

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

<b>IN THE MATTER OF THE APPLICATION OF OTTER TAIL POWER COMPANY FOR AUTHORITY TO INCREASE ITS ELECTRIC RATES</b>	) ) ) ) )	<b>Staff's PROPOSED Order and Findings of Fact and Conclusions of Law</b>
		<b>EL18-021</b>

COMES NOW Commission Staff by and through its attorney of record and hereby files the attached proposed Order and Findings of Fact and Conclusions of Law in the above-captioned proceeding.

To the extent any of the proposed findings stated within Staff's Post-Hearing Brief were not included in Staff's Proposed Order and Findings of Fact and Conclusions of Law, Staff hereby incorporates them by reference.

Dated this 29th day April 2019.



Kristen N. Edwards  
Attorney for Staff  
South Dakota Public Utilities Commission  
500 East Capitol Avenue  
Pierre, SD 57501

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OF THE STATE OF SOUTH DAKOTA**

<b>IN THE MATTER OF THE APPLICATION</b>	)	<b>Staff's PROPOSED Order and</b>
<b>OF OTTER TAIL POWER COMPANY FOR</b>	)	<b>Findings of Fact and</b>
<b>AUTHORITY TO INCREASE ITS</b>	)	<b>Conclusions of Law</b>
<b>ELECTRIC RATES</b>	)	
	)	<b>EL18-021</b>

**Procedural History**

On April 20, 2018, Otter Tail Power Company (Otter Tail or the Company) filed an application with the South Dakota Public Utilities Commission (Commission) seeking an increase in annual base rate revenues of approximately \$5,978,109 for electric service to approximately 11,700 customers in its South Dakota retail service territory. Otter Tail proposed to move the recovery of investment-related costs and related operating expenses from the Transmission Cost Recovery Rider (TCRR) and Environmental Cost Recovery Rider (ECRR) into base rates. This shift is responsible for \$2,619,535 of the \$5,978,109 revenue deficiency. The resulting proposed net annual revenue increase is \$3,358,574, or approximately 10.10%. A typical residential electric customer using 927 kWh on an average monthly basis would see an increase of \$11.29 per month under Otter Tail's proposed rate design.

Otter Tail also proposed to implement \$2,386,538, or 7.17%, of its requested increase on an interim basis effective May 21, 2018, after 30 days had passed from the date of filing, with the full \$3,358,574 net increase to become effective upon the Commission's final disposition in this case.

Otter Tail also proposed an additional \$629,107, or 1.72%, step increase to become effective January 1, 2020, to begin recovering the cost of its Merricourt Wind Project, which was projected to enter service later in 2019. A typical residential electric customer using 927 kWh would see an additional increase of \$1.75 per month if Otter Tail's proposed step increase is approved.

Otter Tail's proposed requested revenue increase is based on a historic test year ended December 31, 2017, adjusted for what Otter Tail claims are known and measurable changes, a 10.3% return on common equity, and a 7.96% overall rate of return on rate base. Otter Tail witnesses submitted testimony stating that a revenue increase is needed at this time due to significant system investments made and increased operations and maintenance (O&M) costs incurred since Otter Tail's last rate case, Docket EL10-011.

The Commission officially noticed Otter Tail's filing on April 26, 2018, and set an intervention deadline of June 1, 2018. On May 16, 2018, the Commission issued an Order Suspending Operation of Proposed Rates; Order Assessing Filing Fee; Order Authorizing Executive Director to Enter Into a Consulting Contract. Pursuant to this order, implementation

of Otter Tail's proposed rates was suspended for 180 days beyond April 20, 2018 and OTP's request to implement interim rates effective 30 days from the date of filing was denied. On June 28, 2018, Valley Queen Cheese Factory, Inc. filed a Petition to Intervene. The Commission issued an Order Granting Late Filed Intervention to Valley Queen Cheese Factory, Inc. (Valley Queen), on July 16, 2018. Valley Queen did not actively participate in the docket.

On September 17, 2018, Otter Tail filed a Notice of Intent to Implement Interim Electric Service Rates for service provided on and after October 18, 2018, pursuant to SDCL 49-34A-17. Otter Tail implemented interim rates based on its current rate design to recover the requested net annual revenue increase of \$3,358,574, by applying the interim increase as a unique percentage applicable to each customer rate group, which resulted in an overall net increase of 10.10% across all customer classes. Interim rates are subject to refund pending a final order by the Commission in this proceeding.

On February 15, 2019, Otter Tail and Staff filed a Joint Motion for Approval of Settlement Stipulation and Settlement Stipulation. On February 21, 2019, Staff filed a Staff Memorandum Supporting Settlement Stipulation. On March 6, 2019, the Commission issued an Order Granting Joint Motion for Approval of Settlement Stipulation; Order Approving Settlement Stipulation. As a result of the Settlement Stipulation and Order, one issue remained for the evidentiary hearing. The remaining issue for Commission determination was the appropriate return on equity.

On February 19, 2019, Staff filed the prefiled testimony of Basil L. Copeland, Jr. The Commission issued an Order for and Notice of Evidentiary Hearing on March 7, 2019. On March 15, 2019, Otter Tail filed the rebuttal testimony of Bruce G. Gerhardson, Kevin G. Moug, and Robert B. Hevert.

On March 21, 2019, Staff filed a Motion in Limine to preclude portions of Otter Tail's rebuttal testimony that discussed items covered by the Settlement Stipulation. Otter Tail filed a response on March 22, 2019. Prior to the evidentiary hearing, Staff and Otter Tail reached an agreement regarding the Motion in Limine, and Staff withdrew its Motion.

On March 22, 2019, Staff prefiled its proposed exhibit. On March 25, 2019, Otter Tail prefiled its proposed exhibits.

The evidentiary hearing was held as scheduled on March 26, 2019, with Otter Tail and Staff appearing and presenting evidence and argument. Valley Queen did not participate in the evidentiary hearing.

On May 14, 2019, the Commission heard oral argument and voted \_\_\_\_\_ to approve a return on equity of \_\_\_\_%. To then address the remaining follow-on issue of adjustments to revenue requirement and resulting rates, the Commission voted unanimously to direct Staff and Otter Tail to make the needed model runs and analyses to finalize the additional adjustments to rate inputs resulting from the Commission's decision, to exchange their results with each other, and to file such results by \_\_\_\_\_. The Commission direct Commission Counsel to work with

the parties and administrative Staff to schedule an ad hoc meeting for consideration of such results.

In compliance with the Commission's directives, on \_\_\_\_\_, Staff and Otter Tail filed a Joint Compliance Filing, demonstrating that Otter Tail's revenue deficiency reflecting the Commission's authorized rate of return on equity is \$\_\_\_\_\_ justifying an approximate \_\_\_\_\_% increase in retail revenue. Exhibits \_ through \_ to the joint compliance filing contain the revenue requirement, operating income statement, and rate base schedules supporting the revenue requirement determination, with the distribution of the revenue deficiency among rate classes shown on Exhibit \_.

At an ad hoc meeting on \_\_\_\_\_, the Commission, in conformity with the joint filing by Staff and OTP on \_\_\_\_\_, voted unanimously to approve a revenue deficiency and corresponding revenue requirement increase of \$\_\_\_\_\_ based on the adjustments reflected in the Exhibits to the joint filing, and the distribution of the revenue deficiency among rate classes in accordance with Exhibit \_ of the joint filing.

### **Findings of Fact**

#### **Parties**

1. The Applicant is Otter Tail Power Company, a Minnesota corporation operating in South Dakota and a public utility as defined by SDCL 49-34A-1(12).
2. Staff participated in this case as a full party.
3. Valley Queen Cheese Company was a party in this case but did not participate in the proceedings.

#### **Procedural Findings**

4. The Application was filed with the Commission on April 20, 2018. The Application included all schedules and information required by ARSD 20:10:13.
5. The Procedural History set forth above is hereby incorporated by reference in its entirety in these Procedural Findings. The procedural findings set forth in the Procedural History and these Procedural Findings are a substantially complete and accurate description of the material documents filed in this docket and the proceedings conducted and decisions rendered by the Commission in this matter.
6. On May 16, 2018, the Commission issued an order suspending operation of proposed rates for 180 days pursuant to SDCL 49-34A-14.

7. On September 17, 2018, Otter Tail Filed its Notice of Intent to Implement Interim Rates based on current rate design for service provided on and after October 18, 2018, pursuant to SDCL 49-34A-17.

8. On October 18, 2018, Otter Tail implemented an interim rate increase of approximately \$3.36 million, or 10.10 percent, subject to refund.

9. On March 6, 2019, the Commission issued its Order Granting Joint Motion for Approval of Settlement Stipulation; Order Approving Settlement Stipulation (Settlement Order). As a result of the Settlement Order, all issues in the case were resolved except for the issue of the appropriate return on equity.

10. Staff and Otter Tail stipulated that Otter Tail would refund interim rates through May 31, 2019, or the date of the Commission's oral decision, whichever is earlier.

### **Rate of Return on Equity**

11. On the best evidence, the required rate of return on equity for a company of average market risk is no more than 8 to 8.3 percent.

12. A reasonable estimate of the market expected return is from 6.0 to 10.0 percent, with the *best evidence* supporting a return of approximately 8 percent, or more precisely 8.2 to 8.3 percent.

13. Mr. Hevert's estimate of approximately 15 percent is unreasonable and cannot be relied upon in any fashion to the determination of just and reasonable rates or a just and reasonable rate of return on equity. All conclusions derived from this estimate, specifically the risk premium in Mr. Hevert's CAPM analysis and the resulting CAPM estimates of the cost of equity, are likewise unreasonable and must be rejected.

14. Electric utilities generally, and Otter Tail specifically, are of less market risk than the market as a whole or the average firm in the S&P 500.

15. A decision regarding a fair and reasonable rate of return based upon a zone of reasonableness regarding estimates of the cost of equity must be based upon substantial evidence presented in this docket. The Commission is not privy to the give and take, the endless variations in regulatory policy and ratemaking treatment, and the variety and quality of evidence regarding the cost of equity that underlies returns authorized elsewhere. Calling attention to what other commissions have done based upon facts, evidence, and statutory and ratemaking distinctions of which we know little or nothing about is not helpful and will be ignored.

16. The fact that authorized book returns are higher in some jurisdictions than in others does not mean that investors will flock to those jurisdictions. Investors cannot purchase

stock at book value; they must pay market prices for the stock. When market price is above book value, the market return that investors will earn will be lower than the authorized book return. Investors will earn the lower market return, the cost of equity, not the higher book return.

17. As long as we satisfy the investor interest as set forth in *Hope*<sup>1</sup> with a return equal to the cost of equity, Otter Tail will be able to attract capital and provide quality service to its South Dakota customers.

18. Excellent and quality performance and service does not justify a higher return. It is the level of service expected for a utility that is earning the cost of capital. Failure to provide excellent and quality performance, however, would be grounds for only authorizing a return less than the cost of equity.

19. Since the best evidence supports a finding that the overall market return is 8.0 to 8.3 percent, and it is undisputed that electric utilities generally and Otter Tail specifically are less risky than the market as a whole, it follows, *prima facie*, that the cost of equity or required rate of return for Otter Tail must be less than 8.0 to 8.3 percent.

20. With respect to the expected growth rate to be used in the constant growth DCF analysis, the Commission should reaffirm the precedent it established in Docket No. EL11-019 and reject exclusive reliance upon analysts' near-term growth forecasts.

21. Using this methodology, the best evidence in this docket supports an estimate of the cost of equity of 7.6 to 7.7 percent.

22. Mr. Hevert's use of gross domestic product (GDP) as the long-term growth rate for his multi-stage DCF analysis is inappropriate and should be rejected. Long-term utility growth rates are unlikely to ever equal GDP growth under any plausible scenario because of the lower returns on equity and lower earnings retention rates of utilities.

23. The long-term growth rate used by Mr. Copeland of 3.50 percent, using Value Line forecasts of long-term growth is reasonable, especially in light of a CBO forecast of 3.9 percent for GDP for 2023-2038.

24. Using the non-constant or multi-stage DCF approach the best evidence in this docket supports a cost of equity estimate of about 7 percent.

25. Mr. Hevert's CAPM estimates of the cost of equity are predicated on unrealistic and unreasonable estimates of the market risk premium and must be rejected.

26. When more plausible and reasonable estimates of the market risk premium are employed, the cost of equity indicated by CAPM is approximately 7 percent.

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<sup>1</sup> *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603, 64 S.Ct. 281, 88 L.Ed. 333 (1944).

27. There is good reason and substantial evidence to suggest that relying upon authorized ROEs to estimate a risk premium relative to bond yields results in an inflated and upward biased estimate of the risk premium, and therefore Mr. Hevert's estimated cost of equity using this approach must be rejected.

28. Market-to-book ratios are relevant and useful metrics for balancing investor and ratepayer interests.

29. Market-to-book ratios can be used to tell if utilities are earning (or expected to earn) a return on equity above or below the utility's cost of equity.

30. The relationship between ROE and market-to-book ratio is a corollary of the DCF model, and the DCF model remains a useful and relevant model of utility stock price formation.

31. A market-to-book ratio of slightly above one, sufficient to prevent the stock price from falling below book value from flotation costs and dilution when new stock is issued, satisfies the investor interest standard of *Hope*. A market-to-book ratio of 1.1 is, absent other considerations, sufficient to satisfy the investor interest standard of *Hope*.

32. Any evidence of a small size premium for cost of equity is based on market returns for small companies with above average market risk. Public utilities have below average market risk. The small size premium does not apply to public utilities.

33. The issue of flotation costs is moot. The rate of return on equity which the Commission is authorizing in this case will maintain a market-to-book ratio sufficient to recover flotation costs even were we to adopt the Company's approach to calculating flotation costs.

34. Were we to take flotation costs into consideration explicitly, we would find that a ROE sufficient to maintain a market-to-book ratio of 1.1 is adequate to cover flotation costs and prevent dilution (share prices that are below book value when new stock is issued).

35. Any concerns about the cash flow implications of the Tax Cuts & Jobs Act (TCJA) should be considered in the equity ratio used to develop an overall rate of return, not the rate of return on equity. There is no evidence at all that Otter Tail needs a higher equity ratio to accommodate the cash flow implications of the TCJA than what the parties stipulated to in the settlement agreement.

36. Present expected returns on book equity for utilities have led to elevated market-to-book ratios which indicate that they are earning excessive rates of return. Any ROE that gives due consideration to the consumer interest is going to be lower than the returns on book equity currently being earned, and will result in a decline in market price and market-to-book ratio. There are no statutory or constitutional requirements against such stock price declines so long as the market-to-book ratio remains 1.1 or higher.

37. Because of how high current market-to-book ratios are (1.85 for the set of comparable companies), it is prudent to be cautious in adopting a ROE that will reduce market price and market-to-book ratio. A ROE that would sustain a market-to-book ratio measurably above 1.5 does not give adequate weight to the need to reduce the ROE to a level that more fairly balances ratepayer and investor interests. A rate of return on equity of 8.0 to 8.5 percent has been shown to approximately correlate to market-to-book ratios in the range of 1.4 to 1.5. This establishes an upper limit to the zone of reasonableness regarding what authorized ROE fairly balances investor and consumer interests.

38. Comparisons to the high market-to-book ratios of unregulated companies are inappropriate because they frequently reflect speculative profits above the cost of equity capital that regulation is intended to prevent.

39. The Discounted Cash Flow theory implies a mathematical relationship between expected returns on book equity and market-to-book ratios that allows estimating how much of the expected return on book equity is an excess return (XROE) above the required return implicit when market-to-book ratios are above 1. That relationship is represented by the difference between dividend-to-book ratios (D/B) and dividend yields (D/P):

$$XROE = D/B - D/P$$

40. Evidence shows an expected median return on book equity for Mr. Copeland's sample of comparable returns of 9.67 percent and current median market-to-book ratios of 1.85. The estimated excess return (XROE) is 2.64 percent. The resulting estimate of the required return or cost of equity would be 7.03 percent.

41. An analysis of the relationship between market-to-book ratios and expected returns on book equity thus indicates a cost of equity of about 7 percent.

42. Substituting more reasonable assumptions and evidence the indicated cost of equity using this approach is about 7 percent.

43. Using multiple methods and plausible and reasonable data and assumptions, this record supports a zone of reasonableness in estimating the cost of equity for Otter Tail and comparable companies to be in the range of 7.0 to 7.7 percent.

44. There is good reason and substantial evidence to suggest that relying upon authorized ROEs to estimate a risk premium relative to bond yields results in an inflated and upward biased estimate of the risk premium, and therefore Mr. Hevert's estimated cost of equity using this approach must be rejected.

45. There is substantial evidence that capital costs have declined since the Commission adopted a ROE for Xcel in Docket No. EL11-019. That creates a *prima facie* expectation that market evidence of the cost of equity will show current cost of equity below what we found reasonable in that docket.



46. After carefully considering all the testimony on rate of return and cost of equity, we find that there is substantial evidence that the cost of equity for Otter Tail and comparable electric utilities is presently in the range of 7 to 7.7 percent. Since Mr. Hevert rejected out of hand any evidence of a cost of equity below 8 percent, both his recommended range of 10.0 to 10.6 percent, and all of the individual estimates that he developed are unreasonable and hereby rejected.

47. There is substantial evidence that market-to-book ratios are much higher than what is appropriate to fairly balance consumer and investor interests and the current book returns on equity that are supporting those high market-to-book ratios are above the cost of equity. Any reasonable return on equity will therefore be less than the current book returns on equity that are supporting those high market-to-book ratios.

48. An authorized return lower than the current book returns on equity that are supporting high market-to-book ratios will in theory, and perhaps in practice, result in lower stock prices and lower market-to-book ratios. Indeed, it should produce lower market-to-book ratios. But there are no *per se* statutory or constitutional objections to a return on equity that causes a lower market price if the price is still sufficient to support the investor interest and capital attraction standard of *Hope*.

49. While we find that current book returns on equity for utilities comparable in risk to Otter Tail are higher than the cost of equity, and that any appropriate authorized ROE should result in lower market-to-book ratios, we agree with Staff that some caution is appropriate in taking steps that would reduce market-to-book ratios. When this is taken into consideration, we find the zone of reasonableness to be 7 to 8.5 percent.

50. Staff's recommended ROE of 8.25 percent is within the zone of reasonableness. While the market-to-book ratio of 1.37 which Staff associates with a ROE of 8.25 percent is just an *estimate*, and not something known with mathematical precision, it is far enough above a market-to-book ratio of 1.1 as to raise no substantive concerns over whether the authorized ROE satisfies the investor interest and capital attraction standard of *Hope*. We find that the ROE for developing just and reasonable rates for Otter Tail Power should be 8.25 percent.

### **Revenue Requirement and Class Distribution**

51. Based on the Settlement Order, the Commission's decision on rate of return on equity, and the adjustments reflected in the exhibits to the Joint Compliance Filing, the Commission finds that the deficiency in Otter Tail's revenue requirement is \$\_\_\_\_\_ and that the revenue deficiency and corresponding rate increase should be distributed among the rate classes in accordance with Exhibit \_ of the Joint Compliance Filing.

### **Additional Matters**

52. As stated in Finding of Fact 8, on October 18, 2018, Otter Tail implemented an interim rate increase pursuant to SDCL 49-34A-17. In accordance with the proceedings conducted on March 26, 2019, the Commission finds that it is appropriate for the Commission to issue a future order as contemplated by SDCL 49-34A-17 to require Otter Tail to refund or credit back to customers the amounts it collected during the interim rate period and to direct Otter Tail to file its proposed refund plan with the Commission by \_\_\_\_\_, 2019, for review by Staff and Commission action at its regular meeting on \_\_\_\_\_, 2019.

53. In accordance with SDCL 49-34A-10 and the proceedings conducted on March 26, 2019, the Commission finds that Otter Tail shall file tariffs sheets conforming to its decision in this case and the Settlement Order by \_\_\_\_\_, 2019, for review by Staff and Commission action at its regular meeting on \_\_\_\_\_, 2019.

### **General**

54. To the extent that any Conclusion of Law set forth below is more appropriately a finding of fact, that Conclusion of Law is incorporated by reference as a Finding of Fact.

### **Conclusions of Law**

1. The following statutes are applicable: SDCL 49-34A-1, 49-34A-3, 49-34A-4, 49-34A-6, 49-34A-8, 49-34A-8.4, 49-34A-10 through 49-34A-14, 49-34A-17, 49-34A-19, 49-34A-19.1, 49-34A-19.2, and 49-34A-21; as well as applicable provisions of SDCL Chs. 1-26 ad 15-6. The Commission has jurisdiction in this matter pursuant to one or more of the above statutes.

2. The following South Dakota administrative rules are applicable: ARSD Chapters 20:10:01 and ARSD 20:10:13.

3. Otter Tail has the burden of proof pursuant to SDCL 49-34A-11 to show that any rate filed is just and reasonable.

4. Otter Tail is a “public utility” as defined in SDCL 9-3A-1(12).

5. The Application was properly filed with the Commission on April 20, 2018, included all schedules and information required by ARSD 20:10:13, and was jurisdictionally complete.

6. The Joint Motion and Settlement Stipulation were duly and lawfully granted and approved by the Commission without objection by any party through Commission Order Granting Joint Motion for Approval of Settlement Stipulation; Order Approving Settlement Stipulation issued March 6, 2019.

7. In accordance with the Commission’s Order for and Notice of Hearing issued on March 7, 2019, a hearing was held on the merits of this matter on March 26, 2019, with Otter

Tail and Staff participating and afforded a full opportunity for hearing on the merits of their issues.

8. The Commission concludes that a return on equity of \_\_\_\_\_% will enable Otter Tail to earn a fair and reasonable return on the value of its property while appropriately balancing investor and consumer interests.

9. Giving due consideration to the public need for adequate, efficient, economical, and reasonable service and to the need of the public utility for revenues sufficient to enable it to meet its total current cost of furnishing such service, including taxes and interest, and including adequate provision for depreciation of its utility property used and necessary in rendering service to the public, and to earn a fair and reasonable return upon the value of its property, the Commission concludes that the rates, terms and conditions approved in this Final Decision and Order, incorporating the Settlement Stipulation and Order, are just and reasonable and are approved for service on and after the date established by the Commission in connection with its approval of Otter Tail's conforming tariff sheets.

10. SDCL 49-34A-17 and 49-34A-22 permit, but do not require, the Commission to order a public utility to refund or credit amounts charged on an interim basis in excess of amounts chargeable under the rates as approved. Having found that a refund or credit of excess charges is appropriate in this case, the Commission concludes that Otter Tail shall submit a refund plan for approval by \_\_\_\_\_.

11. In accordance with SDCL 49-34A-10, Otter Tail shall file tariff sheets conforming to this Final Decision and Order and the Settlement Stipulation and Order by \_\_\_\_\_, for Commission action at its regular Commission meeting on \_\_\_\_\_.

12. To the extent that any of the Findings of Fact in this decision are determined to be conclusions of law or mixed findings of fact and conclusions, the same are incorporated herein by this reference as a Conclusion of Law as if set forth in full herein.

13. The Commission concludes that the Application and all required filings have been filed with the Commission in conformity with South Dakota law and that all procedural requirements under South Dakota law, including public hearing requirements, have been met or exceeded.

It is therefore

ORDERED, that the rate of return on equity for Otter Tail of \_\_\_\_\_ is hereby approved. It is further

ORDERED, that a revenue deficiency and corresponding rate increase for Otter Tail in the amount of \$\_\_\_\_\_ is hereby approved. It is further

ORDERED, that Otter Tail's revenue deficiency and corresponding rate increase shall be distributed among the rate classes in accordance with Exhibit \_ of the Joint Compliance Filing. It is further

ORDERED, that Otter Tail shall submit a refund plan and tariff sheets conforming to this Final Decision and Order and the Settlement Stipulation and Order for approval by \_\_\_\_\_.