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P O Box 2747  
Fargo, ND 58108-2747  
(701) 241-8632  
dave.sederquist@xcelenergy.com

January 4, 2021

—Via U.S. Mail and Electronic Filing—

Steven M. Kahl, Executive Secretary  
North Dakota Public Service Commission, Dept. 408  
State Capitol  
600 East Boulevard  
Bismarck, ND 58505-0480

**RE: FILING PURSUANT TO NDPSC SMALL POWER PRODUCTION AND  
COGENERATION RULES (CHAPTER 69-09-07)**

Dear Mr. Kahl:

Pursuant to the above referenced Rules, NDPSC Order Case No. 9999, and NDCC section 49.05.06, Northern States Power Company, doing business as Xcel Energy and operating in North Dakota, submits for filing the original and seven copies of the Small Power Production and Cogeneration rate sheets and avoided cost documentation for the Standard Contract Offer and Guidelines proposed for 2021. These updated rates reflect a reduction in energy and capacity payments from current rates.

The Net Energy Billing Service is revised to reflect the 2021 avoided energy cost level and meter charges. This service is available to qualifying facilities with a capacity of 100 kW or less, where the output from the qualifying facility can be used to offset energy delivered by the Company. The Purchase and Sales Billing Service and Time of Day Purchase Service are also revised to reflect the 2021 avoided cost level and metering charges. The Purchase and Sales Billing Service is also available to qualifying facilities with capacity of 100 kW or less.

The Company also submits the avoided costs for the Standard Contract Offer and Guidelines for filing. The provisions of the Standard Contract Offer and Guidelines have not changed from last year's filing.

Under separate cover, we are forwarding to Commission Staff the work papers which support this filing. The updated tariffs were developed in accordance with NDPSC Small Power Production and Cogeneration Rules (Chapter 69-09-07).

Currently, there are three customers on the Net Energy Billing Service. Pursuant to North Dakota PSC Small Power Production and Cogeneration Rules (Chapter 69-09-07-09, part 3, subpart 2) the Company will provide an annual report of total monthly energy produced by these customers. As was the case with last year's filing, Xcel Energy respectfully requests that the Commission forego an informal hearing on this filing in the interests of time and resources unless Commission Staff has any concerns with the filed revisions.

The revised rate sheets and avoided cost level for Standard Contract Offer and Guidelines are filed to become effective March 1, 2021.

It is customary for Xcel Energy to note in this annual filing that previous statutory changes to the Public Utility Regulatory Policy Act of 1978 (PURPA) may affect future development of Qualifying Facilities in North Dakota by either encouraging or discouraging cogeneration and small power production. These changes are contained in:

- the Energy Policy Act of 2005 (EPAAct 2005<sup>1</sup>),
- the Federal Energy Regulatory Commission's adoption of a Small Generation Interconnection Procedure and standard form Small Generation Interconnection Agreement in FERC Order No. 2006;<sup>2</sup> and
- FERC Order No. 688 and 688-A governing the mandatory purchase obligation under EPAAct 2005.<sup>3</sup>

If you have any questions concerning this filing, please contact me at 701-241-8632 or John Chow at 612-330-7588.

Sincerely,



DAVID H. SEDERQUIST  
SENIOR REGULATORY AND FINANCIAL CONSULTANT

Enclosures

c: John Chow, Xcel Energy  
Lisa Peterson, Xcel Energy

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<sup>1</sup> Pub. L. No. 109-58, Sec. 1253, 119 Stat. 594 (2005).

<sup>2</sup> *Standardization of Small Generation Interconnection Agreements and Procedures*, Order No. 2006, 70 Fed. Reg. 34,189 (June 13, 2005); 111 FERC ¶ 61,220 (2005); *order on reh.*, Order No. 2006-A, 116 FERC ¶ 61,046 (2006).

<sup>3</sup> New PURPA Section 210(m) Regulations Applicable to Small Power Production and Cogeneration Facilities, Order No. 688, 71 FR 64342 (Nov. 1, 2006), FERC Stats. & Regs. ¶ 31,233 (2006)

**Legislative**

Northern States Power Company, a Minnesota corporation  
Minneapolis, Minnesota 55401

**NORTH DAKOTA ELECTRIC RATE BOOK - NDPSO NO. 2**

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**NET ENERGY BILLING SERVICE**  
**RATE CODE D50**

Section No. 9  
~~12th~~13th Revised Sheet No. 2

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**AVAILABILITY**

Available to any Small Qualifying Facility (SQF) with a capacity of 100 kW or less who receives non-time of day retail electric service from Company and offsets energy delivered by Company.

**RATE**

Metering Charge per Month

Single Phase	\$3.25
Three Phase	\$5.50

Payment Schedule for Energy Delivered to Company

Energy Payment per kWh ~~2.276¢~~2.017¢

C

**TERMS AND CONDITIONS OF SERVICE**

1. Energy used by customer in excess of energy delivered by the small qualifying facility at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.

For demand metered General Service customers, the entire kW demand supplied by the Company at the same site during the same billing period shall be billed to the customer according to the appropriate General Service demand charge rate.

2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the small qualifying facility (SQF). The net interconnection charge is the responsibility of the SQF.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must maintain a power factor of the generator as close to unity as is consistent with NSP operating standards.

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Date Filed: ~~01-02-2001~~04-21

By: Christopher B. Clark

Effective Date: ~~02-02-20~~

Case No. PU-~~20-01721~~-

President, Northern States Power Company, a Minnesota corporation

Order Date: ~~02-05-20~~

Northern States Power Company, a Minnesota corporation  
Minneapolis, Minnesota 55401

**NORTH DAKOTA ELECTRIC RATE BOOK - NDPSO NO. 2**

**PURCHASE AND SALE BILLING SERVICE**  
**RATE CODE D51**

Section No. 9  
~~14th~~15th Revised Sheet No. 3

**AVAILABILITY**

Available to any Small Qualifying Facility of less than 100 kW who receives non-time of day retail electric service.

**RATE**

Metering Charge per Month

Single Phase	\$5.25
Three Phase	\$7.60

Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>
Energy Payment per kWh	<del>2.303¢</del> <u>2.011¢</u>	<del>2.224¢</del> <u>2.028¢</u>
Capacity Payment per kWh for Firm Power	<del>0.234¢</del> <u>0.201¢</u>	<del>4.542¢</del> <u>1.398¢</u>

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C

**DETERMINATION OF FIRM POWER**

The small qualifying facility will have supplied firm power if during the billing period an on peak capacity factor of at least 65 percent was achieved. The calculation of the on peak capacity factor will be as follows:

The average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate non-time of day retail electric tariff.
2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the small qualifying facility (SQF). The net interconnection charge is the responsibility of the SQF.
3. The minimum contracted term of service is 12 months.

Date Filed: ~~01-02-2001-04-21~~

By: Christopher B. Clark

Effective Date: ~~02-02-20~~

President, Northern States Power Company, a Minnesota corporation

Case No. ~~PU-20-01721-~~

Order Date: ~~02-05-20~~

**NORTH DAKOTA ELECTRIC RATE BOOK - NDPSO NO. 2**

**TIME OF DAY PURCHASE SERVICE  
RATE CODE D52**

Section No. 9  
~~14th~~15th Revised Sheet No. 4

**AVAILABILITY**

Available to any Small Qualifying Facility (SQF).

**RATE**

Metering Charge per Month

Single Phase	\$5.25
Three Phase	\$7.60

Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>	
Energy Payment per On-Peak kWh	<del>2.675¢</del> <u>2.431¢</u>	<del>2.895¢</del> <u>2.792¢</u>	C
Energy Payment per Off-Peak kWh	<del>2.097¢</del> <u>1.788¢</u>	<del>1.851¢</del> <u>1.616¢</u>	C
Capacity Payment per On-Peak kWh for Firm Power	<del>0.675¢</del> <u>0.580¢</u>	<del>4.419¢</del> <u>4.005¢</u>	C

**DETERMINATION OF FIRM POWER**

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3. The minimum contract term of service is 12 months.

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Date Filed:	<del>01-02-2001-04-21</del>	By: Christopher B. Clark	Effective Date:	<del>02-02-20</del>
		President, Northern States Power Company, a Minnesota corporation		
Case No.	<del>PU-20-04721-</del>		Order Date:	<del>02-05-20</del>

**Non-Legislative**

**NORTH DAKOTA ELECTRIC RATE BOOK - NDPSC NO. 2**

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**NET ENERGY BILLING SERVICE  
RATE CODE D50**

Section No. 9  
13th Revised Sheet No. 2

---

**AVAILABILITY**

Available to any Small Qualifying Facility (SQF) with a capacity of 100 kW or less who receives non-time of day retail electric service from Company and offsets energy delivered by Company.

**RATE**

Metering Charge per Month

Single Phase	\$3.25
Three Phase	\$5.50

Payment Schedule for Energy Delivered to Company

Energy Payment per kWh	2.017¢
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**TERMS AND CONDITIONS OF SERVICE**

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4. The customer must maintain a power factor of the generator as close to unity as is consistent with NSP operating standards.

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Date Filed: 01-04-21

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Case No. PU-21-

Order Date:

**NORTH DAKOTA ELECTRIC RATE BOOK - NDPSO NO. 2**

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**PURCHASE AND SALE BILLING SERVICE  
RATE CODE D51**

Section No. 9  
15th Revised Sheet No. 3

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**AVAILABILITY**

Available to any Small Qualifying Facility of less than 100 kW who receives non-time of day retail electric service.

**RATE**

Metering Charge per Month

Single Phase	\$5.25
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Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>	
Energy Payment per kWh	2.011¢	2.028¢	C
Capacity Payment per kWh for Firm Power	0.201¢	1.398¢	C

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The average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

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3. The minimum contracted term of service is 12 months.

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Date Filed: 01-04-21

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Case No. PU-21-

Order Date:

**NORTH DAKOTA ELECTRIC RATE BOOK - NDPSC NO. 2**

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**TIME OF DAY PURCHASE SERVICE  
RATE CODE D52**

Section No. 9  
15th Revised Sheet No. 4

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**AVAILABILITY**

Available to any Small Qualifying Facility (SQF).

**RATE**

Metering Charge per Month

Single Phase	\$5.25
Three Phase	\$7.60

Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>	
Energy Payment per On-Peak kWh	2.431¢	2.792¢	C
Energy Payment per Off-Peak kWh	1.788¢	1.616¢	C
Capacity Payment per On-Peak kWh for Firm Power	0.580¢	4.005¢	C

**DETERMINATION OF FIRM POWER**

The small qualifying facility will have supplied firm power if during the billing period an on-peak capacity factor of at least 65 percent was achieved. The calculation of the on-peak capacity factor will be as follows:

The average on-peak period metered capacity delivered to the Company for the on-peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on-peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate time of day retail electric tariff.
2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the small qualifying facility (SQF). The net interconnection charge is the responsibility of the SQF.
3. The minimum contract term of service is 12 months.

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Date Filed: 01-04-21

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Case No. PU-21-

Order Date:

Table 1

**Standard Contract Offer  
by  
Northern States Power Company**

**2021 Rate Sheet**

Years	\$/kW-mth	Years	\$/MWh
Contract Length	Levelized Capacity	Payment Period	Levelized Energy (1)
1	0.00		
2	0.00		
3	0.00		
4	0.00		
5	0.59		
6	0.99	1	17.65
7	1.29	2	17.63
8	1.52	3	17.51
9	1.70	4	17.33
10	1.86	5	17.11
11	1.99	6	16.86
12	2.11	7	16.60
13	2.21	8	16.33
14	2.30	9	16.05
15	2.39	10	15.77
16	2.47	11	15.50
17	2.54	12	15.22
18	2.61	13	14.94
19	2.68	14	14.67
20	2.74	15	14.41
21	2.81	16	14.14
22	2.87	17	13.89
23	2.92	18	13.63
24	2.98	19	13.39
25	3.04	20	13.14
26	3.09		
27	3.14		
28	3.20		
29	3.25		
30	3.30		
31	3.36		
32	3.41		
33	3.46		
34	3.51		
35	3.56		

(1) Minimum contract length required for levelized energy payments is 6 years. Maximum length is 20 years. Examples: A 6 year contract could receive one year of levelized energy rates at 17.65 \$/MWh with the remaining 5 years used for payback account corrections. A 20 year contract could receive 15 years of levelized payment at 14.41 \$/MWh for each year with the remaining 5 years for payback account corrections.

**Standard Contract Offer  
by  
Northern States Power Company**

**2022 Rate Sheet**

<b>Years</b>	<b>\$/kW-mth</b>	<b>Years</b>	<b>\$/MWh</b>
<b>Contract Length</b>	<b>Levelized Capacity</b>	<b>Payment Period</b>	<b>Levelized Energy (1)</b>
1	0.00		
2	0.00		
3	0.00		
4	0.00		
5	0.59		
6	0.99	1	15.43
7	1.29	2	15.90
8	1.52	3	16.15
9	1.70	4	16.24
10	1.86	5	16.24
11	1.99	6	16.16
12	2.11	7	16.04
13	2.21	8	15.89
14	2.31	9	15.70
15	2.39	10	15.51
16	2.47	11	15.29
17	2.54	12	15.07
18	2.62	13	14.85
19	2.68	14	14.62
20	2.75	15	14.39
21	2.81	16	14.15
22	2.87	17	13.92
23	2.93	18	13.69
24	2.98	19	13.47
25	3.04	20	13.24
26	3.09		
27	3.15		
28	3.20		
29	3.25		
30	3.31		
31	3.36		
32	3.41		
33	3.46		
34	3.51		
35	3.57		

(1) Minimum contract length required for levelized energy payments is 6 years. Maximum length is 20 years. Examples: A 6 year contract could receive one year of levelized energy rates at 15.43 \$/MWh with the remaining 5 years used for payback account corrections. A 20 year contract could receive 15 years of levelized payment at 14.39 \$/MWh for each year with the remaining 5 years for payback account corrections.

**Standard Contract Offer  
by  
Northern States Power Company**

**2023 Rate Sheet**

Years	\$/kW-mth	Years	\$/MWh
Contract Length	Levelized Capacity	Payment Period	Levelized Energy (1)
1	0.00		
2	0.00		
3	0.00		
4	0.00		
5	0.59		
6	0.99	1.00	13.42
7	1.29	2.00	14.37
8	1.52	3.00	14.96
9	1.71	4.00	15.32
10	1.86	5.00	15.52
11	1.99	6.00	15.62
12	2.11	7.00	15.63
13	2.21	8.00	15.58
14	2.31	9.00	15.49
15	2.39	10.00	15.36
16	2.47	11.00	15.21
17	2.55	12.00	15.05
18	2.62	13.00	14.87
19	2.68	14.00	14.67
20	2.75	15.00	14.48
21	2.81	16.00	14.27
22	2.87	17.00	14.06
23	2.93	18.00	13.86
24	2.98	19.00	13.65
25	3.04	20.00	13.44
26	3.10		
27	3.15		
28	3.20		
29	3.26		
30	3.31		
31	3.36		
32	3.41		
33	3.46		
34	3.52		
35	3.57		

(1) Minimum contract length required for levelized energy payments is 6 years. Maximum length is 20 years. Examples: A 6 year contract could receive one year of levelized energy rates at 13.42 \$/MWh with the remaining 5 years used for payback account corrections. A 20 year contract could receive 15 years of levelized payment at 14.48 \$/MWh for each year with the remaining 5 years for payback account corrections.



2302 Great Northern Drive  
P O Box 2747  
Fargo, ND 58108-2747  
(701) 241-8632  
dave.sederquist@xcelenergy.com

**PUBLIC DOCUMENT  
NOT PUBLIC DATA HAS BEEN EXCISED**

January 4, 2021

**—Via U.S. Mail and Electronic Filing—**

Steven M. Kahl, Executive Secretary  
North Dakota Public Service Commission, Dept. 408  
State Capitol  
600 East Boulevard  
Bismarck, ND 58505-0480

**RE: WORK PAPERS IN SUPPORT OF THE COMPANY'S COGENERATION AND  
SMALL POWER PRODUCTION REPORT (CHAPTER 69-09-07)**

Dear Mr. Kahl:

Enclosed are the supporting work papers in conjunction with the recent submission of the Company's Cogeneration and Small Power Production compliance filing and the annual report of total energy produced by customers.

The supporting work papers contain trade secret information. In accordance with Section 69-02-09-02 of the North Dakota Administrative Code, an Application for Trade Secret Protection is being provided along with a single copy of the trade secret version of the work papers in a sealed envelope.

If you have any questions, please contact me at 701-241-8632 or John Chow at 612-330-7588.

Sincerely,

A handwritten signature in blue ink that reads 'David H. Sederquist'.

DAVID H. SEDERQUIST  
SENIOR REGULATORY AND FINANCE CONSULTANT

c: Lisa Peterson, Xcel Energy  
John Chow, Xcel Energy

Enclosure

<b>STANDARD KWH METER</b>	<b>Single Phase</b>	<b>Three Phase</b>
(1) Installed Cost	\$115.50	\$376.58
(2) L.A.R.R.	10.22%	10.22%
(3) Levelized Cost (1)*(2)	\$11.80	\$38.49
(4) Accounting Expenses \$/Cust/Yr	\$28.36	\$28.36
(5) Total Annual (3)+(4)	\$40.16	\$66.84
(6) Total Monthly (5)/12	\$3.35	\$5.57
	<b>\$3.25</b> Proposed	<b>\$5.50</b> Proposed
	\$3.25 Last Year	\$5.50 Last Year

<b>TOD KW/KWH METER</b>	<b>Single Phase</b>	<b>Three Phase</b>
(7) Installed Cost	\$376.58	\$579.30
(8) Levelized Cost (7)*(2)	\$38.49	\$59.20
(9) Total Annual (8)+(4)	\$66.84	\$87.56
(10) Total Monthly	\$5.57	\$7.30
	<b>\$5.25</b> Proposed	<b>\$7.60</b> Proposed
	\$5.25 Last Year	\$7.60 Last Year

Source:

(1)(7) Data provided by Xcel Energy Metering Dept.

(2) See pages 4-7.

(4) See pages 2 & 3.

Assumed accounting expenses for the second meter is 50%

$(3406000+863000)/(77450+12459)*0.5$

Test year ending December 31, 2013 Class Cost of Service Study

Escalation rate = 1.98% (2015), 2.81% (2016), 2.44% (2017), 2.64%(2018), 2.77%(2019),2.70% (2020) and 2.65% (2021)

Operating & Maint (Pg 2 of 2)			1=2+3+10	2	3=4+5	4	5=6 to 9	6	7	8	9	10
<u>Distribution Expen</u>	<u>Alloc</u>	<u>ND</u>	<u>Res</u>	<u>C&amp;I Tot</u>	<u>Sm Non-D</u>	<u>Demand</u>	<u>Second</u>	<u>Primary</u>	<u>Tr Transf</u>	<u>Trans</u>	<u>St Ltq</u>	
1	Supervision & Eng'rg	ZDTS	770	404	319	56	263	240	24	0	0	47
2	Load Dispatching	D10T	240	81	157	15	143	128	15	0	0	1
3	Substations	P61	522	192	325	29	296	261	35	0	0	5
4	Overhead Lines	POL	2,399	1336	966	164	802	731	71	0	0	98
5	Underground Lines	PUL	1,286	916	340	106	235	226	9	0	0	29
6	Line Transformers	P68	2	1	1	0	1	1	0	0	0	0
7	Meters	C12WM	242	150	88	34	54	50	5	0	0	4
8	Customer Install'n	OXDTS	177	95	66	12	54	49	5	0	0	16
9	Street Lighting	Dir Assign	328	0	0	0	0	0	0	0	0	328
10	Miscellaneous	OXDTS	571	305	214	40	175	159	15	0	0	52
11	Rents (Pole Attachmts)	POL	226	126	91	15	76	69	7	0	0	9
12	<b>Total Distribution</b>		<b>6,763</b>	<b>3606</b>	<b>2568</b>	<b>471</b>	<b>2098</b>	<b>1913</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>589</b>
1	Supervision											
2	Meter Reading											
3	Records & Collections											
4	Uncollectibles											
5	Misc											
13	<b>Customer Accounting</b>	C11WA	4,286	<b>3406</b>	<b>863</b>	512	351	347	4	0	0	16
14	<b>Sales, Econ Dvlp &amp; Other</b>	D57E43	173	58	115	10	104	93	12	0	0	1
	<b>Admin &amp; General</b>											
15	Salaries	LABOR	3,332	1286	2002	211	1791	1588	202	0	0	44
16	Office Supplies	OXTS	3,004	1098	1878	182	1695	1497	198	0	0	28
17	Admin Transfer Credit	OXTS	(1,507)	-551	-942	-92	-850	-751	-99	0	0	-14
18	Outside Services	LABOR	917	354	551	58	493	437	56	0	0	12
19	Property Insurance	NEPIS	726	284	435	45	390	347	43	0	0	7
20	Pensions & Benefits	LABOR	5,843	2255	3510	370	3140	2785	355	0	0	77
21	Injuries & Claims	LABOR	1,071	413	643	68	576	511	65	0	0	14
22	Regulatory Exp	R01; R02	105	40	63	7	57	51	6	0	0	1
23	General Advertising	OXTS	86	31	54	5	49	43	6	0	0	1
24	Contributions	OXTS	0	0	0	0	0	0	0	0	0	0
25	Misc General Exp	OXTS	(99)	-36	-62	-6	-56	-49	-7	0	0	-1
26	Rents	OXTS	1,316	481	823	80	743	656	87	0	0	12
27	<u>Maint of General Plant</u>	<u>OXTS</u>	<u>28</u>	<u>10</u>	<u>18</u>	<u>2</u>	<u>16</u>	<u>14</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>
28	Total		14,822	5667	8973	930	8043	7129	913	0	0	182
	<b>Cust Service &amp; Info</b>											
29	Cust Assist Exp - Non-CIP	C11P10	320	189	126	25	102	90	11	0	0	4
30	CIP Total	D99E1	0	0	0	0	0	0	0	0	0	0
31	<u>Instructional Advertising</u>	<u>C11P10</u>	<u>137</u>	<u>81</u>	<u>54</u>	<u>11</u>	<u>44</u>	<u>39</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>2</u>
32	Total		457	271	180	35	145	129	16	0	0	6
33	Amortizations	LABOR	373	144	224	24	200	178	23	0	0	5
34	<b>Total O&amp;M Expense</b>		<b>170,097</b>	<b>62169</b>	<b>106315</b>	<b>10332</b>	<b>95982</b>	<b>84776</b>	<b>11206</b>	<b>0</b>	<b>0</b>	<b>1614</b>

**Northern States Power Company  
Electric Utility - North Dakota - Test Year Ending 31 Dec 2013**

		1=2+3+10	2	3=4+5	4	5=6 to 9	6	7	8	9	10	
<b>EXTERNAL ALLOCATORS</b>		External	<b>ND</b>	<b>Res</b>	<b>C&amp;I Tot</b>	<b>Sm Non-D</b>	<b>Demand</b>	<b>Second</b>	<b>Primary</b>	<b>Tr Transf</b>	<b>Trans</b>	<b>St Ltg</b>
1	Customers - Ave Monthly	C11	100.00%	84.39%	13.58%	9.60%	3.97%	3.94%	0.04%	0.00%	0.00%	2.03%
2	Cust Acctg Wtg Factor	C11WA	100.00%	79.48%	20.14%	11.94%	8.20%	8.10%	0.10%	0.00%	0.00%	0.38%
3	Mo Cus Wtd By Mtr Invest	C12WM	100.00%	61.96%	36.36%	13.93%	22.42%	20.54%	1.88%	0.00%	0.00%	1.69%
4	Sec & Pri Customers	C61PS	100.00%	86.04%	13.82%	9.74%	4.07%	4.04%	0.04%	0.00%	0.00%	0.14%
5	C62Sec, w/o Ltg & C/I Underground	C62NL	100.00%	94.69%	5.31%	3.75%	1.55%	1.55%	0.00%	0.00%	0.00%	0.00%
6	Secondary Customers	C62Sec	100.00%	86.07%	13.78%	9.75%	4.04%	4.04%	0.00%	0.00%	0.00%	0.14%
7	Summer Peak Resp KW	D10S	100.00%	29.93%	70.07%	5.96%	64.11%	57.27%	6.84%	0.00%	0.00%	0.00%
8	Transmission Demand %	D10T	100.00%	33.92%	65.60%	6.19%	59.40%	53.16%	6.25%	0.00%	0.00%	0.48%
9	Winter Peak Resp KW	D10W	100.00%	39.37%	59.49%	6.51%	52.98%	47.53%	5.44%	0.00%	0.00%	1.14%
10	Alternative Production Allocator	AED4CP	100.00%	29.34%	70.32%	6.52%	63.80%	57.26%	6.54%	0.00%	0.00%	0.34%
11	Sec, Pri & TT, Class Coin kW @ Substat	D60Sub	100.00%	36.78%	62.26%	5.52%	56.74%	50.00%	6.74%	0.00%	0.00%	0.96%
12	Sec & Pri, CI Coin kW (no Min Sys; adj R	D61PS	100.00%	32.55%	66.60%	4.93%	61.67%	54.27%	7.41%	0.00%	0.00%	0.85%
13	D62Sec, w/o Ltg & C/I Underground	D62NLL	100.00%	80.98%	19.02%	2.84%	16.19%	16.19%	0.00%	0.00%	0.00%	0.00%
14	Sec, Class Coin kW (w/o Min Sys kW)	D62SecL	100.00%	47.37%	51.96%	5.64%	46.32%	46.32%	0.00%	0.00%	0.00%	0.66%
15	Direct Assign Street Lighting	DASL	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
16	On + Off Sales MWH	E8760	100.00%	34.58%	64.79%	5.74%	59.06%	51.84%	7.22%	0.00%	0.00%	0.63%
17	Street Lighting (Dir Assign)	P73	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
18	Present Rev	R01	100.00%	38.56%	60.42%	6.33%	54.08%	48.52%	5.57%	0.00%	0.00%	1.02%

		1=2+3+10	2	3=4+5	4	5=6 to 9	6	7	8	9	10	
<b>APPLIED EXTERNAL DATA (BIG or LITTLE)</b>		External	<b>ND</b>	<b>Res</b>	<b>C&amp;I Tot</b>	<b>Sm Non-D</b>	<b>Demand</b>	<b>Second</b>	<b>Primary</b>	<b>Tr Transf</b>	<b>Trans</b>	<b>St Ltg</b>
19	Customers - B Basis	C10	89,565	77,063	12,374	8,726	3,648	3,614	33	0	0	128
20	Cust - Ave Monthly (C10-Area Lt)	C11	91,774	77,450	12,459	8,812	3,648	3,614	33	0	0	1,865
21	Mo Cus Wtd By Cus Acct	C11WA	95,594	75,975	19,253	11,414	7,839	7,741	98	0	0	366
22	Cust Acctg Wtg Factor	C11WAF	7.35	0.98	6.37	1.30	5.07	2.14	2.93	0.00	0.00	N/A
23	Cust-Ave Mo (C11 w/ Dir Assign St Ltg)	C12	91,431	77,450	12,459	8,812	3,648	3,614	33	0	0	1,522
24	Mo Cus Wtd By Mtr Invest	C12WM	10,725,904	6,645,497	3,899,673	1,494,491	2,405,182	2,203,155	202,027	0	0	180,733
25	Meter Invest / Cust Factor	C12WMF	7,032	86	6,828	170	6,658	610	6,049	0	0	119
26	Sec & Pri Customers	C61PS	89,565	77,063	12,374	8,726	3,648	3,614	33	0	0	128
27	C62Sec, w/o Ltg & C/I Underground	C62NL	81,382	77,063	4,319	3,054	1,265	1,265	0	0	0	0
28	Secondary Customers	C62Sec	89,531	77,063	12,340	8,726	3,614	3,614	0	0	0	128
29	Summer Peak Resp KW	D10S	495	148	347	29	317	283	34	0	0	0
30	Dmd (D10S x Fact + D10W)/1000	D10T	10,000,000	3,392,295	6,559,551	619,281	5,940,269	5,315,505	624,764	0	0	48,154
31	Winter Peak Resp KW	D10W	428	169	255	28	227	203	23	0	0	5
32	Alternative Production Allocator	AED4CP	10,000,000	2,933,939	7,031,571	651,649	6,379,922	5,725,548	654,374	0	0	34,490
33	Sec, Pri & TT, Class Coin kW @ Substat	D60Sub	566,768	208,479	352,857	31,278	321,579	283,372	38,207	0	0	5,432
34	Sec & Pri, Class Coin kW (w/o Min Sys; i	D61PS	515,278	167,718	343,192	25,402	317,790	279,625	38,165	0	0	4,368
35	D62Sec, w/o Ltg & C/I Underground	D62NLL	778,581	630,468	148,113	22,087	126,026	126,026	0	0	0	0
36	Sec, Class Coin kW (w/o Min Sys kW)	D62SecL	10,000,000	4,737,112	5,196,472	564,431	4,632,041	4,632,041	0	0	0	66,416
37	Annual Billing kW	D99	3,581.533	0	3,582	0	3,582	3,239	343	0	0	0
38	Summer Billing kW	D99S	1,257.547	0	1,258	0	1,258	1,129	128	0	0	0
39	Winter Billing kW	D99W	2,323.986	0	2,324	0	2,324	2,109	215	0	0	0
40	Non-Coinc Pk Second	DN-Sec	1,058,016	630,468	423,181	63,105	360,075	360,075	0	0	0	4,368
41	kWh Sales @ Meter	E99	2,270,721	784,751	1,466,635	125,788	1,340,847	1,172,103	168,745	0	0	19,336

**REVENUE REQUIREMENTS**

**Meter Equipment**

**North Dakota**

Income Tax Rate	24.41%
AFUDC Rate	0.00%
Beginning Year	2021
Year in Service	2021
Salvage/(Removal)%	10.00%
Escalation Factor	2.07%
Tax Life	0 years
Book Life	30.0 years
Property Tax Rate	0.82%

Cost of Capital		Before-Tax	After-Tax
		Weighted	Weighted
	Cost	Cost	Cost
Equity	10.25%	52.56%	5.39%
Preferred	0.00%	0.00%	0.00%
L-T Debt	5.14%	44.96%	2.31%
S-T Debt	0.75%	2.48%	0.02%
		100.00%	7.72%
			7.16%

Carrying Charge Rate	
Return Requirement	5.15%
Depreciation Requirement	3.09%
Income Tax Requirement	1.16%
<b>Total Capital Requirement</b>	<b>9.40%</b>
O&M Requirement	0.00%
Property Tax	0.82%
<b>Total LARR =</b>	<b>10.22%</b>

(LARR) Levelized Annual Revenue Requirement

Time Period	Year	Capital Expend.	AFUDC	Total CWIP	Plant in Service BOY	Plant in Service EOY	Average Plant in Service	Average Accum. Deprec.	Average Net Plant in Service	Average Acc. Def. Income Taxes	Average Rate Base	Rate of Return (Equity)	Rate of Return (Debt)	AFUDC	Operating Expenses	Book Deprec. Expense	Deferred Income Taxes	Salvage	Income Taxes
0	2021	1,000	0	1,000	0	1,000	500	8	493	3	490	26	11	0	0.00	15	5	0	3
1	2022		0	0	1,000	1,000	1,000	30	970	11	959	52	22	0	0.00	30	10	0	6
2	2023		0	0	1,000	1,000	1,000	60	940	20	920	50	21	0	0.00	30	9	0	7
3	2024		0	0	1,000	1,000	1,000	90	910	29	881	48	21	0	0.00	30	8	0	8
4	2025		0	0	1,000	1,000	1,000	120	880	36	844	46	20	0	0.00	30	7	0	8
5	2026		0	0	1,000	1,000	1,000	150	850	42	808	44	19	0	0.00	30	6	0	8
6	2027		0	0	1,000	1,000	1,000	180	820	47	773	42	18	0	0.00	30	5	0	9
7	2028		0	0	1,000	1,000	1,000	210	790	51	739	40	17	0	0.00	30	4	0	9
8	2029		0	0	1,000	1,000	1,000	240	760	55	705	38	16	0	0.00	30	4	0	9
9	2030		0	0	1,000	1,000	1,000	270	730	58	672	36	16	0	0.00	30	4	0	8
10	2031		0	0	1,000	1,000	1,000	300	700	62	638	34	15	0	0.00	30	4	0	8
11	2032		0	0	1,000	1,000	1,000	330	670	66	604	33	14	0	0.00	30	4	0	7
12	2033		0	0	1,000	1,000	1,000	360	640	69	571	31	13	0	0.00	30	4	0	6
13	2034		0	0	1,000	1,000	1,000	390	610	73	537	29	13	0	0.00	30	4	0	6
14	2035		0	0	1,000	1,000	1,000	420	580	76	504	27	12	0	0.00	30	4	0	5
15	2036		0	0	1,000	1,000	1,000	450	550	80	470	25	11	0	0.00	30	4	0	5
16	2037		0	0	1,000	1,000	1,000	480	520	83	437	24	10	0	0.00	30	4	0	4
17	2038		0	0	1,000	1,000	1,000	510	490	87	403	22	9	0	0.00	30	4	0	3
18	2039		0	0	1,000	1,000	1,000	540	460	91	369	20	9	0	0.00	30	4	0	3
19	2040		0	0	1,000	1,000	1,000	570	430	94	336	18	8	0	0.00	30	4	0	2
20	2041		0	0	1,000	1,000	1,000	600	400	95	305	16	7	0	0.00	30	(2)	0	7
21	2042		0	0	1,000	1,000	1,000	630	370	90	280	15	7	0	0.00	30	(7)	0	12
22	2043		0	0	1,000	1,000	1,000	660	340	83	257	14	6	0	0.00	30	(7)	0	12
23	2044		0	0	1,000	1,000	1,000	690	310	76	234	13	5	0	0.00	30	(7)	0	11
24	2045		0	0	1,000	1,000	1,000	720	280	68	212	11	5	0	0.00	30	(7)	0	11
25	2046		0	0	1,000	1,000	1,000	750	250	61	189	10	4	0	0.00	30	(7)	0	11
26	2047		0	0	1,000	1,000	1,000	780	220	54	166	9	4	0	0.00	30	(7)	0	10
27	2048		0	0	1,000	1,000	1,000	810	190	46	144	8	3	0	0.00	30	(7)	0	10
28	2049		0	0	1,000	1,000	1,000	840	160	39	121	7	3	0	0.00	30	(7)	0	9
29	2050		0	0	1,000	1,000	1,000	870	130	32	98	5	2	0	0.00	30	(7)	0	9
		1,000	0	1,000											0	885	28	0	227

**REVENUE REQUIREMENTS**

**Meter Equipment**

**North Dakota**

Income Tax Rate

AFUDC Rate

Beginning Year

Year in Service

Salvage/(Removal)%

Escalation Factor

Tax Life

Book Life

Property Tax Rate

Time Period	Year	Property Taxes	Revenue Req.	PV Revenue Req.	PV of Book Deprec.	PV of Equity Return	PV of Debt Return	PV of AFUDC	PV of Operating Expenses	PV of Property Taxes	PV of Def. Taxes	PV of Income Taxes	
0	2021	0	61	61	15	26	11	0	0	0	5	3	
1	2022	8	129	120	28	48	21	0	0	8	10	6	
2	2023	8	125	109	26	43	19	0	0	7	8	6	
3	2024	8	122	99	24	39	17	0	0	7	6	6	
4	2025	8	118	90	23	35	15	0	0	6	5	6	
5	2026	8	115	81	21	31	13	0	0	6	4	6	
6	2027	8	111	74	20	28	12	0	0	5	3	6	
7	2028	8	108	67	18	25	11	0	0	5	2	6	
8	2029	8	105	60	17	22	9	0	0	5	2	5	
9	2030	8	102	55	16	19	8	0	0	4	2	4	
10	2031	8	99	49	15	17	7	0	0	4	2	4	
11	2032	8	95	45	14	15	7	0	0	4	2	3	
12	2033	8	92	40	13	13	6	0	0	4	2	3	
13	2034	8	89	36	12	12	5	0	0	3	1	2	
14	2035	8	86	33	11	10	4	0	0	3	1	2	
15	2036	8	83	29	11	9	4	0	0	3	1	2	
16	2037	8	80	26	10	8	3	0	0	3	1	1	
17	2038	8	76	24	9	7	3	0	0	3	1	1	
18	2039	8	73	21	9	6	2	0	0	2	1	1	
19	2040	8	70	19	8	5	2	0	0	2	1	1	
20	2041	8	67	17	8	4	2	0	0	2	(0)	2	
21	2042	8	65	15	7	4	2	0	0	2	(2)	3	
22	2043	8	63	14	7	3	1	0	0	2	(2)	3	
23	2044	8	60	12	6	3	1	0	0	2	(1)	2	
24	2045	8	58	11	6	2	1	0	0	2	(1)	2	
25	2046	8	56	10	5	2	1	0	0	1	(1)	2	
26	2047	8	54	9	5	1	1	0	0	1	(1)	2	
27	2048	8	52	8	5	1	1	0	0	1	(1)	2	
28	2049	8	50	7	4	1	0	0	0	1	(1)	1	
29	2050	8	47	6	4	1	0	0	0	1	(1)	1	
		238	2,510	<b>1,247</b>	378	439	190	0	0	99	48	93	
		Levelized Annual Revenue Requirement:											
				102	31	36	16	0	0	8	4	8	
		As % of Original Cost:											
				10.21%	3.09%	3.59%	1.55%	0.00%	0.00%	0.81%	0.40%	0.76%	10.21%

**REVENUE REQUIREMENTS**

**Meter Equipment**

**North Dakota**

Income Tax Rate

AFUDC Rate

Beginning Year

Year in Service

Salvage/(Removal)%

Escalation Factor

Tax Life

Book Life

Property Tax Rate

Time Period	Year	Tax Depreciation Table								
		2021	2022	2023	2024	2025	Total	BOY	EOY	Average
0	2021	38					38	0	0	0
1	2022	72	0				72	0	0	0
2	2023	67	0	0			67	0	0	0
3	2024	62	0	0	0		62	0	0	0
4	2025	57	0	0	0	0	57	0	0	0
5	2026	53	0	0	0	0	53	0	0	0
6	2027	49	0	0	0	0	49	0	0	0
7	2028	45	0	0	0	0	45	0	0	0
8	2029	45	0	0	0	0	45	0	0	0
9	2030	45	0	0	0	0	45	0	0	0
10	2031	45	0	0	0	0	45	0	0	0
11	2032	45	0	0	0	0	45	0	0	0
12	2033	45	0	0	0	0	45	0	0	0
13	2034	45	0	0	0	0	45	0	0	0
14	2035	45	0	0	0	0	45	0	0	0
15	2036	45	0	0	0	0	45	0	0	0
16	2037	45	0	0	0	0	45	0	0	0
17	2038	45	0	0	0	0	45	0	0	0
18	2039	45	0	0	0	0	45	0	0	0
19	2040	45	0	0	0	0	45	0	0	0
20	2041	22	0	0	0	0	22	0	0	0
21	2042	0	0	0	0	0	0	0	0	0
22	2043	0	0	0	0	0	0	0	0	0
23	2044	0	0	0	0	0	0	0	0	0
24	2045	0	0	0	0	0	0	0	0	0
25	2046	0	0	0	0	0	0	0	0	0
26	2047	0	0	0	0	0	0	0	0	0
27	2048	0	0	0	0	0	0	0	0	0
28	2049	0	0	0	0	0	0	0	0	0
29	2050	0	0	0	0	0	0	0	0	0
		1,000	0	0	0	0	1,000			

Book Depreciation Table									
2021	2022	2023	2024	2025	Total	BOY	EOY	Average	
15					15	0	15	8	
30	0				30	15	45	30	
30	0	0			30	45	75	60	
30	0	0	0		30	75	105	90	
30	0	0	0	0	30	105	135	120	
30	0	0	0	0	30	135	165	150	
30	0	0	0	0	30	165	195	180	
30	0	0	0	0	30	195	225	210	
30	0	0	0	0	30	225	255	240	
30	0	0	0	0	30	255	285	270	
30	0	0	0	0	30	285	315	300	
30	0	0	0	0	30	315	345	330	
30	0	0	0	0	30	345	375	360	
30	0	0	0	0	30	375	405	390	
30	0	0	0	0	30	405	435	420	
30	0	0	0	0	30	435	465	450	
30	0	0	0	0	30	465	495	480	
30	0	0	0	0	30	495	525	510	
30	0	0	0	0	30	525	555	540	
30	0	0	0	0	30	555	585	570	
30	0	0	0	0	30	585	615	600	
30	0	0	0	0	30	615	645	630	
30	0	0	0	0	30	645	675	660	
30	0	0	0	0	30	675	705	690	
30	0	0	0	0	30	705	735	720	
30	0	0	0	0	30	735	765	750	
30	0	0	0	0	30	765	795	780	
30	0	0	0	0	30	795	825	810	
30	0	0	0	0	30	825	855	840	
30	0	0	0	0	30	855	885	870	
885	0	0	0	0	885				



**Northern States Power Company  
Electric Utility - State of North Dakota  
Derivation of Energy Payments**

<b>NET ENERGY BILLING SERVICE</b>	<b>Average Summer</b>	<b>Average Winter</b>	<b>Wtd Avg Annual</b>
(1) Estimated System Average Incremental Energy Costs for 2021 (¢/kWh)	1.959	1.940	
(2) Energy Loss Factors	0.9659	0.9648	
(3) Estimated System Average Incremental Energy Costs Adjusted for Losses (1)/(2)	2.028	2.011	
(4) Average Annual (Cents/kWh) <small>([1]*4/12) + ([2]*8/12)</small>			<b>2.017</b>

<b>PURCHASE AND SALE BILLING SERVICE</b>	<b>Average Summer</b>	<b>Average Winter</b>
(1) Estimated System Average Incremental Energy Costs for 2021 (¢/kWh)	1.959	1.940
(2) Energy Loss Factors	0.9659	0.9648
(3) Estimated System Average Incremental Energy Costs Adjusted for Losses (1)/(2)	<b>2.028</b>	<b>2.011</b>

<b>TIME OF DAY PURCHASE SERVICE</b>	<b>Summer On Peak</b>	<b>Summer Off Peak</b>	<b>Winter On Peak</b>	<b>Winter Off Peak</b>
(1) Estimated System Average Incremental Energy Costs for 2021 (¢/kWh)	2.685	1.565	2.337	1.728
(2) Energy Loss Factors	0.9616	0.9682	0.9612	0.9667
(3) Estimated System Average Incremental Energy Costs Adjusted for Losses(1)/(2)	<b>2.792</b>	<b>1.616</b>	<b>2.431</b>	<b>1.788</b>

Sources:

Incremental Energy Cost Data provided by Xcel Energy's Generation Modeling .

**Northern States Power Company  
Electric Utility - State of North Dakota  
Calculation of Net Annual Avoided Capacity Costs**

[PROTECTED  
DATA BEGINS  
(Highlighted)]

(1) Completed Cost of C.T. Unit (2021 \$)	\$549 /kW
(2) Inflation Net of Technical Progress	2.00%
(3) Average Service Life	40 Years
(4) Discount Rate (After Tax)	7.16%
Calculation of Marginal Capital Carry Charge Rate	
(5) Present Value of Revenue Requirements	[REDACTED] /kW
(6) Annuity Factor Adjustment for Inflation **	0.05992
(7) Present Value of Revenue Requirements Adjusted for Inflation (5)*(6)	[REDACTED]
(8) Marginal Capital Carrying Charge Rate (7)/(1)	[REDACTED]
(9) First Year Revenue Requirement (1)*(8)	[REDACTED] /kW (2021 \$)
(10) Present Value at 7.16% for 0 years	[REDACTED] /kW
(11) Present Value of Average Annual Fuel Savings	[REDACTED] /kW
(12) Annual Avoided Capacity Cost (10)-(11)	[REDACTED] /kW
(13) Adjusted for 15% Reserve Margin (12)*1.15	[REDACTED] /kW
(14) Plus \$10.60/kW Fixed O & M (2021 \$) (13)+10.60	[REDACTED] /kW
(15) Adjusted for losses (14)/0.9652	[REDACTED] /kW
(16) NET ANNUAL AVOIDED CAPACITY COST	\$52.66 /kW
(17) Net Winter On-Peak Avoided Capacity Cost (TOD PURCHASE) (16)*0.2229/2023	0.00580 \$/kWh
(18) Net Summer On-Peak Avoided Capacity Cost (TOD PURCHASE) (16)*0.7771/1022	0.04005 \$/kWh
(19) Net Annual On-Peak Avoided Capacity Cost (16)/3045	0.01730 \$/kWh
(20) Net Winter Avoided Capacity Cost Averaged Over All Winter Hours (PURCHASE & SALE BILLING) (16)*0.2340/5832	0.00201 \$/kWh
(21) Net Summer Aoided Capacity Cost Averaged Over All Summer Hours (PURCHASE & SALE BILLING) (16)*0.7660/2928	0.01398 \$/kWh
(22) Net Annual Avoided Capacity Cost Average Over All Hours (16)/8760	0.00601 \$/kWh

\*\*  $AC = k * (r-j) * (1+j)^{(t-1)} * [1 / (1 - (1+j)^n / (1+r)^n)]$   
 Where AC = Annual Charge in year t  
 t = Year (=1)  
 K = Total Present Value Cost of Original Investment  
 r = Discount Rate (Overall Marginal Cost of Capital) (7.16%)  
 j = Inflation Rate Net of Technology Progress (2.00%)  
 n = Expected Service Life of Investment (40 Years)

Note: The weighting factors 77.7% and 22.3% are obtained from NSP's most recent Cost of Service Study. These rations represent relative summer and winter season capacity costs on NSP's System.

Summer Percent:	77.71%
Winter Percent:	22.29%
Total:	100.00%
O & M	[REDACTED]

	<u>On-Peak</u>	<u>Off-Peak</u>
Winter Hours	2,023	3,809
Summer Hours	<u>1,022</u>	<u>1,906</u>
Total	3,045	5,715

PROTECTED DATA ENDS]

**Northern States Power Company**  
**System Peak Demands**  
**Summer/Winter Factors**

Month	System MW	
	Full	Net
1	5,924	1,208
2	5,718	1,002
3	5,505	789
4	5,074	358
5	6,288	1,572
6	8,112	3,396
7	8,794	4,078
8	8,261	3,545
9	7,284	2,568
10	5,400	684
11	5,537	821
12	6,077	1,361
Annual Average Hourly Load	<b>4,716</b>	
<b>Average of Monthly Peaks</b>		
Year	6,498	1,782
Summer	8,113	3,397
Winter	<u>5,690</u>	<u>974</u>
Total	13,803	4,371
<b>Summer:Winter Ratio</b>	<b>1.4257</b>	<b>3.4859</b>
Summer Percent	58.77%	77.71%
Winter Percent	<u>41.23%</u>	<u>22.29%</u>
	100.00%	100.00%

**Notes:**  
*Full system ratio used to weight actual summer class peaks*  
*Net system ratio used to split total peaking plant into summer and winter*

Northern States Power Company  
**Electric Utility - State of North Dakota**  
**Marginal Cost of Capital**

<b><i>(Before Tax)</i></b>	<b>Capitalization Ratio (%)</b>	<b>Cost (%)</b>	<b>Weighted (%)</b>
LT- Debt	44.96%	5.14%	2.31%
ST- Debt	2.48%	0.75%	0.02%
Common Equity	52.56%	10.25% *	5.39%
<b>Weighted Average</b>	100.00%		<b>7.72%</b>

<b><i>(After Tax)</i></b>	<b>Capitalization Ratio (%)</b>	<b>Cost (%)</b>	<b>Weighted (%)</b>
LT-Debt	44.96%	5.14%	1.75%
ST-Debt	2.48%	0.75%	0.02%
Common Equity	52.56%	10.25% *	5.39%
<b>Weighted Average</b>	100.00%		<b>7.16%</b>

\* Common Equity is Commission approved return in case no. PU-12-813 (Order issued 2/26/2014)

Source:  
 Company Corporate Assumptions Memo (June 4, 2020)

REVENUE REQUIREMENTS

Combustion Turbine Plant

North Dakota

Income Tax Rate	24.41%
AFUDC Rate	8.02%
Beginning Year	2021
Year in Service	2021
Salvage/(Removal)%	0.00%
Escalation Factor	2.07%
Tax Life	20 years
Book Life	27.5 years
Property Tax Rate	0.82%

Cost of Capital		Before-Tax Weighted Cost	After-Tax Weighted Cost
	Cost	Ratio	
Equity	10.25%	52.56%	5.39%
Preferred	0.00%	0.00%	0.00%
L-T Debt	5.14%	44.96%	2.31%
S-T Debt	0.75%	2.48%	0.02%
		100.00%	7.72%
			7.16%

Carrying Charge Rate	
Return Requirement	5.08%
Depreciation Requirement	3.72%
Income Tax Requirement	1.15%
Total Capital Requirement	9.94%
O&M Requirement	0.00%
Property Tax	0.82%
<b>Total LARR =</b>	<b>10.76%</b>

(LARR) Levelized Annual Revenue Requirement

Time Period	Year	Capital Expend.	AFUDC	Total CWIP	Plant in Service BOY	Plant in Service EOY	Average Plant in Service	Average Accum. Deprec.	Average Net Plant in Service	Average Acc. Def. Income Taxes	Average Rate Base	Rate of Return (Equity)	Rate of Return (Debt)	AFUDC	Operating Expenses	Book Deprec. Expense	Deferred Income Taxes	Salvage	Income Taxes
0	2021	1,000	0	1,000	0	1,000	500	9	491	2	489	26	11	0	0.00	18	5	0	4
1	2022		0	0	1,000	1,000	1,000	36	964	9	955	51	22	0	0.00	36	9	0	8
2	2023		0	0	1,000	1,000	1,000	73	927	17	910	49	21	0	0.00	36	7	0	8
3	2024		0	0	1,000	1,000	1,000	109	891	24	867	47	20	0	0.00	36	6	0	9
4	2025		0	0	1,000	1,000	1,000	145	855	30	825	44	19	0	0.00	36	5	0	9
5	2026		0	0	1,000	1,000	1,000	182	818	34	784	42	18	0	0.00	36	4	0	10
6	2027		0	0	1,000	1,000	1,000	218	782	38	744	40	17	0	0.00	36	3	0	10
7	2028		0	0	1,000	1,000	1,000	255	745	40	705	38	16	0	0.00	36	2	0	10
8	2029		0	0	1,000	1,000	1,000	291	709	42	667	36	16	0	0.00	36	2	0	10
9	2030		0	0	1,000	1,000	1,000	327	673	44	628	34	15	0	0.00	36	2	0	9
10	2031		0	0	1,000	1,000	1,000	364	636	46	590	32	14	0	0.00	36	2	0	8
11	2032		0	0	1,000	1,000	1,000	400	600	48	552	30	13	0	0.00	36	2	0	8
12	2033		0	0	1,000	1,000	1,000	436	564	50	513	28	12	0	0.00	36	2	0	7
13	2034		0	0	1,000	1,000	1,000	473	527	52	475	26	11	0	0.00	36	2	0	6
14	2035		0	0	1,000	1,000	1,000	509	491	54	436	24	10	0	0.00	36	2	0	6
15	2036		0	0	1,000	1,000	1,000	545	455	57	398	21	9	0	0.00	36	2	0	5
16	2037		0	0	1,000	1,000	1,000	582	418	59	360	19	8	0	0.00	36	2	0	4
17	2038		0	0	1,000	1,000	1,000	618	382	61	321	17	7	0	0.00	36	2	0	4
18	2039		0	0	1,000	1,000	1,000	655	345	63	283	15	7	0	0.00	36	2	0	3
19	2040		0	0	1,000	1,000	1,000	691	309	65	245	13	6	0	0.00	36	2	0	2
20	2041		0	0	1,000	1,000	1,000	727	273	64	209	11	5	0	0.00	36	(3)	0	7
21	2042		0	0	1,000	1,000	1,000	764	236	58	179	10	4	0	0.00	36	(9)	0	12
22	2043		0	0	1,000	1,000	1,000	800	200	49	151	8	4	0	0.00	36	(9)	0	12
23	2044		0	0	1,000	1,000	1,000	836	164	40	124	7	3	0	0.00	36	(9)	0	11
24	2045		0	0	1,000	1,000	1,000	873	127	31	96	5	2	0	0.00	36	(9)	0	11
25	2046		0	0	1,000	1,000	1,000	909	91	22	69	4	2	0	0.00	36	(9)	0	10
26	2047		0	0	1,000	1,000	1,000	945	55	13	41	2	1	0	0.00	36	(9)	0	10
27	2048		0	0	1,000	1,000	1,000	964	36	9	27	1	1	0	0.00	0	0	0	0
28	2049		0	0	1,000	1,000	1,000	0	1,000	9	991	53	23	0	0.00	0	0	0	17
29	2050		0	0	1,000	1,000	1,000	0	1,000	9	991	53	23	0	0.00	0	0	0	17
		1,000	0	1,000											0	964	9	0	246

REVENUE REQUIREMENTS

Combustion Turbine Plant

North Dakota

Income Tax Rate

AFUDC Rate

Beginning Year

Year in Service

Salvage/(Removal)%

Escalation Factor

Tax Life

Book Life

Property Tax Rate

Time Period	Year	Property Taxes	Revenue Req.	PV Revenue Req.	PV of Book Deprec.	PV of Equity Return	PV of Debt Return	PV of AFUDC	PV of Operating Expenses	PV of Property Taxes	PV of Def. Taxes	PV of Income Taxes
0	2021	0	64	64	18	26	11	0	0	0	5	4
1	2022	8	135	126	34	48	21	0	0	8	8	7
2	2023	8	131	114	32	43	18	0	0	7	6	7
3	2024	8	127	103	30	38	16	0	0	7	5	7
4	2025	8	123	93	28	34	15	0	0	6	4	7
5	2026	8	119	84	26	30	13	0	0	6	3	7
6	2027	8	115	76	24	26	11	0	0	5	2	7
7	2028	8	111	69	22	23	10	0	0	5	1	6
8	2029	8	108	62	21	21	9	0	0	5	1	6
9	2030	8	104	56	20	18	8	0	0	4	1	5
10	2031	8	100	50	18	16	7	0	0	4	1	4
11	2032	8	97	45	17	14	6	0	0	4	1	4
12	2033	8	93	41	16	12	5	0	0	4	1	3
13	2034	8	89	36	15	10	5	0	0	3	1	3
14	2035	8	86	33	14	9	4	0	0	3	1	2
15	2036	8	82	29	13	8	3	0	0	3	1	2
16	2037	8	79	26	12	6	3	0	0	3	1	1
17	2038	8	75	23	11	5	2	0	0	3	1	1
18	2039	8	71	21	10	4	2	0	0	2	1	1
19	2040	8	68	18	10	4	2	0	0	2	1	1
20	2041	8	64	16	9	3	1	0	0	2	(1)	2
21	2042	8	61	14	9	2	1	0	0	2	(2)	3
22	2043	8	59	13	8	2	1	0	0	2	(2)	3
23	2044	8	56	11	7	1	1	0	0	2	(2)	2
24	2045	8	54	10	7	1	0	0	0	2	(2)	2
25	2046	8	51	9	6	1	0	0	0	1	(2)	2
26	2047	8	48	8	6	0	0	0	0	1	(1)	2
27	2048	8	11	2	0	0	0	0	0	1	0	0
28	2049	8	102	15	0	8	3	0	0	1	0	2
29	2050	8	102	14	0	7	3	0	0	1	0	2
		238	2,585	1,280	442	421	182	0	0	99	33	103
Levelized Annual Revenue Requirement:				108	37	35	15	0	0	8	3	9
As % of Original Cost:				10.78%	3.72%	3.55%	1.53%	0.00%	0.00%	0.83%	0.28%	0.87%

REVENUE REQUIREMENTS

Combustion Turbine Plant

North Dakota

Income Tax Rate

AFUDC Rate

Beginning Year

Year in Service

Salvage/(Removal)%

Escalation Factor

Tax Life

Book Life

Property Tax Rate

		Tax Depreciation Table									
Time Period	Year	2021	2022	2023	2024	2025	Total	BOY	EOY	Average	
0	2021	38					38	0	38	19	
1	2022	72	0				72	38	110	74	
2	2023	67	0	0			67	110	176	143	
3	2024	62	0	0	0		62	176	238	207	
4	2025	57	0	0	0	0	57	238	295	267	
5	2026	53	0	0	0	0	53	295	348	322	
6	2027	49	0	0	0	0	49	348	397	373	
7	2028	45	0	0	0	0	45	397	442	420	
8	2029	45	0	0	0	0	45	442	487	465	
9	2030	45	0	0	0	0	45	487	532	509	
10	2031	45	0	0	0	0	45	532	576	554	
11	2032	45	0	0	0	0	45	576	621	598	
12	2033	45	0	0	0	0	45	621	665	643	
13	2034	45	0	0	0	0	45	665	710	688	
14	2035	45	0	0	0	0	45	710	755	732	
15	2036	45	0	0	0	0	45	755	799	777	
16	2037	45	0	0	0	0	45	799	844	822	
17	2038	45	0	0	0	0	45	844	888	866	
18	2039	45	0	0	0	0	45	888	933	911	
19	2040	45	0	0	0	0	45	933	978	955	
20	2041	22	0	0	0	0	22	978	0	489	
21	2042	0	0	0	0	0	0	0	0	0	
22	2043	0	0	0	0	0	0	0	0	0	
23	2044	0	0	0	0	0	0	0	0	0	
24	2045	0	0	0	0	0	0	0	0	0	
25	2046	0	0	0	0	0	0	0	0	0	
26	2047	0	0	0	0	0	0	0	0	0	
27	2048	0	0	0	0	0	0	0	0	0	
28	2049	0	0	0	0	0	0	0	0	0	
29	2050	0	0	0	0	0	0	0	0	0	
		1,000	0	0	0	0	1,000				

		Book Depreciation Table									
Time Period	Year	2021	2022	2023	2024	2025	Total	BOY	EOY	Average	
0	2021	18					18	0	18	9	
1	2022	36	0				36	18	55	36	
2	2023	36	0	0			36	55	91	73	
3	2024	36	0	0	0		36	91	127	109	
4	2025	36	0	0	0	0	36	127	164	145	
5	2026	36	0	0	0	0	36	164	200	182	
6	2027	36	0	0	0	0	36	200	236	218	
7	2028	36	0	0	0	0	36	236	273	255	
8	2029	36	0	0	0	0	36	273	309	291	
9	2030	36	0	0	0	0	36	309	345	327	
10	2031	36	0	0	0	0	36	345	382	364	
11	2032	36	0	0	0	0	36	382	418	400	
12	2033	36	0	0	0	0	36	418	455	436	
13	2034	36	0	0	0	0	36	455	491	473	
14	2035	36	0	0	0	0	36	491	527	509	
15	2036	36	0	0	0	0	36	527	564	545	
16	2037	36	0	0	0	0	36	564	600	582	
17	2038	36	0	0	0	0	36	600	636	618	
18	2039	36	0	0	0	0	36	636	673	655	
19	2040	36	0	0	0	0	36	673	709	691	
20	2041	36	0	0	0	0	36	709	745	727	
21	2042	36	0	0	0	0	36	745	782	764	
22	2043	36	0	0	0	0	36	782	818	800	
23	2044	36	0	0	0	0	36	818	855	836	
24	2045	36	0	0	0	0	36	855	891	873	
25	2046	36	0	0	0	0	36	891	927	909	
26	2047	36	0	0	0	0	36	927	964	945	
27	2048	0	0	0	0	0	0	964	964	964	
28	2049	0	0	0	0	0	0	0	0	0	
29	2050	0	0	0	0	0	0	0	0	0	
		964	0	0	0	0	964				

REVENUE REQUIREMENTS

Combustion Turbine Plant

North Dakota

Income Tax Rate

AFUDC Rate

Beginning Year

Year in Service

Salvage/(Removal)%

Escalation Factor

Tax Life

Book Life

Property Tax Rate

Time Period	Year	Salvage	Deferred Taxes	BOY	EOY	Avg. Acc. Deferred Taxes	Book Depreciation	Tax Depreciation	Tax Depreciation Rates					
				Accum. Deferred Taxes	Accum. Deferred Taxes				MACRS Half Year					
									3-year	5-year	7-year	10-year	15-year	20-year
0	2021	0	5	0	5	2	1.82%	3.75%	33.33%	20.00%	14.29%	10.00%	5.00%	3.75%
1	2022	0	9	5	13	9	3.64%	7.22%	44.45%	32.00%	24.49%	18.00%	9.50%	7.22%
2	2023	0	7	13	21	17	3.64%	6.68%	14.81%	19.20%	17.49%	14.40%	8.55%	6.68%
3	2024	0	6	21	27	24	3.64%	6.18%	7.41%	11.52%	12.49%	11.52%	7.70%	6.18%
4	2025	0	5	27	32	30	3.64%	5.71%		11.52%	8.93%	9.22%	6.93%	5.71%
5	2026	0	4	32	36	34	3.64%	5.29%		5.76%	8.92%	7.37%	6.23%	5.29%
6	2027	0	3	36	39	38	3.64%	4.89%			8.93%	6.55%	5.90%	4.89%
7	2028	0	2	39	41	40	3.64%	4.52%			4.46%	6.55%	5.90%	4.52%
8	2029	0	2	41	43	42	3.64%	4.46%				6.56%	5.91%	4.46%
9	2030	0	2	43	45	44	3.64%	4.46%				6.55%	5.90%	4.46%
10	2031	0	2	45	47	46	3.64%	4.46%				3.28%	5.91%	4.46%
11	2032	0	2	47	49	48	3.64%	4.46%					5.90%	4.46%
12	2033	0	2	49	51	50	3.64%	4.46%					5.91%	4.46%
13	2034	0	2	51	53	52	3.64%	4.46%					5.90%	4.46%
14	2035	0	2	53	55	54	3.64%	4.46%					5.91%	4.46%
15	2036	0	2	55	58	57	3.64%	4.46%					2.95%	4.46%
16	2037	0	2	58	60	59	3.64%	4.46%						4.46%
17	2038	0	2	60	62	61	3.64%	4.46%						4.46%
18	2039	0	2	62	64	63	3.64%	4.46%						4.46%
19	2040	0	2	64	66	65	3.64%	4.46%						4.46%
20	2041	0	(3)	66	62	64	3.64%	2.23%						2.23%
21	2042	0	(9)	62	53	58	3.64%		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
22	2043	0	(9)	53	44	49	3.64%							
23	2044	0	(9)	44	36	40	3.64%							
24	2045	0	(9)	36	27	31	3.64%							
25	2046	0	(9)	27	18	22	3.64%							
26	2047	0	(9)	18	9	13	3.64%							
27	2048	0	0	9	9	9	0.00%							
28	2049	0	0	9	9	9	0.00%							
29	2050	0	0	9	9	9	0.00%							
			9				96.36%							

**Northern States Power Company  
Electric Utility - State of North Dakota  
Derivation of Seasonal Loss Factors**

50%

ENERGY LOSS FACTORS

(1) Summer On Peak	0.9232	0.9616
(2) Summer Off Peak	0.9364	0.9682
(3) Summer Average	0.9318	0.9659
(4) Winter On Peak	0.9225	0.9612
(5) Winter Off Peak	0.9334	0.9667
(6) Winter Average	0.9296	0.9648

DEMAND LOSS FACTOR

(7) Annual Average	0.9303	0.9652
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Source:

Information provided by Xcel Energy Load Research Dept.

Table 1

**Standard Contract Offer  
by  
Northern States Power Company**

**2021 Rate Sheet**

Years	\$/kW-mth	Years	\$/MWh
Contract Length	Levelized Capacity	Payment Period	Levelized Energy (1)
1	0.00		
2	0.00		
3	0.00		
4	0.00		
5	0.59		
6	0.99	1	17.65
7	1.29	2	17.63
8	1.52	3	17.51
9	1.70	4	17.33
10	1.86	5	17.11
11	1.99	6	16.86
12	2.11	7	16.60
13	2.21	8	16.33
14	2.30	9	16.05
15	2.39	10	15.77
16	2.47	11	15.50
17	2.54	12	15.22
18	2.61	13	14.94
19	2.68	14	14.67
20	2.74	15	14.41
21	2.81	16	14.14
22	2.87	17	13.89
23	2.92	18	13.63
24	2.98	19	13.39
25	3.04	20	13.14
26	3.09		
27	3.14		
28	3.20		
29	3.25		
30	3.30		
31	3.36		
32	3.41		
33	3.46		
34	3.51		
35	3.56		

(1) Minimum contract length required for levelized energy payments is 6 years. Maximum length is 20 years. Examples: A 6 year contract could receive one year of levelized energy rates at 17.65 \$/MWh with the remaining 5 years used for payback account corrections. A 20 year contract could receive 15 years of levelized payment at 14.41 \$/MWh for each year with the remaining 5 years for payback account corrections.

**Standard Contract Offer  
by  
Northern States Power Company**

**2022 Rate Sheet**

<b>Years</b>	<b>\$/kW-mth</b>	<b>Years</b>	<b>\$/MWh</b>
<b>Contract Length</b>	<b>Levelized Capacity</b>	<b>Payment Period</b>	<b>Levelized Energy (1)</b>
1	0.00		
2	0.00		
3	0.00		
4	0.00		
5	0.59		
6	0.99	1	15.43
7	1.29	2	15.90
8	1.52	3	16.15
9	1.70	4	16.24
10	1.86	5	16.24
11	1.99	6	16.16
12	2.11	7	16.04
13	2.21	8	15.89
14	2.31	9	15.70
15	2.39	10	15.51
16	2.47	11	15.29
17	2.54	12	15.07
18	2.62	13	14.85
19	2.68	14	14.62
20	2.75	15	14.39
21	2.81	16	14.15
22	2.87	17	13.92
23	2.93	18	13.69
24	2.98	19	13.47
25	3.04	20	13.24
26	3.09		
27	3.15		
28	3.20		
29	3.25		
30	3.31		
31	3.36		
32	3.41		
33	3.46		
34	3.51		
35	3.57		

(1) Minimum contract length required for levelized energy payments is 6 years. Maximum length is 20 years. Examples: A 6 year contract could receive one year of levelized energy rates at 15.43 \$/MWh with the remaining 5 years used for payback account corrections. A 20 year contract could receive 15 years of levelized payment at 14.39 \$/MWh for each year with the remaining 5 years for payback account corrections.

**Standard Contract Offer  
by  
Northern States Power Company**

**2023 Rate Sheet**

Years	\$/kW-mth	Years	\$/MWh
Contract Length	Levelized Capacity	Payment Period	Levelized Energy (1)
1	0.00		
2	0.00		
3	0.00		
4	0.00		
5	0.59		
6	0.99	1.00	13.42
7	1.29	2.00	14.37
8	1.52	3.00	14.96
9	1.71	4.00	15.32
10	1.86	5.00	15.52
11	1.99	6.00	15.62
12	2.11	7.00	15.63
13	2.21	8.00	15.58
14	2.31	9.00	15.49
15	2.39	10.00	15.36
16	2.47	11.00	15.21
17	2.55	12.00	15.05
18	2.62	13.00	14.87
19	2.68	14.00	14.67
20	2.75	15.00	14.48
21	2.81	16.00	14.27
22	2.87	17.00	14.06
23	2.93	18.00	13.86
24	2.98	19.00	13.65
25	3.04	20.00	13.44
26	3.10		
27	3.15		
28	3.20		
29	3.26		
30	3.31		
31	3.36		
32	3.41		
33	3.46		
34	3.52		
35	3.57		

(1) Minimum contract length required for levelized energy payments is 6 years. Maximum length is 20 years. Examples: A 6 year contract could receive one year of levelized energy rates at 13.42 \$/MWh with the remaining 5 years used for payback account corrections. A 20 year contract could receive 15 years of levelized payment at 14.48 \$/MWh for each year with the remaining 5 years for payback account corrections.

Northern States Power Company  
 Electric Operations - State of North Dakota  
**Annual Report of Total Energy Produced By Customers**

<b>Bill</b>	<b>Total Customer KWh Use</b>	<b>Net KWh Delivered By Company</b>	<b>KWh Received From Customers</b>	<b>Excess KWh Sold To Company</b>
2020 December	1,070	1,043	27	-
November	2,209	2,039	210	40
October	1,931	1,610	587	266
September	1,762	1,280	729	247
August	2,361	1,680	1,077	396
July	2,682	2,187	1,032	537
June	2,015	1,720	1,012	717
May	2,140	1,880	369	109
April	2,625	2,411	214	-
March	2,383	2,180	203	-
February	2,557	2,512	45	-
January	2,926	2,920	6	-
<b>Total</b>	<b>26,661</b>	<b>23,462</b>	<b>5,511</b>	<b>2,312</b>

Source: Company billing records