

Direct Testimony and Schedules  
Christopher A. Arend

Before the Minnesota Public Utilities Commission  
State of Minnesota

In the Matter of the Application of Northern States Power Company  
for Authority to Increase Rates for Natural Gas Service in Minnesota

Docket No. G002/GR-21-678  
Exhibit\_\_(CAA-1)

**Property Taxes**

November 1, 2021

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1 **I. INTRODUCTION**

2  
3 Q. PLEASE STATE YOUR NAME AND OCCUPATION.

4 A. My name is Christopher A. Arend. I am the Senior Director of Tax Services  
5 for Xcel Energy Services Inc. (XES), the service company affiliate of Northern  
6 States Power Company – Minnesota (NSPM or the Company) and an operating  
7 company of Xcel Energy Inc. (Xcel Energy).

8  
9 Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

10 A. I have over 27 years of corporate tax experience, including serving as Senior  
11 Director of Tax Services for XES. In my current position, I oversee and manage  
12 tax planning and defense responsibilities associated with XES’s income,  
13 property and sales taxes. A summary of my qualifications and experience is  
14 provided as Exhibit\_\_\_(CAA-1), Schedule 1.

15  
16 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

17 A. I provide the Company’s annual property tax expense forecast for the 2021 test  
18 year. Specifically, I discuss our overall forecast methodology and the inputs we  
19 used to develop the forecast. I also provide a discussion of how property taxes  
20 were treated in our 2016 Multi-Year Rate Plan (MYRP), Docket No. E002/GR-  
21 15-826, how they should be treated in this case, and historical information  
22 related to our property taxes.

23  
24 Q. BEFORE TURNING TO FORECAST DETAILS, PLEASE DISCUSS WHAT YOU BELIEVE  
25 THE GOAL IS IN DETERMINING THE APPROPRIATE LEVEL OF PROPERTY TAXES  
26 TO INCLUDE IN RATES.

27 A. Property taxes are a necessary cost of providing service to our customers. While

1 property taxes may fluctuate due to changes dictated by the Minnesota  
2 Department of Revenue (DOR) and changes in tax rates at the local level,  
3 increases in our property taxes are largely due to investments in our system. As  
4 such, we believe rates should be set to allow the Company to recover this cost  
5 of service and, at the same time, to ensure customers pay only actual property  
6 taxes incurred.

7  
8 Q. WHAT IS THE COMPANY'S FORECASTED PROPERTY TAX EXPENSE AMOUNT FOR  
9 THE TEST YEAR?

10 A. Our 2022 NSPM (Total Company)<sup>1</sup> property tax forecast, by state taxing  
11 jurisdiction, is shown in Table 1 below. For comparison purposes, Table 1 also  
12 shows our actual 2020 property taxes and our current 2021 forecast. Table 1  
13 also provides this information at the Minnesota gas jurisdictional level.  
14 Company witness Mr. Benjamin C. Halama provides support for the State of  
15 Minnesota Gas Jurisdiction property tax expense amounts, including how the  
16 NSPM (Total Company) property tax expense is appropriately allocated to the  
17 relevant regulatory jurisdictions. Detailed calculations of the NSPM (Total  
18 Company) property tax expense for 2020-2022 are provided in  
19 Exhibit\_\_\_(CAA-1), Schedules 2 through 4.

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<sup>1</sup> Total Company or NSPM refers to Northern States Power Company-Minnesota that provides service to gas and electric customers in Minnesota, North Dakota, and South Dakota.

**Table 1**  
**Forecasted Property Tax Expense**  
**(\$ Millions)**

Component	2020 Actual	2021 Forecast	2022 Forecast
Minnesota Taxing Jurisdiction	\$204.1	\$214.2	\$235.5
North Dakota Taxing Jurisdiction	\$7.0	\$6.9	\$7.4
South Dakota Taxing Jurisdiction	\$4.5	\$5.0	\$5.8
Iowa Taxing Jurisdiction	\$0	\$0	\$0.2
NSPM (Total Company)	\$215.6	\$226.1	\$248.9
State of Minnesota Gas Jurisdiction	\$17.9	\$19.5	\$19.4

Since the State of Minnesota taxes for the gas and electric utilities account for over 94 percent of the NSPM (Total Company) property taxes, the discussion in my testimony focuses on the Minnesota taxing jurisdiction. However, consistent with prior rate cases, the Company is seeking recovery of its total property tax expense for NSPM (i.e., taxes paid to Minnesota, North Dakota, South Dakota and Iowa). In addition, unless noted otherwise, the numbers I provide are for both our gas and electric utilities, consistent with how we estimate property taxes for financial statement purposes.

Q. WERE THESE FORECASTED AMOUNTS DEVELOPED USING THE SAME APPROACH THAT THE COMPANY USED IN THE 2016 MYRP AND IN THE 2019 AND 2020 ELECTRIC RATE CASE FILINGS?

A. Yes, our overall forecasting approach is the same, and we are using similar data inputs for the variables in our property tax forecast calculation. Specifically, our forecasts in this case reflect the most recently available actual Minnesota DOR valuation inputs, which were finalized in August 2021.

1 Q. PLEASE DESCRIBE HOW APPLICATION OF THE MOST RECENTLY AVAILABLE  
2 ACTUAL MINNESOTA DOR VALUATION INPUTS IMPACTED THE COMPANY'S  
3 FORECASTED PROPERTY TAX EXPENSE IN THIS CASE.

4 A. While the DOR's final valuation is not guaranteed from year to year, the  
5 valuation inputs are understood and are reasonably predictable. As a result, we  
6 believe that forecasting property taxes for 2022 using the actual DOR valuation  
7 inputs received in 2021 is appropriate.

8

9 I discuss the DOR valuation inputs further in Section II.B. of my testimony. In  
10 addition, I provide analysis of our property tax forecast and a historical analysis  
11 of our property taxes in Section III.

12

13 Q. HOW IS THE REMAINDER OF YOUR DIRECT TESTIMONY ORGANIZED?

14 A. I present the remainder of my testimony in the following sections:

- 15 • *Section II*: Property Tax Expense Forecasts;
- 16 • *Section III*: Forecast Analysis; and
- 17 • *Section IV*: Conclusion.

18

## 19 II. PROPERTY TAX EXPENSE FORECASTS

20

### 21 A. Forecast Methodology

22 Q PLEASE DESCRIBE HOW THE COMPANY'S PROPERTY IS ASSESSED A VALUE AND  
23 HOW THE ASSESSED VALUE IS USED TO DETERMINE PROPERTY TAXES.

24 A. The first step in the property tax process is determining the value of the  
25 Company's property. In Minnesota, different types of utility property are valued  
26 differently. Utility operating property is valued by the DOR using the formulas  
27 described in Minnesota Rules part 8100.0300. Non-operating property (e.g.

1 offices, garages, warehouses, land, etc.) is valued by local assessors using  
2 traditional valuation techniques. The DOR also determines how much of the  
3 Company's total system value is attributable to Minnesota. The Minnesota  
4 value is then apportioned to each county. Counties add the portion apportioned  
5 to them with the property they assess themselves to arrive at our tax base within  
6 the jurisdiction. Finally, each jurisdiction applies its own individual property tax  
7 rate to our tax base to determine our property tax liability. Additional detail on  
8 Minnesota's property tax system is available in Chapter 8100 of the Minnesota  
9 Rules.

10  
11 Q. PLEASE DESCRIBE THE DOR'S PROCESS FOR VALUING THE COMPANY'S  
12 OPERATING PROPERTY.

13 A. The DOR begins by determining the system unit value, which is an estimated  
14 valuation of the Company's entire gas or electric system, in all states in which  
15 the Company operates, based on two different appraisal methods. One appraisal  
16 method is referred to as the cost indicator of value, and it is calculated based on  
17 the Company's net book value plus construction work in progress (CWIP).

18  
19 A second appraisal method used by the DOR is referred to as the income  
20 indicator of value. The basic calculation divides the Company's net operating  
21 income by a weighted average cost of capital.

22  
23 Next, the DOR applies weightings to the cost and income indicators of value.  
24 For example, in 2021 the DOR applied 14 percent weight to the cost method  
25 and 86 percent to the income method in determining the value of NSPM's gas  
26 system. The result of this calculation is the total system unit value.

1 Allocators, based on plant and revenue, are then applied to the total system unit  
2 value to determine the Minnesota portion of the total system unit value, which  
3 is referred to as the Minnesota-allocated value.

4  
5 Next, the Minnesota-allocated value is reduced by deductions and exclusions to  
6 value, such as land and computer software, to determine the apportionable  
7 market value. This is the value that is apportioned to the various Minnesota  
8 taxing jurisdictions that NSPM operates in. An example of this calculation is  
9 included as Schedule 2.

10  
11 Q. PLEASE DESCRIBE HOW UTILITY PROPERTY IS VALUED IN NORTH DAKOTA AND  
12 SOUTH DAKOTA.

13 A. Both of these states use a method similar to the method used by Minnesota to  
14 value utility property. North Dakota Century Code § 57-06-14 explains how  
15 utility property is valued in that state. Additional information related to the  
16 North Dakota property tax system can be found in Chapter 57-06 of the North  
17 Dakota Century Code.

18  
19 South Dakota Codified Laws § 10-35-10.1 explains how utility property is  
20 valued in that state. Additional information related to the South Dakota  
21 property tax system can be found in Chapter 10-35 of the South Dakota  
22 Codified Laws.

23  
24 Q. PLEASE DESCRIBE THE DOR'S ASSESSMENT AND APPEAL PROCESS

25 A. The DOR typically presents an initial assessment to the Company by early July,  
26 and we have 30 days from the date the initial assessment is received to request  
27 an administrative appeal with the DOR. While a settlement for less than the



1 initially assessed value is not guaranteed, the Company pursues an appeal if it is  
2 in the best interest of its customers.

3  
4 Q. GIVEN THIS PROCESS, HOW DOES THE COMPANY FORECAST ITS PROPERTY  
5 TAXES?

6 A. We forecast property taxes based on the same key variables used in prior rate  
7 cases, such as investments, DOR valuation inputs, and effective tax rate.

8  
9 Q. HAS THE COMPANY EVER RECEIVED A REFUND OF ANY PROPERTY TAX  
10 PAYMENTS AFTER RECEIPT OF A FINAL BILL?

11 A. The Company has not received a refund to my knowledge. This is because the  
12 valuation is normally finalized prior to the receipt of the final bill.

13  
14 Q. WHAT INPUTS DID THE COMPANY USE TO DEVELOP ITS 2022 PROPERTY TAX  
15 FORECAST?

16 A. Our current 2022 property tax forecast is based on the data in Table 2 below.

17  
18 **Table 2**  
19 **Inputs to 2022 Property Tax Forecast**

20

Category	Variable	Data Inputs
Investments	Plant	Projected December 31, 2021 Plant Balances
	Net Operating Income	Actual 2019 & 2020 and Projected 2021 Net Operating Income
DOR Valuation Inputs	DOR Capitalization Rates	Actual 2021 DOR Capitalization Rates (Received April 2021)
	DOR Weighting of Indicators of Value	Actual 2021 DOR Weighting (Received August 2021)
Effective Tax Rate	Local Tax Rates	2020 Effective Rate (Received March and April 2021)

21  
22  
23  
24  
25  
26  
27

1 Q. DID THE COMPANY USE THE SAME VARIABLES LISTED IN TABLE 2 IN ITS 2016  
2 MYRP AND 2019 AND 2020 ELECTRIC RATE CASE APPLICATIONS?

3 A. Yes. We used the same variables in our 2016 MYRP and 2019 and 2020 rate  
4 case applications.

5

6 Q. ARE THE DATA INPUTS IN TABLE 2 THE MOST APPROPRIATE TO USE IN  
7 FORECASTING THE 2022 PROPERTY TAX EXPENSE?

8 A. Yes. The information in Table 2 represents the most current information  
9 available at this time and results in a reasonable and sound forecast of the 2022  
10 property tax expense.

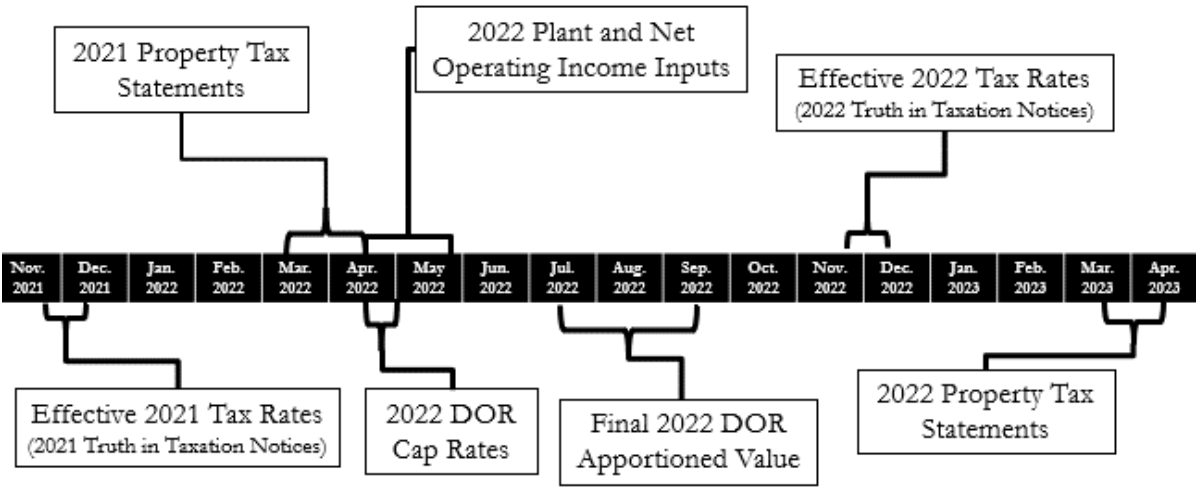
11

12 Q. YOU MENTIONED EARLIER THAT THE COMPANY UPDATES ITS INTERNAL  
13 PROPERTY TAX FORECASTS AS INFORMATION IS RECEIVED DURING THE YEAR.  
14 WHEN DOES THE COMPANY TYPICALLY RECEIVE SUCH INFORMATION?

15 A. Figure 1 below shows when we expect to receive information regarding our  
16 2022 property taxes in 2022 and 2023.

17

18 **Figure 1**  
19 **Property Tax Timeline**



1 Q. BASED ON THE SCHEDULE OUTLINED IN FIGURE 1, WILL THE COMPANY  
2 PROVIDE ANY UPDATES TO ITS PROPERTY TAX FORECAST DURING THE COURSE  
3 OF THIS RATE CASE?

4 A. Yes. As shown in Figure 1, we expect to receive the final DOR apportioned  
5 values for 2022 between July and September 2022. We will update our  
6 forecasted 2022 property tax expense to incorporate these final values as part  
7 of either my Rebuttal Testimony or Surrebuttal Testimony.

8

9 Q. IS THE COMPANY PROPOSING A PROPERTY TAX TRUE-UP MECHANISM IN THIS  
10 NATURAL GAS RATE CASE SIMILAR TO WHAT THE COMMISSION APPROVED IN  
11 THE COMPANY'S 2016 MYRP?

12 A. As discussed by Company witness Mr. Greg P. Chamberlain, the Company is  
13 not specifically requesting a property tax true-up for this gas rate case.  
14 However, the Company is open to discussing such a true-up with parties as this  
15 case progresses.

16

17 **B. Data Inputs**

18 Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR DIRECT TESTIMONY?

19 A. In this section of my testimony, I discuss the different data inputs that were  
20 used to determine the Company's 2022 property tax forecast.

21

22 *1. Plant*

23 Q. WHAT PLANT DATA DID THE COMPANY USE IN ITS 2022 PROPERTY TAX  
24 FORECAST?

25 A. Our current 2022 property tax forecast is based upon our current projection of  
26 December 31, 2021 plant balances. The Company's final 2022 property tax  
27 expense will be based on the final December 31, 2021 plant balances.

1                   2.     *Net Operating Income*

2 Q. WHAT NET OPERATING INCOME DATA DID THE COMPANY USE IN ITS 2022  
3 PROPERTY TAX FORECAST?

4 A. Our current 2022 property tax forecast is based upon actual 2019 and 2020 net  
5 operating income and our current projection of 2021 net operating income. The  
6 Company's final 2021 property tax expense will be based upon actual 2019,  
7 2020, and 2021 net operating income. The calculation method for net operating  
8 income is dictated by the DOR. The DOR used a three-year weighted average  
9 method for 2021 property taxes, and we use this three-year weighted method in  
10 our 2022 property tax forecast.

11  
12                   3.     *DOR Capitalization Rates*

13 Q. WHAT DOR CAPITALIZATION RATES DID THE COMPANY USE IN ITS 2022  
14 PROPERTY TAX FORECAST?

15 A. Our 2022 property tax forecast is based on the most recent actual information  
16 available, which are the actual DOR capitalization rates we received in 2021.  
17 Final property taxes will be based on the DOR's final capitalization rates for  
18 each year.

19  
20                   4.     *DOR Weighting of Cost and Income Indicators of Value*

21 Q. WHAT WEIGHTING OF THE COST AND INCOME INDICATORS OF VALUE DID THE  
22 COMPANY USE IN ITS 2022 PROPERTY TAX FORECAST?

23 A. Our 2022 property tax forecast is based on the most recent actual information  
24 available, which are the actual DOR weightings of the cost and income  
25 indicators of value we received in 2021. Final property taxes will be based on  
26 the DOR's weightings for each specific year.

1 While the DOR reviews and may adjust these weightings every year, and prior  
2 years' weightings do not dictate the DOR's decision in any year, we believe using  
3 the most recent weightings provides a reasonable property tax forecast. We also  
4 believe use of the 2021 actual weightings of the cost and income indicators of  
5 value is appropriate because it is the most recent actual information available.  
6

7 *5. Local Tax Rates*

8 Q. WHAT LOCAL TAX RATES DID THE COMPANY USE IN ITS 2022 PROPERTY TAX  
9 FORECAST?

10 A. Our current forecast of the 2022 property tax expense is based upon 2020 local  
11 tax rates. The local tax rates are mathematically converted into an effective tax  
12 rate as provided in Exhibit\_\_\_(CAA-1), Schedule 5. This is the most accurate  
13 recent tax rate data available at this time. Specifically, the resulting 2.95 percent  
14 effective tax rate used in our forecasts is based upon 2020 final tax statements  
15 received in March and April 2021. This tax rate was used to calculate the 2021  
16 Minnesota property tax as well as the 2022 forecasted property tax in  
17 Exhibit\_\_\_(CAA-1), Schedule 6. Final 2022 property taxes will be based on the  
18 final statements received in March and April of 2023.  
19

20 **III. FORECAST ANALYSIS**

21  
22 Q. WHAT IS DRIVING THE INCREASE IN 2022 MINNESOTA PROPERTY TAXES FROM  
23 THE 2021 LEVELS?

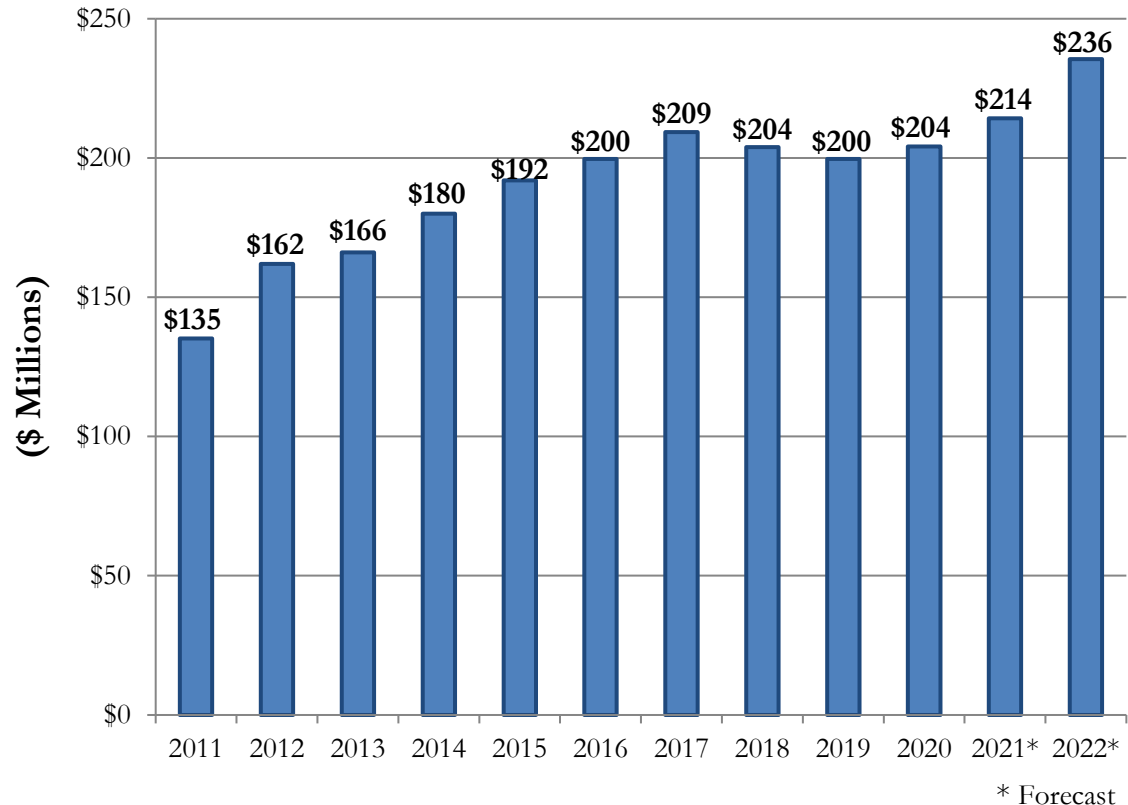
24 A. As described above, the Company's property tax expense is a function of three  
25 primary variables: (1) investments; (2) DOR valuation inputs; and (3) local  
26 property tax rates. The increase in our forecasted 2022 Minnesota taxing  
27 jurisdiction property tax expense is driven primarily by the first variable, i.e., our

1 investments in system-wide assets. For example, our 2022 property tax forecast  
2 includes over \$900 million in additional property and over \$54 million in  
3 additional net operating income as compared to the 2021 property tax forecast.  
4 Exhibit\_\_\_(CAA-1), Schedule 7 compares our 2022 forecast to 2021 property  
5 tax expense.

6  
7 Q. IS THE FORECASTED INCREASE IN 2022 MINNESOTA PROPERTY TAXES  
8 CONSISTENT WITH PAST INCREASES IN MINNESOTA PROPERTY TAXES?

9 A. Yes. As Minnesota taxes account for over 94 percent of NSPNM (Total  
10 Company) property taxes, Figure 2 below shows NSPM property taxes for the  
11 Minnesota taxing jurisdiction for 2011 through 2022. As shown, property taxes  
12 have increased each year since 2011, except for 2018 and 2019. The 2018  
13 property tax is slightly lower than 2017 due to more favorable weightings by the  
14 DOR for the cost and income indicators of value. The 2019 property tax is  
15 slightly lower than 2018 due to a small decrease in the tax rate.

1 **Figure 2**  
 2 **NSPM Minnesota Taxing Jurisdiction Gas and Electric Property Taxes**



18 Q. WHAT IS DRIVING THE INCREASES IN THE NORTH DAKOTA AND SOUTH  
 19 DAKOTA PROPERTY TAXES INCLUDED IN THE COMPANY'S FORECASTS?

20 A. Similar to Minnesota, the property tax increases in North Dakota and South  
 21 Dakota are driven by the investment variable.

22  
23 **IV. CONCLUSION**

24  
25 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

26 A. The forecasted 2022 NSPM (Total Company) property tax expense is \$248.9  
 27 million, the allocation of which to the appropriate regulatory jurisdictions will

1 be discussed by Mr. Halama. Forecasted property taxes for all operating  
2 jurisdictions are increasing due to ongoing system investments and represent a  
3 continuation of recent increases. Our forecasts in this case reflect the most  
4 recently available data inputs for some variables, namely the DOR valuation  
5 inputs and local tax rates received in 2021. We believe using the 2021 DOR  
6 valuation inputs and local tax rates results in an accurate forecast for the 2022  
7 test year.

8

9 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

10 A. Yes, it does.



## Statement of Qualifications

### Christopher A. Arend

#### Responsibilities

As an Accountant, I performed various payroll and invoice processing tasks.

As a Tax Analyst and Senior Tax Analyst, I prepared federal and state income tax returns and performed other compliance and accounting functions related to income taxes.

As a Tax Manager and Tax Director, I oversaw income tax compliance and accounting responsibilities and performed income and property tax planning and defense functions.

As Senior Director, Tax Services, I oversee and manage the tax planning, policy and defense responsibilities associated with Xcel Energy's income, property and sales/use taxes.

#### Experience

1991–1993	Northern States Power Company	Accountant
1993–2000	Northern States Power Company	Tax Analyst/Sr. Tax Analyst
2000–2014	Xcel Energy Inc.	Tax Manager/Tax Director
2014–Present	Xcel Energy Inc.	Senior Director, Tax Services

#### Education

2000	Master of Business–Taxation	University of Minnesota
1991	Bachelor of Science–Accounting	Minnesota State University–Mankato

**NSPM Total Company Property Taxes**

	<b>2020</b>	
	<b>Electric</b>	<b>Gas</b>
<b>System Unit Value Calculation</b>		
Plant In Service, 12/31/19	19,984,117,546	1,634,367,461
CWIP, 12/31/19	523,405,463	53,912,533
Depreciation, 12/31/19	(8,076,755,155)	(690,368,701)
<b>Cost Indicator of Value</b>	<b>A</b> <u>\$12,430,767,854</u>	<u>\$997,911,293</u>
<b>Income Indicator</b>		
2017 NOI x 25%	158,578,501	10,367,732
2018 NOI x 35%	220,347,988	17,321,626
2019 NOI x 40%	277,086,180	21,860,300
NOI to Capitalize	\$656,012,669	\$49,549,658
Capitalization Rate	6.40%	7.07%
<b>Income Indicator of Value</b>	<b>B</b> <u>\$10,250,197,957</u>	<u>\$700,843,823</u>
<b>Apply Weightings</b>		
	0.0% / 100.0%	7.0% / 93.0%
Cost Indicator	\$0	\$69,853,800
Income Indicator	\$10,250,198,000	\$651,784,800
<b>Total System Unit Value</b>	<b>C</b> <u><u>\$10,250,198,000</u></u>	<u><u>\$721,638,600</u></u>
<b>Allocation of System Value</b>		
MN Plant in Service	18,193,498,972	1,540,344,028
System Plant in Service	20,507,523,009	1,688,279,994
Plant Ratio x 90%-Elec / x 75%-Gas	79.85%	68.43%
MN Gross Revenue	3,946,918,373	506,370,653
System Gross Revenue	4,495,412,265	577,083,424
Revenue Ratio x 10%-Elec / x 25%-Gas	8.78%	21.94%
MN Allocated Value Percentage	88.63%	90.37%
<b>MN Allocated Value</b>	<b>D</b> <u>\$9,084,750,500</u>	<u>\$652,144,800</u>
Net Depreciable Excludables	2,619,042,842	88,516,284
Non-Depreciable Excludables	989,825,685	10,641,017
Subtotal	3,608,868,527	99,157,301
Ratio - System Unit Value / Cost Indicator	82.46%	72.31%
<b>Deductions to MN Allocated Value</b>	<u>\$2,975,873,000</u>	<u>\$71,700,600</u>
Sliding Scale Market Value Exclusion	201,018,300	0
<b>Deduct/Excl to MN Allocated Value</b>	<b>E</b> <u>\$3,176,891,300</u>	<u>\$71,700,600</u>
<b>Apportionable Market Value</b>	<u>\$5,899,282,100</u>	<u>\$580,000,000</u>
Effective Tax Rate	2.93%	2.93%
<b>Forecasted Property Tax - Elec &amp; Gas</b>	<b>\$172,697,354</b>	<b>\$16,979,094</b>
Rounded	<u>\$172,692,000</u>	<u>\$16,980,000</u>
Locally Assessed	10,128,000	996,000
Wind Production	3,324,000	
Solar Production		
<b>Total Property Tax</b>	<b><u>\$186,144,000</u></b>	<b><u>\$17,976,000</u></b>
<b>Total MN Property Tax</b>		<b>204,120,000</b>
North Dakota & South Dakota Property Tax		\$11,466,000
<b>Total NSPM Forecasted Property Tax</b>		<b>\$215,586,000</b>

**Support for the Calculation of Minnesota Apportionable Market Value**

**A** Minn. R. 8100.0300, subp. 3 describes in part the cost indicator of value as:  
*The cost factor to be considered in the utility valuation formula is the original cost less depreciation of the system plant, plus the cost of improvements to the system plant, plus the original cost of all types of construction work in progress that are installed by the assessment date, plus the cost of property held for future use, plus the cost of contributions in aid of construction.*

**B** Minn. R. 8100.0300, subp. 4, explains the process for calculating the income indicator of value:  
*The income indicator of value is estimated by weighting the capitalized net operating earnings of the utility company for the most recent three years as follows: most recent year, 40 percent; previous year, 35 percent; and final year, 25 percent. Utilities may request the removal of nonrecurring items of income or expense. The commissioner must determine if removal of the item is appropriate. The net income is capitalized by applying a capitalization rate that is computed by using the band of investment method. This method considers:*

- A. the capital structure of utilities;*
- B. the cost of debt or interest rate;*
- C. the yield on preferred stock of utilities;*
- D. the yield on common stock of utilities; and*
- E. the risk-free rate, relative risk, and risk premiums for public utility companies.*

*Capitalization rates are computed each year for electric companies, gas distribution companies, natural gas transmission systems, and fluid pipeline companies. The rates are recalculated each year using the method described in this subpart.*

Minn. R. 8100.0100, subp. 9 defines net operating earnings as follows:

*Net operating earnings" means earnings from the system plant of the utility after the deduction of operating expenses, depreciation, and taxes, but before any deduction for interest.*

Minn. R. 8100.0100, subp. 5, defines capitalization rate as:

*"Capitalization rate" means the relationship of income to capital investment or value, expressed as a percentage.*

**C** Minn. R. 8100.0300, subp. 5, explains the process for calculating the system unit value:  
*The unit value of the utility company is equal to the total of the weighted indicators of value. The total weighting must equal 100 percent. The default weightings of the indicators are: market indicator, 0 percent; cost indicator, 50 percent; income indicator, 50 percent.*

**D** Minn. R. 8100.0400, subp. 2, explains the process for calculating the allocation of electric value attributable to Minnesota:  
*The original cost of the utility property located in Minnesota divided by the total original cost of the property in all states of operation is weighted at 90 percent. Gross revenue derived from operations in Minnesota divided by gross operations revenue from all states is weighted at ten percent.*

Minn. R. 8100.0400, subp. 3, explains the process for calculating the allocation of gas value attributable to Minnesota:

*The allocation of value of gas distribution companies must be made considering the same factors as are used to determine the allocation of value of electric companies. The weight given to the original cost factor is 75 percent, and gross revenue is weighted 25 percent.*

**E** Minn. R. 8100.0500, subp. 1, explains the process for adjusting the valuation performed under Rule 8100.0300:  
*After the Minnesota portion of the unit value of the utility company, except for electric cooperatives, is determined, any property which is non-formula-assessed or which is exempt from ad valorem tax, is deducted from the Minnesota portion of the unit value. Only that qualifying property located within the state of Minnesota may be excluded.*

Minn. R. 8100.0500, subp. 2, describes the types of property excluded from the valuation performed under Rule 8100.0300:  
*The following properties are valued by the local or county assessor and, therefore, the formula provided herein for the valuation of utility property is not applicable to such property:*

- A. land;*
- B. nonoperating property; and*
- C. rights-of-way*

Minn. R. 8100.0500, subp. 3, further explains the calculation of deduction to Minnesota value:

*The Minnesota portion of the unit value is reduced by the value included in the unit value of the company for land, rights-of-way, nonoperating property, and exempt property. This amount is calculated by determining the ratio of the unit value computed in part 8100.0300, subpart 5, to the cost less depreciation allowed in part 8100.0300, subpart 3. This ratio is multiplied by the cost less depreciation of the property to be deducted.*

**NSPM Total Company Property Taxes**

	2021 Forecast	
	Electric	Gas
<b>System Unit Value Calculation</b>		
Plant In Service, 12/31/20	21,531,561,260	1,757,901,175
CWIP, 12/31/20	523,405,463	53,912,533
Depreciation, 12/31/20	(8,604,143,178)	(717,143,075)
<b>Cost Indicator of Value</b>	<b>A</b> <u>\$13,450,823,545</u>	<u>\$1,094,670,633</u>
<b>Income Indicator</b>		
2018 NOI x 25%	157,391,420	12,372,590
2019 NOI x 35%	242,450,408	19,127,763
2020 NOI x 40%	301,261,442	17,428,410
NOI to Capitalize	\$701,103,270	\$48,928,762
Capitalization Rate	6.34%	6.63%
<b>Income Indicator of Value</b>	<b>B</b> <u>\$11,058,411,194</u>	<u>\$737,990,380</u>
<b>Apply Weightings</b>	14.0% / 86.0%	14.0% / 86.0%
Cost Indicator	\$1,883,115,300	\$153,253,900
Income Indicator	\$9,510,233,600	\$634,671,700
<b>Total System Unit Value</b>	<b>C</b> <u><u>\$11,393,348,900</u></u>	<u><u>\$787,925,600</u></u>
<b>Allocation of System Value</b>		
MN Plant in Service	19,322,782,474	1,652,757,263
System Plant in Service	22,054,966,723	1,811,813,708
Plant Ratio x 90%-Elec / x 75%-Gas	78.85%	68.42%
MN Gross Revenue	3,908,092,695	440,452,585
System Gross Revenue	4,449,179,237	501,722,023
Revenue Ratio x 10%-Elec / x 25%-Gas	8.78%	21.95%
MN Allocated Value Percentage	87.63%	90.36%
<b>MN Allocated Value</b>	<b>D</b> <u>\$9,984,514,600</u>	<u>\$711,992,500</u>
Net Depreciable Excludables	3,045,146,985	93,788,780
Non-Depreciable Excludables	1,327,321,582	18,788,729
Subtotal	4,372,468,567	112,577,508
Ratio - System Unit Value / Cost Indicator	84.70%	71.98%
<b>Deductions to MN Allocated Value</b>	<u>\$3,703,643,800</u>	<u>\$81,031,400</u>
Sliding Scale Market Value Exclusion	213,500,000	0
<b>Deduct/Excl to MN Allocated Value</b>	<b>E</b> <u>\$3,917,143,800</u>	<u>\$81,031,400</u>
<b>Apportionable Market Value</b>	<u>\$6,066,500,000</u>	<u>\$630,000,000</u>
Effective Tax Rate	2.95%	2.95%
<b>Forecasted Property Tax - Elec &amp; Gas</b>	<b>\$178,961,750</b>	<b>\$18,585,000</b>
Rounded	\$178,956,000	\$18,588,000
Locally Assessed	10,152,000	1,056,000
Wind Production	5,448,000	
Solar Production		
<b>Total Property Tax</b>	<b><u>\$194,556,000</u></b>	<b><u>\$19,644,000</u></b>
<b>Total MN Property Tax</b>		<b>214,200,000</b>
North Dakota & South Dakota Property Tax		\$11,916,000
<b>Total NSPM Forecasted Property Tax</b>		<b>\$226,116,000</b>

**Support for the Calculation of Minnesota Apportionable Market Value**

**A** Minn. R. 8100.0300, subp. 3 describes in part the cost indicator of value as:  
*The cost factor to be considered in the utility valuation formula is the original cost less depreciation of the system plant, plus the cost of improvements to the system plant, plus the original cost of all types of construction work in progress that are installed by the assessment date, plus the cost of property held for future use, plus the cost of contributions in aid of construction.*

**B** Minn. R. 8100.0300, subp. 4, explains the process for calculating the income indicator of value:  
*The income indicator of value is estimated by weighting the capitalized net operating earnings of the utility company for the most recent three years as follows: most recent year, 40 percent; previous year, 35 percent; and final year, 25 percent. Utilities may request the removal of nonrecurring items of income or expense. The commissioner must determine if removal of the item is appropriate. The net income is capitalized by applying a capitalization rate that is computed by using the band of investment method. This method considers:*

- A. the capital structure of utilities;*
- B. the cost of debt or interest rate;*
- C. the yield on preferred stock of utilities;*
- D. the yield on common stock of utilities; and*
- E. the risk-free rate, relative risk, and risk premiums for public utility companies.*

*Capitalization rates are computed each year for electric companies, gas distribution companies, natural gas transmission systems, and fluid pipeline companies. The rates are recalculated each year using the method described in this subpart.*

Minn. R. 8100.0100, subp. 9 defines net operating earnings as follows:

*Net operating earnings" means earnings from the system plant of the utility after the deduction of operating expenses, depreciation, and taxes, but before any deduction for interest.*

Minn. R. 8100.0100, subp. 5, defines capitalization rate as:

*"Capitalization rate" means the relationship of income to capital investment or value, expressed as a percentage.*

**C** Minn. R. 8100.0300, subp. 5, explains the process for calculating the system unit value:  
*The unit value of the utility company is equal to the total of the weighted indicators of value. The total weighting must equal 100 percent. The default weightings of the indicators are: market indicator, 0 percent; cost indicator, 50 percent; income indicator, 50 percent.*

**D** Minn. R. 8100.0400, subp. 2, explains the process for calculating the allocation of electric value attributable to Minnesota:  
*The original cost of the utility property located in Minnesota divided by the total original cost of the property in all states of operation is weighted at 90 percent. Gross revenue derived from operations in Minnesota divided by gross operations revenue from all states is weighted at ten percent.*

Minn. R. 8100.0400, subp. 3, explains the process for calculating the allocation of gas value attributable to Minnesota:

*The allocation of value of gas distribution companies must be made considering the same factors as are used to determine the allocation of value of electric companies. The weight given to the original cost factor is 75 percent, and gross revenue is weighted 25 percent.*

**E** Minn. R. 8100.0500, subp. 1, explains the process for adjusting the valuation performed under Rule 8100.0300:  
*After the Minnesota portion of the unit value of the utility company, except for electric cooperatives, is determined, any property which is non-formula-assessed or which is exempt from ad valorem tax, is deducted from the Minnesota portion of the unit value. Only that qualifying property located within the state of Minnesota may be excluded.*

Minn. R. 8100.0500, subp. 2, describes the types of property excluded from the valuation performed under Rule 8100.0300:  
*The following properties are valued by the local or county assessor and, therefore, the formula provided herein for the valuation of utility property is not applicable to such property:*

- A. land;*
- B. nonoperating property; and*
- C. rights-of-way*

Minn. R. 8100.0500, subp. 3, further explains the calculation of deduction to Minnesota value:

*The Minnesota portion of the unit value is reduced by the value included in the unit value of the company for land, rights-of-way, nonoperating property, and exempt property. This amount is calculated by determining the ratio of the unit value computed in part 8100.0300, subpart 5, to the cost less depreciation allowed in part 8100.0300, subpart 3. This ratio is multiplied by the cost less depreciation of the property to be deducted.*

**NSPM Total Company Property Taxes**

	2022 Forecast	
	Electric	Gas
<b>System Unit Value Calculation</b>		
Plant In Service, 12/31/21 Forecast	23,215,868,662	1,982,991,208
CWIP, 12/31/21 Forecast	523,405,463	53,912,533
Depreciation, 12/31/21 Forecast	(9,352,298,643)	(757,284,329)
<b>Cost Indicator of Value</b>	<b>A</b> <u>\$14,386,975,482</u>	<u>\$1,279,619,411</u>
<b>Income Indicator</b>		
2019 NOI x 25%	173,178,863	13,662,688
2020 NOI x 35%	263,603,762	15,249,858
2021 Estimated NOI x 40%	318,028,800	18,154,000
NOI to Capitalize	\$754,811,424	\$47,066,546
Capitalization Rate	6.34%	6.63%
<b>Income Indicator of Value</b>	<b>B</b> <u>\$11,905,542,971</u>	<u>\$709,902,657</u>
<b>Apply Weightings</b>		
Cost Indicator	14.0% / 86.0%	14.0% / 86.0%
Income Indicator	\$2,014,176,600	\$179,146,700
<b>Total System Unit Value</b>	<b>C</b> <u>\$12,252,943,600</u>	<u>\$789,663,000</u>
<b>Allocation of System Value</b>		
MN Plant in Service	20,438,760,892	1,842,531,097
System Plant in Service	23,739,274,125	2,036,903,741
Plant Ratio x 90%-Elec / x 75%-Gas	77.49%	67.84%
MN Gross Revenue	3,908,092,695	440,452,585
System Gross Revenue	4,449,179,237	501,722,023
Revenue Ratio x 10%-Elec / x 25%-Gas	8.78%	21.95%
MN Allocated Value Percentage	86.27%	89.79%
<b>MN Allocated Value</b>	<b>D</b> <u>\$10,570,736,000</u>	<u>\$709,039,400</u>
Net Depreciable Excludables	3,605,508,629	111,039,657
Non-Depreciable Excludables	595,380,488	18,137,647
Subtotal	4,200,889,117	129,177,304
Ratio - System Unit Value / Cost Indicator	85.17%	61.71%
<b>Deductions to MN Allocated Value</b>	<u>\$3,577,767,800</u>	<u>\$79,716,300</u>
Sliding Scale Market Value Exclusion	213,500,000	0
<b>Deduct/Excl to MN Allocated Value</b>	<b>E</b> <u>\$3,791,267,800</u>	<u>\$79,716,300</u>
<b>Apportionable Market Value</b>	<u>\$6,779,468,200</u>	<u>\$629,323,100</u>
Effective Tax Rate	2.95%	2.95%
<b>Forecasted Property Tax - Elec &amp; Gas</b>	<b>\$199,994,312</b>	<b>\$18,565,031</b>
Rounded	\$199,992,000	\$18,564,000
Locally Assessed	10,260,000	948,000
Wind Production	5,748,000	
Solar Production	0	
<b>Total Property Tax</b>	<b>\$216,000,000</b>	<b>\$19,512,000</b>
<b>Total MN Property Tax</b>		<b>235,512,000</b>
North Dakota & South Dakota Property Tax		\$13,413,000
<b>Total NSPM Forecasted Property Tax</b>		<b>\$248,925,000</b>

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**Minnesota Property Taxes By County for 2020 and Tax Rate Calculation  
(\$s)**

COUNTY	Truth-in-Taxation Notices			Property Tax Statements		
	Total Taxes	Total Value	Blended Rate	Total Taxes	Total Value	Blended Rate
Anoka	2,813,012	90,934,100	3.09%	2,813,653	91,002,200	3.09%
Becker	81,246	3,428,000	2.37%	79,050	3,428,000	2.31%
Beltrami	60,668	2,108,700	2.88%	87,392	3,026,000	2.89%
Benton	1,264,770	37,596,500	3.36%	1,344,360	39,362,500	3.42%
Blue Earth	2,601,382	93,064,900	2.80%	2,724,214	97,070,600	2.81%
Brown	214,658	8,320,100	2.58%	217,666	8,423,700	2.58%
Carver	2,312,624	74,446,400	3.11%	2,535,846	81,680,100	3.10%
Cass	98,456	4,086,800	2.41%	234,512	10,620,000	2.21%
Chippewa	1,278,958	34,436,200	3.71%	1,226,250	35,639,600	3.44%
Chisago	3,181,708	93,736,100	3.39%	3,500,504	102,895,600	3.40%
Clay	500,184	22,484,300	2.22%	549,214	24,021,000	2.29%
Crow Wing	552,400	22,188,700	2.49%	550,344	22,188,700	2.48%
Cottonwood	-	-	0.00%	13,686	508,900	2.69%
Dakota	14,865,440	506,967,900	2.93%	13,824,953	471,632,700	2.93%
Dodge	314,898	10,877,300	2.90%	468,507	13,709,600	3.42%
Douglas	521,690	20,200,300	2.58%	522,414	20,217,800	2.58%
Faribault	26,024	832,600	3.13%	25,062	865,700	2.89%
Freeborn	24,458	719,700	3.40%	36,754	1,096,500	3.35%
Goodhue	28,091,200	961,473,200	2.92%	27,747,809	965,613,900	2.87%
Grant	97,186	4,080,100	2.38%	96,844	4,080,100	2.37%
Hennepin	35,226,977	1,089,891,400	3.23%	36,236,838	1,099,374,100	3.30%
Houston	139,272	3,823,200	3.64%	167,359	4,312,800	3.88%
Hubbard	53,136	2,078,800	2.56%	52,548	2,078,800	2.53%
Isanti	103,156	3,439,400	3.00%	102,894	3,439,400	2.99%
Itasca	114,430	3,828,300	2.99%	253,960	8,005,400	3.17%
Jackson	619,416	28,507,100	2.17%	620,328	28,507,100	2.18%
Kandiyohi	514,592	15,155,500	3.40%	572,892	17,096,600	3.35%
Koochiching	50,532	1,960,700	2.58%	305,032	11,165,700	2.73%
Lac qui Parle	-	-	0.00%	816	59,700	1.37%
Lake of the Woods	-	-	0.00%	162,722	5,227,100	3.11%
Le Sueur	628,700	20,865,400	3.01%	664,340	22,067,900	3.01%
Lincoln	1,198,618	52,533,400	2.28%	1,234,756	52,874,800	2.34%
Lyon	1,535,782	62,793,700	2.45%	1,555,092	63,447,400	2.45%
Martin	50,880	2,571,200	1.98%	198,682	8,383,800	2.37%
McLeod	599,824	11,558,700	5.19%	405,507	12,550,100	3.23%
Meeke	232,716	6,858,400	3.39%	220,032	6,587,600	3.34%
Morrison	12,784	438,700	2.91%	11,108	386,600	2.87%
Mower	324,262	12,402,000	2.61%	325,468	12,402,000	2.62%
Murray	769,440	39,961,600	1.93%	783,812	40,776,000	1.92%
Nicollet	538,408	18,139,500	2.97%	505,428	16,702,800	3.03%
Nobles	1,339,900	60,236,800	2.22%	1,336,464	60,243,300	2.22%
Norman	11,994	535,800	2.24%	13,192	596,600	2.21%
Olmsted	765,448	26,167,700	2.93%	744,743	26,530,200	2.81%
Otter Tail	325,638	13,468,500	2.42%	326,814	13,468,500	2.43%
Pine	204,188	6,904,800	2.96%	203,840	6,904,800	2.95%
Pipestone	477,986	15,945,000	3.00%	491,162	16,619,600	2.96%
Polk	79,372	4,604,600	1.72%	79,276	4,604,600	1.72%
Pope	272,478	9,102,900	2.99%	312,676	10,857,400	2.88%
Ramsey	23,970,682	688,378,200	3.48%	24,240,500	692,269,600	3.50%
Redwood	626,240	27,623,200	2.27%	641,876	28,352,000	2.26%
Renville	1,123,546	39,901,300	2.82%	1,135,584	40,479,700	2.81%
Rice	1,990,520	63,803,600	3.12%	2,085,016	67,388,500	3.09%
Rock	35,050	1,755,900	2.00%	35,572	1,779,700	2.00%
Roseau	452,878	15,139,700	2.99%	563,230	18,515,900	3.04%
Saint Louis	978,954	32,256,200	3.03%	989,110	32,415,500	3.05%
Scott	3,702,616	124,747,000	2.97%	3,742,596	125,752,400	2.98%
Sherburne	14,038,754	517,896,300	2.71%	14,180,196	520,978,100	2.72%
Sibley	1,312,390	46,157,100	2.84%	1,330,382	46,662,800	2.85%
Stearns	4,730,334	150,981,600	3.13%	5,154,728	164,315,600	3.14%
Steele	19,888	681,700	2.92%	58,352	1,754,300	3.33%
Todd	156,624	5,232,000	2.99%	159,040	5,356,100	2.97%
Wabasha	737,028	25,689,500	2.87%	835,417	29,018,600	2.88%
Waseca	537,074	14,976,300	3.59%	656,634	17,801,100	3.69%
Washington	16,495,646	573,249,600	2.88%	15,978,904	549,718,000	2.91%
Watsonwan	284,670	10,576,700	2.69%	299,291	10,890,200	2.75%
Wilkin	122,132	4,652,500	2.63%	123,032	4,693,600	2.62%
Winona	990,238	34,621,900	2.86%	1,042,607	37,591,900	2.77%
Wright	20,372,724	887,203,200	2.30%	20,553,585	893,159,100	2.30%
Yellow Medicine	490,142	19,678,500	2.49%	511,918	20,587,000	2.49%
Subtotal	198,259,021	6,790,957,000	2.92%	200,804,386	6,861,833,600	2.93%
Wind Tax				3,327,022		
Total MN Tax				204,131,408		
North & South Dakota Property Tax				11,469,577		
Total NSPM Property Tax				215,600,986		



**NSPM Total Company Property Taxes**

	2020		2021 Forecast		2020 vs. 2021		
	Electric	Gas	Electric	Gas	Electric	Gas	
<b>System Unit Value Calculation</b>							
Plant In Service, 12/31	19,984,117,546	1,634,367,461	21,531,561,260	1,757,901,175	1,547,443,714	123,533,714	
CWIP, 12/31	523,405,463	53,912,533	523,405,463	53,912,533	0	0	
Depreciation, 12/31	(8,076,755,155)	(690,368,701)	(8,604,143,178)	(717,143,075)	(527,388,024)	(26,774,374)	
<b>Cost Indicator of Value</b>	<b>A</b>	<b>\$12,430,767,854</b>	<b>\$997,911,293</b>	<b>\$13,450,823,545</b>	<b>\$1,094,670,633</b>	<b>\$1,020,055,690</b>	<b>\$96,759,340</b>
<b>Income Indicator</b>							
Year 1 NOI x 25%	158,578,501	10,367,732	157,391,420	12,372,590	(1,187,081)	2,004,858	
Year 2 NOI x 35%	220,347,988	17,321,626	242,450,408	19,127,763	22,102,420	1,806,137	
Year 3 NOI x 40%	277,086,180	21,860,300	301,261,442	17,428,410	24,175,262	(4,431,891)	
NOI to Capitalize	\$656,012,669	\$49,549,658	\$701,103,270	\$48,928,762	\$45,090,600	-\$620,896	
Capitalization Rate	6.40%	7.07%	6.34%	6.63%	-0.06%	-0.44%	
<b>Income Indicator of Value</b>	<b>B</b>	<b>\$10,250,197,957</b>	<b>\$700,843,823</b>	<b>\$11,058,411,194</b>	<b>\$737,990,380</b>	<b>\$808,213,237</b>	<b>\$37,146,557</b>
<b>Apply Weightings</b>							
	0.0% / 100.0%	7.0% / 93.0%	14.0% / 86.0%	14.0% / 86.0%			
Cost Indicator	\$0	\$69,853,800	\$1,883,115,300	\$153,253,900	\$1,883,115,300	\$83,400,100	
Income Indicator	\$10,250,198,000	\$651,784,800	\$9,510,233,600	\$634,671,700	-\$739,964,400	-\$17,113,100	
<b>Total System Unit Value</b>	<b>C</b>	<b>\$10,250,198,000</b>	<b>\$721,638,600</b>	<b>\$11,393,348,900</b>	<b>\$787,925,600</b>	<b>\$1,143,150,900</b>	<b>\$66,287,000</b>
<b>Allocation of System Value</b>							
MN Plant in Service	18,193,498,972	1,540,344,028	19,322,782,474	1,652,757,263	1,129,283,502	112,413,235	
System Plant in Service	20,507,523,009	1,688,279,994	22,054,966,723	1,811,813,708	1,547,443,714	123,533,714	
Plant Ratio x 90%-Elec / x 75%-Gas	79.85%	68.43%	78.85%	68.42%	-1.00%	-0.01%	
MN Gross Revenue	3,946,918,373	506,370,653	3,908,092,695	440,452,585	(38,825,678)	(65,918,068)	
System Gross Revenue	4,495,412,265	577,083,424	4,449,179,237	501,722,023	(46,233,028)	(75,361,401)	
Revenue Ratio x 10%-Elec / x 25%-Gas	8.78%	21.94%	8.78%	21.95%	0.00%	0.01%	
MN Allocated Value Percentage	88.63%	90.37%	87.63%	90.36%	-1.00%	-0.01%	
<b>MN Allocated Value</b>	<b>D</b>	<b>\$9,084,750,500</b>	<b>\$652,144,800</b>	<b>\$9,984,514,600</b>	<b>\$711,992,500</b>	<b>\$899,764,100</b>	<b>\$59,847,700</b>
Net Depreciable Excludables	2,619,042,842	88,516,284	3,045,146,985	93,788,780	426,104,143	5,272,495	
Non-Depreciable Excludables	989,825,685	10,641,017	1,327,321,582	18,788,729	337,495,897	8,147,712	
Subtotal	3,608,868,527	99,157,301	4,372,468,567	112,577,508	763,600,040	13,420,207	
Ratio - System Unit Value / Cost Indicator	82.46%	72.31%	84.70%	71.98%	2.24%	-0.33%	
<b>Deductions to MN Allocated Value</b>	<b>E</b>	<b>\$2,975,873,000</b>	<b>\$71,700,600</b>	<b>\$3,703,643,800</b>	<b>\$81,031,400</b>	<b>\$727,770,800</b>	<b>\$9,330,800</b>
Sliding Scale Market Value Exclusion	201,018,300	0	213,500,000	0	12,481,700	0	
<b>Deduct/Excl to MN Allocated Value</b>		<b>\$3,176,891,300</b>	<b>\$71,700,600</b>	<b>\$3,917,143,800</b>	<b>\$81,031,400</b>	<b>\$740,252,500</b>	<b>\$9,330,800</b>
<b>Apportionable Market Value</b>		<b>\$5,899,282,100</b>	<b>\$580,000,000</b>	<b>\$6,066,500,000</b>	<b>\$630,000,000</b>	<b>\$167,217,900</b>	<b>\$50,000,000</b>
Effective Tax Rate	2.93%	2.93%	2.95%	2.95%	0.02%	0.02%	
<b>Forecasted Property Tax - Elec &amp; Gas</b>		<b>\$172,697,354</b>	<b>\$16,979,094</b>	<b>\$178,961,750</b>	<b>\$18,585,000</b>	<b>\$6,264,396</b>	<b>\$1,605,906</b>
Rounded		<b>\$172,692,000</b>	<b>\$16,980,000</b>	<b>\$178,956,000</b>	<b>\$18,588,000</b>	<b>\$6,264,000</b>	<b>\$1,608,000</b>
Locally Assessed		10,128,000	996,000	10,152,000	1,056,000	24,000	60,000
Wind Production		3,324,000		5,448,000		2,124,000	
Solar Production		0		0		0	
<b>Total Property Tax</b>		<b>\$186,144,000</b>	<b>\$17,976,000</b>	<b>\$194,556,000</b>	<b>\$19,644,000</b>	<b>\$8,412,000</b>	<b>\$1,668,000</b>
<b>Total MN Property Tax</b>		<b>204,120,000</b>		<b>214,200,000</b>		<b>10,080,000</b>	
North Dakota & South Dakota Property Tax		\$11,466,000		\$11,916,000		\$450,000	
<b>Total NSPM Forecasted Property Tax</b>		<b>\$215,586,000</b>		<b>\$226,116,000</b>		<b>\$10,530,000</b>	

**Support for the Calculation of Minnesota Apportionable Market Value**

**A** Minn. R. 8100.0300, subp. 3 describes in part the cost indicator of value as:  
*The cost factor to be considered in the utility valuation formula is the original cost less depreciation of the system plant, plus the cost of improvements to the system plant, plus the original cost of all types of construction work in progress that are installed by the assessment date, plus the cost of property held for future use, plus the cost of contributions in aid of construction.*

**B** Minn. R. 8100.0300, subp. 4, explains the process for calculating the income indicator of value:  
*The income indicator of value is estimated by weighting the capitalized net operating earnings of the utility company for the most recent three years as follows: most recent year, 40 percent; previous year, 35 percent; and final year, 25 percent. Utilities may request the removal of nonrecurring items of income or expense. The commissioner must determine if removal of the item is appropriate. The net income is capitalized by applying a capitalization rate that is computed by using the band of investment method. This method considers:*

- A. the capital structure of utilities;*
- B. the cost of debt or interest rate;*
- C. the yield on preferred stock of utilities;*
- D. the yield on common stock of utilities; and*
- E. the risk-free rate, relative risk, and risk premiums for public utility companies.*

*Capitalization rates are computed each year for electric companies, gas distribution companies, natural gas transmission systems, and fluid pipeline companies. The rates are recalculated each year using the method described in this subpart.*

Minn. R. 8100.0100, subp. 9 defines net operating earnings as follows:

*Net operating earnings" means earnings from the system plant of the utility after the deduction of operating expenses, depreciation, and taxes, but before any deduction for interest.*

Minn. R. 8100.0100, subp. 5, defines capitalization rate as:

*"Capitalization rate" means the relationship of income to capital investment or value, expressed as a percentage.*

**C** Minn. R. 8100.0300, subp. 5, explains the process for calculating the system unit value:  
*The unit value of the utility company is equal to the total of the weighted indicators of value. The total weighting must equal 100 percent. The default weightings of the indicators are: market indicator, 0 percent; cost indicator, 50 percent; income indicator, 50 percent.*

**D** Minn. R. 8100.0400, subp. 2, explains the process for calculating the allocation of electric value attributable to Minnesota:  
*The original cost of the utility property located in Minnesota divided by the total original cost of the property in all states of operation is weighted at 90 percent. Gross revenue derived from operations in Minnesota divided by gross operations revenue from all states is weighted at ten percent.*

Minn. R. 8100.0400, subp. 3, explains the process for calculating the allocation of gas value attributable to Minnesota:

*The allocation of value of gas distribution companies must be made considering the same factors as are used to determine the allocation of value of electric companies. The weight given to the original cost factor is 75 percent, and gross revenue is weighted 25 percent.*

**E** Minn. R. 8100.0500, subp. 1, explains the process for adjusting the valuation performed under Rule 8100.0300:  
*After the Minnesota portion of the unit value of the utility company, except for electric cooperatives, is determined, any property which is non-formula-assessed or which is exempt from ad valorem tax, is deducted from the Minnesota portion of the unit value. Only that qualifying property located within the state of Minnesota may be excluded.*

Minn. R. 8100.0500, subp. 2, describes the types of property excluded from the valuation performed under Rule 8100.0300:  
*The following properties are valued by the local or county assessor and, therefore, the formula provided herein for the valuation of utility property is not applicable to such property:*

- A. land;*
- B. nonoperating property; and*
- C. rights-of-way*

Minn. R. 8100.0500, subp. 3, further explains the calculation of deduction to Minnesota value:

*The Minnesota portion of the unit value is reduced by the value included in the unit value of the company for land, rights-of-way, nonoperating property, and exempt property. This amount is calculated by determining the ratio of the unit value computed in part 8100.0300, subpart 5, to the cost less depreciation allowed in part 8100.0300, subpart 3. This ratio is multiplied by the cost less depreciation of the property to be deducted.*

**NSPM Total Company Property Taxes**

	2021 Forecast		2022 Forecast		2021 vs. 2022		
	Electric	Gas	Electric	Gas	Electric	Gas	
<b>System Unit Value Calculation</b>							
Plant In Service, 12/31	21,531,561,260	1,757,901,175	23,215,868,662	1,982,991,208	1,684,307,402	225,090,033	
CWIP, 12/31	523,405,463	53,912,533	523,405,463	53,912,533	0	0	
Depreciation, 12/31	(8,604,143,178)	(717,143,075)	(9,352,298,643)	(757,284,329)	(748,155,465)	(40,141,254)	
<b>Cost Indicator of Value</b>	<b>A</b>	<b>\$13,450,823,545</b>	<b>\$1,094,670,633</b>	<b>\$14,386,975,482</b>	<b>\$1,279,619,411</b>	<b>\$936,151,937</b>	<b>\$184,948,778</b>
<b>Income Indicator</b>							
Year 1 NOI x 25%	157,391,420	12,372,590	173,178,863	13,662,688	15,787,443	1,290,098	
Year 2 NOI x 35%	242,450,408	19,127,763	263,603,762	15,249,858	21,153,354	(3,877,904)	
Year 3 NOI x 40%	301,261,442	17,428,410	318,028,800	18,154,000	16,767,358	725,590	
NOI to Capitalize	\$701,103,270	\$48,928,762	\$754,811,424	\$47,066,546	\$53,708,155	-\$1,862,216	
Capitalization Rate	6.34%	6.63%	6.34%	6.63%	0.00%	0.00%	
<b>Income Indicator of Value</b>	<b>B</b>	<b>\$11,058,411,194</b>	<b>\$737,990,380</b>	<b>\$11,905,542,971</b>	<b>\$709,902,657</b>	<b>\$847,131,777</b>	<b>-\$28,087,723</b>
<b>Apply Weightings</b>							
Cost Indicator	14.0% / 86.0%	14.0% / 86.0%	14.0% / 86.0%	14.0% / 86.0%			
Income Indicator	\$1,883,115,300	\$153,253,900	\$2,014,176,600	\$179,146,700	\$131,061,300	\$25,892,800	
<b>Total System Unit Value</b>	<b>C</b>	<b>\$11,393,348,900</b>	<b>\$787,925,600</b>	<b>\$12,252,943,600</b>	<b>\$789,663,000</b>	<b>\$859,594,700</b>	<b>\$1,737,400</b>
<b>Allocation of System Value</b>							
MN Plant in Service	19,322,782,474	1,652,757,263	20,438,760,892	1,842,531,097	1,115,978,418	189,773,833	
System Plant in Service	22,054,966,723	1,811,813,708	23,739,274,125	2,036,903,741	1,684,307,402	225,090,033	
Plant Ratio x 90%-Elec / x 75%-Gas	78.85%	68.42%	77.49%	67.84%	-1.36%	-0.57%	
MN Gross Revenue	3,908,092,695	440,452,585	3,908,092,695	440,452,585	0	0	
System Gross Revenue	4,449,179,237	501,722,023	4,449,179,237	501,722,023	0	0	
Revenue Ratio x 10%-Elec / x 25%-Gas	8.78%	21.95%	8.78%	21.95%	0.00%	0.00%	
MN Allocated Value Percentage	87.63%	90.36%	86.27%	89.79%	-1.36%	-0.57%	
<b>MN Allocated Value</b>	<b>D</b>	<b>\$9,984,514,600</b>	<b>\$711,992,500</b>	<b>\$10,570,736,000</b>	<b>\$709,039,400</b>	<b>\$586,221,400</b>	<b>-\$2,953,100</b>
Net Depreciable Excludables	3,045,146,985	93,788,780	3,605,508,629	111,039,657	560,361,644	17,250,877	
Non-Depreciable Excludables	1,327,321,582	18,788,729	595,380,488	18,137,647	(731,941,094)	(651,081)	
Subtotal	4,372,468,567	112,577,508	4,200,889,117	129,177,304	(171,579,450)	16,599,796	
Ratio - System Unit Value / Cost Indicator	84.70%	71.98%	85.17%	61.71%	0.46%	-10.27%	
<b>Deductions to MN Allocated Value</b>	<b>E</b>	<b>\$3,703,643,800</b>	<b>\$81,031,400</b>	<b>\$3,577,767,800</b>	<b>\$79,716,300</b>	<b>-\$125,876,000</b>	<b>-\$1,315,100</b>
Sliding Scale Market Value Exclusion	213,500,000	0	213,500,000	0	0	0	
<b>Deduct/Excl to MN Allocated Value</b>	<b>\$3,917,143,800</b>	<b>\$81,031,400</b>	<b>\$3,791,267,800</b>	<b>\$79,716,300</b>	<b>-\$125,876,000</b>	<b>-\$1,315,100</b>	
<b>Apportionable Market Value</b>	<b>\$6,066,500,000</b>	<b>\$630,000,000</b>	<b>\$6,779,468,200</b>	<b>\$629,323,100</b>	<b>\$712,968,200</b>	<b>-\$676,900</b>	
Effective Tax Rate	2.95%	2.95%	2.95%	2.95%	0.00%	0.00%	
<b>Forecasted Property Tax - Elec &amp; Gas</b>	<b>\$178,961,750</b>	<b>\$18,585,000</b>	<b>\$199,994,312</b>	<b>\$18,565,031</b>	<b>\$21,032,562</b>	<b>-\$19,969</b>	
Rounded	\$178,956,000	\$18,588,000	\$199,992,000	\$18,564,000	\$21,036,000	-\$24,000	
Locally Assessed	10,152,000	1,056,000	10,260,000	948,000	108,000	(108,000)	
Wind Production	5,448,000		5,748,000		300,000		
Solar Production	0		0		0		
<b>Total Property Tax</b>	<b>\$194,556,000</b>	<b>\$19,644,000</b>	<b>\$216,000,000</b>	<b>\$19,512,000</b>	<b>\$21,444,000</b>	<b>(\$132,000)</b>	
<b>Total MN Property Tax</b>		<b>214,200,000</b>		<b>235,512,000</b>		<b>21,312,000</b>	
North Dakota & South Dakota Property Tax		\$11,916,000		\$13,413,000		\$1,497,000	
<b>Total NSPM Forecasted Property Tax</b>		<b>\$226,116,000</b>		<b>\$248,925,000</b>		<b>\$22,809,000</b>	

**Support for the Calculation of Minnesota Apportionable Market Value**

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**B** Minn. R. 8100.0300, subp. 4, explains the process for calculating the income indicator of value:  
*The income indicator of value is estimated by weighting the capitalized net operating earnings of the utility company for the most recent three years as follows: most recent year, 40 percent; previous year, 35 percent; and final year, 25 percent. Utilities may request the removal of nonrecurring items of income or expense. The commissioner must determine if removal of the item is appropriate. The net income is capitalized by applying a capitalization rate that is computed by using the band of investment method. This method considers:*

- A. the capital structure of utilities;*
- B. the cost of debt or interest rate;*
- C. the yield on preferred stock of utilities;*
- D. the yield on common stock of utilities; and*
- E. the risk-free rate, relative risk, and risk premiums for public utility companies.*

*Capitalization rates are computed each year for electric companies, gas distribution companies, natural gas transmission systems, and fluid pipeline companies. The rates are recalculated each year using the method described in this subpart.*

Minn. R. 8100.0100, subp. 9 defines net operating earnings as follows:

*Net operating earnings" means earnings from the system plant of the utility after the deduction of operating expenses, depreciation, and taxes, but before any deduction for interest.*

Minn. R. 8100.0100, subp. 5, defines capitalization rate as:

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*The original cost of the utility property located in Minnesota divided by the total original cost of the property in all states of operation is weighted at 90 percent. Gross revenue derived from operations in Minnesota divided by gross operations revenue from all states is weighted at ten percent.*

Minn. R. 8100.0400, subp. 3, explains the process for calculating the allocation of gas value attributable to Minnesota:

*The allocation of value of gas distribution companies must be made considering the same factors as are used to determine the allocation of value of electric companies. The weight given to the original cost factor is 75 percent, and gross revenue is weighted 25 percent.*

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*After the Minnesota portion of the unit value of the utility company, except for electric cooperatives, is determined, any property which is non-formula-assessed or which is exempt from ad valorem tax, is deducted from the Minnesota portion of the unit value. Only that qualifying property located within the state of Minnesota may be excluded.*

Minn. R. 8100.0500, subp. 2, describes the types of property excluded from the valuation performed under Rule 8100.0300:  
*The following properties are valued by the local or county assessor and, therefore, the formula provided herein for the valuation of utility property is not applicable to such property:*

- A. land;*
- B. nonoperating property; and*
- C. rights-of-way*

Minn. R. 8100.0500, subp. 3, further explains the calculation of deduction to Minnesota value:

*The Minnesota portion of the unit value is reduced by the value included in the unit value of the company for land, rights-of-way, nonoperating property, and exempt property. This amount is calculated by determining the ratio of the unit value computed in part 8100.0300, subpart 5, to the cost less depreciation allowed in part 8100.0300, subpart 3. This ratio is multiplied by the cost less depreciation of the property to be deducted.*