

Memorandum

To: Commissioners Fedorchak, Christmann, and Haugen-Hoffart

From: Adam Renfandt

Date: August 30, 2022

Re: Otter Tail Power Company (OTP), 2021 Electric, Annual Report
Case No. PU-22-231

In Case No. PU-17-398, the Commission authorized a return on equity (ROE) of 9.77% for OTP's ND electric rate case. Staff reviewed OTP's electric annual report for 2021. OTP reports an ROE of approximately 10.09% for 2021, which represents an over-earnings of approximately \$1.1 million.

OTP reports two major outage event days for 2021. The first was a downed 115 kV structure north of Fergus Falls (lightning), which caused a 4-5 hour interruption to much of Fergus Falls, MN. The second major outage event occurred at a substation serving Harvey, ND, which caused an 18-hour interruption to that city.

Normalized for major event outages, the system average interruption frequency index (SAIFI, or the average number of interruptions per customer) was 1.6 interruptions per customer, the system average interruption duration index (SAIDI, or the average outage duration per customer) was 97.9 minutes per customer, and the customer average interruption duration index (CAIDI, or the average restoration time) was 63 minutes.

OTP indicated that they are working to implement an Outage Management System, which will have the ability to calculate major event days and reliability indices according to the IEEE 1366 standard at a more granular customer level. They plan to have the system operational in late 2022.

Given the level of 2021 over-earnings compared to 2020 under-earnings of \$5.5 million, Staff recommends the Commission close the case.

Attachment 1 – Return Calculation

Attachment 2 – Return on Equity Chart

Attachment 3 – Net Operating Income

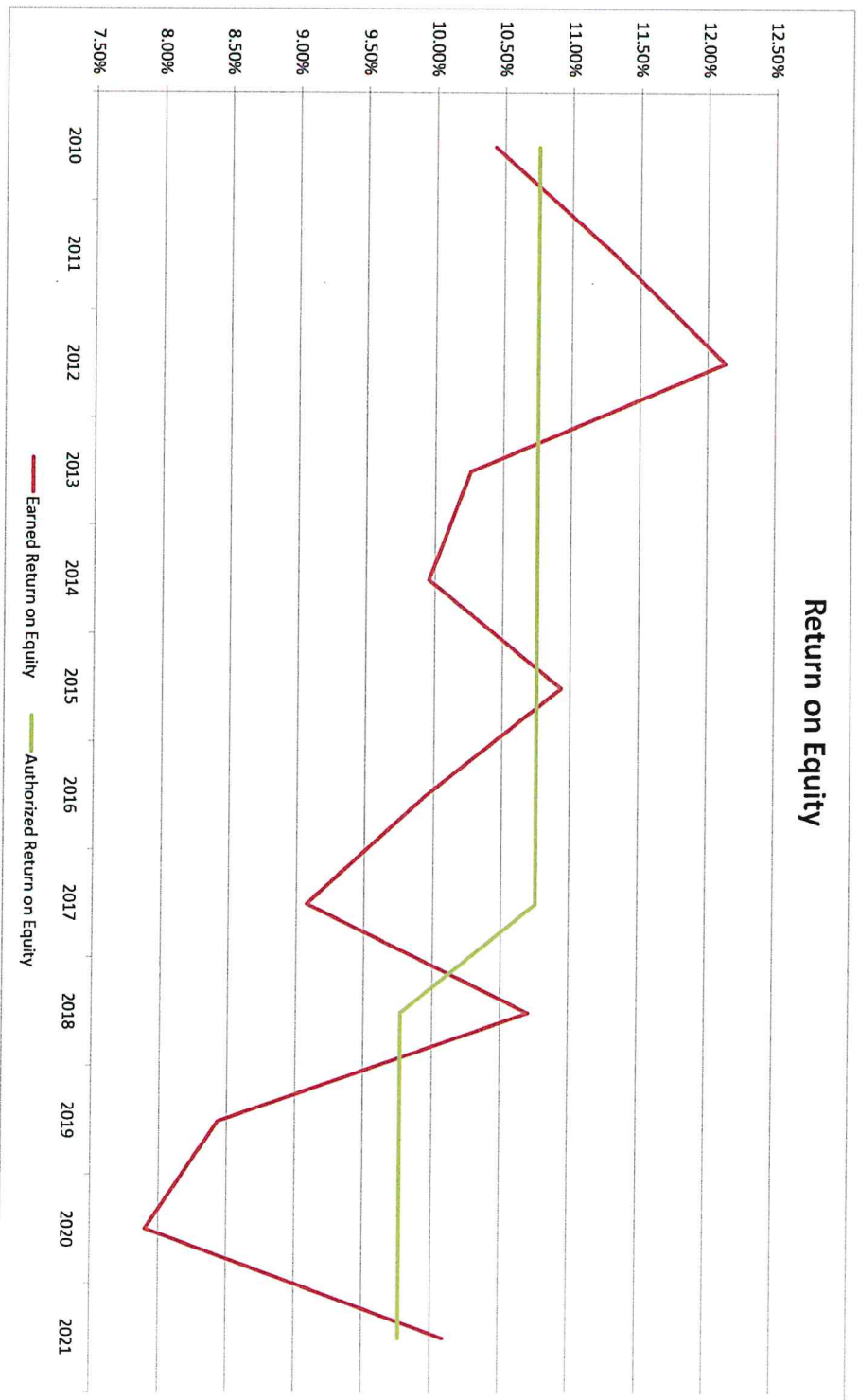
Attachment 4 – Reliability Indices

Other Tail Power Company
 North Dakota
 Revenue Excess / Deficiency & Rate Base
 (\$ in 000s)

Attachment 1

Revenue Excess (Deficiency) Calculation:

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Rate Base	\$182,550	\$189,882	\$266,903	\$295,435	\$334,736	\$356,396	\$350,542	\$351,550	\$354,656	\$372,733	\$422,631	\$474,498
Cost of Capital	8.76%	8.68%	8.30%	8.15%	8.03%	8.27%	8.22%	8.13%	7.64%	7.63%	7.46%	7.28%
Return Required	\$15,983	\$16,481	\$22,141	\$24,064	\$26,893	\$29,485	\$28,824	\$28,575	\$27,095	\$28,428	\$31,517	\$34,520
Net Income	15,684	17,052	24,007	23,317	25,603	29,821	27,340	25,472	28,863	25,790	27,367	35,325
Return Excess (Deficiency)	(\$299)	\$571	\$1,867	(\$747)	(\$1,290)	\$336	(\$1,484)	(\$3,102)	\$1,768	(\$2,638)	(\$4,150)	\$805
Income Tax Factor	1.6437	1.6220	1.6220	1.6115	1.6115	1.6078	1.6078	1.6078	1.3228	1.3228	1.3228	1.3228
Revenue Excess (Deficiency)	(\$492)	\$925	\$3,028	(\$1,204)	(\$2,078)	\$540	(\$2,386)	(\$4,988)	\$2,339	(\$3,490)	(\$5,490)	\$1,065



Other Tail Power Company
 North Dakota Electric Operations
 Return Calculation
 (\$ in 000s)

Attachment 3

Description	With all Riders											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Operating Revenues	\$121,305	\$125,008	\$138,315	\$148,488	\$160,126	\$156,793	\$154,590	\$155,380	\$160,707	\$158,808	\$148,271	\$165,874
Production	51,680	53,506	54,798	59,589	66,743	58,885	54,725	57,049	61,605	59,733	48,691	53,029
Gross Margins	\$69,625	\$71,502	\$83,517	\$88,900	\$93,384	\$97,908	\$99,865	\$98,331	\$99,102	\$99,075	\$99,579	\$112,845
Change in Margins from Prior Yr	\$992	\$1,877	\$12,015	\$5,383	\$4,484	\$4,524	\$1,957	(\$1,534)	\$771		(\$26)	\$504
Transmission	4,838	5,496	7,117	8,884	10,807	11,668	12,458	12,883	12,259	12,199	11,159	12,119
Distribution	7,056	6,773	7,129	7,545	7,556	7,131	7,668	8,137	8,354	8,367	7,709	7,664
Customer Accounting	5,101	5,078	5,432	5,848	5,820	5,594	5,456	5,641	5,716	5,815	6,657	5,445
Cust. Service and Info. Exp.	998	1,102	1,193	1,156	1,107	1,064	1,178	1,017	871	868	936	1,101
Sales Expense	542	167	140	158	119	18	16	55	47	18	10	31
Admin. and General	13,388	13,090	13,142	16,195	17,012	16,331	15,985	16,878	15,427	14,894	15,420	15,416
Depreciation Expense	11,893	13,547	18,601	19,204	18,339	17,734	20,190	20,040	20,549	21,516	23,274	24,842
General Taxes	3,586	3,991	4,544	4,674	5,086	5,148	4,931	5,020	4,863	4,769	5,861	5,943
Sub-total (Lines 4-12)	\$47,402	\$49,244	\$57,299	\$63,665	\$65,845	\$64,688	\$67,883	\$69,671	\$68,086	\$68,448	\$71,026	\$72,561
NOI Before Int. & Income Taxes	\$22,223	\$22,258	\$26,217	\$25,235	\$27,539	\$33,220	\$31,981	\$28,659	\$31,015	\$30,627	\$28,553	\$40,284
Income Tax	6,539	5,206	2,210	1,918	1,936	3,399	4,641	3,187	2,153	4,837	1,186	4,959
Net Income	\$15,684	\$17,052	\$24,007	\$23,317	\$25,603	\$29,821	\$27,340	\$25,472	\$28,863	\$25,790	\$27,367	\$35,325

2.5 Normalized Results:

2021 State/Customer Service Center	SAIFI	SAIDI (minutes)	CAIDI (minutes)	MAIFI	Sustained Customer Minutes
North Dakota	1.554571	97.85	62.94	5.613739	6471207