



Before the North Dakota Public Service Commission
State of North Dakota

In the Matter of the Application of Otter Tail Power Company
For Authority to Increase Rates for Electric Utility
Service in North Dakota

Case No. PU-17-398
OAH File No. 20170622

Exhibit ___

**FINANCIAL SOUNDNESS, CAPITAL STRUCTURE
AND COST OF CAPITAL**

Supplemental Direct Testimony and Schedules of

Kevin G. Moug

March 23, 2018

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ATTACHED SCHEDULES

- Updated Schedule 2 – Updated Proposed Cost of Capital for 2018 Test Year
- Updated Schedule 5 – Updated Levels and Cost of Long-Term Debt for 2018 Test Year
- Updated Schedule 6 – Updated Levels and Cost of Short-Term Debt for 2018 Test Year
- Updated Schedule 7 – Updated Common Equity for 2018 Test Year

1 **I. INTRODUCTION**

2 Q. PLEASE STATE YOUR NAME AND OCCUPATION.

3 A. My name is Kevin G. Moug. I am the Chief Financial Officer and Senior Vice
4 President of Otter Tail Corporation and the Treasurer for Otter Tail Power Company
5 (OTP or Company). OTP is a wholly owned subsidiary of Otter Tail Corporation.
6

7 Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS PROCEEDING?

8 A. Yes. I filed Direct Testimony on behalf of OTP addressing the Company's 2018 Test
9 Year capital structure and costs of Long-Term Debt (LTD), Short-Term Debt (STD), and
10 the overall Rate of Return (ROR) for the 2018 Test Year.
11

12 Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

13 A. The purpose of my Supplemental Testimony is: (1) to update the cost of long-term
14 debt (LTD) for a \$100 Million LTD issuance completed in February 2018 (2) to
15 update the costs of short-term debt (STD); (3) to identify the effects on the OTP
16 capital structure that are anticipated as a result of the Tax Cuts and Jobs Act of 2017
17 ("TCJA"); and (4) to reflect these factors in an update of OTP's overall rate of return.

18 **II. UPDATE FOR LTD ISSUANCE AND STD INTEREST RATES**

19 Q. DID YOU RECOGNIZE IN YOUR DIRECT TESTIMONY THE NEED TO
20 UPDATE THE ESTIMATED INTEREST RATE ON THE \$100 MILLION LTD
21 ISSUANCE IN 2018?

22 A. Yes. On page 15 of my Direct Testimony I stated that: "When the actual interest rate
23 for the 2018 issuance is determined, we will inform the parties to this proceeding."
24

25 Q. WHAT IS THE IMPACT OF THE UPDATED INTEREST RATE FOR THE 2018
26 LTD ISSUANCE?

1 A. The actual interest rate on the 2018 \$100 Million LTD issuance was 4.07 percent
2 instead of the 4.50 percent estimated rate included in OTP's original filing. As a
3 result, OTP's average Long-Term Debt rate is reduced from the 5.43 percent level
4 reflected in OTP's initial filing to 5.35 percent. The issuance costs for the 2018
5 issuance are included in the overall average LTD balance. The 13 month average LTD
6 balance increased \$458,933. These changes are reflected in updated Ex. __ (KGM-2),
7 Updated Schedules 2 and 5 attached to this Supplemental Direct Testimony.

8

9 Q. HAS OTP UPDATED ITS ESTIMATE OF STD COSTS?

10 A. Yes. OTP estimates that the cost of STD in 2018 will be 3.84 percent instead of the
11 4.02 percent reflected in OTP's initial filing. This change is also reflected in the
12 updated Ex. __ (KGM-2), Updated Schedules 2 and 6 attached to this Supplemental
13 Direct Testimony

14 **III. EFFECTS OF TCJA**

15 Q. IS THE EXPECTED REDUCTION IN OTP'S INCOME TAX EXPENSES AND
16 RATES (RESULTING FROM THE TCJA) ALSO EXPECTED TO HAVE AN
17 EFFECT ON OTP'S STD LEVELS AND EQUITY LEVELS IN 2018?

18 A. Yes. OTP witness Mr. Tyler A. Akerman explains the expected effect of the TCJA on
19 OTP's income tax expense and rate base, and the expected levels of cash available
20 from OTP's electric utility operations. The reduction in expected cash available from
21 OTP's electric utility operations will increase the cash that must be made available
22 from other sources. These other sources include an increased level of STD borrowing
23 in 2018 along with a corresponding increase in the level of OTP equity¹, which is
24 needed to maintain OTP's debt equity ratios.

¹ OTP received a \$10 million contribution of equity in February of 2018 from Otter Tail Corporation which will be included in the 52.5 percent average equity ratio for 2018.

1 Q. HAS OTP UPDATED ITS ESTIMATED STD LEVELS FOR 2018?
2 A. Yes. The average STD level for 2018 has increased by approximately \$1.63 Million,
3 from \$15.98 Million reflected in OTP's initial filing to \$17.61 Million reflected in Ex.
4 __ (KGM-2), Updated Schedules 2 and 6.

5
6 Q. HAS OTP UPDATED ITS ESTIMATED EQUITY LEVELS FOR 2018?
7 A. Yes. The average equity level for 2018 has increased by approximately \$2.28 Million,
8 from \$562.25 Million reflected in OTP's initial filing to \$564.53 Million reflected in
9 Ex. __ (KGM-2), Updated Schedules 2 and 7.

10
11 Q. DO THESE EXPECTED RESULTS OF THE TCJA AFFECT THE
12 REASONABLENESS OF OTP'S CAPITAL STRUCTURE AND EQUITY RATIO?
13 A. Yes. As explained in OTP witness Mr. Robert B. Hevert's Supplemental Direct
14 Testimony, a reduction in OTP's expenses and rates to reflect OTP's reduced federal
15 income tax is the type of result the rating agencies have characterized as a credit
16 negative event which has an effect on both the cost of equity and reasonableness of the
17 capital structure.

18
19 Q. IS OTP PROPOSING AN INCREASE IN ITS EQUITY RATIO AS A RESULT OF
20 THE EFFECTS OF THE TCJA?
21 A. No. OTP does believe, however, that federal income tax reform provides further
22 substantial support for the reasonableness of OTP's proposed 52.5 percent equity ratio.

23
24 Q. HAS OTP PREPARED A SUMMARY OF THESE EFFECTS ON OTP'S CAPITAL
25 STRUCTURE, COSTS OF LTD AND STD, AND ROR?
26 A. Yes. Ex. __ (KGM-2), Updated Schedule 2 and Table 1 below reflect all of these
27 effects which collectively have reduced OTP's proposed ROR from 7.97 percent
28 reflected in OTP's initial filing to 7.92 percent as shown in Table 1 below:

1
2
3

Table 1
Updated Recommended 2018 Test Year Capital Structure and ROR

Component	Percentage	Cost	Weighted Cost
Long-Term Debt	45.86%	5.35%	2.45%
Short-Term Debt	1.64%	3.84%	0.06%
Common Equity	52.50%	10.30%	5.41%
Total	100.0%		7.92%

4

5 **IV. CONCLUSION**

6 Q. CAN YOU PLEASE SUMMARIZE YOUR CONCLUSIONS?

7 A. Yes. I recommend the Commission approve a capital structure for the 2018 Test Year
8 including 52.5 percent equity, a 10.30 percent ROE, and an ROR of 7.92 percent.

9

10 Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL DIRECT TESTIMONY?

11 A. Yes, it does.

PROPOSED COST OF CAPITAL FOR 2018 TEST YEAR

Line No.	(A) Capitalization	(B) Amount	(C) Percent of Total	(D) Cost of Capital	(E) Weighted Cost of Capital
1	Short term debt	\$17,612,301	1.64%	3.84%	0.06%
2	Long term debt	493,131,053	45.86%	5.35%	2.45%
3	Total debt	<u>\$510,743,354</u>	<u>47.50%</u>	5.29%	<u>2.51%</u>
4	Common equity	\$564,530,097	52.50%	10.30%	5.41%
5	Total Capitalization	<u><u>\$1,075,273,451</u></u>	<u><u>100.00%</u></u>		<u><u>7.92%</u></u>

COMPOSITE COST OF LONG-TERM DEBT FOR 2018 TEST YEAR

Line No.	DESCRIPTION	Interest Rate	PRINCIPAL AMOUNTS OUTSTANDING												Total	Interest Cost	
			Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18			Dec-18
Debtentures																	
1	4.630% Series for 2021	4.630%	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$140,000,000	\$6,482,000
2	6.150% Unsecured Series B 2022 Senior Notes	6.150%	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	1,845,000
3	6.370% Unsecured Series C 2027 Senior Notes	6.370%	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	2,675,400
4	6.470% Series D 2037 Unsecured Senior Notes	6.470%	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	3,235,000
5	4.070% Series A 2048 Unsecured Senior Notes	4.070%	0	0	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	84,815,385
6	Total Debtentures		\$262,000,000	\$262,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$362,000,000	\$17,968,233
Series Bonds																	
8	4.680% 2029 Series	4.680%	\$60,000,000	\$60,000,000	\$60,000,000	\$60,000,000	\$60,000,000	\$60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	2,808,000
9	5.470% 2044 Series	5.470%	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	4,923,000
10	Total Series Bonds		\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$150,000,000	\$7,731,000
11																	
12	Subtotal Bond Balances		\$412,000,000	\$412,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$512,000,000	\$496,615,385
13																	
14	Loss/Gain on Reacquired Debt		(3,434,337)	(3,380,088)	(3,775,839)	(3,720,342)	(3,664,845)	(3,609,348)	(3,553,851)	(3,498,354)	(3,442,856)	(3,387,359)	(3,331,862)	(3,276,365)	(3,220,868)	(3,164,332)	663,469
15	Total Long-Term Debt Capital		\$408,565,663	\$408,619,912	\$508,224,161	\$508,279,658	\$508,336,156	\$508,390,652	\$508,446,149	\$508,501,646	\$508,557,144	\$508,612,641	\$508,668,138	\$508,723,635	\$508,779,132	\$493,131,063	\$26,362,702

WEIGHTED COST OF LONG-TERM DEBT 5.38%

Short-term Debt

Line No.	Month	Month end balances	Cost of Short-Term Debt		
			Monthly Interest Expense	Monthly Fee Expense	Average Short- Term Debt Cost
1	2017 Dec	98,969,135			
2	2018 Jan	97,010,872	230,928	11,271	
3	2018 Feb	583,647	232,826	11,272	
4	2018 Mar	3,264,474	1,381	11,681	
5	2018 Apr		7,835	12,912	
6	2018 May			12,788	
7	2018 Jun	5,123,814		12,949	
8	2018 Jul	352,816	12,596	13,835	
9	2018 Aug	5,837,393	873	13,478	
10	2018 Sep	7,490,091	14,739	7,026	
11	2018 Oct	388,685	19,474	32,564	
12	2018 Nov	562,884	1,030	6,735	
13	2018 Dec	9,376,107	1,492	8,184	
14	Average	\$17,612,301			
15	Total \$ Cost		\$523,175	\$154,695	\$677,870
16	Total % Cost		2.97%	0.88%	3.840%

COMMON EQUITY FOR 2018 TEST YEAR

Line No.		Month-end Balances		
		CONTRIBUTED CAPITAL	RETAINED EARNINGS	TOTAL COMMON EQUITY
1	December 2017	376,989,466	181,481,172	558,470,638
2	January	376,989,466	188,369,375	565,358,841
3	February	376,989,466	192,973,923	569,963,389
4	March	376,989,466	185,747,475	562,736,941
5	April	376,989,466	188,455,701	565,445,167
6	May	376,989,466	190,532,205	567,521,671
7	June	376,989,466	181,933,876	558,923,342
8	July	376,989,466	187,724,505	564,713,971
9	August	376,989,466	193,221,795	570,211,261
10	September	376,989,466	185,100,243	562,089,709
11	October	376,989,466	185,987,486	562,976,952
12	November	376,989,466	191,284,235	568,273,701
13	December	376,989,466	185,216,211	562,205,677
14	Average Common Equity			<u>\$564,530,097</u>