

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-

Exhibit \_\_\_\_

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

Direct Testimony and Schedules of

**Kevin G. Moug**

November 2, 2017

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## ATTACHED SCHEDULES

- Schedule 1 – Qualifications, Duties and Responsibilities of Kevin G. Moug
- Schedule 2 – Proposed Cost of Capital for 2018 Test Year
- Schedule 3 – Effect of One-Notch Change in Credit Rating
- Schedule 4 – Moody's Rating Factors for OTP from October 7, 2015 Credit Opinion for OTP
- Schedule 5 – Levels and Cost of Long-Term Debt for 2018 Test Year
- Schedule 6 – Levels and Cost of Short-Term Debt for 2018 Test Year
- Schedule 7 – Common Equity for 2018 Test Year
- Schedule 8 – Public and Non-Public Issuances of Common Equity by Otter Tail Corporation

1 **I. INTRODUCTION AND QUALIFICATIONS**

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 President  
4 of Otter Tail Corporation and the Treasurer for Otter Tail Power Company (OTP). OTP  
5 is a wholly owned subsidiary of Otter Tail Corporation.

6

7 Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

8 A. I have been Senior Vice President and Chief Financial Officer of Otter Tail Corporation  
9 since 2001. A copy of my resume is included as Exhibit \_\_\_ (KGM-1), Schedule 1.

10 **II. PURPOSE AND OVERVIEW OF DIRECT TESTIMONY**

11 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

12 A. The purpose of my Direct Testimony is to demonstrate the reasonableness of OTP's  
13 2018 Test Year capital structure and costs of Long-Term Debt (LTD), Short-Term Debt  
14 (STD), and the overall Rate of Return (ROR) for the 2018 Test Year. I will discuss the  
15 financial impacts and scope of OTP's recent capital expenditures and OTP's estimated  
16 future capital expenditures. I will also discuss the importance of the decisions in this  
17 proceeding, including a reasonable Return on Equity (ROE) to: (1) OTP strong credit  
18 ratings; (2) the long-term cost of completing OTP's capital expenditures plans; and (3)  
19 OTP's ability to attract capital and provide service at a fair and reasonable cost.

20

21 Q. PLEASE PROVIDE A BRIEF OVERVIEW OF YOUR DIRECT TESTIMONY.

22 A. OTP's 2018 Test Year capital structure, costs of OTP's LTD, STD and OTP's ROR are  
23 reasonable and should be adopted for determining OTP's rates. OTP has been engaged  
24 in an extensive capital expenditure program, involving capital expenditures of  
25 approximately \$687 million from 2012 through 2016.<sup>1</sup> OTP required external sources

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<sup>1</sup> Otter Tail Corporation Form 10-K for year ended December 31, 2014, p 50 and Otter Tail Corporation Form 10-K for year ended December 31, 2016, p 49.

1 of debt and equity capital to fund those investments, in addition to substantial amounts  
 2 of internally generated equity. OTP's extensive capital expenditures plan is expected  
 3 to continue from 2017 through 2021 with an additional approximately \$862 million of  
 4 further capital expenditures by OTP.<sup>2</sup> Completion of OTP's capital expenditures plan  
 5 will also require external sources of equity and debt capital in addition to internally  
 6 generated equity.

7 The Commission's decisions in this proceeding, including the Commission's  
 8 decisions with respect to OTP's capital structure and ROE, may significantly affect  
 9 OTP's financial outlook and OTP's senior unsecured credit ratings. The credit ratings  
 10 in effect when OTP places LTD to help finance the rest of its capital expenditures plan  
 11 will affect OTP's cost of service for 10 to 30 years. As a result, the Commission's  
 12 decisions in this proceeding may affect OTP's cost of service for a 10 to 30 year period.

13 OTP recommends an overall ROR of 7.97 percent. This ROR is based on the  
 14 capital components and related costs summarized in Table 1 below and shown on  
 15 attached Exhibit \_\_ (KMG-1), Schedule 2:

16  
 17 **Table 1**  
 18 **Recommended 2018 Test Year Capital Structure and ROR**  
 19

Component	Percentage	Cost	Weighted Cost
Long-Term Debt	46.01%	5.43%	2.50%
Short-Term Debt	1.49%	4.02%	0.06%
Common Equity	52.50%	10.30%	5.41%
Total	100.0%		7.97%

20  
 21 The proposed 7.97 percent ROR is 64 basis points lower than the 8.61 percent  
 22 ROR approved by the Commission for OTP's 2007 Test Year in OTP's last North  
 23 Dakota general rate case, Case No. PU-08-862. The proposed 10.30 percent ROE is 45  
 24 basis points lower than the 10.75 percent ROE approved by the Commission for OTP's  
 25 2007 Test Year in OTP's last North Dakota general rate case.  
 26

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<sup>2</sup> Otter Tail Corporation Form 10-K for year ended December 31, 2016, p 49.

1 Q. HOW IS THE BALANCE OF YOUR DIRECT TESTIMONY ORGANIZED?

2 A. Section III provides a brief description of the financial characteristics of OTP and Otter  
3 Tail Corporation. Section IV compares the equity ratio in OTP's proposed capital  
4 structure to the equity ratios of other utilities, including equity ratios recently approved  
5 by the Commission, and explains that OTP's capital structure is an actual capital  
6 structure recognized and relied on by lenders and investors. Section V describes our  
7 historic and planned financing and capital expenditures and credit ratings and explains  
8 the importance of OTP's regulatory environment and investor perceptions to our long  
9 term capital costs, and the impacts on our capital expenditures plans and costs. Section  
10 VI explains OTP's credit ratings and their effect on the costs of borrowing. Section VII  
11 explains the effects of business and financial risks on OTP's credit ratings. Section VIII  
12 provides a detailed description of the components of OTP's capital structure and costs  
13 of LTD and STD for the 2018 Test Year. Section IX includes my conclusions and  
14 recommendations.

15

16 Q. HAS OTP ALSO PROVIDED SUPPLEMENTAL COST OF CAPITAL  
17 INFORMATION?

18 A. Yes. Information is included in the Supporting Information in Volume 3, Rate of  
19 Return/Cost of Capital Schedules Tab, Schedules D-1 through D-4.

20 **III DESCRIPTION OF OTP AND OTTER TAIL CORPORATION**

21 Q. PLEASE PROVIDE A SUMMARY DESCRIPTION OF OTP.

22 A. OTP is a wholly owned subsidiary of Otter Tail Corporation and is a separate legal  
23 entity from Otter Tail Corporation. OTP issues its own LTD and has its own credit  
24 facility with banks that provide OTP's short-term borrowing. Otter Tail Corporation  
25 owns all of OTP's outstanding common stock. There are no loans outstanding between  
26 OTP and Otter Tail Corporation. Otter Tail Corporation is publicly held and traded on  
27 the NASDAQ. OTP is Otter Tail Corporation's only utility operating company.

28

1 Q. HAS OTP ALWAYS BEEN A SEPARATE LEGAL ENTITY?

2 A. No. As I explained in my Direct Testimony in OTP's last North Dakota rate case, the  
3 implementation of a holding company structure (with Otter Tail Corporation as the  
4 holding company and OTP as a subsidiary) had not been completed at the time of the  
5 filing of OTP's last North Dakota rate case. The holding company structure was  
6 implemented as of July 1, 2009, at which time OTP became a separate legal entity and  
7 subsidiary of Otter Tail Corporation.

8

9 Q. HOW DO OTTER TAIL CORPORATION AND OTP COMPARE IN SIZE TO  
10 OTHER ELECTRIC UTILITIES?

11 A. Otter Tail Corporation is the second smallest publicly traded investor owned utility in  
12 the United States,<sup>3</sup> and it is much smaller than the average of publicly traded investor  
13 owned utilities. Otter Tail Corporation's total market capitalization is \$1.7 billion<sup>4</sup>  
14 while the average total market capitalization of publicly traded investor owned utilities  
15 is \$15.0 billion.<sup>5</sup> Otter Tail Corporation is also much smaller than the other publicly  
16 traded investor owned utilities doing business in North Dakota, with MDU having a  
17 market capitalization of \$5.1 billion<sup>6</sup> and Xcel Energy having a market capitalization of  
18 \$24.1 billion.<sup>7</sup>

19

20 Q. HOW DOES OTTER TAIL CORPORATION'S COMMON STOCK OWNERSHIP  
21 PROFILE COMPARE TO OTHER ELECTRIC UTILITIES?

22 A. Otter Tail Corporation has a far lower level of institutional ownership of its common  
23 stock. As explained by OTP witness Mr. Robert B. Hevert, Otter Tail Corporation has  
24 51.94 percent institutional ownership while the average institutional ownership of the

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<sup>3</sup>[http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Documents/QFU\\_Stock/2017\\_Q1\\_Stock\\_Performance.xlsx](http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Documents/QFU_Stock/2017_Q1_Stock_Performance.xlsx).

<sup>4</sup> <http://www.nasdaq.com/symbol/ottr> 9-28-17.

<sup>5</sup> EEI 2016 Financial Review Page 75, total industry \$659,845 million divided by 44 utilities

[http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/finreview/Documents/FinancialReview\\_2016.pdf](http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/finreview/Documents/FinancialReview_2016.pdf).

<sup>6</sup> <http://www.nasdaq.com/symbol/mdu> 9-28-17.

<sup>7</sup> <http://www.nasdaq.com/symbol/xel> 9-28-17.

1 electric utilities in Mr. Hevert's comparable group is approximately 86.89 percent, the  
2 institutional ownership of MDU is 66.23 percent, and the institutional ownership of Xcel  
3 Energy is 77.71 percent.  
4

5 Q. IS THE LOWER LEVEL OF INSTITUTIONAL OWNERSHIP SIGNIFICANT?

6 A. Yes. As Mr. Hevert will further explain, institutional investors are an important and  
7 efficient source of equity capital. Otter Tail Corporation's significantly lower level of  
8 institutional ownership is related its high level of retail ownership and the impact that  
9 has on its average daily trading volume of approximately 100,000 shares a day. This  
10 creates a challenge for an institutional investor's ability to acquire or sell the large  
11 blocks of stock that are typically held by an institutional investor. This low level of  
12 liquidity in Otter Tail Corporation's common stock indicates there is a lower level of  
13 equity capital available (from institutional demand) to Otter Tail Corporation and OTP.  
14

15 Q. HOW DOES OTTER TAIL CORPORATION'S TRADING VOLUME COMPARE  
16 TO OTHER ELECTRIC UTILITIES?

17 A. Otter Tail Corporation also has a far lower daily trading volume than other utilities. The  
18 daily trading volume of Otter Tail Corporation shares is far below the average daily  
19 trading volume of Mr. Evert's comparable group and the levels of MDU and Xcel  
20 Energy, as described in Mr. Hevert's Direct Testimony. This has an adverse effect on  
21 liquidity for owners of Otter Tail Corporation common stock and implications for OTP's  
22 cost of equity, as Mr. Hevert also explains in his Direct Testimony.

#### 23 **IV. OTP EQUITY RATIO AND CAPITAL STRUCTURE**

24 Q. PLEASE SUMMARIZE THE CHARACTERISTICS OF OTP'S EQUITY RATIO  
25 AND CAPITAL STRUCTURE.

26 A. OTP's equity ratio and capital structure are comparable to other utilities in Mr. Hevert's  
27 comparable group. OTP's capital structure is an actual, not hypothetical, capital  
28 structure that is very significant to rating agencies and investors. OTP's capital structure  
29 provides significant benefits to customers.

1 Q. HOW DOES OTP'S PROPOSED 52.5 PERCENT EQUITY RATIO COMPARE TO  
2 EQUITY RATIOS OF MR. HEVERT'S COMPARABLE GROUP COMPANIES?

3 A. As Mr. Hevert explains, OTP's equity ratio is well within the range of the equity ratios  
4 of companies in his comparable group. Mr. Hevert notes the mean equity ratio from the  
5 operating utilities in his comparable group is 52.16 percent, the median equity ratio is  
6 52.59 percent, and the range is from 44.59 percent to 59.14 percent. OTP's proposed  
7 52.5 percent equity ratio is well within that range and is within 34 basis points of the  
8 mean and 9 basis points below the median.  
9

10 Q. HOW DOES OTP'S PROPOSED EQUITY RATIO COMPARE TO EQUITY RATIOS  
11 RECENTLY APPROVED BY THE COMMISSION?

12 A. OTP's proposed 52.5 percent equity ratio is comparable to equity ratios recently  
13 approved by the Commission for other North Dakota electric utilities, including: (1) the  
14 52.56 percent equity ratio approved in Xcel Energy's 2012 rate case;<sup>8</sup> and (2) the 51.4  
15 percent common equity approved in MDU's 2016 rate case.<sup>9</sup>  
16

17 Q. WHY IS OTP'S CAPITAL STRUCTURE AN ACTUAL CAPITAL STRUCTURE?

18 A. OTP's capital structure is an actual capital structure as a result of OTP being a legally  
19 separate Minnesota corporation that is a wholly-owned subsidiary of Otter Tail  
20 Corporation. As a result of being a separate legal entity, OTP has a separate capital  
21 structure and a separate short-term credit facility, and issues separate LTD securities.  
22

23 Q. HOW DO LENDORS AND INVESTORS RECOGNIZE AND RELY ON OTP'S  
24 SEPARATE CAPITAL STRUCTURE?

25 A. Because OTP is a separate legal entity with a separate credit facility and separately  
26 issued LTD (in private placements to institutional investors): (1) banks and investors  
27 recognize the importance of OTP's separate capital structure; and (2) OTP's capital  
28 structure is subject to capital market scrutiny from those banks and institutional

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<sup>8</sup> Case No. PU-12-813.

<sup>9</sup> Case No. PU-16-666.

1 investors. OTP also has separate debt ratings from Moody's Investors Services  
2 (Moody's), Standard & Poor's (S&P) and Fitch Ratings (Fitch). As a result, Moody's,  
3 S&P and Fitch also scrutinize OTP and its capital structure.

4

5 Q. DO OTP'S CAPITAL STRUCTURE AND EQUITY RATIO PROVIDE CUSTOMER  
6 BENEFITS?

7 A. Yes. OTP's capital structure and equity ratio have contributed to OTP's ability to  
8 simultaneously finance its significant capital expenditures at reasonable costs,<sup>10</sup> and  
9 reduce its cost of LTD. We also expect that OTP's capital structure and equity ratio  
10 will also facilitate OTP's completion of its capital expenditures over the next 5 years.  
11 All of these result in benefits to OTP customers.

12

13 Q. HOW DOES OTP'S PROPOSED EQUITY RATIO COMPARE TO OTP'S PRIOR  
14 EQUITY RATIOS AND PROJECTED EQUITY RATIOS?

15 A. OTP's proposed 52.5 percent equity ratio is consistent with OTP's actual equity ratios  
16 over prior years and consistent with OTP's projected equity ratios of future years, as  
17 shown in Figure 1 below:

18

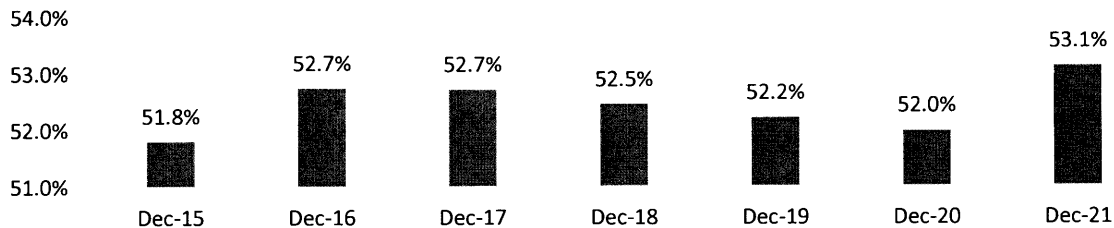
19

20

21

**Figure 1**  
**OTP Equity Ratios (2013-2021)**

**13 Month Average - Equity Ratio**  
**2015-2021**



22

23

<sup>10</sup> Otter Tail Corporation 2016 Form 10(K), p. 50.

1 OTP's projected actual equity ratios are somewhat higher than OTP's prior actual equity  
2 ratios.

3

4 Q. WHY ARE OTP'S PROJECTED EQUITY RATIOS SOMEWHAT HIGHER THAN  
5 ITS PRIOR ACTUAL EQUITY RATIOS?

6 A. OTP has been engaged in a substantial capital expenditures program that began in 2012  
7 and is projected to continue through 2017 – 2020 and beyond. OTP has determined it  
8 is prudent to strengthen its balance sheet in order to support its capital expenditures plan  
9 and help maintain strong senior unsecured credit ratings.

10 **V. OTP RECENT CAPITAL EXPENDITURES AND ONGOING**  
11 **CAPITAL EXPENDITURES PLANS**

12 Q. PLEASE SUMMARIZE OTP'S RECENT CAPITAL EXPENDITURES.

13 A. OTP's capital expenditures increased significantly in 2012 and have remained very  
14 substantial since then as shown on Table 2 below:

15  
16  
17  
18

**Table 2**  
**OTP Capital Expenditures 2012 – 2016**<sup>11</sup>

<b>Year</b>	<b>Capital Expenditure (\$ millions)</b>
2012	\$102
2013	\$150
2014	\$149
2015	\$136
2016	\$150
Total	\$687
Average	\$137

19

20 OTP witness Mr. Bruce Gerhardson provides further information regarding the various  
21 projects that were included in these capital expenditures.

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<sup>11</sup> Otter Tail Corporation Form 10-K for year ended December 31, 2014, p 50 and Otter Tail Corporation Form 10-K for year ended December 31, 2016, p 49.

1 Q. HOW DO THESE PRIOR EXPENDITURES COMPARE TO OTP'S NET PLANT IN  
2 SERVICE WHEN THEY BEGAN?

3 A. OTP's net electric plant in service as of December 31, 2011 was approximately \$922  
4 million.<sup>12</sup> OTP's \$687 million investment during 2012-2016 represented approximately  
5 75 percent of its net electric plant as of December 31, 2011.

6  
7 Q. HOW HAS OTP PROVIDED LONG-TERM FUNDING FOR ITS 2012-2016  
8 CAPITAL EXPENDITURES?

9 A. OTP provided long-term funding for its \$687 million of capital expenditures in 2012-  
10 2016 with a combination of approximately \$150 million of LTD issued by OTP,  
11 earnings retained by OTP, and equity infusions from Otter Tail Corporation. Earnings  
12 retained by OTP and equity infusions from Otter Tail Corporation increased OTP's  
13 equity balance from \$330 million at year end 2011 to \$562 million at year end 2016.

14  
15 Q. HAVE YOU COMPARED OTP'S NET REINVESTMENT LEVELS TO OTP'S NET  
16 INCOME LEVELS FOR 2012 THROUGH 2016?

17 A. Yes. From 2012-2016, almost 92 percent of OTP's net income has been reinvested,  
18 either as retained earnings or added infusions of equity from Otter Tail Corporation, as  
19 shown in Table 3 below:

20

---

<sup>12</sup> Otter Tail Corporation, 2011 Form 10-K, p. 115.

1  
2  
3

**Table 3**  
**Net Reinvestment of OTP Earnings**  
(\$ millions)

	OTP Net Income	Net Reinvestment (Retained Earnings + Otter Tail Corporation equity infusions)	Effective rate of reinvestment
2012	\$38.5	\$24.1	62.6%
2013	\$38.2	\$26.1	68.3%
2014	\$43.7	\$52.3	119.7%
2015	\$47.6	\$52.8	110.9%
2016	\$49.8	\$48.2	96.8%
Total	\$217.8	\$203.5	91.7%
Average	\$43.6	\$40.7	91.7%

4

5 Q. WERE THE LEVELS OF THESE NET REINVESTMENTS RELATED TO OTP'S  
6 CAPITAL EXPENDITURES DURING THE 2012-2016 TIME PERIOD?

7 A. Yes. These equity reinvestments provided needed funding for OTP's capital  
8 expenditures and were also needed essential to maintain a balance of debt and equity  
9 and a balanced capital structure for OTP.

10

11 Q. HAVE OTP'S CAPITAL EXPENDITURES AND RELATED FUNDING BEEN A  
12 SIGNIFICANT PART OF OTTER TAIL CORPORATION'S STRATEGY?

13 A. Yes. OTP is Otter Tail Corporation's largest business, and Otter Tail Corporation has  
14 focused on OTP as two platforms, electric and manufacturing. That focus on OTP has  
15 been successful, but \$862 million of planned capital expenditures for OTP remains for  
16 the five-year period of 2017-2021, as shown in Table 4 below:<sup>13</sup>

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<sup>13</sup> Otter Tail Corporation Form 10-K for year ended December 31, 2016, p 49.

1  
2  
3

**Table 4**  
**Projected OTP Capital Expenditures 2017 – 2021<sup>14</sup>**

<b>Year</b>	<b>Capital Expenditure (\$ millions)</b>
2017	\$135
2018	\$173
2019	\$346
2020	\$130
2021	\$78
<b>Total</b>	<b>\$862</b>
<b>Average</b>	<b>\$172</b>

4

5 Q. HOW DO THESE CAPITAL EXPENDITURES COMPARE TO OTHER UTILITIES?

6 A. As Mr. Hevert notes in his Direct Testimony, OTP’s planned capital expenditure level  
7 is within one percent of the highest company in his proxy group, as shown in Chart 1:

8

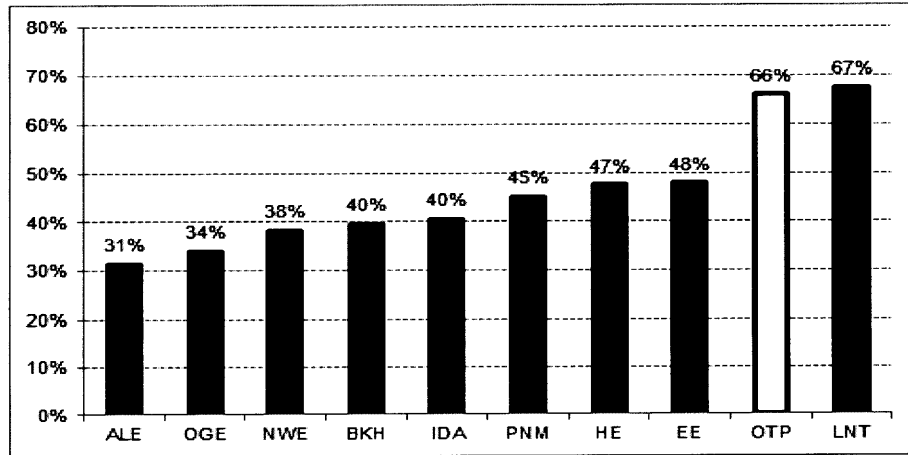
9

10

11

12

**Chart 1:**  
**Comparison of OTP and Hevert Comparable Group**  
**Planned Capital Expenditures**  
**(As a percentage of net plant)**



13

<sup>14</sup> Otter Tail Corporation Form 10-K for year ended December 31, 2014, p 50 and Otter Tail Corporation Form 10-K for year ended December 31, 2016, p 49.

1 As Mr. Hevert also notes, OTP's projected capital expenditures level is also higher than  
2 Northern States Power Company's (at 49 percent) and higher than MDU's (at 56  
3 percent).<sup>15</sup>  
4

5 Q. WILL THE ROE AND CAPITAL STRUCTURE AUTHORIZED IN THIS  
6 PROCEEDING HAVE AN EFFECT ON FINANCING OF OTP'S CAPITAL  
7 EXPENDITURE PLANS?

8 A. Yes. The ROE and capital structure authorized in this proceeding will have a substantial  
9 impact on OTP's financing of its capital expenditures plan in two important ways. First,  
10 the ROE and capital structure will have a direct impact on the level of OTP's authorized  
11 earnings. The level of authorized earnings will, in turn, directly impact OTP's ability  
12 to fund capital expenditures with internally generated retained earnings.

13 As I explained earlier in my Direct Testimony, OTP has reinvested almost 92  
14 percent of its earnings in the 2012-2016 period of its previous substantial capital  
15 expenditures. Previously authorized ROEs have had a significant effect on the  
16 availability of these internally generated retained earnings, which have been a  
17 significant source of funding for OTP's capital expenditures, and are expected to remain  
18 a significant source of funding for the remainder of OTP's capital expenditures plan.

19 Second, the authorized ROE and capital structure will have a significant effect  
20 on the perceptions of rating agencies and investors, which is likely to be heightened by  
21 the scale of the OTP capital expenditures plan. These perceptions could have a  
22 substantial impact on credit ratings and the availability and external debt and equity  
23 capital that will be needed to complete OTP's capital expenditures plans. Later in my  
24 Direct Testimony, I will also discuss plans for issuance of new LTD and external  
25 sources of equity in the 2017-2021 time period during which OTP will be completing  
26 its capital expenditures plan.

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<sup>15</sup> Hevert Direct Testimony, Section VI, *Capital Expenditures*.

1 **VI. OTP'S CREDIT RATINGS AND COST OF BORROWING**

2 Q. HOW DOES OTP ARRANGE ITS LTD FINANCING?

3 A. OTP raises the LTD needed for financing its operations, including its capital  
4 expenditures, through private placements with institutional investors rather than through  
5 public issuances of LTD. OTP uses private placements because the size of its debt  
6 offerings attract better interest in the private placement market from fixed income  
7 investors as well as not incurring the added costs of issuing public debt and having to  
8 incur an additional borrowing cost for a small size premium that would exist in the  
9 public debt market. OTP's private placements of LTD are for terms of 10 to 30 years.

10

11 Q. DOES OTP'S USE OF PRIVATE PLACEMENTS FOR LTD MAKE CREDIT  
12 RATINGS UNIMPORTANT TO OTP AND OTP'S CUSTOMERS?

13 A. No. Credit ratings remain very important to OTP and OTP customers because  
14 institutional investors use these ratings, along with their own analysis, in making  
15 decisions regarding whether to invest in OTP's LTD debt and the interest rate to require  
16 in order to make an investment in OTP's LTD.

17

18 Q. WHAT ARE OTP'S CURRENT CREDIT RATINGS?

19 A. OTP's current credit ratings are set out in Table 5 below:

20

21

22

23

**Table 5  
OTP Credit Ratings<sup>16</sup>**

	Moody's	Fitch	S&P
Corporate Credit/Long term issuer Default Rating	A3	BBB	BBB
Outlook	Stable	Stable	Positive

24

25

---

<sup>16</sup> Moody's August 9, 2017 Credit Opinion for OTP ("Moody's 2017"); Fitch, August 17, 2017 ("Fitch 2017"); S&P August 21, 2017 Ratings for OTP and Otter Tail Corporation ("S&P 2017").

1 The "Positive" outlook from S&P reflects a change in outlook from Stable on August  
2 21, 2017.<sup>17</sup>

3

4 Q. HAVE YOU ESTIMATED THE EFFECTS ON LTD INTEREST RATES OF A ONE-  
5 NOTCH CHANGE IN OTP'S CREDIT RATING?

6 A. Yes. Based on recent history, a one-notch change by Moody's (from OTP's current A3  
7 rating to Baa1) would lead to a 25 to 40 basis point change in interest rates, with an  
8 increase in the Credit Rating reducing interest rates and a decrease in the Credit Rating  
9 increasing interest rates. This change in interest rates would not apply to LTD that is  
10 now outstanding, but would apply to LTD that would be placed when the change in the  
11 Credit Rating became effective.

12

13 Q. WOULD A CREDIT RATING CHANGE ALSO HAVE AN EFFECT ON THE  
14 COSTS OF OTP'S SHORT TERM DEBT?

15 A. Yes. OTP's STD credit agreement contains a defined pricing grid. A one notch  
16 downgrade in OTP's credit ratings would result in higher short-term borrowing costs of  
17 25 basis points under the current credit agreement.

18

19 Q. DOES OTP PLAN TO ISSUE LTD DURING THE 2016-2021 TIME PERIOD IN  
20 ORDER TO COMPLETE ITS CAPITAL EXPENDITURE PLAN?

21 A. Yes. In order to maintain an appropriate balance of debt and equity as OTP completes  
22 its capital expenditure plan, OTP also plans to issue approximately \$300 million of LTD  
23 in the 2017-2021 timeframe. The planned LTD issuances by OTP are directly related  
24 to OTP's planned capital expenditures in 2017 through 2021. The current financing  
25 plan shows these expected debt issuances in Table 6 below:

26

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<sup>17</sup> S&P 2017, p. 1.

**Table 6**  
**OTP Expected LTD Issuances**  
(\$ millions)

Year	2017	2018	2019	2020	2021	Total
Expected debt issuances	\$0	\$100	\$100	\$0	\$100	\$300

When the actual interest rate for the 2018 issuance is determined, we will inform the parties to this proceeding.

Q. HAVE YOU ESTIMATED THE POTENTIAL EFFECTS ON OTP'S INTEREST EXPENSES IF THERE IS A RATING CHANGE?

A. Yes. Table 7 below summarizes the effects on OTP total interest expenses per \$200 million of LTD that may be issued if there is a one-notch downgrade and interest rates increase by 25 and 40 basis points, with that LTD outstanding from 10 years to 30 years. Those calculations are shown on Exhibit \_\_\_ (KGM-2), Schedule 3.

**Table 7**  
**Effect of 25 basis point interest rate increase on**  
**\$250 million issuance of LTD**

	<b>OTP Total</b> <b>@ 25 basis points</b>	<b>OTP Total</b> <b>@ 40 basis points</b>
Annual increase	\$625,000	\$1,000,000
Cumulative increase over 10 years	\$6,250,000	\$10,000,000
Cumulative increase over 20 years	\$12,500,000	\$20,000,000
Cumulative increase over 30 years	\$18,750,000	\$30,000,000

Q. WILL THE CHANGE IN THE COST OF THIS ADDITIONAL LTD AFFECT LONG TERM COSTS OF SERVICE?

A. Yes. The terms of the expected \$300 million in newly issued debt are expected to range from 10 to 30 years. As a result, these costs will remain part of the costs of service for a substantial period of time.

1 **VII. EFFECTS OF OTP'S BUSINESS AND FINANCIAL RISKS ON ITS**  
2 **CREDIT RATINGS**

3 Q. DO RATING AGENCIES CONSIDER BOTH BUSINESS RISKS AND FINANCIAL  
4 METRICS IN ESTABLISHING A UTILITY'S CREDIT RATINGS?

5 A. Yes. Credit rating agencies assess, and assign ratings to, both a utility's: (1) Business  
6 Risk; and (2) Financial Risk when making rating determinations. A utility's Financial  
7 Risk is based on credit metrics. Business Risk and Financial Risk are considered  
8 together when a credit rating agency determines a utility's credit rating and each  
9 category of risk affects the level of risk that the rating agency requires of the other  
10 category in order to maintain a given rating. For example, the required Financial Risk  
11 becomes more stringent (i.e. the credit metrics must be better) to maintain a given credit  
12 rating as the utility's Business Risk rating decreases (indicating higher level business  
13 risk).

14  
15 Q. WHAT ARE THE COMPONENTS THAT ARE CONSIDERED IN DETERMINING  
16 A UTILITY'S BUSINESS RISK?

17 A. A utility's business risk considers a number of factors, including: (1) the regulatory  
18 environment in which the utility provides service, including the timing and ability to  
19 recover of investment; (2) the risk of environmental and other changes that may affect  
20 the utility's costs and ability to provide service; (3) the size and diversity of a utility's  
21 customer base; and (4) the economic strength of the utility's service area. Because a  
22 utility's ability to set rates and recover its costs is so dependent on cost of service  
23 regulation, a utility's regulatory environment is a key element of its business risk rating.  
24 The scope of a utility's investments is also a very significant factor in assessing a  
25 utility's risk.

26  
27 Q. HAVE THE RATING AGENCIES ADDRESSED THE LARGE SCOPE OF OTP'S  
28 CAPITAL EXPENDITURES?

29 A. Yes. Moody's, Fitch, and S&P have each explicitly recognized the large scope of OTP's  
30 capital expenditure program. Moody's has noted "OTP's current five-year capital

1 investment program is approximately \$862 million.”<sup>18</sup> Fitch similarly noted the “Large  
2 capex program at OTP totaling \$862 million through 2021.”<sup>19</sup> S&P stated it could revise  
3 the outlook downward from positive to stable “if rising capital spending continues  
4 without adequate and timely recovery of costs.”<sup>20</sup> Rating agencies (and the capital  
5 markets) are particularly aware of the need for regulatory decisions that support the  
6 recovery of capital expenditures during periods of substantial expenditures

7  
8 Q. HAVE THE RATING AGENCIES ADDRESSED THE RELATIONSHIP OF  
9 REGULATORY DECISIONS TO OTP’S CAPEX PROGRAM?

10 A. Yes. The importance and connection of supportive regulatory decisions to OTP’s  
11 capital expenditures plan has been explicitly discussed. Moody’s recently said:  
12 OTP’s rating outlook reflects Moody’s expectation that the regulatory  
13 environments for OTP remain credit supportive and that OTP will  
14 continue to produce predictable and stable cash flows.

15 \*\*\*

16 For OTP, a rating downgrade is possible if its regulatory support wanes  
17 and becomes less credit supportive such that regulatory lag increases or  
18 cost recovery is negatively affected.<sup>21</sup>

19  
20 Fitch has similarly said:

21 Otter Tail Power’s (OTP) Stable Outlook reflects that regulated nature  
22 of its electric utility operations and a balanced regulatory environment  
23 across its three state jurisdictions .....<sup>22</sup>

24  
25 S&P has noted the Positive outlook may not lead to an upgrade of the credit  
26 rating:

27 [I]f rising capital spending continues without adequate and timely  
28 recovery of costs.”<sup>23</sup>

29  
30 Q. HOW IMPORTANT ARE REGULATORY AND COST RECOVERY IN RELATION  
31 TO FINANCIAL METRICS IN DETERMINING OTP’S RATINGS?

---

<sup>18</sup> Moody’s 2017, p. 4.  
<sup>19</sup> Fitch 2017, p. 4.  
<sup>20</sup> S&P 2017, p. 2.  
<sup>21</sup> Moody’s 2017, pp 1, 2.  
<sup>22</sup> Fitch 2017, p 2.  
<sup>23</sup> S&P 2017, p. 2.

1 A. Regulatory and cost recovery appear to be as important as financial metrics in  
2 determining OTP's credit ratings. Exhibit\_\_\_(KGM-1), Schedule 4 is a copy of  
3 Moody's Rating Factors for OTP from the August 9, 2017 Credit Opinion for OTP. The  
4 August 9, 2017 Credit Opinion shows the four factors Moody's considered in its rating  
5 decisions for OTP along with the weightings given to each. Regulatory Framework was  
6 weighted 25 percent. Ability to Recover Costs and Earn Returns (which reflect  
7 regulation) was weighted 25 percent. Diversification was weighted 10 percent.  
8 Financial Strength was weighted 40 percent.<sup>24</sup> The impact of regulation and resulting  
9 ability to recover costs and earn returns accounted for 50 percent of the ratings.  
10

11 Q. WILL THE ROE AUTHORIZED IN THIS PROCEEDING BE IMPORTANT TO  
12 OTP'S CREDIT RATINGS, INVESTORS, AND COST OF CAPITAL?

13 A. Yes. While ROE is certainly not the only factor considered in the evaluation of a rate  
14 case or a potential investment in a utility doing business in a particular state, it is easy  
15 for rating agencies and investors to identify and compare ROEs to expectations and to  
16 ROEs from other jurisdictions. The ROEs are also regarded as an indicator of regulatory  
17 support or the lack of support. Moody's recently noted "A rating upgrade could be  
18 considered if OTP's regulatory environments improved materially, further shortening  
19 regulatory lag and improving rates and returns."<sup>25</sup>  
20

21 Q. IS OTP'S CAPITAL STRUCTURE IMPORTANT TO OTP'S RATING AGENCIES,  
22 INVESTORS, AND COST OF CAPITAL?

23 A. Yes. A utility's capital structure provides the long-term structural foundation for the  
24 financing required to support its operations and capital investment plans. It is  
25 particularly important when a utility is making significant capital expenditures, as  
26 reflected in Fitch's recent Rating Report noting that:

---

<sup>24</sup> Moody's 2017, p. 5.

<sup>25</sup> Moody's 2017, p. 2.

1 Fitch expects ... that future funding needs will be met by a balanced mix of  
2 debt and equity and that [Otter Tail Corporation] will downstream  
3 additional equity as needed to support the balanced capital structure.<sup>26</sup>  
4

5 Q. WHAT IS YOUR CONCLUSION?

6 A. When a utility is engaged in an extensive capital expenditure program, a decision in a  
7 single rate case can have adverse effects that last long beyond the term of the rates set  
8 in that case. This is true in the case of OTP at this time, which continues to be engaged  
9 in an extensive capital expenditure program that will involve capital expenditures of  
10 approximately \$862 million in the 2017-2021 timeframe. As a result, OTP requests the  
11 Commission take these facts into consideration when determining where to set the ROE  
12 for OTP within the range of reasonable ROEs.

### 13 **VIII. COMPONENTS OF OTP'S PROPOSED CAPITAL STRUCTURE**

14 Q. WHAT ARE THE COMPONENTS OF OTP'S CAPITAL STRUCTURE?

15 A. OTP's capital structure consists of LTD, STD and common equity.

#### 16 **A. LONG-TERM DEBT**

17 Q. WHAT IS THE AMOUNT AND COST OF OTP'S LTD IN THE PROPOSED  
18 CAPITAL STRUCTURE FOR THE 2018 TEST YEAR?

19 A. The 13-month average of OTP's LTD is \$492.7 million and the cost of LTD is 5.43  
20 percent, as shown on Exhibit \_\_\_(KGM-1), Schedule 5.

21  
22 Q. HOW DO THE AMOUNT AND THE COST OF OTP'S 2018 LTD COMPARE TO  
23 OTP'S LAST RATE CASE?

24 A. Since OTP's last rate case, LTD has increased by approximately \$307.0 million and the  
25 cost has decreased by approximately 90 basis points as shown in Table 8 below:  
26

---

<sup>26</sup> Fitch 2017, p.3.

**Table 8**  
**OTP LTD 2008 Rate Case and Current Case**  
(\$ millions)

	2008 Rate Case	Current Rate Case	Difference
Amount	\$185.7	\$492.7	\$307.0
Cost	6.33%	5.43%	(0.90)%

**B. SHORT-TERM DEBT**

Q. WHAT IS THE AMOUNT OF OTP'S STD IN THE PROPOSED CAPITAL STRUCTURE FOR THE 2018 TEST YEAR?

A. The 13-month average of OTP's STD is \$15.98 million and the cost of STD is 4.02 percent, as shown on Exhibit \_\_\_ (KGM-1), Schedule 6.

Q. HOW WAS THE COST OF STD DETERMINED?

A. The 4.02 percent cost of STD includes the estimated interest expense plus the monthly commitment and other fees associated with OTP's \$170 million short-term credit facility. The estimated interest rate averages approximately 3.05 percent and is based on projected 1-month LIBOR rates plus a 1.25 percent spread.

**C. COMMON EQUITY**

Q. WHAT IS THE AMOUNT OF OTP'S 2018 TEST YEAR COMMON EQUITY AND HOW WAS IT DETERMINED?

A. OTP's common equity is \$562.3 million, which reflects the average of 13 month-end expected equity balances from December 2016 through December 2018. Exhibit \_\_\_ (KGM-1), Schedule 7 shows the 2018 Test Year equity balance by month.

1 Q. HAS OTTER TAIL CORPORATION RECENTLY ISSUED COMMON STOCK?

2 A. Yes. Otter Tail Corporation has had follow on offerings of its common stock since 2004  
3 and 2008. Otter Tail Corporation also issued common stock during the 2014-2017  
4 timeframe using its "At the Market Program," its Dividend Reinvestment Plan (DRIP),  
5 and its Employee Stock Purchase Plan (ESPP). All of these common stock issuances  
6 are included on Exhibit \_\_\_KGM-1), Schedule 8.

7  
8 Q. ARE THERE COSTS OF ISSUING COMMON STOCK?

9 A. Yes. When common stock is issued, the corporation issuing the stock incurs costs in  
10 the process of issuance, including underwriter discounts, audit, legal, printing and listing  
11 fees, and other expenses of issuance. When these issuance costs (also known as  
12 "flotation costs") are incurred, they reduce the net proceeds received by the corporation  
13 issuing the stock (under generally accepted accounting principles). Flotation costs are  
14 comparable to the issuance costs for LTD. The flotation costs associated with Otter Tail  
15 Corporation's common stock issuances are identified in Exhibit \_\_\_KGM-1), Schedule  
16 8, which Mr. Hevert used to determine the flotation cost adjustment. All of these  
17 flotation costs were treated as a reduction in proceeds and reflected on the balance sheet  
18 and not expensed, which is the standard practice with all flotation costs.

19  
20 Q. WERE THESE 2014-2017 COMMON STOCK ISSUANCES BY OTTER TAIL  
21 CORPORATION RELATED TO OTP'S CAPITAL EXPENDITURES?

22 A. Yes. These Otter Tail Corporation common stock issuances were directly related to  
23 OTP's prior capital expenditures, its current capital expenditures and its planned future  
24 capital expenditures.

25  
26 Q. PLEASE SUMMARIZE OTTER TAIL CORPORATION'S PLANNED COMMON  
27 STOCK ISSUANCES.

28 A. Otter Tail Corporation has publicly announced its plans to use its ATM, DRIP, and  
29 ESPP to issue approximately \$70 million to \$85 million of common equity during the  
30 2017 - 2021 timeframe.

1 Q. ARE THE 2014-2016 AND PLANNED COMMON STOCK ISSUANCES  
2 DIRECTLY RELATED TO OTP'S INVESTMENT PLANS?

3 A. Yes. The 2014-2016 common stock issuances and planned issuances of common stock  
4 by Otter Tail Corporation are directly related to the current and planned capital  
5 expenditures for OTP.

6 **XI. CONCLUSION**

7 Q. CAN YOU PLEASE SUMMARIZE YOUR CONCLUSIONS?

8 A. Yes. I recommend the Commission approve a capital structure for the 2018 Test Year  
9 including 52.5 percent equity, a 10.30 percent ROE, and an ROR of 7.97 percent.

10

11 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

12 A. Yes, it does.

KEVIN G. MOUG

**EMPLOYMENT**

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2001-PRESENT	Otter Tail Corporation <i>Sr. Vice President &amp; Chief Financial Officer</i>	Fargo, ND
1996-PRESENT	Varistar Corporation <i>Chief Financial Officer &amp; Treasurer</i>	Fargo, ND
1993-1996	Advance Dental Management <i>Chief Financial Officer</i>	Mondovi, WI
1981-1993	Deloitte & Touche <i>Senior Manager – Middle Market Practice</i>	Minneapolis, MN

**EDUCATION**

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- Bachelor of Science in Business Administration      University of North Dakota

**INDUSTRY CERTIFICATIONS**

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- Certified Public Accountant (Inactive)

**PROFESSIONAL AFFILIATIONS**

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- |  |   |
|--|---|
| • American Institute of Certified Public Accountants | Member                                      |
| • Financial Executive International                  | Member                                      |
| • US Bank Advisory Board                             | Board Member                                |
| • Essentia Health West Region                        | Board of Directors                          |
| • Essentia Health System                             | Board of Directors<br>Audit Committee Chair |

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	\$15,979,875	1.49%	4.02%	0.06%
2	Long term debt	492,672,120	46.01%	5.43%	2.50%
3	Total debt	<u>\$508,651,995</u>	47.5%	5.39%	<u>2.56%</u>
4	Common equity	\$562,251,832	52.5%	10.30%	5.41%
5	Total Capitalization	<u><u>\$1,070,903,827</u></u>	<u>100.0%</u>		<u><u>7.97%</u></u>

**Impact of 25 Basis Point Debt Cost Increase on \$200 Million**

Line No.	Description	Amount
1	Hypothetical amount of debt issuance	\$250,000,000
2	25 basis points increase in Interest Rate	<u>0.0025</u>
3	Total Interest Cost	\$625,000

**Impact of 40 Basis Point Debt Cost Increase on \$250 Million**

Line No.	Description	Amount
4	Hypothetical amount of debt issuance	\$250,000,000
5	40 basis points increase in Interest Rate	<u>0.0040</u>
6	Total Interest Cost	\$1,000,000

**Moody's Rating Factors  
 Otter Tail Power Company**

Line No.

1	Regulated Electric and Gas Utilities Industry	Current LTM	
2	Grid [1][2]	3/31/2017	
3	<b>Factor 1 : Regulatory Framework (25%)</b>	<b>Measure</b>	<b>Score</b>
4	a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A
5	b) Consistency and Predictability of Regulation	A	A
6	<b>Factor 2 : Ability to Recover Costs and Earn Returns (25%)</b>		
7	a) Timeliness of Recovery of Operating and Capital Costs	A	A
8	b) Sufficiency of Rates and Returns	Baa	Baa
9	<b>Factor 3 : Diversification (10%)</b>		
10	a) Market Position	Baa	Baa
11	b) Generation and Fuel Diversity	Ba	Ba
12	<b>Factor 4 : Financial Strength (40%)</b>		
13	a) CFO pre-WC + Interest / Interest (3 Year Avg)	5.5x	A
14	b) CFO pre-WC / Debt (3 Year Avg)	22.5%	A
15	c) CFO pre-WC - Dividends / Debt (3 Year Avg)	15.7%	Baa
16	d) Debt / Capitalization (3 Year Avg)	42.7%	A
17	<b>Rating:</b>		
18	Grid-Indicated Rating Before Notching Adjustment		A3
19	HoldCo Structural Subordination Notching	0	0
20	a) Indicated Rating from Grid		A3
21	b) Actual Rating Assigned		A3

[3]Moody's 12-18 Month Forward View As of March 2017	
<b>Measure</b>	<b>Score</b>
A	A
A	A
Aa	Aa
Baa	Baa
Baa	Baa
Baa	Baa
6x-6.4x	Aa
23%-27%	A
16%-20%	A
36%-40%	A
0	0
	A2
	A2
	A3

29 [1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. [2] As of 3/31/2017(L) [3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures. Source: Moody's Financial Metrics™

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	
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	\$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	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	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	50,000,000	3,235,000
5	4.500% LT Debt Forecast for 2018	4.500%	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	100,000,000	4,125,000
6	Total Debentures	0	\$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	\$362,000,000	\$18,362,400
7	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	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	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	\$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	\$512,000,000	\$496,615,385
13																		
14	Loss/Gain on Reacquired Debt		(3,434,337)	(3,380,068)	(4,325,839)	(4,268,817)	(4,211,795)	(4,154,773)	(4,097,751)	(4,040,729)	(3,983,707)	(3,926,685)	(3,869,663)	(3,812,641)	(3,755,619)	(3,698,600)	(3,641,578)	678,719
15	Total Long-Term Debt Capital		\$408,565,663	\$408,619,912	\$507,674,161	\$507,731,183	\$507,788,205	\$507,845,227	\$507,902,249	\$507,959,271	\$508,016,293	\$508,073,315	\$508,130,337	\$508,187,359	\$508,244,381	\$508,301,403	\$508,358,425	\$492,672,120

WEIGHTED COST OF LONG-TERM DEBT 5.43%

**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	98,868,111			
2	2018 Jan	97,109,150	230,692	11,271	
3	2018 Feb	1,065,735	233,062	11,272	
4	2018 Mar	2,062,808	2,522	11,681	
5	2018 Apr	0	4,951	12,912	
6	2018 May	0		12,788	
7	2018 Jun	1,742,979		12,949	
8	2018 Jul	0	4,285	13,836	
9	2018 Aug	2,513,778		13,478	
10	2018 Sep	2,392,451	6,347	7,026	
11	2018 Oct	0	6,220	32,563	
12	2018 Nov	0		6,735	
13	2018 Dec	1,983,358		8,184	
14	Average	\$15,979,875			
15	Total \$ Cost		\$488,080	\$154,695	\$642,773
16	Total % Cost		3.05%	0.97%	4.02%

COMMON EQUITY FOR 2018 TEST YEAR

Line No.		Month-end Balances		
		CONTRIBUTED CAPITAL	RETAINED EARNINGS	TOTAL COMMON EQUITY
1	December 2017	376,989,466	181,478,644	558,468,110
2	January	376,989,466	187,131,648	564,121,114
3	February	376,989,466	190,877,392	567,866,858
4	March	376,989,466	184,304,662	561,294,128
5	April	376,989,466	186,499,101	563,488,566
6	May	376,989,466	188,178,472	565,167,937
7	June	376,989,466	180,477,234	557,466,700
8	July	376,989,466	185,197,716	562,187,182
9	August	376,989,466	189,674,530	566,663,996
10	September	376,989,466	182,377,990	559,367,456
11	October	376,989,466	183,091,677	560,081,143
12	November	376,989,466	187,384,550	564,374,015
13	December	376,989,466	181,737,136	558,726,602
14	Average Common Equity			<u>\$562,251,832</u>

**Floation Costs**

Line No.	Issuing Entity	Mechanism	Date	Shares issued	Offering Price	Underwriting Discount	Offering Expense	Gross Proceeds	Total Flotation Costs	Net Proceeds	Flotation cost %
1	Otter Tail Corp.	ESSP	2004	66,958	NA	\$ -	\$ -	\$ 1,292,959	\$ -	\$ 1,292,959	0.00%
2	Otter Tail Corp.	ESSP	2009	62,450	NA	\$ -	\$ -	\$ 1,197,791	\$ -	\$ 1,197,791	0.00%
3	Otter Tail Corp.	ESPP	2014	39,222	NA	\$ -	\$ -	\$ 1,049,188	\$ -	\$ 1,049,188	0.00%
4	Otter Tail Corp.	ESPP	2015	42,253	NA	\$ -	\$ -	\$ 1,095,620	\$ -	\$ 1,095,620	0.00%
5	Otter Tail Corp.	ESPP	2016	53,875	NA	\$ -	\$ -	\$ 1,491,266	\$ 1,159	\$ 1,490,107	0.08%
6	Otter Tail Corp.	ESPP	YTD - 2017	5,284	NA	\$ -	\$ -	\$ 210,585	\$ 367	\$ 210,218	0.17%
7	Otter Tail Corp.	DRIP	2004	223,165	NA	\$ -	\$ -	\$ 4,308,033	\$ -	\$ 4,308,033	0.00%
8	Otter Tail Corp.	DRIP	2009	233,943	NA	\$ -	\$ -	\$ 4,493,385	\$ 5,877	\$ 4,487,508	0.13%
9	Otter Tail Corp.	DRIP	2014	288,045	NA	\$ -	\$ -	\$ 7,707,964	\$ -	\$ 7,707,964	0.00%
10	Otter Tail Corp.	DRIP	2015	330,379	NA	\$ -	\$ 56,545	\$ 8,566,009	\$ 56,545	\$ 8,509,464	0.66%
11	Otter Tail Corp.	DRIP	2016	302,524	NA	\$ -	\$ -	\$ 11,095,328	\$ 32,973	\$ 11,062,355	0.30%
12	Otter Tail Corp.	DRIP	YTD - 2017	107,285	NA	\$ -	\$ -	\$ 4,139,552	\$ 17,554	\$ 4,121,998	0.42%
13	Otter Tail Corp.	ATM	2014	519,636	\$ 30	\$ 306,727	\$ 780,616	\$ 15,336,352	\$ 1,087,343	\$ 14,249,009	7.09%
14	Otter Tail Corp.	ATM	2015	133,197	\$ 28	\$ 56,485	\$ 339,160	\$ 3,785,244	\$ 395,645	\$ 3,389,599	10.45%
15	Otter Tail Corp.	ATM	2016	1,014,115	\$ 33		\$ 561,548	\$ 33,235,729	\$ 561,548	\$ 32,674,181	1.69%
16	Otter Tail Corp.	Secondary	2004-05	3,075,000	\$ 25	\$ 2,921,250	\$ 391,452	\$ 78,258,750	\$ 3,312,702	\$ 74,946,048	4.23%
17	Otter Tail Corp.	Secondary	2008	5,175,000	\$ 30	\$ 5,627,812	\$ 807,185	\$ 155,250,000	\$ 6,434,997	\$ 148,815,003	4.14%
18	Weighted Average										3.58%