85	1.80	2.30	2.35	2.06
– 30-year	2.89	3.11	2.70	2.60	2.25	2.20	2.70	2.96	2.49
WTI oil (US\$/barrel)	51	65	57	56	43	45	53	60	51
Gold (US\$/ounce)	1,258	1,269	1,320	1,280	1,250	1,250	1,240	1,240	1,268
Canada									
Real GDP (var in %)	3.0	1.9	1.3	1.6	1.2	1.0	2.0	1.9	1.4
Total inflation rate (var in %)	1.6	2.3	1.8	1.6	1.4	1.2	1.6	1.7	1.5
Employment (var in %)	1.9	1.3	2.1	1.1	0.8	0.3	1.0	1.1	1.1
Employment (thousands)	337	241	391	208	146	60	193	193	200
Unemployment rate	6.3	5.8	5.6	5.5	6.1	6.5	6.3	6.6	6.0
Housing starts (thousands of units)	220	213	198	199	188	185	200	203	194
S&P/TSX index (var in %) ¹	6.0	-11.6	16.9	4.8	-12.0	10.0	9.0	5.9	5.7
Exchange rate (US\$/C\$)	0.77	0.77	0.76	0.76	0.74	0.75	0.76	0.80	0.75
Overnight funds	0.70	1.40	1.75	1.75	1.55	1.25	1.30	0.77	1.52
Prime rate	2.90	3.61	3.95	3.95	3.75	3.45	3.50	2.88	3.72
Mortgage rate – 1-year	3.16	3.47	3.65	3.65	3.60	3.50	3.50	3.18	3.58
– 5-year	4.76	5.26	5.25	5.10	5.05	5.00	5.05	4.85	5.09
Treasury bills – 3-month	0.69	1.37	1.65	1.70	1.45	1.20	1.35	0.80	1.47
Federal bonds – 2-year	1.09	1.99	1.55	1.65	1.40	1.30	1.55	1.05	1.49
– 5-year	1.37	2.15	1.50	1.70	1.45	1.45	1.80	1.34	1.58
– 10-year	1.78	2.28	1.65	1.75	1.60	1.55	1.95	1.81	1.70
– 30-year	2.28	2.36	1.80	1.90	1.75	1.70	2.10	2.31	1.85
Yield spreads (Canada—United States)									
Treasury bills – 3-month	-0.26	-0.60	-0.50	-0.20	-0.15	-0.15	-0.25	0.13	-0.25
Federal bonds – 10-year	-0.55	-0.63	-0.55	-0.40	-0.25	-0.25	-0.35	-0.54	-0.36
– 30-year	-0.61	-0.75	-0.90	-0.70	-0.50	-0.50	-0.60	-0.65	-0.64
Quebec									
Real GDP (var in %)	2.8	2.1	1.9	1.4	1.0	0.7	1.5	1.7	1.3
Total inflation rate (var in %)	1.0	1.7	1.7	1.6	1.4	1.2	1.6	1.2	1.5
Employment (var in %)	2.2	0.9	1.2	0.5	0.3	0.1	0.5	1.0	0.5
Employment (thousands)	90	39	50	20	15	5	20	40	22
Unemployment rate	6.1	5.5	5.1	4.9	4.8	5.2	4.9	6.8	5.0
Retail sales (var in %)	5.5	2.9	2.7	2.1	1.8	1.0	2.5	3.9	2.0
Housing starts (thousands of units)	46	47	46	43	38	35	40	42	40
Ontario									
Real GDP (var in %)	2.8	2.2	1.5	1.7	1.5	1.2	1.8	2.5	1.6
Total inflation rate (var in %)	1.7	2.4	1.7	1.6	1.5	1.5	2.0	1.9	1.7
Employment (var in %)	1.8	1.6	2.6	1.3	0.5	0.8	1.0	1.2	1.2
Employment (thousands)	128	114	188	99	38	61	76	84	92
Unemployment rate	6.0	5.6	5.6	5.4	6.0	6.3	6.1	6.4	5.9
Retail sales (var in %)	7.7	4.4	1.1	2.7	3.0	2.5	5.0	6.0	2.9
Housing starts (thousands of units)	79	79	68	70	64	67	72	72	68

^f forecasts. WTI – West Texas Intermediate. ¹ Variations are based on observation of the end of period

Sources – Datastream, Statistics Canada, Institut de la statistique du Québec, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies



Laurentian Bank Securities ECONOMIC RESEARCH AND STRATEGY

Forecasts Tables

Financial Forecasts												
	18Q1	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	20Q2	20Q3	20Q4
Canada												
Overnight Rate Target	1.25	1.25	1.50	1.75	1.75	1.75	1.75	1.75	1.75	2.00	2.25	2.25
3-Month Treasury Bills	1.10	1.26	1.58	1.65	1.70	1.70	1.70	1.75	1.75	2.00	2.25	2.25
2-Year Bond	1.77	1.92	2.21	1.86	1.55	1.60	1.75	1.90	2.15	2.30	2.35	2.35
5-Year Bond	1.96	2.06	2.33	1.88	1.50	1.60	1.75	1.95	2.20	2.25	2.30	2.40
10-Year Bond	2.09	2.17	2.42	1.96	1.60	1.75	1.95	2.10	2.25	2.50	2.60	2.70
30-Year Bond	2.23	2.20	2.42	2.18	1.90	2.05	2.20	2.35	2.50	2.65	2.75	2.80
United States												
Federal Funds Rate Target*	1.75	2.00	2.25	2.50	2.50	2.50	2.50	2.50	2.75	3.00	3.00	3.00
3-Month Treasury Bills	1.70	1.89	2.15	2.40	2.50	2.45	2.45	2.45	2.70	2.95	2.95	2.95
2-Year Bond	2.3	2.5	2.8	2.51	2.30	2.45	2.65	2.85	3.05	3.15	3.20	3.20
5-Year Bond	2.6	2.7	3.0	2.50	2.25	2.40	2.65	2.85	3.05	3.20	3.25	3.25
10-Year Bond	2.7	2.9	3.1	2.69	2.45	2.60	2.75	2.90	3.05	3.20	3.30	3.30
30-Year Bond	2.97	2.99	3.21	3.02	2.90	3.10	3.20	3.30	3.40	3.45	3.55	3.60
Canadian Dollar (US\$/C\$)	0.78	0.76	0.77	0.73	0.75	0.76	0.77	0.78	0.79	0.80	0.80	0.80
S&P 500 Index	2641	2718	2914	2507	2850	2900	3000	3050	3075	3100	3150	3200
TSX Index	15367	16278	16073	14323	16250	16400	17000	17500	18000	18350	18700	19000
Oil WTI (US\$/barrel)	65	74	73	45	60	62	67	67	67	67	67	67

Quarter-end data

Updated: May 2019 * Upper bound of the target range for the Fed funds rate

Monthly Economic Monitor

Economics and Strategy



NATIONAL BANK OF CANADA

FINANCIAL MARKETS

Canada Economic Forecast

<i>(Annual % change)*</i>						Q4/Q4		
	2016	2017	2018	2019	2020	2018	2019	2020
Gross domestic product (2012 \$)	1.1	3.0	1.9	1.4	1.8	1.6	1.7	1.7
Consumption	2.1	3.6	2.1	1.8	1.1	1.4	1.8	1.0
Residential construction	3.5	2.4	(1.5)	(3.0)	(0.7)	(5.7)	(0.1)	(1.8)
Business investment	(9.9)	2.5	1.9	(1.5)	2.7	(4.0)	2.5	3.2
Government expenditures	1.2	2.7	3.0	2.2	1.7	1.6	2.7	1.2
Exports	1.3	1.1	3.2	2.3	3.7	4.1	2.8	3.9
Imports	(0.0)	4.2	2.9	1.4	1.8	0.0	2.9	2.0
Change in inventories (millions \$)	2,291	17,582	12,738	10,226	4,226	13,891	5,822	3,044
Domestic demand	0.6	3.1	2.0	1.2	1.3	0.5	1.9	1.1
Real disposable income	(0.7)	3.4	2.1	1.9	1.6	0.9	1.9	1.5
Employment	0.7	1.9	1.3	1.8	0.7	1.2	1.5	0.7
Unemployment rate	7.0	6.3	5.8	5.7	5.7	5.6	5.7	5.7
Inflation	1.4	1.6	2.3	2.0	1.9	2.0	2.3	2.1
Before-tax profits	6.4	20.1	0.5	(2.8)	4.5	(5.7)	6.2	3.5
Current account (bil. \$)	(64.9)	(60.1)	(58.5)	(66.4)	(58.4)

* or as noted

Financial Forecast**

	Current							
	5-31-19	Q3 2019	Q4 2019	Q1 2020	Q2 2020	2018	2019	2020
Overnight rate	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2.25
3 month T-Bills	1.68	1.68	1.68	1.72	1.88	1.64	1.68	2.21
Treasury yield curve								
2-Year	1.43	1.65	1.78	1.82	1.94	1.86	1.78	2.31
5-Year	1.37	1.66	1.81	1.88	2.01	1.89	1.81	2.38
10-Year	1.49	1.81	2.01	2.07	2.15	1.96	2.01	2.47
30-Year	1.77	2.05	2.23	2.28	2.34	2.19	2.23	2.65
CAD per USD	1.35	1.33	1.30	1.31	1.32	1.37	1.30	1.34
Oil price (WTI), U.S.\$	53	60	65	61	61	45	65	58

** end of period

Quarterly pattern

	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020
	actual	actual	actual	forecast	forecast	forecast	forecast	forecast
Real GDP growth (q/q % chg. saar)	2.1	0.3	0.4	2.5	2.0	1.9	1.5	1.8
CPI (y/y % chg.)	2.7	2.0	1.6	2.2	1.9	2.3	2.1	1.7
CPI ex. food and energy (y/y % chg.)	2.1	2.0	1.9	2.1	1.8	2.1	1.8	1.9
Unemployment rate (%)	5.9	5.6	5.8	5.7	5.7	5.7	5.7	5.7

National Bank Financial



Monthly Economic Monitor

Economics and Strategy

United States Economic Forecast

(Annual % change)*						Q4/Q4		
	2016	2017	2018	2019	2020	2018	2019	2020
Gross domestic product (2012 \$)	1.6	2.2	2.9	2.5	1.9	3.0	2.0	2.0
Consumption	2.7	2.5	2.6	2.3	2.0	2.6	1.9	2.1
Residential construction	6.5	3.3	(0.3)	(1.0)	1.7	(3.3)	1.3	1.5
Business investment	0.5	5.3	6.9	2.8	1.6	7.0	1.5	1.7
Government expenditures	1.4	(0.1)	1.5	1.9	1.6	1.5	2.3	1.2
Exports	(0.1)	3.0	4.0	2.0	1.0	2.3	2.2	1.0
Imports	1.9	4.6	4.5	2.1	1.4	3.4	1.3	1.0
Change in inventories (bil. \$)	23.4	22.5	45.0	96.3	35.7	96.8	62.9	25.9
Domestic demand	2.3	2.5	2.9	2.2	1.9	2.7	1.9	1.9
Real disposable income	1.7	2.6	2.8	2.2	1.7	3.0	1.8	1.7
Payroll employment	1.8	1.6	1.7	1.5	1.1	1.8	1.3	0.9
Unemployment rate	4.9	4.4	3.9	3.7	3.6	3.8	3.7	3.6
Inflation	1.3	2.1	2.4	1.8	2.0	2.2	2.0	1.8
Before-tax profits	(1.1)	3.2	7.8	1.9	4.9	7.4	2.2	3.7
Federal balance (unified budget, bil. \$)	(587.0)	(666.0)	(779.0)	(897.0)	(903.0)
Current account (bil. \$)	(432.9)	(449.1)	(488.5)	(549.3)	(549.5)

* or as noted

Financial Forecast**

	Current					2018	2019	2020
	5-31-19	Q3 2019	Q4 2019	Q1 2020	Q2 2020			
Fed Fund Target Rate	2.50	2.50	2.50	2.50	2.50	2.50	2.75	
3 month Treasury bills	2.30	2.33	2.33	2.34	2.51	2.40	2.77	
Treasury yield curve								
2-Year	1.95	2.22	2.53	2.64	2.70	2.48	2.77	
5-Year	1.93	2.24	2.55	2.67	2.76	2.51	2.86	
10-Year	2.14	2.48	2.80	2.87	2.93	2.69	3.01	
30-Year	2.58	2.87	3.13	3.17	3.23	3.02	3.28	
Exchange rates								
U.S.\$/Euro	1.11	1.12	1.15	1.14	1.13	1.14	1.13	
YEN/U.S.\$	109	111	114	113	112	110	112	

** end of period

Quarterly pattern

	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020
	actual	actual	actual	forecast	forecast	forecast	forecast	forecast
Real GDP growth (q/q % chg. saar)	3.4	2.2	3.1	1.4	2.0	1.6	1.8	2.2
CPI (y/y % chg.)	2.6	2.2	1.6	1.8	1.8	2.0	2.3	2.0
CPI ex. food and energy (y/y % chg.)	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3
Unemployment rate (%)	3.8	3.8	3.9	3.7	3.7	3.7	3.6	3.6



FINANCIAL MARKET FORECASTS

June 7, 2019

Interest rates (% , end of quarter,)

	Actual					Forecast								Actual		Forecast	
	18Q1	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	20Q2	20Q3	20Q4	2017	2018	2019	2020	
Canada																	
Overnight	1.25	1.25	1.50	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.00	1.75	1.75	1.75	
Three-month	1.10	1.26	1.59	1.64	1.67	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.06	1.64	1.65	1.65	
Two-year	1.78	1.91	2.21	1.86	1.55	1.50	1.60	1.70	1.75	1.85	1.85	1.90	1.69	1.86	1.70	1.90	
Five-year	1.97	2.07	2.34	1.89	1.52	1.50	1.65	1.80	1.85	1.95	1.95	2.00	1.87	1.89	1.80	2.00	
10-year	2.09	2.17	2.43	1.97	1.62	1.65	1.80	1.90	2.00	2.10	2.15	2.20	2.04	1.97	1.90	2.20	
30-year	2.23	2.20	2.42	2.18	1.89	1.90	2.05	2.15	2.25	2.30	2.35	2.35	2.27	2.18	2.15	2.35	
Yield curve (10s-2s)	31	26	22	11	7	15	20	20	25	25	30	30	35	11	20	30	
United States																	
Fed funds*	1.75	2.00	2.25	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	1.50	2.50	2.50	2.50	
Three-month	1.73	1.93	2.19	2.45	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	1.39	2.45	2.40	2.40	
Two-year	2.27	2.52	2.81	2.48	2.27	2.00	2.20	2.35	2.45	2.55	2.55	2.55	1.89	2.48	2.35	2.55	
Five-year	2.56	2.73	2.94	2.51	2.23	2.05	2.25	2.45	2.55	2.65	2.75	2.75	2.20	2.51	2.45	2.75	
10-year	2.74	2.85	3.05	2.69	2.41	2.25	2.45	2.60	2.70	2.80	2.85	2.85	2.40	2.69	2.60	2.85	
30-year	2.97	2.98	3.19	3.02	2.81	2.75	2.90	3.00	3.10	3.20	3.20	3.20	2.74	3.02	3.00	3.20	
Yield curve (10s-2s)	47	33	24	21	14	25	25	25	25	25	30	30	51	21	25	30	
Yield spreads																	
Three-month T-bills	-0.63	-0.67	-0.60	-0.81	-0.73	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.33	-0.81	-0.75	-0.75	
Two-year	-0.49	-0.61	-0.60	-0.62	-0.72	-0.50	-0.60	-0.65	-0.70	-0.70	-0.70	-0.65	-0.20	-0.62	-0.65	-0.65	
Five-year	-0.59	-0.66	-0.60	-0.62	-0.71	-0.55	-0.60	-0.65	-0.70	-0.70	-0.80	-0.75	-0.33	-0.62	-0.65	-0.75	
10-year	-0.65	-0.68	-0.62	-0.72	-0.79	-0.60	-0.65	-0.70	-0.70	-0.70	-0.70	-0.65	-0.36	-0.72	-0.70	-0.65	
30-year	-0.74	-0.78	-0.77	-0.84	-0.92	-0.85	-0.85	-0.85	-0.85	-0.90	-0.85	-0.85	-0.47	-0.84	-0.85	-0.85	

Note: Interest Rates are end of period rates. * Top of 25 basis point range

Exchange rates (end of quarter,)

	Actual					Forecast								Actual		Forecast	
	18Q1	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	20Q2	20Q3	20Q4	2017	2018	2019	2020	
AUD/USD	0.77	0.74	0.72	0.70	0.71	0.69	0.68	0.67	0.67	0.67	0.66	0.66	0.78	0.70	0.67	0.66	
USD/CAD	1.29	1.31	1.29	1.36	1.33	1.34	1.34	1.35	1.35	1.36	1.36	1.37	1.26	1.36	1.35	1.37	
EUR/USD	1.23	1.17	1.16	1.15	1.12	1.10	1.12	1.14	1.15	1.17	1.18	1.18	1.20	1.15	1.14	1.18	
USD/JPY	106.3	110.8	113.7	109.7	110.9	113.0	117.0	120.0	119.0	118.0	117.0	116.0	112.7	109.7	120.0	116.0	
USD/CNY	6.28	6.62	6.87	6.88	6.71	7.00	7.25	7.40	7.50	7.50	7.60	7.70	6.51	6.88	7.40	7.70	
USD/CHF	0.95	0.99	0.98	0.98	1.00	1.02	1.01	0.99	0.99	0.98	0.98	0.98	0.97	0.98	0.99	0.98	
GBP/USD	1.40	1.32	1.30	1.28	1.30	1.26	1.27	1.30	1.31	1.33	1.34	1.34	1.35	1.28	1.30	1.34	

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GLOBAL ECONOMICS
| SCOTIABANK'S FORECAST TABLES

June 7, 2019

International	2000-17	2017	2018	2019f	2020f	2000-17	2017	2018	2019f	2020f
	Real GDP (annual % change)					Consumer Prices (y/y % change, year-end)				
World (based on purchasing power parity)	3.9	3.8	3.7	3.1	3.2					
Canada	2.1	3.0	1.9	1.4	2.0	1.9	1.8	2.0	1.9	2.1
United States	2.0	2.2	2.9	2.4	1.5	2.2	2.1	2.2	1.8	2.2
Mexico	2.2	2.1	2.0	1.4	1.3	4.4	6.8	4.8	4.0	3.8
United Kingdom	1.9	1.8	1.4	1.1	1.2	2.1	3.0	2.1	1.9	2.0
Eurozone	1.4	2.4	1.9	1.1	1.5	1.8	1.3	1.5	1.2	1.5
Germany	1.4	2.2	1.4	0.9	1.4	1.5	1.4	1.6	1.5	1.6
France	1.4	2.3	1.7	1.3	1.4	1.4	1.2	1.6	1.3	1.5
China	9.3	6.8	6.6	6.2	6.0	2.3	1.8	1.8	2.2	2.3
India	7.1	6.9	7.4	6.5	7.0	6.8	5.2	2.1	4.3	4.8
Japan	0.9	1.9	0.8	0.8	0.7	0.1	1.1	0.3	1.9	1.0
South Korea	4.1	3.1	2.7	2.4	2.8	2.5	1.4	1.3	1.3	1.6
Australia	2.9	2.4	2.8	2.3	2.6	2.7	1.9	1.8	1.7	2.0
Thailand	4.1	4.0	4.1	3.5	3.5	1.9	0.8	0.4	1.5	1.6
Brazil	2.5	1.1	1.1	0.9	1.8	6.5	3.0	3.8	4.9	4.6
Colombia	3.9	1.4	2.6	3.4	3.8	5.1	4.1	3.2	3.2	3.1
Peru	5.0	2.5	4.0	4.0	4.0	2.7	1.4	2.2	2.4	2.5
Chile	3.9	1.5	4.0	3.2	3.2	3.3	2.3	2.6	2.8	3.0
Commodities										
	(annual average)									
WTI Oil (USD/bbl)	62	51	65	59	61					
Brent Oil (USD/bbl)	65	55	72	67	68					
WCS - WTI Discount* (USD/bbl)	-16	-13	-26	-15	-21					
Nymex Natural Gas (USD/mmbtu)	4.83	3.02	3.07	2.90	2.80					
Copper (USD/lb)	2.38	2.80	2.96	3.00	3.20					
Zinc (USD/lb)	0.84	1.31	1.33	1.25	1.20					
Nickel (USD/lb)	7.12	4.72	5.95	5.75	6.00					
Aluminium (USD/lb)	0.87	0.89	0.96	0.90	0.90					
Iron Ore (USD/tonne)	67	72	70	77	70					
Metallurgical Coal (USD/tonne)	131	187	206	185	160					
Gold, London PM Fix (USD/oz)	890	1,257	1,268	1,300	1,300					
Silver, London PM Fix (USD/oz)	14.80	17.05	15.71	16.00	17.00					
* 2008-16 average										
Sources Scotiabank Economics, Statistics Canada, BEA, BLS, IMF, Bloomberg										



Interest Rate Outlook												
	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2*	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Canada												
Overnight Target Rate	1.25	1.25	1.50	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
3-mth T-Bill Rate	1.10	1.26	1.59	1.64	1.67	1.66	1.65	1.65	1.65	1.65	1.65	1.65
2-yr Govt. Bond Yield	1.77	1.91	2.21	1.86	1.55	1.38	1.50	1.55	1.60	1.65	1.70	1.75
5-yr Govt. Bond Yield	1.96	2.06	2.33	1.88	1.52	1.33	1.50	1.55	1.65	1.70	1.75	1.80
10-yr Govt. Bond Yield	2.09	2.17	2.42	1.96	1.62	1.44	1.55	1.65	1.75	1.85	1.90	1.95
30-yr Govt. Bond Yield	2.23	2.20	2.42	2.18	1.89	1.70	1.80	1.90	2.00	2.10	2.15	2.20
10-yr-2-yr Govt Spread	0.32	0.26	0.21	0.10	0.07	0.05	0.05	0.10	0.15	0.20	0.20	0.20
U.S.												
Fed Funds Target Rate	1.75	2.00	2.25	2.50	2.50	2.50	2.25	2.00	2.00	2.00	2.00	2.00
3-mth T-Bill Rate	1.70	1.89	2.15	2.40	2.35	2.14	1.98	1.85	1.85	1.85	1.85	1.85
2-yr Govt. Bond Yield	2.27	2.52	2.81	2.48	2.27	1.84	1.95	2.00	2.05	2.10	2.15	2.20
5-yr Govt. Bond Yield	2.56	2.73	2.94	2.51	2.23	1.83	2.00	2.10	2.20	2.30	2.35	2.40
10-yr Govt. Bond Yield	2.74	2.85	3.05	2.69	2.41	2.08	2.20	2.30	2.40	2.45	2.50	2.55
30-yr Govt. Bond Yield	2.97	2.98	3.19	3.02	2.81	2.59	2.45	2.55	2.65	2.70	2.75	2.80
10-yr-2-yr Govt Spread	0.47	0.33	0.24	0.21	0.14	0.24	0.25	0.30	0.35	0.35	0.35	0.35
Canada-U.S. Spreads												
Can - U.S. T-Bill Spread	-0.60	-0.63	-0.56	-0.76	-0.68	-0.47	-0.33	-0.20	-0.20	-0.20	-0.20	-0.20
Can - U.S. 10-Year Bond Spread	-0.65	-0.68	-0.63	-0.73	-0.79	-0.65	-0.65	-0.65	-0.65	-0.60	-0.60	-0.60

F: Forecast by TD Bank Group as at June 2019. All forecasts are end-of-period.
Source: Bloomberg, Bank of Canada, Federal Reserve, TD Economics. * Spot rate as at June 14, 2019 with the exception of policy rates.

Foreign Exchange Outlook													
Currency	Exchange rate	2018				2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2*	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Exchange rate to U.S. dollar													
Euro	USD per EUR	1.23	1.17	1.16	1.15	1.12	1.12	1.14	1.15	1.16	1.17	1.18	1.19
UK pound	USD per GBP	1.40	1.32	1.31	1.28	1.30	1.26	1.29	1.30	1.31	1.32	1.33	1.34
Japanese yen	JPY per USD	106	111	113	110	111	109	107	106	105	104	104	103
Chinese renminbi	CNY per USD	6.27	6.62	6.87	6.88	6.71	6.93	6.90	6.90	6.90	6.90	6.90	6.90
Exchange rate to Canadian dollar													
U.S. dollar	USD per CAD	0.78	0.76	0.77	0.73	0.75	0.75	0.76	0.77	0.77	0.77	0.77	0.77
Euro	CAD per EUR	1.59	1.53	1.50	1.56	1.50	1.50	1.49	1.50	1.51	1.52	1.53	1.55
UK pound	CAD per GBP	1.81	1.73	1.69	1.74	1.74	1.69	1.69	1.69	1.70	1.72	1.73	1.74
Japanese yen	JPY per CAD	82.4	84.3	87.8	80.4	82.8	81.0	81.7	81.5	80.8	80.0	79.6	79.2
Chinese renminbi	CNY per CAD	4.87	5.04	5.32	5.04	5.03	5.16	5.26	5.31	5.31	5.31	5.31	5.31

F: Forecast by TD Bank Group as at June 2019. All forecasts are end-of-period.
Source: Bloomberg, Bank of Canada, Federal Reserve, TD Economics. * Spot rate as at June 14, 2019.

Commodity Price Outlook												
	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Crude Oil (WTI, \$US/bbl)	63	68	70	59	55	60	58	59	60	61	62	62
Natural Gas (\$US/MMBtu)	3.08	2.86	2.93	3.80	2.92	2.60	2.60	2.55	2.50	2.51	2.53	2.54
Gold (\$US/troy oz.)	1329	1306	1213	1229	1303	1290	1300	1325	1350	1375	1400	1425
Silver (US\$/troy oz.)	16.74	16.56	15.02	14.58	15.58	14.65	15.25	16.00	16.75	17.25	18.00	18.25
Copper (cents/lb)	316	312	277	280	282	284	279	279	297	297	311	311
Nickel (US\$/lb)	6.01	6.56	6.02	5.21	5.60	5.67	5.47	5.65	5.90	6.12	6.35	6.35
Aluminum (cents/lb)	98	102	93	89	84	83	84	86	90	93	98	98
Wheat (\$US/bu)	7.42	7.46	6.70	6.85	6.80	6.85	6.85	6.90	6.93	6.95	6.98	7.00

F: Forecast by TD Bank Group as at June 2019. All forecasts are period averages.
Source: Bloomberg, TD Economics, USDA (Haver).

C	D	TDBANK FORECAST JUNE 2019																													
		AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	
		04-2018	01-2019	02-2019	03-2019	04-2019	01-2020	02-2020	03-2020	04-2020	01-2021	02-2021	03-2021	04-2021	01-2022	02-2022	03-2022	04-2022	01-2023	02-2023	03-2023	04-2023	01-2024	02-2024	03-2024	04-2024	01-2025	02-2025	03-2025	04-2025	
FED@TD	Fed Funds Target Rate	2.50	2.50	2.50	2.50	2.00	2.00	2.00	2.00	2.25	2.25	2.25	2.25	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
US3M@TD	US 3-mth T-Bill Rate Yield	2.40	2.35	2.20	1.98	1.85	1.85	1.85	1.98	2.00	2.00	2.00	2.23	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	
US5Y@TD	US 5-yr Gov't Bond Yield	2.51	2.23	1.95	2.00	2.10	2.20	2.30	2.35	2.40	2.45	2.50	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	
US10Y@TD	US 10-yr Gov't Bond Yield	2.63	2.41	2.15	2.20	2.30	2.40	2.45	2.50	2.55	2.60	2.65	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	
CA3M@TD	CAN 3-mth T-Bill Rate For	1.64	1.67	1.65	1.65	1.65	1.65	1.65	1.70	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	
CAN5Y@TD	CAN 5-yr Gov't Bond Yield	1.88	1.88	1.52	1.40	1.50	1.55	1.65	1.70	1.75	1.80	1.85	1.90	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	
CAN10Y@TD	CAN 10-yr Gov't Bond Yield	1.96	1.62	1.50	1.55	1.65	1.75	1.85	1.95	2.00	2.05	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
CA30Y@TD	CAN 30-yr Gov't Bond Yield	2.18	1.89	1.75	1.80	1.90	2.00	2.10	2.15	2.20	2.25	2.30	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35
Yield@TD	Oil - West Texas Intermediate	53.08	54.83	60.00	58.00	59.00	60.00	61.00	62.00	62.31	62.62	62.93	63.25	63.57	63.88	64.20	64.52	64.85	65.17	65.50	65.82	66.15	66.48	66.82	67.15	67.49	67.82	68.16	68.50	68.85	
USD@A@TD	USD per CAD	0.733	0.749	0.758	0.763	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	0.769	
USD@GBP@TD	USD per GBP	1.276	1.303	1.280	1.290	1.300	1.310	1.320	1.330	1.340	1.350	1.360	1.370	1.380	1.390	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400
UK@TD	Unemployment Rate (%)	3.770	3.879	3.618	3.631	3.674	3.725	3.788	3.853	3.892	3.917	3.922	3.921	3.925	3.927	3.931	3.949	3.965	3.977	3.990	4.006	4.023	4.048	4.074	4.087	4.103	4.114	4.123	4.135	4.146	4.155

REFERENCE:

Appendix 3.8 Tables 2, 3, & 4; Tab 14 Attachment 5 Canadian Benchmark Interest Rate Forecast

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) With Centra’s Rebuttal evidence and the updated consensus interest rate forecast up to the end of June 2019, provide updates to Tables 2, 3, and 4. Please also add a column for the date of the forecast (vintage).
- b) Please provide a comparison table of the updated interest rate forecast in (a) with forecasts filed with appendix 3.8 and provide commentary on the impact of the changes in the forecast on finance expense for 2019/20 and for the IFF.
- c) Please extend Table 4 to include the years covered under the IFF.

RESPONSE:

- a) Please see Appendix 3.8 (Update) to this Application that contains the updated interest rate forecast to the end of June 2019.
- b) The table below compares MH’s key interest rates for the 2019/20 test year. Please see the response to PUB/Centra II-25a-b (Update) for the impact in the updated interest rate forecast on finance expense.

	2019/20 (Summer 2019)	2019/20 Approved Budget (Winter 2018)	2019/20 CGM18 (Summer 2018)
Cdn Short Term Interest Rate*	1.65%	2.20%	2.15%
Cdn Floating Debt Interest Rate*	2.50%	3.19%	3.17%
Cdn Fixed Debt Interest Rate - 20 Year Weighted Average Term to Maturity (WATM)*	2.70%	3.80%	3.90%

* Not including the 1% Provincial Guarantee Fee

- c) Please see the response to part a) above.

REFERENCE:

PUB/Centra I-45

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide an update to the schedule based on the updated interest rate forecast for both short and long term interest rates with the rebuttal evidence to be filed in August.

- b) File an table reflecting the updated interest rate forecasts and the assumed interest rate for debt to be issued during each year of the forecast and the weighted average interest rate in each of those years.

RESPONSE:

- a) The following table provides the forecast finance expense details for the budget year updated for the summer 2019 interest rate forecast and all actual long term debt activity up to July 24, 2019. All other forecast assumptions have remained unchanged.

CENTRA GAS MANITOBA INC.

**Finance Expense - Budget Scenario with Summer 2019 Rates
(\$000'S)**

	<u>2019/20 Forecast</u>
Interest on Long Term Debt/Advances	15,261
Provincial Guarantee Fee on Long Term Debt	3,899
Amortization of Debt Discounts	-
Interest on Short Term Debt	693
Provincial Guarantee Fee on Short Term Debt	213
Interest on Common Assets	1,220
Interest on Inventory	125
Interest Capitalized	(237)
Carrying Costs on Furnace Replacement Program	716
Other	<u>-</u>
Total Finance Expense	<u><u>21,890</u></u>

The following table provides the forecast finance expense details for a 9 year period for the CGM18 scenario based updated for the summer 2019 interest rate forecast and all actual long term debt activity to July 24, 2019. All other forecast assumptions have remained unchanged.

CENTRA GAS MANITOBA INC.
Finance Expense - CGM18 Scenario with Summer 2019 Rates
(\$000'S)

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Interest on Long Term Debt/Advances	15,961	16,826	18,060	17,940	18,971	19,692	19,317	20,842	21,306
Provincial Guarantee Fee on Long Term Debt	4,099	4,399	4,799	4,899	5,099	5,199	5,299	5,449	5,649
Amortization of Debt Discounts	-	-	-	-	-	-	-	-	-
Interest on Short Term Debt	747	732	667	1,072	883	895	1,591	980	938
Provincial Guarantee Fee on Short Term Debt	240	249	206	261	207	255	300	286	208
Interest on Common Assets	1,220	1,000	1,050	1,104	1,160	1,211	1,263	1,317	1,371
Interest on Inventory	125	128	130	133	136	138	141	144	146
Interest Capitalized	(237)	(251)	(132)	(35)	(35)	(36)	(37)	(37)	(38)
Carrying Costs on Furnace Replacement Program	716	708	194	146	104	64	25	2	1
Other	-	-	-	-	-	-	-	-	-
Total Finance Expense	22,871	23,791	24,974	25,520	26,525	27,418	27,899	28,983	29,581
Year over year \$ change	920	4.0%	1,183	5.0%	546	2.2%	481	1.8%	598
Year over year % change									

- b) The following tables provide the updated interest rate forecast beginning in 2019/20, the assumed interest rate for debt to be issued during each forecast year and the forecasted weighted average interest rate of the portfolio for the budget year scenario with the summer 2019 interest rate forecast and all actual long term debt activity to July 24, 2019. All other forecast assumptions have remained unchanged.

BUDGET SCENARIO WITH SUMMER 2019 RATES

INTEREST RATE FORECAST

The rates on debt shown below do not include the 1.00% Provincial Guarantee Fee

	2019/20
CAN T-Bill Rate (Short Term Debt)	1.65%
CAN BA Rate	2.00%
New CAN Floating (BA + 0.50%)	2.50%
CAN Long Term Debt	2.70%

NEW LONG TERM DEBT ISSUED IN FISCAL YEAR

	Type	Issue Date	Maturity Date	Principal Value	Rate
2019/20					
New Long Term Debt Issue	Floating	3/31/2020	3/31/2040	\$20,000,000.00	2.50%
New Long Term Debt Issue	Fixed	3/31/2020	3/31/2040	\$20,000,000.00	2.70%

WEIGHTED AVERAGE INTEREST RATE OF DEBT PORTFOLIO

	Weighted Average		
	Average Debt (millions)	Interest Rate (%)	Interest Expense (thousands)
2019/20			
Interest on Long Term Debt	\$391	3.90	15,261
Provincial Guarantee Fee - LTD			3,899
Interest on Short Term Debt	\$42	1.65	\$693
Provincial Guarantee Fee - STD			\$213
Total Debt, Interest & WAIR	\$433	4.63	\$20,066

The following tables provide the updated interest rate forecast beginning in 2019/20, the assumed interest rate for debt to be issued during each forecast year and the forecasted weighted average interest rate of the portfolio for a 9 year period for the CGM18 scenario with the summer 2019 interest rate forecast and all actual long term debt activity to July 24, 2019. All other forecast assumptions have remained unchanged.

CGM18 SCENARIO WITH SUMMER 2019 RATES

INTEREST RATE FORECAST

The rates on debt shown below do not include the 1.00% Provincial Guarantee Fee

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26 & on
CAN T-Bill Rate (Short Term Debt)	1.65%	1.75%	1.85%	1.90%	2.00%	2.15%	2.20%
CAN BA Rate	2.00%	2.10%	2.20%	2.25%	2.35%	2.50%	2.55%
New CAN Floating (BA + 0.50%)	2.50%	2.60%	2.70%	2.75%	2.85%	3.00%	3.05%
CAN Long Term Debt	2.70%	3.05%	3.30%	3.35%	3.45%	3.35%	3.35%

NEW LONG TERM DEBT ISSUED IN FISCAL YEAR

	Type	Issue Date	Maturity Date	Principal Value	Rate
2019/20					
New Long Term Debt Issue	Floating	3/31/2020	3/31/2040	\$20,000,000.00	2.50%
New Long Term Debt Issue	Fixed	3/31/2020	3/31/2040	\$20,000,000.00	2.70%
2020/21					
New Long Term Debt Issue	Floating	3/31/2021	3/31/2041	\$10,000,000.00	2.60%
New Long Term Debt Issue	Fixed	3/31/2021	3/31/2041	\$30,000,000.00	3.05%
2021/22					
New Long Term Debt Issue	Fixed	3/31/2022	3/31/2042	\$10,000,000.00	3.30%
2022/23					
New Long Term Debt Issue	Floating	3/31/2023	3/31/2043	\$20,000,000.00	2.75%
New Long Term Debt Issue	Fixed	3/31/2023	3/31/2043	\$40,000,000.00	3.35%
2023/24					
New Long Term Debt Issue	Fixed	3/31/2024	3/31/2044	\$20,000,000.00	3.45%
2024/25					
New Long Term Debt Issue	Fixed	3/31/2025	3/31/2045	\$10,000,000.00	3.35%
2025/26					
New Long Term Debt Issue	Fixed	3/31/2026	3/31/2046	\$50,000,000.00	3.35%
2026/27					
New Long Term Debt Issue	Floating	3/31/2027	3/31/2047	\$10,000,000.00	3.05%
New Long Term Debt Issue	Fixed	3/31/2027	3/31/2047	\$10,000,000.00	3.35%
2027/28					
New Long Term Debt Issue	Floating	3/31/2028	3/31/2048	\$10,000,000.00	3.05%
New Long Term Debt Issue	Fixed	3/31/2028	3/31/2048	\$10,000,000.00	3.35%

WEIGHTED AVERAGE INTEREST RATE OF DEBT PORTFOLIO

	Average Debt (millions)	Weighted Average Interest Rate (%)	Interest Expense (thousands)
2019/20			
Interest on Long Term Debt	\$411	3.88	\$15,961
Provincial Guarantee Fee - LTD			\$4,099
Interest on Short Term Debt	\$45	1.65	\$747
Provincial Guarantee Fee - STD			\$240
Total Debt, Interest & WAIR	\$457	4.61	\$21,047
2020/21			
Interest on Long Term Debt	\$440	3.82	\$16,826
Provincial Guarantee Fee - LTD			\$4,399
Interest on Short Term Debt	\$42	1.75	\$732
Provincial Guarantee Fee - STD			\$249
Total Debt, Interest & WAIR	\$482	4.61	\$22,206
2021/22			
Interest on Long Term Debt	\$480	3.76	\$18,060
Provincial Guarantee Fee - LTD			\$4,799
Interest on Short Term Debt	\$36	1.85	\$667
Provincial Guarantee Fee - STD			\$206
Total Debt, Interest & WAIR	\$516	4.60	\$23,732
2022/23			
Interest on Long Term Debt	\$474	3.79	\$17,940
Provincial Guarantee Fee - LTD			\$4,899
Interest on Short Term Debt	\$56	1.90	\$1,072
Provincial Guarantee Fee - STD			\$261
Total Debt, Interest & WAIR	\$530	4.56	\$24,172
2023/24			
Interest on Long Term Debt	\$503	3.77	\$18,971
Provincial Guarantee Fee - LTD			\$5,099
Interest on Short Term Debt	\$44	2.00	\$883
Provincial Guarantee Fee - STD			\$207
Total Debt, Interest & WAIR	\$547	4.60	\$25,160
2024/25			
Interest on Long Term Debt	\$520	3.79	\$19,692
Provincial Guarantee Fee - LTD			\$5,199
Interest on Short Term Debt	\$42	2.15	\$895
Provincial Guarantee Fee - STD			\$255
Total Debt, Interest & WAIR	\$562	4.64	\$26,041
2025/26			
Interest on Long Term Debt	\$501	3.86	\$19,317
Provincial Guarantee Fee - LTD			\$5,299
Interest on Short Term Debt	\$72	2.20	\$1,591
Provincial Guarantee Fee - STD			\$300
Total Debt, Interest & WAIR	\$573	4.62	\$26,507
2026/27			
Interest on Long Term Debt	\$545	3.82	\$20,842
Provincial Guarantee Fee - LTD			\$5,449
Interest on Short Term Debt	\$45	2.20	\$980
Provincial Guarantee Fee - STD			\$286
Total Debt, Interest & WAIR	\$590	4.67	\$27,557
2027/28			
Interest on Long Term Debt	\$560	3.80	\$21,306
Provincial Guarantee Fee - LTD			\$5,649
Interest on Short Term Debt	\$43	2.20	\$938
Provincial Guarantee Fee - STD			\$208
Total Debt, Interest & WAIR	\$603	4.66	\$28,101

REFERENCE:

PUB/Centra I-49

QUESTION:

- a) Please restate 2018/19 to actual results and provide an update to the tables for each years in the 10 year forecast based on the August update.
- b) Please update the continuity of equity schedule consistent with (a).
- c) Please file a version of (a) & (b) maintaining the approved net income at \$3 million annually.

RESPONSE:

Response to a) and b):

The information provided in the following tables reflects the results of a CGM18 scenario incorporating the following:

- Summer 2019 interest rates (as provided in the response to PUB/CENTRA I-44a-c (Update)),
- Debt activity up to July 2019, and
- Additional funding of the FRP until October 31, 2019.

No other assumptions were changed.



**Centra Gas Manitoba Inc. 2019/20 General Rate Application
PUB/CENTRA II-28a-c (Update)**

CENTRA GAS MANITOBA INC.

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Capital Structure (000s)																
Long Term Debt	296 244	298 452	304 233	333 210	347 178	361 085	373 465	410 204	439 903	479 903	473 465	501 624	519 903	500 944	544 903	558 761
Short Term Debt	19 613	31 414	57 322	52 066	39 222	42 321	53 798	45 859	49 459	35 047	56 545	43 121	39 465	72 445	41 399	39 370
Equity (mid-year average)	159 455	173 257	188 256	186 915	188 140	193 460	198 450	201 532	205 989	213 149	221 528	230 111	238 833	248 176	258 028	267 801
Total Capitalization	475 312	503 122	549 811	572 192	574 540	596 865	625 713	657 594	695 351	728 100	751 538	774 857	798 200	821 565	844 330	865 932
Weighting																
Long Term Debt	62.3%	59.3%	55.3%	58.2%	60.4%	60.5%	59.7%	62.4%	63.3%	65.9%	63.0%	64.7%	65.1%	61.0%	64.5%	64.5%
Short Term Debt	4.1%	6.2%	10.4%	9.1%	6.8%	7.1%	8.6%	7.0%	7.1%	4.8%	7.5%	5.6%	4.9%	8.8%	4.9%	4.5%
Equity	33.5%	34.4%	34.2%	32.7%	32.7%	32.4%	31.7%	30.6%	29.6%	29.3%	29.5%	29.7%	29.9%	30.2%	30.6%	30.9%
Total Capitalization	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**CENTRA GAS EQUITY
in millions of dollars**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Opening Retained Earnings	34	42	62	66	65	69	76	79	82	88	96	104	113	122	132	142
Restatement (1)	-	-	(7)	-	-	-	-	-	-	-	-	-	-	-	-	-
Restated Opening Retained Earnings	34	42	55	66	65	69	76	79	82	88	96	104	113	122	132	142
Net Income	8	20	11	(1)	4	7	3	3	6	8	8	9	9	10	10	10
A Closing Retained Earnings	42	62	66	65	69	76	79	82	88	96	104	113	122	132	142	151
B Share Capital	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
A+B Total Equity	163	183	187	186	190	197	200	203	209	217	226	234	243	253	263	273

(1) Restatement of employee pensions and benefits of \$7M upon transition to IFRS

- c) The information provided in the following tables reflects the results of a CGM18 scenario incorporating the following:
- Summer 2019 interest rates (as provided in the response to PUB/CENTRA I-44a-c (Update)),
 - Debt activity up to July 2019,
 - Additional funding of the FRP until October 31, 2019, and
 - Rate increases to maintain a net income of \$3M per year.

No other assumptions were changed.



**Centra Gas Manitoba Inc. 2019/20 General Rate Application
PUB/CENTRA II-28a-c (Update)**

CENTRA GAS MANITOBA INC.

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Capital Structure (000s)																
Long Term Debt	296 244	298 452	304 233	333 210	347 178	361 085	373 465	410 204	439 903	479 903	483 465	511 624	539 903	530 944	584 903	588 761
Short Term Debt	19 613	31 414	57 322	52 066	39 222	42 321	53 798	45 832	50 907	40 681	57 563	49 721	41 785	71 112	36 920	51 660
Equity (mid-year average)	159 455	173 257	188 256	186 915	188 140	193 460	198 450	201 558	204 558	207 558	210 558	213 558	216 558	219 558	222 558	225 558
Total Capitalization	475 312	503 122	549 811	572 192	574 540	596 865	625 713	657 594	695 368	728 143	751 586	774 904	798 246	821 615	844 381	865 979
Weighting																
Long Term Debt	62.3%	59.3%	55.3%	58.2%	60.4%	60.5%	59.7%	62.4%	63.3%	65.9%	64.3%	66.0%	67.6%	64.6%	69.3%	68.0%
Short Term Debt	4.1%	6.2%	10.4%	9.1%	6.8%	7.1%	8.6%	7.0%	7.3%	5.6%	7.7%	6.4%	5.2%	8.7%	4.4%	6.0%
Equity	33.5%	34.4%	34.2%	32.7%	32.7%	32.4%	31.7%	30.7%	29.4%	28.5%	28.0%	27.6%	27.1%	26.7%	26.4%	26.0%
Total Capitalization	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**CENTRA GAS EQUITY
in millions of dollars**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Opening Retained Earnings	34	42	62	66	65	69	76	79	82	85	88	91	94	97	100	103
Restatement (1)	-	-	(7)	-	-	-	-	-	-	-	-	-	-	-	-	-
Restated Opening Retained Earnings	34	42	55	66	65	69	76	79	82	85	88	91	94	97	100	103
Net Income	8	20	11	(1)	4	7	3	3	3	3	3	3	3	3	3	3
A Closing Retained Earnings	42	62	66	65	69	76	79	82	85	88	91	94	97	100	103	106
B Share Capital	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
A+B Total Equity	163	183	187	186	190	197	200	203	206	209	212	215	218	221	224	227

(1) Restatement of employee pensions and benefits of \$7M upon transition to IFRS

REFERENCE:

PUB/Centra I-53

QUESTION:

Please update the schedule for weather normal basis to include forecast for 2018/19 and 2019/20 based on the August update.

RESPONSE:

The following schedule has been updated to include the 2018/19 and 2019/20 forecast based on the updated 2019/20 Approved Budget with 2019 Summer interest rates, as provided in the response to PUB/CENTRA I-44a-c (Update), and all debt activity up to July 2019.

Calculated Return on Equity - Weather Normalized Net Income **(\$000s)**

	CGAAP 2012/13 Actual	CGAAP 2013/14 Actual	CGAAP 2014/15 Actual	IFRS 2015/16 Actual	IFRS 2016/17 Actual	IFRS 2017/18 Actual	IFRS 2018/19 Forecast *	IFRS 2019/20 Forecast *
A Rate Base	477 906	486 677	509 823	529 035	559 303	601 750	622 556	645 623
B Equity Weighting	33.5%	34.4%	34.2%	32.7%	32.7%	32.4%	32.4%	31.8%
C Weather Normalized Net Income	3 738	5 314	9 379	9 255	12 755	6 205	2 652	3 636
D Corporate Allocation	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000
E = (C+D) Total Return on Equity	15 738	17 314	21 379	21 255	24 755	18 205	14 652	15 636
F=E/A/B Actual ROE	9.8%	10.3%	12.2%	12.3%	13.5%	9.3%	7.3%	7.6%

* Based on the Current Outlook and Approved budget with Summer 2019 interest rate forecast

REFERENCE:

PUB/Centra I-58

QUESTION:

Please update the table including 2018/19 actual results and 2019/20 forecast based on the update filed with rebuttal evidence and provide a narrative description of the results.

RESPONSE:

The following table has been updated to include the 2018/19 and 2019/20 forecast based on the updated 2019/20 Approved Budget with 2019 Summer interest rates, as provided in the response to PUB/CENTRA I-44a-c (Update), and all debt activity up to July 2019.

Centra is not in a position to publicly release its financial results for 2018/19 until they have been tabled with the Legislative Assembly and released publicly by the Province.

Net Earnings and Return on Equity

in millions of dollars

Year	Weather			Actual Return on Equity	Weather		Equity Weighting %	Calculated	Calculated
	Actual Net Earnings	Normalized Net Earnings	Corporate Allocation		Norm. Return on Equity	Rate Base		ROE % Actual NI	ROE % Weather Norm. NI
	A	B	C	D = A+C	E = B+C	F	G	H=D/F/G	I=E/F/G
2002/03	(\$2.0)	(\$6.7)	\$12.0	\$10.0	\$5.3	\$329.5	35.4%	8.6%	4.5%
2003/04	(7.9)	(6.8)	12.0	4.1	5.2	359.8	34.3%	3.3%	4.2%
2004/05	(1.6)	(4.2)	12.0	10.4	7.8	377.7	35.4%	7.8%	5.8%
2005/06	(5.4)	2.2	12.0	6.6	14.2	414.5	32.0%	5.0%	10.7%
2006/07	1.1	2.2	12.0	13.1	14.2	431.6	30.0%	10.1%	10.9%
2007/08	5.9	1.0	12.0	17.9	13.0	430.8	30.1%	13.8%	10.0%
2008/09	8.6	1.4	12.0	20.6	13.4	462.0	30.9%	14.4%	9.4%
2009/10	(1.0)	1.9	12.0	11.0	13.9	437.7	31.8%	7.9%	10.0%
2010/11	6.6	6.6	12.0	18.6	18.6	451.5	33.1%	12.5%	12.4%
2011/12	(5.8)	7.2	12.0	6.2	19.2	464.9	33.5%	4.0%	12.3%
2012/13	7.8	3.7	12.0	19.8	15.7	477.9	33.5%	12.4%	9.8%
2013/14	19.8	5.3	12.0	31.8	17.3	486.7	34.4%	19.0%	10.3%
2014/15	11.0	10.2	12.0	23.0	22.2	509.8	34.2%	13.2%	12.7%
2015/16	(1.4)	9.3	12.0	10.6	21.3	529.0	32.7%	6.1%	12.3%
2016/17	3.9	12.8	12.0	15.9	24.8	559.3	32.7%	8.7%	13.5%
2017/18	6.8	6.2	12.0	18.8	18.2	601.7	32.4%	9.6%	9.3%
2018/19*	4.4	2.7	12.0	16.4	14.7	622.6	32.4%	8.1%	7.3%
2019/20*	3.6	3.6	12.0	15.6	15.6	645.6	31.8%	7.6%	7.6%

Average Actual/Forecasted Earnings 2003-2020	\$3.0
Average Weather Norm. Earnings 2003-2020	\$3.2
Average ROE 2003-2020 - Actual/Forecasted NI	9.56%
Average ROE 2003-2020 - Weather Norm. NI	9.62%

Colder than average
Warmer than average

*Forecast based on CGM Approved Budget updated with 2019 Summer Interest Rates

The average actual and forecasted earnings between 2003-2020 is \$3M and the average actual and forecasted weather normalized earnings between 2003-2020 is \$3.2M. The average calculated ROE based on actual and forecasted results between 2003-2020 is 9.56% and the average calculated ROE based on weather normalized earnings between 2003-2020 is 9.62%.