UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2017

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 001-03140

NORTHERN STATES POWER COMPANY
(Exact name of registrant as specified in its charter)

Wisconsin	**39-0508315**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1414 West Hamilton Avenue, Eau Claire, Wisconsin 54701
(Address of principal executive offices)

Registrant's telephone number, including area code: **715-839-2625**

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☐ Yes ☒ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☒ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 and Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☒ Yes ☐ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulations S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller Reporting Company ☐
(Do not check if a smaller reporting company)	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). ☐ Yes ☒ No

As of Feb. 23, 2018, 933,000 shares of common stock, par value $100 per share, were outstanding, all of which were held by Xcel Energy Inc., a Minnesota corporation.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Item 14 of Form 10-K is set forth under the heading "Independent Registered Public Accounting Firm – Audit and Non-Audit Fees" in Xcel Energy Inc.'s definitive Proxy Statement for the 2018 Annual Meeting of Stockholders which definitive Proxy Statement is expected to be filed with the SEC on or about April 3, 2018. Such information set forth under such heading is incorporated herein by this reference hereto.

Northern States Power Company meets the conditions set forth in General Instructions I(1)(a) and (b) of Form 10-K and is therefore filing this form with the reduced disclosure format permitted by General Instruction I(2).

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This Form 10-K is filed by NSP-Wisconsin. NSP-Wisconsin is a wholly owned subsidiary of Xcel Energy Inc. Additional information on Xcel Energy is available in various filings with the SEC. This report should be read in its entirety.

PART I

Item l — Business

DEFINITION OF ABBREVIATIONS AND INDUSTRY TERMS

Xcel Energy Inc.'s Subsidiaries and Affiliates (current and former)	
NSP-Minnesota	Northern States Power Company, a Minnesota corporation
NSP System	The electric production and transmission system of NSP-Minnesota and NSP-Wisconsin operated on an integrated basis and managed by NSP-Minnesota
NSP-Wisconsin	Northern States Power Company, a Wisconsin corporation
PSCo	Public Service Company of Colorado
SPS	Southwestern Public Service Company
Utility subsidiaries	NSP-Minnesota, NSP-Wisconsin, PSCo and SPS
Xcel Energy	Xcel Energy Inc. and its subsidiaries
Federal and State Regulatory Agencies	
CFTC	Commodity Futures Trading Commission
D.C. Circuit	United States Court of Appeals for the District of Columbia Circuit
DOC	Minnesota Department of Commerce
DOE	United States Department of Energy
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
IRS	Internal Revenue Service
MPSC	Michigan Public Service Commission
MPUC	Minnesota Public Utilities Commission
NDPSC	North Dakota Public Service Commission
NERC	North American Electric Reliability Corporation
NRC	Nuclear Regulatory Commission
PHMSA	Pipeline and Hazardous Materials Safety Administration
PSCW	Public Service Commission of Wisconsin
SDPUC	South Dakota Public Utilities Commission
SEC	Securities and Exchange Commission
Electric, Purchased Gas and Resource Adjustment Clauses	
CIP	Conservation improvement program
EPU	Extended power uprate
PGA	Purchased gas adjustment
Other Terms and Abbreviations	
AFUDC	Allowance for funds used during construction
ALJ	Administrative law judge
APBO	Accumulated postretirement benefit obligation
ARO	Asset retirement obligation
ASC	FASB Accounting Standards Codification
ASU	FASB Accounting Standards Update
C&I	Commercial and Industrial
CAA	Clean Air Act
CapX2020	Alliance of electric cooperatives, municipals and investor-owned utilities in the upper Midwest involved in a joint transmission line planning and construction effort
CO_2	Carbon dioxide
CON	Certificate of need
CPCN	Certificate of public convenience and necessity
CPP	Clean Power Plan

CSAPR	Cross-State Air Pollution Rule
CWIP	Construction work in progress
ERCOT	Electric Reliability Council of Texas
ETR	Effective tax rate
FASB	Financial Accounting Standards Board
GAAP	Generally accepted accounting principles
GHG	Greenhouse gas
IRC	Internal Revenue Code
ITC	Investment tax credit
LCM	Life cycle management
LNG	Liquefied natural gas
MGP	Manufactured gas plant
MISO	Midcontinent Independent System Operator, Inc.
Moody's	Moody's Investor Services
NAAQS	National Ambient Air Quality Standard
Native load	Customer demand of retail and wholesale customers whereby a utility has an obligation to serve under statute or long-term contract
NAV	Net asset value
NOL	Net operating loss
NOx	Nitrogen oxide
O&M	Operating and maintenance
OCI	Other comprehensive income
PI	Prairie Island nuclear generating plant
PJM	PJM Interconnection, LLC
PM	Particulate matter
PPA	Purchased power agreement
PRP	Potentially responsible party
PTC	Production tax credit
PV	Photovoltaic
R&E	Research and experimentation
REC	Renewable energy credit
ROE	Return on equity
RPS	Renewable portfolio standards
RTO	Regional Transmission Organization
SIP	State implementation plan
SO_2	Sulfur dioxide
SPP	Southwest Power Pool, Inc.
Standard & Poor's	Standard & Poor's Ratings Services
TCJA	2017 federal tax reform enacted as Public Law No: 115-97, commonly referred to as the Tax Cuts and Jobs Act
TO	Transmission owner
Measurements	
GWh	Gigawatt hours
KV	Kilovolts
KWh	Kilowatt hours
Mcf	Thousand cubic feet
MMBtu	Million British thermal units
MW	Megawatts
MWh	Megawatt hours

COMPANY OVERVIEW

NSP-Wisconsin was incorporated in 1901 under the laws of Wisconsin. NSP-Wisconsin is a utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of northwestern Wisconsin and in the western portion of the Upper Peninsula of Michigan. NSP-Wisconsin purchases, transports, distributes and sells natural gas to retail customers and transports customer-owned natural gas in this service territory. NSP-Wisconsin provides electric utility service to approximately 259,000 customers and natural gas utility service to approximately 114,000 customers. Approximately 98 percent of NSP-Wisconsin's retail electric operating revenues were derived from operations in Wisconsin during 2017 and 2016. Although NSP-Wisconsin's large C&I electric retail customers are comprised of many diversified industries, a significant portion of NSP-Wisconsin's large C&I electric sales include: food products, paper, allied products and electric, gas and sanitary services. For small C&I customers, significant electric retail sales include the following industries: grocery and dining establishments, educational services and health services. Generally, NSP-Wisconsin's earnings contribute approximately five percent to 10 percent of Xcel Energy's consolidated net income.

The electric production and transmission costs of the entire NSP System are shared by NSP-Minnesota and NSP-Wisconsin. A FERC-approved Interchange Agreement between the two companies provides for the sharing of all generation and transmission costs of the NSP System. Such costs include current and potential obligations of NSP-Minnesota related to its nuclear generating facilities.

NSP-Wisconsin owns the following direct subsidiaries: Chippewa and Flambeau Improvement Co., which operates hydro reservoirs; Clearwater Investments Inc., which owns interests in affordable housing; and NSP Lands, Inc., which holds real estate.

NSP-Wisconsin conducts its utility business in the following reportable segments: regulated electric utility, regulated natural gas utility and all other. See Note 14 to the consolidated financial statements for further discussion relating to comparative segment revenues, net income and related financial information.

ELECTRIC UTILITY OPERATIONS

Public Utility Regulation

Summary of Regulatory Agencies and Areas of Jurisdiction — Retail rates, services and other aspects of NSP-Wisconsin's operations are regulated by the PSCW and the MPSC, within their respective states. In addition, each of the state commissions certifies the need for new generating plants and electric transmission lines before the facilities may be sited and built. NSP-Wisconsin is subject to the jurisdiction of the FERC for its wholesale electric operations, hydroelectric generation licensing, accounting practices, wholesale sales for resale, the transmission of electricity in interstate commerce, compliance with NERC electric reliability standards, asset transactions and mergers and natural gas transactions in interstate commerce. NSP- Wisconsin is a transmission owning member of the MISO RTO and operates within the MISO RTO and wholesale energy market. NSP-Wisconsin and NSP-Minnesota are jointly authorized by the FERC to make wholesale electric sales at market-based prices.

The PSCW has a biennial base rate filing requirement. By June of each odd numbered year, NSP-Wisconsin must submit a rate filing for the test year beginning the following January. In recent years, NSP-Wisconsin has been submitting rate filings each year.

Fuel and Purchased Energy Cost Recovery Mechanisms — NSP-Wisconsin does not have an automatic electric fuel adjustment clause for Wisconsin retail customers. Instead, under Wisconsin rules, utilities submit a forward-looking annual fuel cost plan to the PSCW for approval. Once the PSCW approves the fuel cost plan, utilities defer the amount of any fuel cost under-recovery or over-recovery in excess of a two percent annual tolerance band, for future rate recovery or refund. Approval of a fuel cost plan and any rate adjustment for refund or recovery of deferred costs is determined by the PSCW. Rate recovery of deferred fuel cost is subject to an earnings test based on the utility's most recently authorized ROE. Fuel cost under-collections that exceed the two percent annual tolerance band may not be recovered if the utility earnings for that year exceed the authorized ROE.

NSP-Wisconsin's electric fuel costs for 2017 were lower than authorized in rates and outside the two percent annual tolerance band, primarily due to lower purchased power costs coupled with moderate weather and generation sales into the MISO market. Under the fuel cost recovery rules, NSP-Wisconsin may retain approximately $4 million of fuel costs and defer approximately $10 million through Dec. 31, 2017. NSP-Wisconsin will file a reconciliation of 2017 fuel costs with the PSCW. The amount of any potential refund is subject to review and approval by the PSCW, which is not expected until mid-2018.

NSP-Wisconsin's retail electric rate schedules for Michigan customers include power supply cost recovery factors, which are based on 12-month projections. After each 12-month period, a reconciliation is submitted whereby over-recoveries are refunded and any under-recoveries are collected from the customers over the subsequent 12-month period.

Wisconsin Energy Efficiency Program — In Wisconsin, the primary energy efficiency program is funded by the state's utilities, but operated by independent contractors subject to oversight by the PSCW and the utilities. NSP-Wisconsin recovers these costs in rates charged to Wisconsin retail customers.

Capacity and Demand

Uninterrupted system peak demand for the NSP System's electric utility for each of the last three years and the forecast for 2018, assuming normal weather conditions, is as follows:

	System Peak Demand (in MW)			
	2017	2016	2015	2018 Forecast
NSP System	8,546	9,002	8,621	9,208

The peak demand for the NSP System typically occurs in the summer. The 2017 system peak demand for the NSP System occurred on July 17, 2017. The decline in peak load from 2016 to 2017 is in part due to considerably cooler weather in 2017. The 2018 forecast assumes normal peak day weather, which is warmer than actual 2017 peak day weather.

Energy Sources and Related Transmission Initiatives

The NSP System expects to use existing power plants, power purchases, CIP/DSM options, new generation facilities and expansion of existing power plants to meet its system capacity requirements.

Purchased Power — Through the Interchange Agreement, NSP-Wisconsin receives power purchased by NSP-Minnesota from other utilities and independent power producers. Generally, long-term dispatchable purchased power contracts require a periodic payment and a charge for the delivered associated energy. Some long-term purchased power contracts only contain a charge for the purchased energy. NSP-Minnesota also makes short-term purchases to meet system load and energy requirements, to replace generation from company-owned units under maintenance or during outages, to meet operating reserve obligations, or to obtain energy at a lower cost. In NSP-Wisconsin's most recent rate proceeding, the PSCW ordered NSP-Wisconsin to apply deferred accounting for the purchased power cost savings and the non-fuel costs associated with NSP-Minnesota's termination or modification to certain biomass PPAs and NSP-Minnesota's planned purchase and closure of the Benson Power LLC biomass facility.

Purchased Transmission Services — NSP-Minnesota and NSP-Wisconsin have contracts with MISO and other regional transmission service providers to deliver power and energy to their customers.

NSP System Resource Plans — In January 2017, the MPUC approved NSP-Minnesota's Integrated Resource Plan that includes:

- Retirement of Sherco Unit 2 in 2023 and Sherco Unit 1 in 2026. The resulting need for 750 MW of capacity in 2026 will be addressed in a future CON proceeding;
- Acquisition of at least 1,000 MW of wind by 2019. The mix of purchased power and owned facilities was not specified;
- Acquisition of 650 MW of solar by 2021 either through the community solar gardens program or other cost-effective resources. The mix of purchased power and owned facilities was not specified;
- Acquisition of at least 400 MW of additional demand response by 2023, and a study of the technical and economic achievability of 1,000 MW of additional demand response in total by 2025; and
- Achievement of at least 444 GWh of energy efficiency in all planning years.

NSP-Wisconsin / American Transmission Company, LLC (ATC) - La Crosse to Madison, Wis. Transmission Line — In 2013, NSP-Wisconsin and ATC jointly filed an application with the PSCW for a CPCN for a 345 KV transmission line that would extend from La Crosse, Wis. to Madison, Wis. NSP-Wisconsin's half of the line will be shared with three co-owners, Dairyland Power Cooperative, WPPI Energy and Southern Minnesota Municipal Power Agency-Wisconsin.

In 2015, the PSCW issued its order approving a CPCN and route for the project. Two groups have appealed the CPCN order to the La Crosse County Circuit Court (Circuit Court). In May 2017, the Circuit Court determined that the project was necessary, allowing construction to continue on a seven mile segment near La Crosse, Wis. The parties have appealed various aspects of the case to the Wisconsin Court of Appeals which is currently pending. The CPCN remains in full effect unless one of the parties seeks and receives a stay from the court and posts a bond to cover damages the utilities may incur due to delay. The 180-mile project is expected to cost approximately $541 million. NSP-Wisconsin's portion of the investment, which includes AFUDC, is estimated to be approximately $200 million. Construction on the line began in January 2016, with completion anticipated by late 2018.

Fuel Supply and Costs

The following table shows the delivered cost per MMBtu of each significant category of fuel consumed for owned electric generation, the percentage of total fuel requirements represented by each category of fuel and the total weighted average cost of all fuels.

	Coal [(a)]		Nuclear		Natural Gas		Weighted
NSP System Generating Plants	**Cost**	**Percent**	**Cost**	**Percent**	**Cost**	**Percent**	**Average Owned Fuel Cost**
2017	$ 2.08	45%	$ 0.78	45%	$ 4.10	10%	$ 1.72
2016	2.03	42	0.80	44	3.30	14	1.67
2015	2.15	47	0.83	40	3.89	13	1.85

(a) Includes refuse-derived fuel and wood.

See Items 1A and 7 for further discussion of fuel supply and costs.

Fuel Sources

Nuclear — NSP-Minnesota secures contracts for uranium concentrates, uranium conversion, uranium enrichment and fuel fabrication to operate its nuclear plants. The contract strategy involves a portfolio of spot purchases and medium and long-term contracts for uranium concentrates, conversion services and enrichment services with multiple producers and with a focus on diversification to minimize potential impacts caused by supply interruptions due to geographical and world political issues.

- Current nuclear fuel supply contracts cover 100 percent of uranium concentrates requirements through 2021 and approximately 57 percent of the requirements for 2022 through 2033;
- Current contracts for conversion services cover 100 percent of the requirements through 2021 and approximately 50 percent of the requirements for 2022 through 2033; and
- Current enrichment service contracts cover 100 percent of the requirements through 2025 and approximately 29 percent of the requirements for 2026 through 2033.

Fabrication services for Monticello and PI are 100 percent committed through 2030 and 2019, respectively.

NSP-Minnesota expects sufficient uranium concentrates, conversion services and enrichment services to be available for the total fuel requirements of its nuclear generating plants. Some exposure to market price volatility will remain due to index-based pricing structures contained in certain supply contracts.

Coal — The NSP System normally maintains approximately 41 days of coal inventory. Coal supply inventories at Dec. 31, 2017 and 2016 were approximately 53 and 55 days of usage, respectively. Milder weather, purchase commitments and relatively low power and natural gas prices resulted in coal inventories being above optimal levels. NSP-Minnesota's generation stations use low-sulfur western coal purchased primarily under contracts with suppliers operating in Wyoming and Montana. Coal requirements for the NSP System's major coal-fired generating plants were approximately 8.0 million tons for 2017 and 7.5 million tons for 2016. Coal requirements for 2017 increased primarily due to slightly higher natural gas prices during the year. The estimated coal requirements for 2018 are approximately 8.3 million tons.

NSP-Minnesota and NSP-Wisconsin have contracted for coal supplies to provide 79 percent of their estimated coal requirements in 2018 and a declining percentage of the requirements in subsequent years. The NSP System's general coal purchasing objective is to contract for approximately 75 percent of requirements for the first year, 40 percent of requirements in year two and 20 percent of requirements in year three. Remaining requirements will be filled through the procurement process or over-the-counter transactions.

NSP-Minnesota and NSP-Wisconsin have coal transportation contracts that provide for delivery of 100 and 25 percent of their coal requirements in 2018 and 2019, respectively. Coal delivery may be subject to interruptions or reductions due to operation of the mines, transportation problems, weather and availability of equipment.

Natural gas — The NSP System uses both firm and interruptible natural gas supply in combustion turbines and certain boilers. Natural gas supplies, transportation and storage services for power plants are procured under contracts to provide an adequate supply of fuel. However, as natural gas primarily serves intermediate and peak demand, remaining forecasted requirements are able to be procured through a liquid spot market. Generally, natural gas supply contracts have variable pricing that is tied to various natural gas indices. Most transportation contract pricing is based on FERC approved transportation tariff rates. Certain natural gas supply and transportation agreements include obligations for the purchase and/or delivery of specified volumes of natural gas or to make payments in lieu of delivery. At Dec. 31, 2017 and 2016, the NSP System did not have any commitments related to gas supply contracts; however commitments related to gas transportation and storage contracts were approximately $398 million and $382 million, respectively. Commitments related to gas transportation and storage contracts expire in various years from 2018 to 2037.

The NSP System also has limited on-site fuel oil storage facilities and primarily relies on the spot market for incremental supplies.

Renewable Energy Sources

The NSP System's renewable energy portfolio includes wind, hydroelectric, biomass and solar power from both owned generating facilities and PPAs. As of Dec. 31, 2017, the NSP System was in compliance with mandated RPS, which require generation from renewable resources of 25.0 percent and 12.9 percent of NSP-Minnesota and NSP-Wisconsin electric retail sales, respectively.

Renewable energy as a percentage of the NSP System's total energy:

	2017	2016
Renewable	28.8%	26.1%
Wind	18.3	16.4
Hydroelectric	6.3	6.6
Biomass and solar	4.2	3.1

The NSP System also offers customer-focused renewable energy initiatives. Windsource® allows customers in Minnesota, Wisconsin and Michigan to purchase electricity from renewable sources. The number of customers utilizing Windsource increased to approximately 60,900 in 2017 from 54,000 in 2016.

Additionally, the Solar*Connect Community program is an option made available to encourage use of solar energy in Wisconsin. This program allows for offsite development of solar and bill credits to customers based on an approved tariffed rate. One solar garden site went on line during 2017 and two more are anticipated to be online in 2018 and 2019.

Wind — The NSP System acquires the majority of its wind energy from PPAs. Currently, the NSP System has more than 130 of these agreements in place, with facilities ranging in size from under one MW to more than 200 MW. The NSP System owns and operates five wind farms which have the capacity to generate 852 MW.

- The NSP System had approximately 2,600 MW of wind energy on its system at the end of 2017 and 2016. In addition to receiving purchased wind energy under these agreements, the NSP System typically receives wind RECs, which are used to meet state renewable resource requirements.
- The average cost per MWh of wind energy under existing contracts was approximately $44 for 2017 and $43 for 2016. The cost per MWh of wind energy varies by contract and may be influenced by a number of factors including regulation, state-specific renewable resource requirements and the year of contract execution. Generally, contracts executed in 2017 continued to benefit from improvements in technology, excess capacity among manufacturers and motivation to commence new construction prior to the anticipated expiration of the federal PTCs. In December 2015, the federal PTCs were extended through 2019 with a phase down on sites that began construction in 2017.

Hydroelectric — The NSP System acquires its hydroelectric energy from both owned generation and PPAs. The NSP System owns 20 hydroelectric plants throughout Wisconsin and Minnesota which provide approximately 263 MW of capacity. For 2017, PPAs provided approximately 34 MW of hydroelectric capacity. Additionally, the NSP System purchases approximately 850 MW of generation from Manitoba Hydro, which is sourced primarily from its fleet of hydroelectric facilities.

Wholesale and Commodity Marketing Operations

NSP-Wisconsin conducts various wholesale marketing operations, including the purchase and sale of electric capacity, energy, ancillary services and energy-related products. NSP-Wisconsin uses physical and financial instruments to minimize commodity price and credit risk and hedge sales and purchases. NSP-Wisconsin also engages in trading activity unrelated to hedging and sharing of any margins is determined through state regulatory proceedings. NSP-Wisconsin does not serve any wholesale requirements customers at cost-based regulated rates. See Item 7 for further discussion.

Summary of Recent Federal Regulatory Developments

The FERC has jurisdiction over rates for electric transmission service in interstate commerce and electricity sold at wholesale, hydro facility licensing, natural gas transportation, asset transactions and mergers, accounting practices and certain other activities of NSP-Wisconsin, including enforcement of NERC mandatory electric reliability standards. State and local agencies have jurisdiction over many of NSP-Wisconsin's activities, including regulation of retail rates and environmental matters. In addition to the matters discussed below, see Note 10 to the accompanying consolidated financial statements for a discussion of other regulatory matters.

Xcel Energy, which includes NSP-Wisconsin, attempts to mitigate the risk of regulatory penalties through formal training on prohibited practices and a compliance function that reviews interaction with the markets under FERC and CFTC jurisdictions. Public campaigns are conducted to raise awareness of the public safety issues of interacting with our electric systems. While programs to comply with regulatory requirements are in place, there is no guarantee the compliance programs or other measures will be sufficient to ensure against violations.

FERC Order, ROE Policy — In June 2014, the FERC adopted a two-step ROE methodology for electric utilities in an order issued in a complaint proceeding involving New England Transmission Owners (NETOs). The issue of how to apply the FERC ROE methodology has been contested in various complaint proceedings, including two ROE complaints involving the MISO TOs, which include NSP-Minnesota and NSP-Wisconsin. In April 2017, the District of Columbia Circuit (D.C. Circuit) vacated and remanded the June 2014 ROE order. The D.C. Circuit found that the FERC had not properly determined that the ROE authorized for the NETOs prior to June 2014 was unjust and unreasonable. The D.C. Circuit also found that the FERC failed to justify the new ROE methodology. The FERC has yet to act on the D.C. Circuit's decision. See Note 10 to the consolidated financial statements for discussion of the D.C. Circuit's decision and the impact on the MISO ROE Complaints.

DOE Grid Resiliency Notice of Proposed Rule (NOPR) — In September 2017, the DOE requested the FERC to consider and adopt a Grid Resiliency and Pricing Rule to address threats to the U.S. electrical grid. Under the proposed rule, coal and nuclear generation facilities would have to meet certain criteria to qualify for full recovery of their costs including a fair rate of return. In January 2018, the FERC rejected the DOE's proposal, but alternatively initiated an inquiry into how RTOs and Independent System Operators address grid resilience. Efforts to resolve U.S. grid resilience issues may result from this proceeding and Xcel Energy plans to monitor and respond as necessary.

Electric Operating Statistics

Electric Sales Statistics

	Year Ended Dec. 31		
	2017	2016	2015
Electric sales (Millions of KWh)			
Residential	1,853	1,868	1,863
Large commercial and industrial	1,952	1,885	1,868
Small commercial and industrial	2,892	2,856	2,877
Public authorities and other	28	32	39
Total energy sold	6,725	6,641	6,647
Number of customers at end of period			
Residential	217,525	216,426	215,135
Large commercial and industrial	123	117	120
Small commercial and industrial	39,740	39,529	39,254
Public authorities and other	1,176	1,142	1,175
Total customers	258,564	257,214	255,684
Electric revenues (Thousands of Dollars)			
Residential	$ 254,144	$ 248,476	$ 244,417
Large commercial and industrial	151,345	142,942	141,007
Small commercial and industrial	299,053	287,060	284,427
Public authorities and other	6,142	6,105	6,576
Total retail	710,684	684,583	676,427
Interchange revenues from NSP-Minnesota	177,234	170,483	163,255
Other electric revenues	(6,027)	(5,120)	(4,684)
Total electric revenues	$ 881,891	$ 849,946	$ 834,998
KWh sales per retail customer	26,009	25,819	25,997
Revenue per retail customer	$ 2,749	$ 2,662	$ 2,646
Residential revenue per KWh	13.72¢	13.30¢	13.12¢
Large commercial and industrial revenue per KWh	7.75	7.58	7.55
Small commercial and industrial revenue per KWh	10.34	10.05	9.89
Total retail revenue per KWh	10.57	10.31	10.18

Energy Source Statistics

	Year Ended Dec. 31					
	2017		2016		2015	
NSP System	Millions of KWh	Percent of Generation	Millions of KWh	Percent of Generation	Millions of KWh	Percent of Generation
Nuclear	14,167	30%	14,191	30%	12,425	27%
Coal	14,737	30	13,681	28	15,961	35
Wind [(a)]	8,893	18	7,897	16	6,235	14
Natural Gas	5,786	12	7,810	16	6,689	15
Hydroelectric	3,080	6	3,203	7	3,326	7
Other [(b)]	2,052	4	1,480	3	1,083	2
Total	48,715	100%	48,262	100%	45,719	100%
Owned generation	36,640	75%	36,381	75%	33,818	74%
Purchased generation	12,075	25	11,881	25	11,901	26
Total	48,715	100%	48,262	100%	45,719	100%

(a) This category includes wind energy de-bundled from RECs and also includes Windsource RECs. The NSP System uses RECs to meet or exceed state resource requirements and may sell surplus RECs.

(b) Includes energy from other sources, including solar, biomass, oil and refuse. Distributed generation from the Solar*Rewards® program is not included, and was approximately 17, 21 and eight million net KWh for 2017, 2016, and 2015, respectively.

NATURAL GAS UTILITY OPERATIONS

Overview

NSP-Wisconsin operates a natural gas local distribution company in Wisconsin and Michigan. The most significant developments in the natural gas operations of the utility subsidiaries are uncertainty regarding political and regulatory developments that impact hydraulic fracturing, safety requirements for natural gas pipelines and the continued trend of declining use per residential and small C&I customer, as a result of improved building construction technologies, higher appliance efficiencies and conservation. From 2000 to 2017, average annual sales to the typical residential customer declined 17 percent, while sales to the typical small C&I customer increased 4 percent, each on a weather-normalized basis. Although wholesale price increases do not directly affect earnings because of natural gas cost-recovery mechanisms, high prices can encourage further efficiency efforts by customers.

The PHMSA

Pipeline Safety Act — The Pipeline Safety, Regulatory Certainty, and Job Creation Act (Pipeline Safety Act) requires additional verification of pipeline infrastructure records by pipeline owners and operators to confirm the maximum allowable operating pressure of lines located in high consequence areas or more-densely populated areas. In April 2016, the PHMSA released proposed rules that address this verification requirement along with a number of other significant changes to gas transmission regulations. These changes include requirements around use of automatic or remote-controlled shut-off valves, testing of certain previously untested transmission lines and expanding integrity management requirements. The Pipeline Safety Act also includes a maximum penalty for violating pipeline safety rules of $2 million per day for related violations.

PHMSA is currently working through the rule with its Pipeline Advisory Committee. Current estimates are the rule will likely go into effect in late 2018 or early 2019.

NSP-Wisconsin has been taking actions that were intended to comply with the Pipeline Safety Act and any related PHMSA regulations as they become effective.

Public Utility Regulation

***Summary of Regulatory Agencies and Areas of Jurisdiction* —** NSP-Wisconsin is regulated by the PSCW and the MPSC. The PSCW has a biennial base-rate filing requirement. By June of each odd-numbered year, NSP-Wisconsin must submit a rate filing for the test year period beginning the following January. NSP-Wisconsin is subject to the jurisdiction of the FERC with respect to certain natural gas transactions in interstate commerce. NSP-Wisconsin is subject to the DOT, the PSCW and the MPSC for pipeline safety compliance.

***Natural Gas Cost-Recovery Mechanisms* —** NSP-Wisconsin has a retail PGA cost-recovery mechanism for Wisconsin operations to recover the actual cost of natural gas and transportation and storage services. The PSCW has the authority to disallow certain costs if it finds NSP-Wisconsin was not prudent in its procurement activities.

NSP-Wisconsin's natural gas rate schedules for Michigan customers include a natural gas cost-recovery factor, which is based on 12-month projections and trued-up to the actual amounts on an annual basis.

Capability and Demand

Natural gas supply requirements are categorized as firm or interruptible (customers with an alternate energy supply). The maximum daily send-out (firm and interruptible) for NSP-Wisconsin was 160,170 MMBtu, which occurred on Dec. 26, 2017 and 155,583 MMBtu, which occurred on Jan. 18, 2016.

NSP-Wisconsin purchases natural gas from independent suppliers, generally based on market indices that reflect current prices. The natural gas is delivered under transportation agreements with interstate pipelines. These agreements provide for firm deliverable pipeline capacity of approximately 139,293 MMBtu per day. In addition, NSP-Wisconsin contracts with providers of underground natural gas storage services. These agreements provide storage for approximately 33 percent of winter natural gas requirements and 34 percent of peak day firm requirements of NSP-Wisconsin.

NSP-Wisconsin also owns and operates one LNG plant with a storage capacity of 270,000 Mcf equivalent to help meet its peak requirements. This peak-shaving facility has a production capacity equivalent to 18,000 MMBtu of natural gas per day, or approximately 12 percent of peak day firm requirements. LNG plants provide a cost-effective alternative to annual fixed pipeline transportation charges to meet the peaks caused by firm space heating demand on extremely cold winter days.

NSP-Wisconsin is required to file a natural gas supply plan with the PSCW annually to change natural gas supply contract levels to meet peak demand. NSP-Wisconsin's winter 2017-2018 supply plan was approved by the PSCW in October 2017.

Natural Gas Supply and Costs

NSP-Wisconsin actively seeks natural gas supply, transportation and storage alternatives to yield a diversified portfolio that provides increased flexibility, decreased interruption and financial risk and economical rates. In addition, NSP-Wisconsin conducts natural gas price hedging activity that has been approved by the PSCW.

The following table summarizes the average delivered cost per MMBtu of natural gas purchased for resale by NSP-Wisconsin's regulated retail natural gas distribution business:

2017	$ 3.88
2016	3.62
2015	4.11

The cost of natural gas in 2017 increased due to higher commodity prices.

The cost of natural gas supply, transportation service and storage service is recovered through various cost-recovery adjustment mechanisms. NSP-Wisconsin has firm natural gas transportation contracts with several pipelines, which expire in various years from 2018 through 2029.

NSP-Wisconsin has certain natural gas supply, transportation and storage agreements that include obligations for the purchase and/or delivery of specified volumes of natural gas or to make payments in lieu of delivery. At Dec. 31, 2017, NSP-Wisconsin was committed to approximately $84 million in such obligations under these contracts.

NSP-Wisconsin purchased firm natural gas supply utilizing long-term and short-term agreements from approximately 10 domestic and Canadian suppliers. This diversity of suppliers and contract lengths allows NSP-Wisconsin to maintain competition from suppliers and minimize supply costs.

See Items 1A and 7 for further discussion of natural gas supply and costs.

Natural Gas Operating Statistics

	Year Ended Dec. 31		
	2017	**2016**	**2015**
Natural gas deliveries (Thousands of MMBtu)			
Residential	6,981	6,320	6,584
Commercial and industrial	8,919	8,165	9,116
Total retail	15,900	14,485	15,700
Transportation and other	5,177	4,847	4,756
Total deliveries	21,077	19,332	20,456
Number of customers at end of period			
Residential	101,322	100,424	99,316
Commercial and industrial	13,129	13,015	12,902
Total retail	114,451	113,439	112,218
Transportation and other	30	30	25
Total customers	114,481	113,469	112,243
Natural gas revenues (Thousands of Dollars)			
Residential	$ 65,493	$ 56,514	$ 61,277
Commercial and industrial	54,233	46,879	55,677
Total retail	119,726	103,393	116,954
Transportation and other	2,627	2,764	3,193
Total natural gas revenues	$ 122,353	$ 106,157	$ 120,147
MMBtu sales per retail customer	138.92	127.69	139.91
Revenue per retail customer	$ 1,046	$ 911	$ 1,042
Residential revenue per MMBtu	9.38	8.94	9.31
Commercial and industrial revenue per MMBtu	6.08	5.74	6.11
Transportation and other revenue per MMBtu	0.51	0.57	0.67

GENERAL

Seasonality

The demand for electric power and natural gas is affected by seasonal differences in the weather. In general, peak sales of electricity occur in the summer months, and peak sales of natural gas occur in the winter months. As a result, the overall operating results may fluctuate substantially on a seasonal basis. Additionally, NSP-Wisconsin's operations have historically generated less revenues and income when weather conditions are milder in the winter and cooler in the summer. See Item 7 for further discussion.

Competition

NSP-Wisconsin is a vertically integrated utility, subject to traditional cost-of-service regulation. However, NSP-Wisconsin is subject to different public policies that promote competition and the development of energy markets. NSP-Wisconsin's industrial and large commercial customers have the ability to own or operate facilities to generate their own electricity. In addition, customers may have the option of substituting other fuels, such as natural gas, steam or chilled water for heating, cooling and manufacturing purposes, or the option of relocating their facilities to a lower cost region. Customers also have the opportunity to supply their own power with solar generation (typically rooftop solar or solar gardens) and in most jurisdictions can currently avoid paying for most of the fixed production, transmission and distribution costs incurred to serve them.

The FERC has continued to promote competitive wholesale markets through open access transmission and other means. As a result, NSP-Wisconsin can purchase the output from generation resources of competing wholesale suppliers and use the transmission systems of Xcel Energy Inc.'s utility subsidiaries on a comparable basis to serve their native load. In addition, FERC Order 1000 seeks to establish competition for construction and operation of certain new electric transmission facilities. NSP-Wisconsin has franchise agreements with certain cities subject to periodic renewal. If a city elected not to renew the franchise agreement, it could seek alternative means for its citizens to access electric power or gas, such as municipalization. While facing these challenges, NSP-Wisconsin believes its rates and services are competitive with currently available alternatives. As of Jan. 1, 2013 all of NSP-Wisconsin's wholesale customers began purchasing power from an alternate supplier.

ENVIRONMENTAL MATTERS

NSP-Wisconsin's facilities are regulated by federal and state environmental agencies. These agencies have jurisdiction over air emissions, water quality, wastewater discharges, solid wastes and hazardous substances. Various company activities require registrations, permits, licenses, inspections and approvals from these agencies. NSP-Wisconsin has received all necessary authorizations for the construction and continued operation of its generation, transmission and distribution systems. NSP-Wisconsin's facilities have been designed and constructed to operate in compliance with applicable environmental standards. However, it is not possible to determine when or to what extent additional facilities or modifications of existing or planned facilities will be required as a result of changes to environmental regulations, interpretations or enforcement policies or what effect future laws or regulations may have upon NSP-Wisconsin's operations. See Notes 10 and 11 to the consolidated financial statements for further discussion.

There are significant present and future environmental regulations to encourage the use of clean energy technologies and regulate emissions of GHGs to address climate change. NSP-Wisconsin has undertaken a number of initiatives to meet current requirements and prepare for potential future regulations, reduce GHG emissions and respond to state renewable and energy efficiency goals. If these future environmental regulations do not provide credit for the investments we have already made to reduce GHG emissions, or if they require additional initiatives or emission reductions, then their requirements would potentially impose additional substantial costs. NSP-Wisconsin believes, based on prior state commission practice, it would recover the cost of these initiatives through rates.

EMPLOYEES

As of Dec. 31, 2017, NSP-Wisconsin had 538 full-time employees and one part-time employee, of which 383 were covered under collective-bargaining agreements. See Note 7 to the consolidated financial statements for further discussion.

Item 1A — Risk Factors

Xcel Energy, which includes NSP-Wisconsin, is subject to a variety of risks, many of which are beyond our control. Important risks that may adversely affect the business, financial condition and results of operations are further described below. These risks should be carefully considered together with the other information set forth in this report and in future reports that Xcel Energy files with the SEC.

Oversight of Risk and Related Processes

A key accountability of the Board of Directors is the oversight of material risk, and our Board of Directors employs an effective process for doing so. Management and the Board of Directors have responsibility for overseeing the identification and mitigation of key risks.

Management identifies and analyzes risks to determine materiality and other attributes such as timing, probability and controllability. Management broadly considers our business, the utility industry, the domestic and global economies and the environment when identifying, assessing, managing and mitigating risk. Identification and analysis occurs formally through a key risk assessment process conducted by senior management, the financial disclosure process, the hazard risk management process and internal auditing and compliance with financial and operational controls. Management also identifies and analyzes risk through its business planning process and development of goals and key performance indicators, which include risk identification to determine barriers to implementing NSP-Wisconsin's strategy. The business planning process also identifies areas in which there is a potential for a business area to take inappropriate risk to meet goals, and determines how to prevent inappropriate risk-taking.

At a threshold level, NSP-Wisconsin has developed a robust compliance program and promotes a culture of compliance, including tone at the top, which mitigates risk. The process for risk mitigation includes adherence to our code of conduct and other compliance policies, operation of formal risk management structures and groups and overall business management to mitigate the risks inherent in the implementation of strategy. Building on this culture of compliance, management further mitigates risks through operation of formal risk management structures and groups, including management councils, risk committees and the services of internal corporate areas such as internal audit, the corporate controller and legal services.

Management communicates regularly with the Board of Directors and key stakeholders regarding risk. Senior management presents a periodic assessment of key risks to the Board of Directors. The presentation and the discussion of the key risks provides the Board of Directors with information on the risks management believes are material, including the earnings impact, timing, likelihood and controllability. Management also provides information to the Board of Directors in presentations and communications over the course of the year.

Overall, the Board of Directors approaches oversight, management and mitigation of risk as an integral and continuous part of its governance of NSP-Wisconsin. Processes are in place to ensure appropriate risk oversight, as well as identification and consideration of new risks. The Board of Directors regularly reviews management's key risk assessment informed by these processes, and analyzes areas of existing and future risks and opportunities.

Risks Associated with Our Business

Environmental Risks

We are subject to environmental laws and regulations, with which compliance could be difficult and costly.

We are subject to environmental laws and regulations that affect many aspects of our past, present and future operations, including air emissions, water quality, wastewater discharges and the generation, transport and disposal of solid wastes and hazardous substances. These laws and regulations require us to obtain permits, licenses, and other approvals and to comply with a wide variety of environmental requirements including those for protected natural and cultural resources (such as wetlands, endangered species and other protected wildlife, and archaeological and historical resources). Environmental laws and regulations can also require us to restrict or limit the output of certain facilities or the use of certain fuels, shift generation to lower-emitting, but potentially more costly facilities, install pollution control equipment at our facilities, clean up spills and other contamination and correct environmental hazards. Environmental regulations may also lead to shutdown of existing facilities, either due to the difficulty in assuring compliance or that the costs of compliance makes operation of the units no longer economical. Both public officials and private individuals may seek to enforce the applicable environmental laws and regulations against us. We may be required to pay all or a portion of the cost to remediate (i.e., clean-up) sites where our past activities, or the activities of certain other parties, caused environmental contamination.

We are also subject to mandates to provide customers with clean energy, renewable energy and energy conservation offerings. Failure to meet the requirements of these mandates may result in fines or penalties, which could have a material effect on our results of operations. If our regulators do not allow us to recover all or a part of the cost of capital investment or the O&M costs incurred to comply with the mandates or other environmental requirements, it could have a material effect on our results of operations, financial position or cash flows.

In addition, existing environmental laws or regulations may be revised, and new laws or regulations may be adopted or become applicable to us, including but not limited to, regulation of mercury, NOx, SO_2, CO_2 and other GHGs, particulates, cooling water intakes, water discharges and ash management. We may also incur additional unanticipated obligations or liabilities under existing environmental laws and regulations.

We are subject to physical and financial risks associated with climate change and other weather, natural disaster and resource depletion impacts.

Climate change can create physical and financial risk. Physical risks from climate change can include changes in weather conditions, changes in precipitation and extreme weather events.

Our customers' energy needs vary with weather conditions, primarily temperature and humidity. For residential customers, heating and cooling represent their largest energy use. To the extent weather conditions are affected by climate change, customers' energy use could increase or decrease. Increased energy use due to weather changes may require us to invest in additional generating assets, transmission and other infrastructure to serve increased load. Decreased energy use due to weather changes may result in decreased revenues. Extreme weather conditions in general require more system backup, adding to costs, and can contribute to increased system stress, including service interruptions. Weather conditions could also have an impact on our revenues. We buy and sell electricity depending upon system needs and market opportunities. Extreme weather conditions creating high energy demand may raise electricity prices, which would increase the cost of energy we provide to our customers.

Severe weather impacts our service territories, primarily when thunderstorms and associated flooding, tornadoes, wildfires and snow or ice storms occur. To the extent the frequency of extreme weather events increases, this could increase our cost of providing service. Changes in precipitation resulting in droughts or water shortages, whether caused by climate change or otherwise, could adversely affect our operations, principally our fossil generating units. A negative impact to water supplies due to long-term drought or water depletion conditions could adversely impact our ability to provide electricity to customers, as well as increase the price they pay for energy. We may not recover all costs related to mitigating these physical and financial risks.

Climate change may impact a region's economic health, which could impact our revenues. Our financial performance is tied to the health of the regional economies we serve. The price of energy has an impact on the economic health of our communities. The cost of additional regulatory requirements, such as regulation of GHG or additional environmental regulation could impact the availability of goods and prices charged by our suppliers which would normally be borne by consumers through higher prices for energy and purchased goods. To the extent financial markets view climate change and emissions of GHGs as a financial risk, this could negatively affect our ability to access capital markets or cause us to receive less than ideal terms and conditions.

Financial Risks

Our profitability depends in part on our ability to recover costs from our customers and there may be changes in circumstances or in the regulatory environment that impair our ability to recover costs from our customers.

We are subject to comprehensive regulation by federal and state utility regulatory agencies. The state utility commissions regulate many aspects of our utility operations, including siting and construction of facilities, customer service and the rates that we can charge customers. The FERC has jurisdiction, among other things, over wholesale rates for electric transmission service, the sale of electric energy in interstate commerce and certain natural gas transactions in interstate commerce.

The profitability of our operations is dependent on our ability to recover the costs of providing energy and utility services to our customers and earn a return on our capital investment. We provide service at rates approved by one or more regulatory commissions. These rates are generally regulated and based on an analysis of our costs incurred in a test year. We are subject to both future and historical test years depending upon the regulatory mechanisms approved in each jurisdiction. Thus, the rates we are allowed to charge may or may not match our costs at any given time. While rate regulation is premised on providing an opportunity to earn a reasonable rate of return on invested capital, in a continued low interest rate environment there has been pressure pushing down ROE. There can also be no assurance that the applicable regulatory commission will judge all of our costs to have been prudent, which could result in cost disallowances, or that the regulatory process in which rates are determined will always result in rates that will produce full recovery of such costs. Changes in the long-term cost-effectiveness or changes to the operating conditions of our assets may result in early retirements and while regulation typically provides relief for these types of changes, there is no assurance that regulators would allow full recovery of all remaining costs leaving all or a portion of these asset costs stranded. Higher than expected inflation may increase costs of construction and operations. Rising fuel costs could increase the risk that we will not be able to fully recover our fuel costs from our customers. Furthermore, there could be changes in the regulatory environment that would impair our ability to recover costs historically collected from our customers, or these factors could cause us to exceed commitments made regarding cost caps and result in less than full recovery. Overall, management currently believes prudently incurred costs are generally recoverable given the existing regulatory mechanisms in place.

Adverse regulatory rulings or the imposition of additional regulations could have an adverse impact on our results of operations and hence could materially and adversely affect our ability to meet our financial obligations, including debt payments.

Any reductions in our credit ratings could increase our financing costs and the cost of maintaining certain contractual relationships.

We cannot be assured that any of our current ratings will remain in effect for any given period of time, or that a rating will not be lowered or withdrawn entirely by a rating agency. Significant events including a major disallowance of costs, significantly lower returns on equity or equity ratios or impacts of tax policy changes, among others, may impact our cash flows and credit metrics, potentially resulting in a change in our credit ratings. In addition, our credit ratings may change as a result of the differing methodologies or change in the methodologies used by the various rating agencies. Any downgrade could lead to higher borrowing costs and could impact our ability to access capital markets. Also, we may enter into certain procurement and derivative contracts that require the posting of collateral or settlement of applicable contracts if credit ratings fall below investment grade.

We are subject to capital market and interest rate risks.

Utility operations require significant capital investment. As a result, we frequently need to access capital markets. Any disruption in capital markets could have a material impact on our ability to fund our operations. Capital markets are global in nature and are impacted by numerous issues and events throughout the world economy. Capital market disruption events and resulting broad financial market distress could prevent us from issuing short term commercial paper, issuing new securities or cause us to issue securities with less than ideal terms and conditions, such as higher interest rates.

Higher interest rates on short-term borrowings with variable interest rates could also have an adverse effect on our operating results. Changes in interest rates may also impact the fair value of the debt securities in the master pension trust, as well as our ability to earn a return on short-term investments of excess cash.

We are subject to credit risks.

Credit risk includes the risk that our customers will not pay their bills, which may lead to a reduction in liquidity and an increase in bad debt expense. Credit risk is comprised of numerous factors including the price of products and services provided, the overall economy and local economies in the geographic areas we serve, including local unemployment rates.

Credit risk also includes the risk that various counterparties that owe us money or product will become insolvent and/or breach their obligations. Should the counterparties to these arrangements fail to perform, we may be forced to enter into alternative arrangements. In that event, our financial results could be adversely affected and we could incur losses.

We may at times have direct credit exposure as part of our local gas distribution company supply activity to various financial institutions trading for their own accounts or issuing collateral support on behalf of other counterparties. We may also have some indirect credit exposure due to participation in organized markets, such as SPP, PJM, MISO and ERCOT, in which any credit losses are socialized to all market participants.

Increasing costs associated with our defined benefit retirement plans and other employee benefits may adversely affect our results of operations, financial position or liquidity.

We have defined benefit pension and postretirement plans that cover most of our employees. Assumptions related to future costs, return on investments, interest rates and other actuarial assumptions, including mortality tables, have a significant impact on our funding requirements related to these plans. These estimates and assumptions may change based on economic conditions, actual stock and bond market performance, changes in interest rates and changes in governmental regulations. In addition, the Pension Protection Act of 2006 changed the minimum funding requirements for defined benefit pension plans with modifications that allowed additional flexibility in the timing of contributions. Therefore, our funding requirements and related contributions may change in the future. Also, the payout of a significant percentage of pension plan liabilities in a single year due to high retirements or employees leaving NSP-Wisconsin could trigger settlement accounting and could require NSP-Wisconsin to recognize material incremental pension expense related to unrecognized plan losses in the year these liabilities are paid.

Increasing costs associated with health care plans may adversely affect our results of operations.

Our self-insured costs of health care benefits for eligible employees have increased in recent years. Increasing levels of large individual health care claims and overall health care claims could have an adverse impact on our operating results, financial position and liquidity. We believe that our employee benefit costs, including costs related to health care plans for our employees and former employees, will continue to rise. Changes in industry standards utilized by management in key assumptions (e.g., mortality tables) could have a significant impact on future liabilities and benefit costs. Legislation related to health care could also significantly change our benefit programs and costs.

Federal tax law may significantly impact our business.

NSP-Wisconsin collects through regulated rates its estimated federal, state and local tax payments. There are a number of provisions in federal tax law designed to incentivize capital investments which have benefited our customers by keeping our utility subsidiaries' rates lower than rates calculated without such provisions. Examples include the use of accelerated depreciation for most of our capital investments, PTCs for wind energy, ITCs for solar energy and R&E tax credits and deductions. Changes to federal tax law may benefit or adversely affect our earnings and customer costs. Changes to tax depreciable lives and the value of various tax credits could change the economics of resources and our resource selections. While regulation allows us to incorporate changes in tax law into the rate-setting process, there could be timing delays before regulated rates provide for realization of the tax changes in revenues. In addition, certain IRS tax policies such as the requirement to utilize normalization may impact our ability to economically deliver certain types of resources relative to market prices.

Operational Risks

Our natural gas and electric transmission and distribution operations involve numerous risks that may result in accidents and other operating risks and costs.

Our natural gas transmission and distribution activities include a variety of inherent hazards and operating risks, such as leaks, explosions and mechanical problems, which could cause substantial financial losses. Our electric transmission and distribution activities also include inherent hazards and operating risks such as contact, fire and widespread outages which could cause substantial financial losses. In addition, these natural gas and electric risks could result in loss of human life, significant damage to property, environmental pollution, impairment of our operations and substantial losses to us. We maintain insurance against some, but not all, of these risks and losses.

The occurrence of any of these events not fully covered by insurance could have a material effect on our financial position and results of operations. For our natural gas transmission or distribution lines located near populated areas, the level of potential damages resulting from these risks is greater.

Additionally, for natural gas the operating or other costs that may be required in order to comply with potential new regulations, including the Pipeline Safety Act, could be significant. The Pipeline Safety Act requires verification of pipeline infrastructure records by pipeline owners and operators to confirm the maximum allowable operating pressure of lines located in high consequence areas or more-densely populated areas. We have programs in place to comply with the Pipeline Safety Act and for systematic infrastructure monitoring and renewal over time. A significant incident could increase regulatory scrutiny and result in penalties and higher costs of operations.

Our utility operations are subject to long-term planning risks.

Most electric utility investments are long-lived and are planned to be used for decades. Transmission and generation investments typically have long lead times, and therefore are planned well in advance of when they are brought in-service subject to long-term resource plans. These plans are based on numerous assumptions over the planning horizon such as: sales growth, customer usage, commodity prices, economic activity, costs, regulatory mechanisms, customer behavior, available technology and public policy. The electric utility sector is undergoing a period of significant change. For example, public policy has driven increases in appliance and lighting efficiency and energy efficient buildings, wider adoption and lower cost of renewable generation and distributed generation, including community solar gardens and customer-sited solar, shifts away from coal generation to decrease CO_2 emissions and increasing use of natural gas in electric generation driven by lower natural gas prices. Over time, customer adoption of these technologies and increased energy efficiency could result in excess transmission and generation resources as well as stranded costs if NSP-Wisconsin is not able to fully recover the costs and investments. These changes also introduce additional uncertainty into long-term planning which gives rise to a risk that the magnitude and timing of resource additions and growth in customer demand may not coincide, and that the preference for the types of additions may change from planning to execution. In addition, we are also subject to longer-term availability of the natural resource inputs such as coal, natural gas, uranium and water to cool our facilities. Lack of availability of these resources could jeopardize long-term operations of our facilities or make them uneconomic to operate.

The resource plans reviewed and approved by our state regulators assume continuation of the traditional utility cost of service model under which utility costs are recovered from customers as they receive the benefit of service. NSP-Wisconsin is engaged in significant and ongoing infrastructure investment programs to accommodate renewable distributed generation and to maintain high system reliability. Changing customer expectations and changing technologies are requiring significant investments in advanced grid infrastructure. This also increases the exposure to potential outdating of technologies and the resultant risks. NSP-Wisconsin is also investing in renewable and natural gas-fired generation to reduce our CO_2 emissions profile. The inability of coal mining companies to attract capital could disrupt longer-term supplies. Early plant retirements that may result from these changes could expose us to premature financial obligations, which could result in less than full recovery of all remaining costs. Both decreasing use per customer driven by appliance and lighting efficiency and the availability of cost-effective distributed generation puts downward pressure on load growth. This could lead to under recovery of costs, excess resources to meet customer demand and increases in electric rates. Finally, multiple states served by a single system may not agree as to the appropriate resource mix and the differing views may lead to costs incurred to comply with one jurisdiction that are not recoverable across all of the jurisdictions served by the same assets.

Although we do not own any nuclear generating facilities, because our production and transmission system is operated on an integrated basis with NSP-Minnesota's (an affiliate of NSP-Wisconsin) production and transmission system, we may be subject to risks associated with NSP-Minnesota's nuclear generation.

NSP-Minnesota's two nuclear stations, PI and Monticello, subject it to the risks of nuclear generation, which include:

- The risks associated with use of radioactive material in the production of energy, the management, handling, storage and disposal and the current lack of a long-term disposal solution for radioactive materials;
- Limitations on the amounts and types of insurance available to cover losses that might arise in connection with nuclear operations, as well as obligations to contribute to an insurance pool in the event of damages at a covered U.S. reactor; and
- Uncertainties with respect to the technological and financial aspects of decommissioning nuclear plants at the end of their licensed lives. For example, similar to pensions, interest rate and other assumptions regarding decommissioning costs may change based on economic conditions and changes in the expected life of the asset may cause our funding obligations to change.

The NRC has authority to impose licensing and safety-related requirements for the operation of nuclear generation facilities. In the event of non-compliance, the NRC has the authority to impose fines and/or shut down a unit until compliance is achieved. Revised NRC safety requirements could necessitate substantial capital expenditures or a substantial increase in operating expenses. In addition, the Institute for Nuclear Power Operations reviews NSP-Minnesota's nuclear operations and nuclear generation facilities. Compliance with the Institute for Nuclear Power Operations' recommendations could result in substantial capital expenditures or a substantial increase in operating expenses.

If an incident did occur, it could have a material effect on our results of operations or financial condition. Furthermore, the non-compliance of other nuclear facilities operators or the occurrence of a serious nuclear incident at other facilities could result in increased regulation of the industry, which could then increase NSP-Minnesota's compliance costs and impact the results of operations of its facilities.

We are subject to commodity risks and other risks associated with energy markets and energy production.

We engage in wholesale sales and purchases of electric capacity, energy and energy-related products as well as natural gas. In many markets in which we operate, emission allowances and/or renewable energy credits are also needed to comply with various statutes and commission rulings associated with energy transactions. As a result we are subject to market supply and commodity price risk. Commodity price changes can affect the value of our commodity trading derivatives. We mark certain derivatives to estimated fair market value on a daily basis (mark-to-market accounting). Actual settlements can vary significantly from estimated fair values recorded, and significant changes from the assumptions underlying our fair value estimates could cause earnings variability.

If we encounter market supply shortages or our suppliers are otherwise unable to meet their contractual obligations, we may be unable to fulfill our contractual obligations to our customers at previously anticipated costs. Therefore, a significant disruption could cause us to seek alternative supply services at potentially higher costs or suffer increased liability for unfulfilled contractual obligations. Any significantly higher energy or fuel costs relative to corresponding sales commitments could have a negative impact on our cash flows and potentially result in economic losses. Potential market supply shortages may not be fully resolved through alternative supply sources and may cause short-term disruptions in our ability to provide electric and/or natural gas services to our customers. The impact of these cost and reliability issues depends on our operating conditions such as generation fuels mix, availability of water for cooling, availability of fuel transportation including rail shipments of coal, electric generation capacity, transmission, natural gas pipeline capacity, etc. Failure to provide service due to disruptions could also result in fines, penalties or cost disallowances through the regulatory process.

We share in the electric production and transmission costs of the NSP-Minnesota system, which is integrated with our system. Accordingly, our costs may be increased due to increased costs associated with NSP-Minnesota's system.

Our electric production and transmission system is managed on an integrated basis with the electric production and transmission system of NSP-Minnesota. As discussed above, pursuant to the Interchange Agreement between NSP-Minnesota and us, we share, on a proportional basis, all costs related to the generation and transmission facilities of the entire integrated NSP System, including capital costs. Accordingly, if the costs to operate the NSP System increase, or revenue decreases, whether as a result of state or federally mandated improvements or otherwise, our costs could also increase and our revenues could decrease and we cannot guarantee a full recovery of such costs through our rates at the time the costs are incurred.

As we are a subsidiary of Xcel Energy Inc., we may be negatively affected by events impacting the credit or liquidity of Xcel Energy Inc. and its affiliates.

If Xcel Energy Inc. were to become obligated to make payments under various guarantees and bond indemnities or to fund its other contingent liabilities, or if either Standard & Poor's or Moody's were to downgrade Xcel Energy Inc.'s credit rating below investment grade, Xcel Energy Inc. may be required to provide credit enhancements in the form of cash collateral, letters of credit or other security to satisfy part or potentially all of these exposures. If either Standard & Poor's or Moody's were to downgrade Xcel Energy Inc.'s debt securities below investment grade, it would increase Xcel Energy Inc.'s cost of capital and restrict its access to the capital markets. This could limit Xcel Energy Inc.'s ability to contribute equity or make loans to us, or may cause Xcel Energy Inc. to seek additional or accelerated funding from us in the form of dividends. If such event were to occur, we may need to seek alternative sources of funds to meet our cash needs.

As of Dec. 31, 2017, Xcel Energy Inc. and its utility subsidiaries had approximately $14.5 billion of long-term debt and $1.3 billion of short-term debt and current maturities. Xcel Energy Inc. provides various guarantees and bond indemnities supporting some of its subsidiaries by guaranteeing the payment or performance by these subsidiaries for specified agreements or transactions.

Xcel Energy also has other contingent liabilities resulting from various tax disputes and other matters. Xcel Energy Inc.'s exposure under the guarantees is based upon the net liability of the relevant subsidiary under the specified agreements or transactions. The majority of Xcel Energy Inc.'s guarantees limit its exposure to a maximum amount that is stated in the guarantees. As of Dec. 31, 2017, Xcel Energy had guarantees outstanding with a maximum stated amount of approximately $19 million and immaterial exposure. Xcel Energy also had additional guarantees of $53 million at Dec. 31, 2017 for performance and payment of surety bonds for the benefit of itself and its subsidiaries, with total exposure that cannot be estimated at this time. If Xcel Energy Inc. were to become obligated to make payments under these guarantees and bond indemnities or become obligated to fund other contingent liabilities, it could limit Xcel Energy Inc.'s ability to contribute equity or make loans to us, or may cause Xcel Energy Inc. to seek additional or accelerated funding from us in the form of dividends. If such event were to occur, we may need to seek alternative sources of funds to meet our cash needs.

We are a wholly owned subsidiary of Xcel Energy Inc. Xcel Energy Inc. can exercise substantial control over our dividend policy and business and operations and may exercise that control in a manner that may be perceived to be adverse to our interests.

All of the members of our Board of Directors, as well as many of our executive officers, are officers of Xcel Energy Inc. Our Board makes determinations with respect to a number of significant corporate events, including the payment of our dividends.

We have historically paid quarterly dividends to Xcel Energy Inc. In 2017, 2016 and 2015 we paid $64 million, $53 million and $54 million of dividends to Xcel Energy Inc., respectively. If Xcel Energy Inc.'s cash requirements increase, our Board of Directors could decide to increase the dividends we pay to Xcel Energy Inc. to help support Xcel Energy Inc.'s cash needs. This could adversely affect our liquidity. The most restrictive dividend limitation for NSP-Wisconsin is imposed by our state regulatory commission. NSP-Wisconsin cannot pay annual dividends in excess of certain amounts if its calendar year average equity-to-total capitalization ratio is or falls below the state commission authorized level. See Item 5 for further discussion on dividend limitations.

Public Policy Risks

We may be subject to legislative and regulatory responses to climate change, with which compliance could be difficult and costly.

Increased public awareness and concern regarding climate change may result in more state, regional and/or federal requirements to reduce or mitigate the effects of GHGs. Legislative and regulatory responses related to climate change and new interpretations of existing laws through climate change litigation create financial risk as our electric generating facilities may be subject to additional regulation at either the state or federal level in the future. Such regulations could impose substantial costs on our system. International agreements could have an impact to the extent they lead to future federal or state regulations.

In 2015, the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change reached consensus among 190 nations on an agreement (the Paris Agreement) that establishes a framework for GHG mitigation actions by all countries ("nationally determined contributions"), with a goal of holding the increase in global average temperature to below 2^{o} Celsius above pre-industrial levels and an aspiration to limit the increase to 1.5^{o} Celsius. If implemented, the Paris Agreement could result in future additional GHG reductions in the United States. On June 21, 2017, President Trump announced that the U.S. would withdraw from the Paris Agreement. Such a withdrawal, under terms of the Agreement, becomes effective in four years. Many state and local government entities, however, have indicated that they intend to pursue GHG mitigation with a goal of achieving the GHG reductions in the United States anticipated by the Paris Agreement.

We have been, and in the future may be, subject to climate change lawsuits. An adverse outcome in any of these cases could require substantial capital expenditures and could possibly require payment of substantial penalties or damages. Defense costs associated with such litigation can also be significant. Such payments or expenditures could affect results of operations, cash flows and financial condition if such costs are not recovered through regulated rates.

Some states and localities have indicated a desire to continue to pursue climate policies even in the absence of federal mandates. All of the steps that NSP-Wisconsin has taken to date to reduce GHG emissions, including energy efficiency measures, adding renewable generation or retiring or converting coal plants to natural gas, occurred under state-endorsed resource plans, renewable energy standards and other state policies. While those actions likely would have put NSP-Wisconsin in a good position to meet federal standards under the CPP or the Paris Agreement, repeal of these policies would not impact those state-endorsed actions and plans.

Whether under state or federal programs, an important factor is our ability to recover the costs incurred to comply with any regulatory requirements in a timely manner. If our regulators do not allow us to recover all or a part of the cost of capital investment or the O&M costs incurred to comply with the mandates, it could have a material effect on our results of operations.

Increased risks of regulatory penalties could negatively impact our business.

The Energy Act increased civil penalty authority for violation of FERC statutes, rules and orders. The FERC can now impose penalties of up to $1.2 million per violation per day, particularly as it relates to energy trading activities for both electricity and natural gas. Under statute, the FERC can adjust penalties for inflation. In addition, NERC electric reliability standards and critical infrastructure protection requirements are mandatory and subject to potential financial penalties by regional entities, the NERC or the FERC for violations. Additionally, the PHMSA, the Occupational Safety and Health Administration and other federal agencies also have penalty authority. In the event of serious incidents, these agencies have become more active in pursuing penalties. Some states have the authority to impose substantial penalties in the event of non-compliance. If a serious reliability or safety incident did occur, it could have a material effect on our operations or financial results.

Macroeconomic Risks

Economic conditions impact our business.

Our operations are affected by local, national and worldwide economic conditions. Growth in our customer base is correlated with economic conditions. While the number of customers is growing, sales growth is relatively modest due to an increased focus on energy efficiency including federal standards for appliance and lighting efficiency and distributed generation, primarily solar PV. Instability in the financial markets also may affect the cost of capital and our ability to raise capital, which is discussed in the capital market risk factor section above.

Economic conditions may be impacted by insufficient financial sector liquidity leading to potential increased unemployment, which may impact customers' ability to pay timely, increase customer bankruptcies, and may lead to increased bad debt.

Further, worldwide economic activity has an impact on the demand for basic commodities needed for utility infrastructure, such as steel, copper, aluminum, etc., which may impact our ability to acquire sufficient supplies. We operate in a capital intensive industry, and federal policy on trade could significantly impact the costs of the materials we use. We may be at risk for higher than anticipated inflation both with respect to our own workforce, as well as our materials and labor that we contract for with others. There may be delays before these higher costs can be recovered in rates.

Our operations could be impacted by war, acts of terrorism, threats of terrorism or disruptions in normal operating conditions due to localized or regional events.

Our generation plants, fuel storage facilities, transmission and distribution facilities and information and control systems may be targets of terrorist activities. Any such disruption could impact operations or result in a decrease in revenues and additional costs to repair and insure our assets. These disruptions could have a material impact on our financial condition and results of operations. The potential for terrorism has subjected our operations to increased risks and could have a material effect on our business. We have already incurred increased costs for security and capital expenditures in response to these risks. In addition, we may experience additional capital and operating costs to implement security for our plants, including our nuclear power plants under the NRC's design basis threat requirements. We have also already incurred increased costs for compliance with NERC reliability standards associated with critical infrastructure protection. In addition, we may experience additional capital and operating costs to comply with the NERC critical infrastructure protection standards as they are implemented and clarified.

The insurance industry has also been affected by these events and the availability of insurance may decrease. In addition, the insurance we are able to obtain may have higher deductibles, higher premiums and more restrictive policy terms.

A disruption of the regional electric transmission grid, interstate natural gas pipeline infrastructure or other fuel sources, could negatively impact our business, as well as our brand and reputation. Because our generation, the transmission systems and local natural gas distribution companies are part of an interconnected system, we face the risk of possible loss of business due to a disruption caused by the actions of a neighboring utility or an event (such as severe storm, severe temperature extremes, wildfires, solar storms, generator or transmission facility outage, breakdown or failure of equipment, pipeline rupture, railroad disruption, operator error, sudden and significant increase or decrease in wind generation or any disruption of work force such as may be caused by flu or other epidemic) within our operating systems or on a neighboring system. Any such disruption could result in a significant decrease in revenues and significant additional costs to repair assets, which could have a material impact on our financial condition and results.

The degree to which we are able to maintain day-to-day operations in response to unforeseen events will in part determine the financial impact of certain events on our financial condition and results. It is difficult to predict the magnitude of such events and associated impacts.

A cyber incident or cyber security breach could have a material effect on our business.

We operate in an industry that requires the continued operation of sophisticated information technology and control systems and network infrastructure. In addition, we use our systems and infrastructure to create, collect, use, disclose, store, dispose of and otherwise process sensitive information, including company data, customer energy usage data, and personal information regarding customers, employees and their dependents, contractors and other individuals.

Our generation, transmission, distribution and fuel storage facilities, information technology systems and other infrastructure or physical assets, as well as the information processed in our systems (such as information about our customers, employees, operations, infrastructure and assets) could be affected by cyber security incidents, including those caused by human error. Our industry has begun to see an increased volume and sophistication of cyber security incidents from international activist organizations, Nation States and individuals. Cyber security incidents could harm our businesses by limiting our generating, transmitting and distributing capabilities, delaying our development and construction of new facilities or capital improvement projects to existing facilities, disrupting our customer operations or exposing us to liability. Our generation, transmission systems and natural gas pipelines are part of an interconnected system. Therefore, a disruption caused by the impact of a cyber security incident of the regional electric transmission grid, natural gas pipeline infrastructure or other fuel sources of our third party service providers' operations, could also negatively impact our business. Our supply chain for procurement of digital equipment may expose software or hardware to these risks and could result in a breach or significant costs of remediation. In addition, such an event would likely receive regulatory scrutiny at both the federal and state level. We are unable to quantify the potential impact of cyber security threats or subsequent related actions. These potential cyber security incidents and corresponding regulatory action could result in a material decrease in revenues and may cause significant additional costs (e.g., penalties, third party claims, repairs, insurance or compliance) and potentially disrupt our supply and markets for natural gas, oil and other fuels.

We maintain security measures designed to protect our information technology and control systems, network infrastructure and other assets. However, these assets and the information they process may be vulnerable to cyber security incidents, including the resulting disability, or failures of assets or unauthorized access to assets or information. If our technology systems were to fail or be breached, or those of our third-party service providers, we may be unable to fulfill critical business functions, including effectively maintaining certain internal controls over financial reporting. We are unable to quantify the potential impact of cyber security incidents on our business, our brand, and our reputation. The cyber security threat is dynamic and evolves continually, and our efforts to prioritize network monitoring may not be effective given the constant changes to threat vulnerability.

Rising energy prices could negatively impact our business.

Although commodity prices are currently relatively low, if fuel costs increase, customer demand could decline and bad debt expense may rise, which could have a material impact on our results of operations. While we have fuel clause recovery mechanisms, higher fuel costs could significantly impact our results of operations if costs are not recovered. Delays in the timing of the collection of fuel cost recoveries as compared with expenditures for fuel purchases could have an impact on our cash flows. Low fuel costs could have a positive impact on sales, though low oil and natural gas prices could negatively impact oil and gas production activities and subsequently our sales volumes and revenue. We are unable to predict future prices or the ultimate impact of such prices on our results of operations or cash flows.

Our operating results may fluctuate on a seasonal and quarterly basis and can be adversely affected by milder weather.

Our electric and natural gas utility businesses are seasonal, and weather patterns can have a material impact on our operating performance. Demand for electricity is often greater in the summer and winter months associated with cooling and heating. Because natural gas is heavily used for residential and commercial heating, the demand depends heavily upon weather patterns throughout our service territory, and a significant amount of natural gas revenues are recognized in the first and fourth quarters related to the heating season. Accordingly, our operations have historically generated less revenues and income when weather conditions are milder in the winter and cooler in the summer. Unusually mild winters and summers could have an adverse effect on our financial condition, results of operations, or cash flows.

Our operations use third party contractors in addition to employees to perform periodic and on-going work.

We rely on third party contractors with specific qualifications to perform work both for ongoing operations and maintenance and for capital construction. We have contractual arrangements with these contractors which typically include performance standards, progress payments, insurance requirements and security for performance. Cyber security breaches seen in the news have at times exploited third party equipment or software in order to gain access. Poor vendor performance could impact on going operations, restoration operations, our reputation and could introduce financial risk or risks of fines.

Item 1B — Unresolved Staff Comments

None.

Item 2 — Properties

Virtually all of the utility plant property of NSP-Wisconsin is subject to the lien of its first mortgage bond indenture.

Electric Utility Generating Stations:

Station, Location and Unit	Fuel	Installed	Summer 2017 Net Dependable Capability (MW)	
Steam:				
Bay Front-Ashland, Wis., 3 Units	Coal/Wood/Natural Gas	1948-1956	56	
French Island-La Crosse, Wis., 2 Units	Wood/Refuse-derived fuel	1940-1948	16	(a)
Combustion Turbine:				
Flambeau Station-Park Falls, Wis., 1 Unit	Natural Gas	1969	—	(b)
French Island-La Crosse, Wis., 2 Units	Oil	1974	122	
Wheaton-Eau Claire, Wis., 5 Units	Natural Gas/Oil	1973	238	
Hydro:				
Various locations, 63 Units	Hydro	Various	135	
		Total	567	

(a) Refuse-derived fuel is made from municipal solid waste.

(b) Flambeau Station was retired on Dec. 31. 2017.

Electric utility overhead and underground transmission and distribution lines (measured in conductor miles) at Dec. 31, 2017:

Conductor Miles	
345 KV	1,153
161 KV	1,656
115 KV	1,877
Less than 115 KV	32,600

NSP-Wisconsin had 203 electric utility transmission and distribution substations at Dec. 31, 2017.

Natural gas utility mains at Dec. 31, 2017:

Miles	
Distribution	2,542

Item 3 — Legal Proceedings

NSP-Wisconsin is involved in various litigation matters that are being defended and handled in the ordinary course of business. The assessment of whether a loss is probable or is a reasonable possibility, and whether the loss or a range of loss is estimable, often involves a series of complex judgments about future events. Management maintains accruals for such losses that are probable of being incurred and subject to reasonable estimation. Management is sometimes unable to estimate an amount or range of a reasonably possible loss in certain situations, including but not limited to when (1) the damages sought are indeterminate, (2) the proceedings are in the early stages, or (3) the matters involve novel or unsettled legal theories. In such cases, there is considerable uncertainty regarding the timing or ultimate resolution of such matters, including a possible eventual loss.

Additional Information

See Note 11 to the consolidated financial statements for further discussion of legal claims and environmental proceedings. See Item 1 and Note 10 to the consolidated financial statements for a discussion of proceedings involving utility rates and other regulatory matters.

Item 4 — Mine Safety Disclosures

None.

PART II

Item 5 — Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

NSP-Wisconsin is a wholly owned subsidiary of Xcel Energy Inc. and there is no market for its common equity securities. NSP-Wisconsin has dividend restrictions imposed by FERC rules and state regulatory commissions:

- Dividends are subject to the FERC's jurisdiction under the Federal Power Act, which prohibits the payment of dividends out of capital accounts; payment of dividends is allowed out of retained earnings only.
- The most restrictive dividend limitation for NSP-Wisconsin is imposed by its state regulatory commission. NSP-Wisconsin cannot pay annual dividends in excess of approximately $53 million if its calendar year average equity-to-total capitalization ratio is or falls below the state commission authorized level of 51.5 percent, as calculated consistent with PSCW requirements. NSP-Wisconsin's calendar year average equity-to-total capitalization ratio calculated on this basis was 53.1 percent at Dec. 31, 2017 and $19 million in retained earnings was not restricted.

See Note 4 to the consolidated financial statements for further discussion of NSP-Wisconsin's dividend policy.

The dividends declared during 2017 and 2016 were as follows:

(Thousands of Dollars)	2017	2016
First quarter	$ 13,071	$ 12,529
Second quarter	28,840	10,563
Third quarter	11,397	14,687
Fourth quarter	15,480	10,729

Item 6 — Selected Financial Data

This is omitted per conditions set forth in general instructions I (1) (a) and (b) of Form 10-K for wholly owned subsidiaries (reduced disclosure format).

Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations

Discussion of financial condition and liquidity for NSP-Wisconsin is omitted per conditions set forth in general instructions I (1) (a) and (b) of Form 10-K for wholly owned subsidiaries. It is replaced with management's narrative analysis of the results of operations set forth in general instructions I (2) (a) of Form 10-K for wholly owned subsidiaries (reduced disclosure format).

Financial Review

The following discussion and analysis by management focuses on those factors that had a material effect on NSP-Wisconsin's financial condition, results of operations and cash flows during the periods presented, or are expected to have a material impact in the future. It should be read in conjunction with the accompanying consolidated financial statements and related notes to the consolidated financial statements.

Forward-Looking Statements

Except for the historical statements contained in this report, the matters discussed herein are forward-looking statements that are subject to certain risks, uncertainties and assumptions. Such forward-looking statements, including the TCJA's impact to NSP-Wisconsin and its customers, as well as assumptions and other statements identified in this document by the words "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "objective," "outlook," "plan," "project," "possible," "potential," "should," "will," "would" and similar expressions. Actual results may vary materially. Forward-looking statements speak only as of the date they are made, and we expressly disclaim any obligation to update any forward-looking information. The following factors, in addition to those discussed elsewhere in this Annual Report on Form 10-K for the fiscal year ended Dec. 31, 2017 (including risk factors listed from time to time by NSP-Wisconsin in reports filed with the SEC, including "Risk Factors" in Item 1A of this Annual Report on Form 10-K and Exhibit 99.01 hereto), could cause actual results to differ materially from management expectations as suggested by such forward-looking information: general economic conditions, including inflation rates, monetary fluctuations and their impact on capital expenditures and the ability of NSP-Wisconsin and its subsidiaries to obtain financing on favorable terms; business conditions in the energy industry, including the risk of a slow down in the U.S. economy or delay in growth, recovery, trade, fiscal, taxation and environmental policies in areas where NSP-Wisconsin has a financial interest; customer business conditions; actions of credit rating agencies; competitive factors, including the extent and timing of the entry of additional competition in the markets served by NSP-Wisconsin and its subsidiaries; unusual weather; effects of geopolitical events, including war and acts of terrorism; cyber security threats and data security breaches; state, federal and foreign legislative and regulatory initiatives that affect cost and investment recovery, have an impact on rates or have an impact on asset operation or ownership or impose environmental compliance conditions; structures that affect the speed and degree to which competition enters the electric and natural gas markets; costs and other effects of legal and administrative proceedings, settlements, investigations and claims; financial or regulatory accounting policies imposed by regulatory bodies; outcomes of regulatory proceedings; availability or cost of capital; and employee work force factors.

Results of Operations

NSP-Wisconsin's net income was $79 million for 2017 compared with $69 million for 2016. The increase was driven by a rise in electric and natural gas rates, partially offset by additional depreciation expense related to continued transmission and distribution investments and higher O&M expenses.

Electric Revenues and Margin

Electric production expenses tend to vary with the quantity of electricity sold and changes in the unit costs of fuel and purchased power. The electric fuel and purchased power cost recovery mechanism of the Wisconsin jurisdiction may not allow for complete recovery of all expenses and, therefore, changes in fuel or purchased power costs can impact earnings. The following table details the electric revenues and margin:

(Millions of Dollars)	2017	2016
Electric revenues	$ 882	$ 850
Electric fuel and purchased power	(438)	(429)
Electric margin	$ 444	$ 421

The following tables summarize the components of the changes in electric revenues and electric margin for the year ended Dec. 31:

Electric Revenues

(Millions of Dollars)	2017 vs. 2016
Retail rate increase	$ 13
Fuel and purchased power cost recovery	12
Interchange agreement billings with NSP-Minnesota	7
Retail sales growth	4
Estimated impact of weather	(3)
Other, net	(1)
Total increase in electric revenues	$ 32

Electric Margin

(Millions of Dollars)	2017 vs. 2016
Retail rate increase	$ 13
Interchange agreement billings with NSP-Minnesota	8
Retail sales growth	4
Estimated impact of weather	(3)
Other	1
Total increase in electric margin	$ 23

Natural Gas Revenues and Margin

Total natural gas expense tends to vary with changing sales requirements and the cost of natural gas purchases. However, due to the design of purchased natural gas cost recovery mechanisms to recover current expenses for sales to retail customers, fluctuations in the cost of natural gas have little effect on natural gas margin. The following table details natural gas revenues and margin:

(Millions of Dollars)	2017	2016
Natural gas revenues	$ 122	$ 106
Cost of natural gas sold and transported	(62)	(54)
Natural gas margin	$ 60	$ 52

The following tables summarize the components of the changes in natural gas revenues and natural gas margin for the year ended Dec. 31:

Natural Gas Revenues

(Millions of Dollars)	2017 vs. 2016
Purchased natural gas adjustment clause recovery	$ 8
Retail rate increase	4
Retail sales growth	2
Other, net	2
Total increase in natural gas revenues	$ 16

Natural Gas Margin

(Millions of Dollars)	2017 vs. 2016
Retail rate increase	$ 4
Retail sales growth	2
Other, net	2
Total increase in natural gas margin	$ 8

Non-Fuel Operating Expenses and Other Items

O&M Expenses — O&M expenses increased $11 million, or 5.4 percent, for 2017 compared with 2016. The increase was primarily due to interchange agreement billings with NSP-Minnesota related to timing of transmission projects and higher employee benefits expense.

Depreciation and Amortization **—** Depreciation and amortization increased $13 million, or 13.1 percent, for 2017 compared with 2016. The increase was primarily attributable to capital investments.

Income Taxes **—** Income tax expense increased $1 million for 2017. The increase in income tax expense was primarily due to higher pretax earnings, partially offset by a tax benefit for adjustments attributable to the 2016 tax return filed in the third quarter of 2017. The ETR was 35.7 percent for 2017 compared with 38.3 percent for 2016. The lower ETR in 2017 is primarily due to the adjustments referenced above.

Item 7A — Quantitative and Qualitative Disclosures About Market Risk

Derivatives, Risk Management and Market Risk

NSP-Wisconsin is exposed to a variety of market risks in the normal course of business. Market risk is the potential loss that may occur as a result of adverse changes in the market or fair value of a particular instrument or commodity. All financial and commodity-related instruments, including derivatives, are subject to market risk. See Note 9 to the consolidated financial statements for further discussion of market risks associated with derivatives.

NSP-Wisconsin is exposed to the impact of adverse changes in price for energy and energy-related products, which is partially mitigated by the use of commodity derivatives. In addition to ongoing monitoring and maintaining credit policies intended to minimize overall credit risk, when necessary, management takes steps to mitigate changes in credit and concentration risks associated with its derivatives and other contracts, including parental guarantees and requests of collateral. While NSP-Wisconsin expects that the counterparties will perform under the contracts underlying its derivatives, the contracts expose NSP-Wisconsin to some credit and non-performance risk.

Though no material non-performance risk currently exists with the counterparties to NSP-Wisconsin's commodity derivative contracts, distress in the financial markets may in the future impact that risk to the extent it impacts those counterparties. Distress in the financial markets may also impact the fair value of the securities in the master pension trust, as well as NSP-Wisconsin's ability to earn a return on short-term investments of excess cash.

Commodity Price Risk **—** NSP-Wisconsin is exposed to commodity price risk in its electric and natural gas operations. Commodity price risk is managed by entering into short- and long-term physical purchase and sales contracts for natural gas used in distribution activities. Commodity price risk is also managed through the use of financial derivative instruments. NSP-Wisconsin's risk management policy allows it to manage commodity price risk within each rate-regulated operation per commission approved hedge plans.

Interest Rate Risk **—** NSP-Wisconsin is subject to the risk of fluctuating interest rates in the normal course of business. NSP-Wisconsin's risk management policy allows interest rate risk to be managed through the use of fixed rate debt, floating rate debt and interest rate derivatives such as swaps, caps, collars and put or call options.

At Dec. 31, 2017 and 2016, a 100 basis point change in the benchmark rate on NSP-Wisconsin's variable rate debt would impact annual pretax interest expense by approximately $0.1 million and $0.6 million, respectively. See Note 9 to the consolidated financial statements for a discussion of NSP-Wisconsin's interest rate derivatives.

Credit Risk — NSP-Wisconsin is also exposed to credit risk. Credit risk relates to the risk of loss resulting from counterparties' nonperformance on their contractual obligations. NSP-Wisconsin maintains credit policies intended to minimize overall credit risk and actively monitors these policies to reflect changes and scope of operations.

At Dec. 31, 2017 and 2016, a 10 percent increase or decrease in commodity prices would have an immaterial impact on credit exposure.

NSP-Wisconsin conducts standard credit reviews for all counterparties. NSP-Wisconsin employs additional credit risk control mechanisms when appropriate, such as letters of credit, parental guarantees, standardized master netting agreements and termination provisions that allow for offsetting of positive and negative exposures. Credit exposure is monitored and, when necessary, the activity with a specific counterparty is limited until credit enhancement is provided. Distress in the financial markets could increase NSP-Wisconsin credit risk.

Item 8 — Financial Statements and Supplementary Data

See Item 15-1 in Part IV for an index of financial statements included herein.

See Note 16 to the consolidated financial statements for summarized quarterly financial data.

Management Report on Internal Controls Over Financial Reporting

The management of NSP-Wisconsin is responsible for establishing and maintaining adequate internal control over financial reporting. NSP-Wisconsin's internal control system was designed to provide reasonable assurance to Xcel Energy Inc.'s and NSP-Wisconsin's management and board of directors regarding the preparation and fair presentation of published financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

In 2016, NSP-Wisconsin implemented the general ledger modules, as well as initiated deployment of work management systems modules, of a new enterprise resource planning system. NSP-Wisconsin implemented additional work management systems modules in2017. NSP-Wisconsin does not believe this implementation had an adverse effect on its internal control over financial reporting.

NSP-Wisconsin management assessed the effectiveness of NSP-Wisconsin's internal control over financial reporting as of Dec. 31, 2017. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control — Integrated Framework (2013)*. Based on our assessment, we believe that, as of Dec. 31, 2017, NSP-Wisconsin's internal control over financial reporting is effective at the reasonable assurance level based on those criteria.

/s/ BEN FOWKE	/s/ ROBERT C. FRENZEL
Ben Fowke	Robert C. Frenzel
Chairman and Chief Executive Officer	Executive Vice President, Chief Financial Officer
Feb. 23, 2018	Feb. 23, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholder of
Northern States Power Company, a Wisconsin corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Northern States Power Company, a Wisconsin corporation and subsidiaries (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of income, comprehensive income, cash flows, and common stockholder’s equity for each of the three years in the period ended December 31, 2017, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Basis of Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP
Minneapolis, Minnesota
February 23, 2017

We have served as the Company’s auditor since 2002.

NSP-WISCONSIN AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(amounts in thousands)

	Year Ended Dec. 31		
	2017	2016	2015
Operating revenues			
Electric	$ 881,891	$ 849,946	$ 834,998
Natural gas	122,353	106,157	120,147
Other	1,207	1,130	1,396
Total operating revenues	1,005,451	957,233	956,541
Operating expenses			
Electric fuel and purchased power, non-affiliates	16,197	15,574	10,795
Purchased power, affiliates	421,609	413,615	419,028
Cost of natural gas sold and transported	62,259	54,436	70,988
Operating and maintenance expenses	205,539	194,927	179,413
Conservation program expenses	12,572	12,645	11,695
Depreciation and amortization	111,216	98,294	91,245
Taxes (other than income taxes)	27,831	27,814	28,181
Loss on Monticello life cycle management/extended power uprate project	—	—	5,237
Total operating expenses	857,223	817,305	816,582
Operating income	148,228	139,928	139,959
Other income, net	833	461	883
Allowance for funds used during construction — equity	6,707	4,277	7,253
Interest charges and financing costs			
Interest charges — includes other financing costs of $1,855, $1,854, and $1,738, respectively	35,040	34,452	32,731
Allowance for funds used during construction — debt	(2,860)	(1,823)	(3,510)
Total interest charges and financing costs	32,180	32,629	29,221
Income before income taxes	123,588	112,037	118,874
Income taxes	44,172	42,902	44,238
Net income	$ 79,416	$ 69,135	$ 74,636

See Notes to Consolidated Financial Statements

NSP-WISCONSIN AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(amounts in thousands)

	Year Ended Dec. 31		
	2017	2016	2015
Net income	$ 79,416	$ 69,135	$ 74,636
Other comprehensive income			
Derivative instruments:			
Reclassification of losses to net income, net of tax of $50 and $51, and $51, respectively.	76	76	76
Other comprehensive income	76	76	76
Comprehensive income	$ 79,492	$ 69,211	$ 74,712

See Notes to Consolidated Financial Statements

NSP-WISCONSIN AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(amounts in thousands)

	Year Ended Dec. 31		
	2017	2016	2015
Operating activities			
Net income	$ 79,416	$ 69,135	$ 74,636
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	112,750	99,824	92,656
Deferred income taxes	45,557	37,368	45,833
Amortization of investment tax credits	(523)	(523)	(528)
Allowance for equity funds used during construction	(6,707)	(4,277)	(7,253)
Loss on Monticello life cycle management/extended power uprate project	—	—	5,237
Provision for bad debts	4,105	3,730	3,947
Net derivative losses	128	160	482
Other	(1,823)	(623)	—
Changes in operating assets and liabilities:			
Accounts receivable	(9,948)	(1,383)	71
Accrued unbilled revenues	(6,370)	(5,940)	5,869
Inventories	552	3,250	3,126
Other current assets	922	(1,191)	7,135
Accounts payable	9,025	10,632	(7,626)
Net regulatory assets and liabilities	(31,223)	(18,601)	(27,114)
Other current liabilities	(2,215)	14,036	5,147
Pension and other employee benefit obligations	(8,558)	(6,197)	(3,177)
Change in other noncurrent assets	583	(718)	209
Change in other noncurrent liabilities	(5,934)	2,050	716
Net cash provided by operating activities	179,737	200,732	199,366
Investing activities			
Utility capital/construction expenditures	(218,801)	(204,427)	(251,797)
Allowance for equity funds used during construction	6,707	4,277	7,253
Other, net	(49)	1,198	(224)
Net cash used in investing activities	(212,143)	(198,952)	(244,768)
Financing activities			
(Repayments of) proceeds from short-term borrowings, net	(49,000)	50,000	(68,000)
Proceeds from issuance of long-term debt	97,455	—	97,969
Repayments of long-term debt	(77)	(93)	(87)
Capital contributions from parent	47,992	1,935	69,243
Dividends paid to parent	(64,037)	(53,100)	(53,929)
Other, net	(70)	(55)	—
Net cash provided by (used in) financing activities	32,263	(1,313)	45,196
Net change in cash and cash equivalents	(143)	467	(206)
Cash and cash equivalents at beginning of period	1,546	1,079	1,285
Cash and cash equivalents at end of period	$ 1,403	$ 1,546	$ 1,079
Supplemental disclosure of cash flow information:			
Cash paid for interest (net of amounts capitalized)	$ (30,907)	$ (30,878)	$ (27,491)
Cash (paid) received for income taxes, net	(5,046)	5,873	5,762
Supplemental disclosure of non-cash investing transactions:			
Property, plant and equipment additions in accounts payable	$ 27,753	$ 16,172	$ 16,729

See Notes to Consolidated Financial Statements

NSP-WISCONSIN AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(amounts in thousands, except share and per share data)

	Dec. 31	
	2017	2016
Assets		
Current assets		
Cash and cash equivalents	$ 1,403	$ 1,546
Accounts receivable, net	63,200	54,031
Accrued unbilled revenues	60,008	53,638
Other receivables	15,144	657
Inventories	17,758	18,309
Regulatory assets	23,113	18,162
Prepaid taxes	23,606	25,915
Prepayments	3,450	3,128
Total current assets	207,682	175,386
Property, plant and equipment, net	2,088,728	1,947,637
Other assets		
Regulatory assets	282,217	286,188
Other investments	2,892	2,844
Other	201	785
Total other assets	285,310	289,817
Total assets	$ 2,581,720	$ 2,412,840
Liabilities and Equity		
Current liabilities		
Current portion of long-term debt	$ 151,080	$ 1,123
Short-term debt	11,000	60,000
Notes payable to affiliates	500	500
Accounts payable	58,365	41,068
Accounts payable to affiliates	29,628	29,037
Dividends payable to parent	15,481	10,729
Regulatory liabilities	20,712	17,428
Environmental liabilities	10,469	41,438
Accrued interest	8,025	8,012
Other	34,474	26,484
Total current liabilities	339,734	235,819
Deferred credits and other liabilities		
Deferred income taxes	256,687	430,593
Deferred investment tax credits	7,514	8,037
Regulatory liabilities	386,807	148,189
Environmental liabilities	19,190	23,003
Customer advances	16,325	19,425
Pension and employee benefit obligations	50,027	55,164
Other	18,747	18,814
Total deferred credits and other liabilities	755,297	703,225
Commitments and contingencies		
Capitalization		
Long-term debt	610,100	661,946
Common stock — 1,000,000 shares authorized of $100 par value; 933,000 shares outstanding at Dec. 31, 2017 and 2016, respectively	93,300	93,300
Additional paid in capital	449,350	395,315
Retained earnings	334,008	323,368
Accumulated other comprehensive loss	(69)	(133)
Total common stockholder’s equity	876,589	811,850
Total liabilities and equity	$ 2,581,720	$ 2,412,840

See Notes to Consolidated Financial Statements

NSP-WISCONSIN AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMMON STOCKHOLDER'S EQUITY
(amounts in thousands, except share data)

	Common Stock					
	Shares	Par Value	Additional Paid In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Common Stockholder's Equity
Balance at Dec. 31, 2014	933,000	$ 93,300	$ 322,276	$ 282,398	$ (285)	$ 697,689
Net income				74,636		74,636
Other comprehensive income					76	76
Common dividends declared to parent				(54,293)		(54,293)
Contribution of capital by parent			72,277			72,277
Balance at Dec. 31, 2015	933,000	$ 93,300	$ 394,553	$ 302,741	$ (209)	$ 790,385
Net income				69,135		69,135
Other comprehensive income					76	76
Common dividends declared to parent				(48,508)		(48,508)
Contribution of capital by parent			762			762
Balance at Dec. 31, 2016	933,000	$ 93,300	$ 395,315	$ 323,368	$ (133)	$ 811,850
Net income				79,416		79,416
Other comprehensive income					76	76
Common dividends declared to parent				(68,788)		(68,788)
Contribution of capital by parent			54,035			54,035
Adoption of ASU No. 2018-02				12	(12)	—
Balance at Dec. 31, 2017	933,000	$ 93,300	$ 449,350	$ 334,008	$ (69)	$ 876,589

See Notes to Consolidated Financial Statements

NSP-WISCONSIN AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CAPITALIZATION
(amounts in thousands, except share and per share data)

	Dec. 31 2017	Dec. 31 2016
Long-Term Debt		
First Mortgage Bonds, Series due:		
Oct. 1, 2018, 5.25%	$ 150,000	$ 150,000
June 15, 2024, 3.3%	200,000	200,000
Sept. 1, 2038, 6.375%	200,000	200,000
Oct. 1, 2042, 3.7%	100,000	100,000
Dec. 1, 2047, 3.75%	100,000	—
City of La Crosse Resource Recovery Bond, Series due Nov. 1, 2021, 6% [a]	18,600	18,600
Other	1,954	2,031
Unamortized discount	(2,869)	(2,865)
Unamortized debt expense	(6,505)	(4,697)
Total	761,180	663,069
Less current maturities	151,080	1,123
Total long-term debt	$ 610,100	$ 661,946
Common Stockholder's Equity		
Common stock — 1,000,000 shares authorized of $100 par value;		
933,000 shares outstanding at Dec. 31, 2017 and 2016, respectively	$ 93,300	$ 93,300
Additional paid in capital	449,350	395,315
Retained earnings	334,008	323,368
Accumulated other comprehensive loss	(69)	(133)
Total common stockholder's equity	$ 876,589	$ 811,850

(a) Resource recovery financing

See Notes to Consolidated Financial Statements

Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Business and System of Accounts — NSP-Wisconsin is engaged in the regulated generation, transmission, distribution and sale of electricity and in the regulated purchase, transportation, distribution and sale of natural gas. NSP-Wisconsin's consolidated financial statements and disclosures are presented in accordance with GAAP. All of NSP-Wisconsin's underlying accounting records also conform to the FERC uniform system of accounts or to systems required by various state regulatory commissions, which are the same in all material respects.

Principles of Consolidation — NSP-Wisconsin's consolidated financial statements include its wholly-owned subsidiaries and variable interest entities for which it is the primary beneficiary. In the consolidation process, all intercompany transactions and balances are eliminated. NSP-Wisconsin has investments in certain transmission facilities jointly owned with nonaffiliated utilities. NSP-Wisconsin's proportionate share of jointly owned facilities is recorded as property, plant and equipment on the consolidated balance sheets and NSP-Wisconsin's proportionate share of the operating costs associated with these facilities is included in its consolidated statements of income. See Note 5 for further discussion of jointly owned transmission facilities and related ownership percentages.

NSP-Wisconsin evaluates its arrangements and contracts with other entities to determine if the other party is a variable interest entity, if NSP-Wisconsin has a variable interest and if NSP-Wisconsin is the primary beneficiary. NSP-Wisconsin follows accounting guidance for variable interest entities which requires consideration of the activities that most significantly impact an entity's financial performance and power to direct those activities, when determining whether NSP-Wisconsin is a variable interest entity's primary beneficiary. See Note 11 for further discussion of variable interest entities.

Use of Estimates — In recording transactions and balances resulting from business operations, NSP-Wisconsin uses estimates based on the best information available. Estimates are used for such items as plant depreciable lives or potential disallowances, AROs, certain regulatory assets and liabilities, tax provisions, uncollectible amounts, environmental costs, unbilled revenues, jurisdictional fuel and energy cost allocations and actuarially determined benefit costs. The recorded estimates are revised when better information becomes available or when actual amounts can be determined. Those revisions can affect operating results.

Regulatory Accounting — NSP-Wisconsin accounts for certain income and expense items in accordance with accounting guidance for regulated operations. Under this guidance:

- Certain costs, which would otherwise be charged to expense or OCI, are deferred as regulatory assets based on the expected ability to recover the costs in future rates; and
- Certain credits, which would otherwise be reflected as income or OCI, are deferred as regulatory liabilities based on the expectation the amounts will be returned to customers in future rates, or because the amounts were collected in rates prior to the costs being incurred.

Estimates of recovering deferred costs and returning deferred credits are based on specific ratemaking decisions or precedent for each item. Regulatory assets and liabilities are amortized consistent with the treatment in the rate setting process.

If restructuring or other changes in the regulatory environment occur, NSP-Wisconsin may no longer be eligible to apply this accounting treatment, and may be required to eliminate regulatory assets and liabilities from its balance sheets. Such changes could have a material effect on NSP-Wisconsin's financial condition, results of operations and cash flows. See Note 12 for further discussion of regulatory assets and liabilities.

Revenue Recognition — Revenues related to the sale of energy are generally recorded when service is rendered or energy is delivered to customers. However, the determination of the energy sales to individual customers is based on the reading of their meter, which occurs on a systematic basis throughout the month. At the end of each month, amounts of energy delivered to customers since the date of the last meter reading are estimated and the corresponding unbilled revenue is recognized. NSP-Wisconsin presents its revenues net of any excise or other fiduciary-type taxes or fees.

NSP-Wisconsin has various rate-adjustment mechanisms in place that provide for the recovery of purchased natural gas, electric fuel and purchased energy costs. These cost-adjustment tariffs may increase or decrease the level of revenue collected from customers and are revised periodically, for differences between the total amount collected under the clauses and the costs incurred. When applicable, under governing regulatory commission rate orders, fuel cost over-recoveries (the excess of fuel revenue billed to customers over fuel costs incurred) are deferred as regulatory liabilities and under-recoveries (the excess of fuel costs incurred over fuel revenues billed to customers) are deferred as regulatory assets. Under Wisconsin rules, NSP-Wisconsin must submit a forward looking fuel cost plan annually for approval by the PSCW. The rules also allow for deferral of any under-recovery or over-recovery of fuel costs in excess of a two percent annual tolerance band, for future rate recovery or refund, subject to PSCW approval.

Conservation Programs — NSP-Wisconsin participates in and funds conservation programs in its retail jurisdictions to assist customers in conserving energy and reducing peak demand on the electric and natural gas systems. NSP-Wisconsin recovers approved conservation program costs in base rate revenue.

For operations in the state of Wisconsin, NSP-Wisconsin is required to contribute 1.2 percent of its three-year average annual operating revenues to the statewide energy efficiency and renewable resource program Focus on Energy. Funding is collected through base rates, and there is no financial incentive provided to the utility. The PSCW has full oversight of Focus on Energy including auditing and verification of programs. The program portfolio is outsourced to a third-party administrator who subcontracts as necessary to implement programs.

Property, Plant and Equipment and Depreciation — Property, plant and equipment is stated at original cost. The cost of plant includes direct labor and materials, contracted work, overhead costs and AFUDC. The cost of plant retired is charged to accumulated depreciation and amortization. Amounts recovered in rates for future removal costs are recorded as regulatory liabilities. Significant additions or improvements extending asset lives are capitalized, while repairs and maintenance costs are charged to expense as incurred. Maintenance and replacement of items determined to be less than a unit of property are charged to operating expenses as incurred. Planned major maintenance activities are charged to operating expense unless the cost represents the acquisition of an additional unit of property or the replacement of an existing unit of property. Property, plant and equipment also includes costs associated with property held for future use. The depreciable lives of certain plant assets are reviewed annually and revised, if appropriate.

Property, plant and equipment is tested for impairment when it is determined that the carrying value of the assets may not be recoverable. A loss is recognized in the current period if it becomes probable that part of a cost of a plant under construction or recently completed plant will be disallowed for recovery from customers and a reasonable estimate of the disallowance can be made. For investments in property, plant and equipment that are abandoned and not expected to go into service, incurred costs and related deferred tax amounts are compared to the discounted estimated future rate recovery, and a loss is recognized, if necessary.

NSP-Wisconsin records depreciation expense related to its plant using the straight-line method over the plant's useful life. Actuarial life studies are performed and submitted to the state and federal commissions for review. Upon acceptance by the various commissions, the resulting lives and net salvage rates are used to calculate depreciation. Depreciation expense, expressed as a percentage of average depreciable property, was approximately 3.4, 3.3 and 3.4 percent for the years ended Dec. 31, 2017, 2016 and 2015, respectively.

Leases — NSP-Wisconsin evaluates a variety of contracts for lease classification at inception, including rental arrangements for office space, vehicles and equipment. Contracts determined to contain a lease because of per unit pricing that is other than fixed or market price, terms regarding the use of a particular asset, and other factors are evaluated further to determine if the arrangement is a capital lease. See Note 11 for further discussion of leases.

AFUDC — AFUDC represents the cost of capital used to finance utility construction activity. AFUDC is computed by applying a composite financing rate to qualified CWIP. The amount of AFUDC capitalized as a utility construction cost is credited to nonoperating income (for equity capital) and interest charges (for debt capital). AFUDC amounts capitalized are included in NSP-Wisconsin's rate base for establishing utility service rates.

Generally, AFUDC costs are recovered from customers as the related property is depreciated. However, in some cases, the PSCW has allowed an AFUDC calculation greater than the FERC-defined AFUDC rate, resulting in higher recognition of AFUDC. In some cases for certain transmission projects, the FERC has approved a more current recovery of the cost of capital associated with large capital projects, resulting in a lower recognition of AFUDC.

AROs — NSP-Wisconsin accounts for AROs under accounting guidance that requires a liability for the fair value of an ARO to be recognized in the period in which it is incurred if it can be reasonably estimated, with the offsetting associated asset retirement costs capitalized as a long-lived asset. The liability is generally increased over time by applying the effective interest method of accretion, and the capitalized costs are depreciated over the useful life of the long-lived asset. Changes resulting from revisions to the timing or amount of expected asset retirement cash flows are recognized as an increase or a decrease in the ARO. NSP-Wisconsin also recovers through rates certain future plant removal costs in addition to AROs. The accumulated removal costs for these obligations are reflected in the balance sheets as a regulatory liability. See Note 11 for further discussion of AROs.

Income Taxes — NSP-Wisconsin accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. NSP-Wisconsin defers income taxes for all temporary differences between pretax financial and taxable income, and between the book and tax bases of assets and liabilities. NSP-Wisconsin uses the tax rates that are scheduled to be in effect when the temporary differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the period that includes the enactment date.

The effects of NSP-Wisconsin's tax rate changes are generally subject to a normalization method of accounting. Therefore, the revaluation of most its net deferred taxes upon a tax rate reduction results in the establishment of a net regulatory liability which will be refundable to utility customers over the remaining life of the related assets. A tax rate increase would result in the establishment of a similar regulatory asset. Due to the effects of past regulatory practices, when deferred taxes were not required to be recorded due to the use of flow through accounting for ratemaking purposes, the reversal of some temporary differences are accounted for as current income tax expense. Tax credits are recorded when earned unless there is a requirement to defer the benefit and amortize it over the book depreciable lives of the related property. The requirement to defer and amortize tax credits only applies to federal ITCs related to public utility property. Utility rate regulation also has resulted in the recognition of certain regulatory assets and liabilities related to income taxes, which are summarized in Note 12.

Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized. In making such a determination, all available evidence is considered, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations.

NSP-Wisconsin follows the applicable accounting guidance to measure and disclose uncertain tax positions that it has taken or expects to take in its income tax returns. NSP-Wisconsin recognizes a tax position in its consolidated financial statements when it is more likely than not that the position will be sustained upon examination based on the technical merits of the position. Recognition of changes in uncertain tax positions are reflected as a component of income tax.

NSP-Wisconsin reports interest and penalties related to income taxes within the other income and interest charges sections in the consolidated statements of income.

Xcel Energy Inc. and its subsidiaries, including NSP-Wisconsin, file consolidated federal income tax returns as well as combined or separate state income tax returns. Federal income taxes paid by Xcel Energy Inc. are allocated to Xcel Energy Inc.'s subsidiaries based on separate company computations of tax. A similar allocation is made for state income taxes paid by Xcel Energy Inc. in connection with combined state filings. Xcel Energy Inc. also allocates its own income tax benefits to its direct subsidiaries which are recorded directly in equity by the subsidiaries based on the relative positive tax liabilities of the subsidiaries.

See Note 6 for further discussion of income taxes.

Types of and Accounting for Derivative Instruments — NSP-Wisconsin uses derivative instruments in connection with its utility commodity price and interest rate activities, including forward contracts, futures, swaps and options. All derivative instruments not designated and qualifying for the normal purchases and normal sales exception, as defined by the accounting guidance for derivatives and hedging, are recorded on the consolidated balance sheets at fair value as derivative instruments. This includes certain instruments used to mitigate market risk for the utility operations. The classification of changes in fair value for those derivative instruments is dependent on the designation of a qualifying hedging relationship. Changes in fair value of derivative instruments not designated in a qualifying hedging relationship are reflected in current earnings or as a regulatory asset or liability. The classification as a regulatory asset or liability is based on commission approved regulatory recovery mechanisms.

Interest rate hedging transactions are recorded as a component of interest expense. NSP-Wisconsin is allowed to recover in electric or natural gas rates the costs of certain financial instruments purchased to reduce commodity cost volatility. For further information on derivatives entered to mitigate commodity price risk on behalf of electric and natural gas customers, see Note 9.

Cash Flow Hedges — Certain qualifying hedging relationships are designated as a hedge of a forecasted transaction or future cash flow (cash flow hedge). Changes in the fair value of a derivative designated as a cash flow hedge, to the extent effective, are included in OCI, or deferred as a regulatory asset or liability based on recovery mechanisms until earnings are affected by the hedged transaction.

Normal Purchases and Normal Sales — NSP-Wisconsin enters into contracts for the purchase and sale of commodities for use in its business operations. Derivatives and hedging accounting guidance requires a company to evaluate these contracts to determine whether the contracts are derivatives. Certain contracts that meet the definition of a derivative may be exempted from derivative accounting if designated as normal purchases or normal sales.

NSP-Wisconsin evaluates all of its contracts at inception to determine if they are derivatives and if they meet the normal purchases and normal sales designation requirements. See Note 9 for further discussion of NSP-Wisconsin's risk management and derivative activities.

Fair Value Measurements — NSP-Wisconsin presents cash equivalents, interest rate derivatives and commodity derivatives at estimated fair values in its consolidated financial statements. Cash equivalents are recorded at cost plus accrued interest; money market funds are measured using quoted NAVs. For interest rate derivatives, quoted prices based primarily on observable market interest rate curves are used as a primary input to establish fair value. For commodity derivatives, the most observable inputs available are generally used to determine the fair value of each contract. In the absence of a quoted price for an identical contract in an active market, NSP-Wisconsin may use quoted prices for similar contracts, or internally prepared valuation models to determine fair value. For the pension and postretirement plan assets published trading data and pricing models, generally using the most observable inputs available, are utilized to estimate fair value for each security. See Notes 7 and 9 for further discussion.

Cash and Cash Equivalents — NSP-Wisconsin considers investments in certain instruments, including commercial paper and money market funds, with a remaining maturity of three months or less at the time of purchase, to be cash equivalents.

Accounts Receivable and Allowance for Bad Debts **—** Accounts receivable are stated at the actual billed amount net of an allowance for bad debts. NSP-Wisconsin establishes an allowance for uncollectible receivables based on a policy that reflects its expected exposure to the credit risk of customers.

Inventory — All inventory is recorded at average cost.

RECs **—** RECs are marketable environmental instruments that represent proof that energy was generated from eligible renewable energy sources. RECs are awarded upon delivery of the associated energy and can be bought and sold. RECs are typically used as a form of measurement of compliance to RPS enacted by those states that are encouraging construction and consumption from renewable energy sources, but can also be sold separately from the energy produced. NSP-Wisconsin acquires RECs from the generation or purchase of renewable power.

When RECs are purchased or acquired in the course of generation they are recorded as inventory at cost. The cost of RECs that are utilized for compliance purposes is recorded as electric fuel and purchased power expense.

Sales of RECs that are purchased or acquired in the course of generation are recorded in electric utility operating revenues on a gross basis. The cost of these RECs and related transaction costs are recorded in electric fuel and purchased power expense.

Emission Allowances **—** Emission allowances, including the annual SO_2 and NOx emission allowance entitlement received from the EPA, are recorded at cost plus associated broker commission fees. NSP-Wisconsin follows the inventory accounting model for all emission allowances. Sales of emission allowances are included in electric utility operating revenues and the operating activities section of the consolidated statements of cash flows.

Environmental Costs — Environmental costs are recorded when it is probable NSP-Wisconsin is liable for remediation costs and the liability can be reasonably estimated. Costs are deferred as a regulatory asset if it is probable that the costs will be recovered from customers in future rates. Otherwise, the costs are expensed. If an environmental expense is related to facilities currently in use, such as emission-control equipment, the cost is capitalized and depreciated over the life of the plant.

Estimated remediation costs, excluding inflationary increases, are recorded based on experience, an assessment of the current situation and the technology currently available for use in the remediation. The recorded costs are regularly adjusted as estimates are revised and remediation proceeds. If other participating PRPs exist and acknowledge their potential involvement with a site, costs are estimated and recorded only for NSP-Wisconsin's expected share of the cost.

Any future costs of restoring sites where operation may be extended are treated as a capitalized cost of plant retirement. The depreciation expense levels recoverable in rates include a provision for removal expenses, which may include final remediation costs. Removal costs recovered in rates before the related costs are incurred are classified as a regulatory liability.

See Note 11 for further discussion of environmental costs.

Benefit Plans and Other Postretirement Benefits — NSP-Wisconsin maintains pension and postretirement benefit plans for eligible employees. Recognizing the cost of providing benefits and measuring the projected benefit obligation of these plans under applicable accounting guidance requires management to make various assumptions and estimates.

Based on regulatory recovery mechanisms, certain unrecognized actuarial gains and losses and unrecognized prior service costs or credits are recorded as regulatory assets and liabilities, rather than OCI.

See Note 7 for further discussion of benefit plans and other postretirement benefits.

Guarantees — NSP-Wisconsin recognizes, upon issuance or modification of a guarantee, a liability for the fair market value of the obligation that has been assumed in issuing the guarantee. This liability includes consideration of specific triggering events and other conditions which may modify the ongoing obligation to perform under the guarantee.

The obligation recognized is reduced over the term of the guarantee as NSP-Wisconsin is released from risk under the guarantee. See Note 11 for specific details of issued guarantees.

Subsequent Events — Management has evaluated the impact of events occurring after Dec. 31, 2017 up to the date of issuance of these consolidated financial statements. These statements contain all necessary adjustments and disclosures resulting from that evaluation.

2. Accounting Pronouncements

Recently Issued

Revenue Recognition — In May 2014, the FASB issued *Revenue from Contracts with Customers, Topic 606 (ASU No. 2014-09)*, which provides a new framework for the recognition of revenue. As the appropriate timing of recognition of revenue from contracts with customers in our regulated operations continues to generally be based on the delivery of electricity and natural gas, NSP-Wisconsin's adoption will primarily result in increased disclosures regarding sources of revenues, including alternative revenue programs. The guidance is effective for interim and annual periods beginning after Dec. 15, 2017. NSP-Wisconsin is implementing the standard on a modified retrospective basis, which requires application to contracts with customers effective Jan. 1, 2018.

Classification and Measurement of Financial Instruments — In January 2016, the FASB issued *Recognition and Measurement of Financial Assets and Financial Liabilities, Subtopic 825-10 (ASU No. 2016-01),* which eliminates the available-for-sale classification for marketable equity securities and also replaces the cost method of accounting for non-marketable equity securities with a model for recognizing impairments and observable price changes. Under the new standard, other than when the consolidation or equity method of accounting is utilized, changes in the fair value of equity securities are to be recognized in earnings. This guidance is effective for interim and annual reporting periods beginning after Dec. 15, 2017. The overall impacts of the Jan. 1, 2018 adoption will not be material.

Leases **—** In February 2016, the FASB issued *Leases, Topic 842 (ASU No. 2016-02)*, which, for lessees, requires balance sheet recognition of right-of-use assets and lease liabilities for most leases. This guidance will be effective for interim and annual reporting periods beginning after Dec. 15, 2018. NSP-Wisconsin has not yet fully determined the impacts of implementation. However, adoption is expected to occur on Jan. 1, 2019 utilizing the practical expedients provided by the standard and proposed in *Targeted Improvements, Topic 842* (Proposed ASU 2018-200). As such, agreements entered prior to Jan. 1, 2019 that are currently considered leases are expected to be recognized on the consolidated balance sheet, including contracts for use of office space, equipment and natural gas storage assets, as well as certain purchased power agreements (PPAs) for natural gas-fueled generating facilities. NSP-Wisconsin expects that similar agreements entered after Dec. 31, 2018 will generally qualify as leases under the new standard.

Presentation of Net Periodic Benefit Cost **—** In March 2017, the FASB issued *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, Topic 715 (ASU No. 2017-07)*, which establishes that only the service cost element of pension cost may be presented as a component of operating income in the income statement. Also under the guidance, only the service cost component of pension cost is eligible for capitalization. As a result of application of accounting principles for rate regulated entities, a similar amount of pension cost, including non-service components, will be recognized consistent with the historical ratemaking treatment and the impacts of adoption will be limited to changes in classification of non-service costs in the consolidated statement of income. This guidance is effective for interim and annual reporting periods beginning after Dec. 15, 2017.

Recently Adopted

Accounting for the TCJA **—** In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118 *Income Tax Accounting Implications of the Tax Cuts and Jobs Act* (SAB 118), to supplement the accounting requirements of ASC Topic 740 *Income Taxes* (ASC Topic 740) as it relates to assessing and recognizing the impacts of the TCJA in the period of enactment. SAB 118 allows an entity to recognize provisional amounts in its financial statements in circumstances in which the entity's assessment is incomplete, but for which a reasonable estimate can be made. Provisional amounts recognized are subject to adjustment for up to one year from the enactment date. For further details, see Note 6 to the consolidated financial statements.

Reporting Comprehensive Income **—** In February 2018, the FASB issued *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, Topic 220 (ASU No. 2018-02),* which addresses the stranded amounts of accumulated OCI which may result from enactment of a new tax law. Though accumulated OCI is presented on a net-of-tax basis, ASC Topic 740 requires that the effects of new tax laws on items in accumulated OCI be recognized without a corresponding adjustment to accumulated OCI, and instead recorded to income tax expense. ASU No. 2018-02 permits stranded amounts of accumulated OCI specifically resulting from the TCJA to be removed from accumulated OCI and reclassified to retained earnings, if elected. NSP-Wisconsin adopted the guidance in the fourth quarter of 2017, and elected to recognize an immaterial increase to accumulated other comprehensive loss and retained earnings in the consolidated financial statements for the year ended Dec. 31, 2017, related to a revaluation of deferred income tax assets and liabilities for items in accumulated other comprehensive loss, at the TCJA federal tax rate.

3. Selected Balance Sheet Data

(Thousands of Dollars)	Dec. 31, 2017	Dec. 31, 2016
Accounts receivable, net [(a)]		
Accounts receivable	$ 68,073	$ 58,896
Less allowance for bad debts	(4,873)	(4,865)
	$ 63,200	$ 54,031

(a) Accounts receivable, net includes $3.4 million and an immaterial amount due from affiliates for 2017 and 2016, respectively.

(Thousands of Dollars)	Dec. 31, 2017	Dec. 31, 2016
Inventories		
Materials and supplies	$ 6,916	$ 6,582
Fuel	3,866	4,743
Natural gas	6,976	6,984
	$ 17,758	$ 18,309

(Thousands of Dollars)	Dec. 31, 2017	Dec. 31, 2016
Property, plant and equipment, net		
Electric plant	$ 2,602,671	$ 2,499,401
Natural gas plant	326,723	294,986
Common and other property	181,105	156,316
CWIP	148,770	118,822
Total property, plant and equipment	3,259,269	3,069,525
Less accumulated depreciation	(1,170,541)	(1,121,888)
	$ 2,088,728	$ 1,947,637

4. Borrowings and Other Financing Instruments

Commercial Paper **—** NSP-Wisconsin meets its short-term liquidity requirements primarily through the issuance of commercial paper and borrowings under its credit facility. Commercial paper outstanding for NSP-Wisconsin was as follows:

(Amounts in Millions, Except Interest Rates)	Three Months Ended Dec. 31, 2017
Borrowing limit	$ 150
Amount outstanding at period end	11
Average amount outstanding	70
Maximum amount outstanding	129
Weighted average interest rate, computed on a daily basis	1.38%
Weighted average interest rate at period end	1.73

(Amounts in Millions, Except Interest Rates)	Twelve Months Ended Dec. 31, 2017	Twelve Months Ended Dec. 31, 2016	Twelve Months Ended Dec. 31, 2015
Borrowing limit	$ 150	$ 150	$ 150
Amount outstanding at period end	11	60	10
Average amount outstanding	52	15	39
Maximum amount outstanding	129	64	122
Weighted average interest rate, computed on a daily basis	1.23%	0.69%	0.44%
Weighted average interest rate at period end	1.73	0.95	0.70

Letters of Credit — NSP-Wisconsin may use letters of credit, generally with terms of one-year, to provide financial guarantees for certain operating obligations. At Dec. 31, 2017 and 2016, there were no letters of credit outstanding.

Credit Facility **—** In order to use its commercial paper program to fulfill short-term funding needs, NSP-Wisconsin must have a revolving credit facility in place at least equal to the amount of its commercial paper borrowing limit and cannot issue commercial paper in an aggregate amount exceeding available capacity under this credit facility. The line of credit provides short-term financing in the form of notes payable to banks, letters of credit and back-up support for commercial paper borrowings.

NSP-Wisconsin has the right to request an extension of the June 2021 termination date for an additional one-year period. The extension requests are subject to majority bank group approval.

Other features of NSP-Wisconsin's credit facility include:

- The credit facility has a financial covenant requiring that the debt-to-total capitalization ratio be less than or equal to 65 percent. NSP-Wisconsin was in compliance as its debt-to-total capitalization ratio was 47 percent at both Dec. 31, 2017 and 2016. If NSP-Wisconsin does not comply with the covenant, an event of default may be declared, and if not remedied, any outstanding amounts due under the facility can be declared due by the lender.
- The credit facility has a cross-default provision that provides NSP-Wisconsin will be in default on its borrowings under the facility if NSP-Wisconsin or any of its subsidiaries whose total assets exceed 15 percent of NSP-Wisconsin's consolidated total assets, default on certain indebtedness in an aggregate principal amount exceeding $75 million.
- NSP-Wisconsin was in compliance with all financial covenants on its debt agreements as of Dec. 31, 2017 and 2016.

At Dec. 31, 2017, NSP-Wisconsin had the following committed credit facility available (in millions):

Credit Facility [(a)]		Drawn [(b)]		Available	
$	150	$	11	$	139

(a) This credit facility matures in June 2021.
(b) Includes outstanding commercial paper.

All credit facility bank borrowings, outstanding letters of credit and outstanding commercial paper reduce the available capacity under the credit facility. NSP-Wisconsin had no direct advances on the credit facility outstanding at Dec. 31, 2017 and 2016.

Other Short-Term Borrowings **—** The following table presents the notes payable of Clearwater Investments, Inc., a NSP-Wisconsin subsidiary, to Xcel Energy Inc.:

(Amounts in Millions, Except Interest Rates)	Dec. 31, 2017		Dec. 31, 2016	
Notes payable to affiliates	$	0.5	$	0.5
Weighted average interest rate		1.73%		0.95%

Long-Term Borrowings and Other Financing Instruments

Generally, all real and personal property of NSP-Wisconsin is subject to the liens of its first mortgage indentures. Debt premiums, discounts and expenses are amortized over the life of the related debt. The premiums, discounts and expenses associated with refinanced debt are deferred and amortized over the life of the related new issuance, in accordance with regulatory guidelines.

In 2017, NSP-Wisconsin issued $100 million of 3.75 percent first mortgage bonds due Dec. 1, 2047.

During the next five years, NSP-Wisconsin has long-term debt maturities of approximately $151 million, $19 million and $1 million due in 2018, 2021 and 2022, respectively.

Deferred Financing Costs — Deferred financing costs of approximately $7 million and $5 million, net of amortization, are presented as a deduction from the carrying amount of long-term debt at Dec. 31, 2017 and 2016, respectively. NSP-Wisconsin is amortizing these financing costs over the remaining maturity periods of the related debt.

Dividend Restrictions — NSP-Wisconsin's dividends are subject to the FERC's jurisdiction, which prohibits the payment of dividends out of capital accounts; payment of dividends is allowed out of retained earnings only.

The most restrictive dividend limitation for NSP-Wisconsin is imposed by its state regulatory commission. NSP-Wisconsin cannot pay annual dividends in excess of approximately $53 million if its calendar year average equity-to-total capitalization ratio is or falls below the state commission authorized level as calculated consistent with PSCW requirements. NSP-Wisconsin's calendar year average equity-to-total capitalization ratio calculated on this basis was 53.1 percent at Dec. 31, 2017 and $19 million in retained earnings was not restricted. NSP-Wisconsin's authorized equity ratio was 52.5 percent for 2016 and 2017, but will be 51.5 percent for 2018.

5. Joint Ownership of Transmission Facilities

Following are the investments by NSP-Wisconsin in jointly owned transmission facilities and the related ownership percentages as of Dec. 31, 2017:

(Thousands of Dollars)	Plant in Service		Accumulated Depreciation		CWIP		Ownership %
Electric Transmission:							
CapX2020 Transmission	$	162,108	$	12,205	$	103,144	81%
La Crosse, Wis. to Madison, Wis.		—		—		101,546	37
Total	$	162,108	$	12,205	$	204,690	

NSP-Wisconsin's share of operating expenses and construction expenditures are included in the applicable utility accounts. Each of the respective owners is responsible for providing its own financing.

6. Income Taxes

Federal Tax Reform — In December 2017, the TCJA was signed into law. While the legislation will require interpretations and regulations to be issued by the IRS, the key provisions impacting Xcel Energy (which includes NSP-Wisconsin) generally beginning in 2018, include:

- Corporate federal tax rate reduction from 35 percent to 21 percent;
- Normalization of resulting plant-related excess deferred taxes;
- Elimination of the corporate alternative minimum tax;
- Continued interest expense deductibility and discontinued bonus depreciation for regulated public utilities;
- Limitations on certain executive compensation deductions;
- Limitations on certain deductions for NOLs arising after Dec. 31, 2017 (limited to 80 percent of taxable income);
- Repeal of the section 199 manufacturing deduction; and
- Reduced deductions for meals and entertainment as well as state and local lobbying.

Entities are required under ASC Topic 740 to recognize the accounting impacts of a tax law change, including the impacts of a change in tax rates on deferred tax assets and liabilities, in the period including the date of the tax law enactment. The SEC staff issued guidance in SAB 118 that supplements the accounting requirements of ASC Topic 740 if elements of the TCJA assessment are not complete, and provides for up to a one year period to finalize the required accounting. Xcel Energy has estimated the effects of the TCJA, which have been reflected in the Dec. 31, 2017 consolidated financial statements. Issuance of U.S. Treasury regulations interpreting the TCJA, other U.S. Treasury and IRS guidance or interpretations of the application of ASC Topic 740 may result in changes to these estimates.

Overall for Xcel Energy, reductions in deferred tax assets and liabilities due to the reduction in corporate federal tax rates result in a net tax benefit. However, as a result of IRS requirements and past regulatory treatment of deferred taxes in the determination of regulated rates of the utility subsidiaries, including deferred taxes related to regulated plant and certain other deferred tax assets and liabilities, the impact was primarily recognized as a regulatory liability refundable to utility customers.

The fourth quarter 2017 estimated accounting impacts of the December 2017 enactment of the new tax law at NSP-Wisconsin included:

- $149 million ($210 million grossed-up for tax) of reclassifications of plant-related excess deferred taxes to regulatory liabilities upon valuation at the new 21 percent federal rate. The regulatory liabilities will be amortized consistent with IRS normalization requirements, resulting in customer refunds over the average remaining life of the related property;
- $23 million and $41 million of reclassifications (grossed-up for tax) of excess deferred taxes for non-plant related deferred tax assets and liabilities, respectively, to regulatory assets and liabilities;
- An immaterial income tax benefit related to the federal tax reform implementation, and a $1 million reduction to net income related to the allocation of Xcel Energy Services Inc.'s tax rate change on its deferred taxes.

Xcel Energy has accounted for the state tax impacts of federal tax reform based on currently enacted state tax laws. Any future state tax law changes related to the TCJA will be accounted for in the periods state laws are enacted.

Consolidated Appropriations Act, 2016 — In December 2015, the Consolidated Appropriations Act, 2016 (Act) was signed into law. The Act provided for the following:

- Immediate expensing, or "bonus depreciation," of 50 percent for property placed in service in 2015, 2016, and 2017;
- PTCs at 100 percent of the applicable rate for wind energy projects that begin construction by the end of 2016; 80 percent of the credit rate for projects that begin construction in 2017; 60 percent of the credit rate for projects that begin construction in 2018; and 40 percent of the credit rate for projects that begin construction in 2019. The wind energy PTC was not extended for projects that begin construction after 2019;
- ITCs at 30 percent for commercial solar projects that begin construction by the end of 2019; 26 percent for projects that begin construction in 2020; 22 percent for projects that begin construction in 2021; and 10 percent for projects thereafter;
- R&E credit was permanently extended; and
- Delay of two years (until 2020) of the excise tax on certain employer-provided health insurance plans.

The accounting related to the Act was recorded beginning in the fourth quarter of 2015 because a change in tax law is accounted for beginning in the period of enactment.

Federal Audit — NSP-Wisconsin is a member of the Xcel Energy affiliated group that files a consolidated federal income tax return. The statutes of limitations applicable to Xcel Energy's federal income tax returns expire as follows:

Tax Year(s)	Expiration
2009 - 2011	June 2018
2012 - 2013	October 2018
2014	September 2018
2015	September 2019
2016	September 2020

In 2012, the IRS commenced an examination of tax years 2010 and 2011, including the 2009 carryback claim. The IRS proposed an adjustment to the federal tax loss carryback claims that would have resulted in $14 million of income tax expense for the 2009 through 2011 claims, and the 2013 through 2015 claims. In the fourth quarter of 2015, the IRS forwarded the issue to the Office of Appeals ("Appeals"). In the third quarter of 2017, Xcel Energy and Appeals reached an agreement and the benefit related to the agreed upon portions was recognized. NSP-Wisconsin did not accrue any income tax benefit related to this adjustment. As of Dec. 31, 2017, the case has been forwarded to the Joint Committee on Taxation.

In the third quarter of 2015, the IRS commenced an examination of tax years 2012 and 2013. In the third quarter of 2017, the IRS concluded the audit of tax years 2012 and 2013 and proposed an adjustment that would impact Xcel Energy's NOL and ETR. After evaluating the proposed adjustment, Xcel Energy filed a protest with the IRS. Xcel Energy anticipates the issue will be forwarded to Appeals. As of Dec, 31, 2017, Xcel Energy has recognized its best estimate of income tax expense that will result from a final resolution of this issue; however, the outcome and timing of a resolution is uncertain.

State Audits **—** NSP-Wisconsin is a member of the Xcel Energy affiliated group that files consolidated state income tax returns. As of Dec. 31, 2017, NSP-Wisconsin's earliest open tax year that is subject to examination by state taxing authorities under applicable statutes of limitations is 2012. In 2016, the state of Wisconsin began an audit of years 2012 and 2013. As of Dec. 31, 2017, Wisconsin had not proposed any material adjustments, and there were no other state income tax audits in progress.

Unrecognized Tax Benefits **—** The unrecognized tax benefit balance includes permanent tax positions, which if recognized would affect the annual ETR. In addition, the unrecognized tax benefit balance includes temporary tax positions for which the ultimate deductibility is highly certain but for which there is uncertainty about the timing of such deductibility. A change in the period of deductibility would not affect the ETR but would accelerate the payment of cash to the taxing authority to an earlier period.

A reconciliation of the amount of unrecognized tax benefit is as follows:

(Millions of Dollars)	Dec. 31, 2017	Dec. 31, 2016
Unrecognized tax benefit — Permanent tax positions	$ 1.4	$ 0.4
Unrecognized tax benefit — Temporary tax positions	1.0	4.9
Total unrecognized tax benefit	$ 2.4	$ 5.3

A reconciliation of the beginning and ending amount of unrecognized tax benefit is as follows:

(Millions of Dollars)	2017	2016	2015
Balance at Jan. 1	$ 5.3	$ 4.5	$ 3.0
Additions based on tax positions related to the current year	0.4	0.5	1.9
Reductions based on tax positions related to the current year	(0.3)	—	(0.3)
Additions for tax positions of prior years	1.3	0.5	0.8
Reductions for tax positions of prior years	(4.3)	(0.2)	(0.9)
Balance at Dec. 31	$ 2.4	$ 5.3	$ 4.5

The unrecognized tax benefit amounts were reduced by the tax benefits associated with NOL and tax credit carryforwards. The amounts of tax benefits associated with NOL and tax credit carryforwards are as follows:

(Millions of Dollars)	Dec. 31, 2017	Dec. 31, 2016
NOL and tax credit carryforwards	$ (1.9)	$ (1.2)

It is reasonably possible that NSP-Wisconsin's amount of unrecognized tax benefits could significantly change in the next 12 months as the IRS Appeals progresses and audit resumes, the Wisconsin audit progresses, and other state audits resume. As the IRS Appeals and Wisconsin audit progress, it is reasonably possible that the amount of unrecognized tax benefit could decrease up to approximately $1 million.

The payable for interest related to unrecognized tax benefits is partially offset by the interest benefit associated with NOL and tax credit carryforwards. The payables for interest related to unrecognized tax benefits at Dec. 31, 2017, 2016 and 2015 were not material. No amounts were accrued for penalties related to unrecognized tax benefits as of Dec. 31, 2017, 2016 or 2015.

Other Income Tax Matters **—** NOL amounts represent the amount of the tax loss that is carried forward and tax credits represent the deferred tax asset. NOL and tax credit carryforwards as of Dec. 31 were as follows:

(Millions of Dollars)	2017	2016
Federal NOL carryforward	$ 58	$ 97
Federal tax credit carryforwards	4	4
State NOL carryforward	5	3

The federal carryforward periods expire between 2021 and 2037. The state carryforward periods expire between 2021 and 2032.

Total income tax expense from operations differs from the amount computed by applying the statutory federal income tax rate to income before income tax expense. The following reconciles such differences for the years ending Dec. 31:

	2017	2016 [(b)]	2015 [(b)]
Federal statutory rate	35.0%	35.0%	35.0%
State income tax on pretax income, net of federal tax effect	5.1%	5.1%	5.1%
Increases (decreases) in tax from:			
Adjustments attributable to tax returns	(2.3)	(0.3)	(0.4)
Regulatory differences - effects of rate changes [(a)]	(0.1)	(0.2)	(0.2)
Regulatory differences - other utility plant items	(1.7)	(0.6)	(1.8)
Tax credits recognized, net of federal income tax expense	(1.0)	(0.7)	(0.7)
Change in unrecognized tax benefits	0.8	0.1	0.1
Other, net	(0.1)	(0.1)	0.1
Effective income tax rate	35.7%	38.3%	37.2%

(a) The amortization of excess deferred taxes.

(b) The prior periods included in this footnote have been reclassified to conform to current year presentation.

The components of income tax expense for the years ending Dec. 31 were:

(Thousands of Dollars)	2017	2016	2015
Current federal tax expense (benefit)	$ 2,765	$ 5,367	$ (4,715)
Current state tax (benefit) expense	(1)	131	2,150
Current change in unrecognized tax (benefit) expense	(3,626)	559	1,498
Deferred federal tax expense	32,919	29,588	40,580
Deferred state tax expense	7,972	8,212	6,675
Deferred change in unrecognized tax expense (benefit)	4,666	(432)	(1,422)
Deferred investment tax credits	(523)	(523)	(528)
Total income tax expense	$ 44,172	$ 42,902	$ 44,238

The components of deferred income tax expense for the years ending Dec. 31 were:

(Thousands of Dollars)	2017	2016	2015
Deferred tax (benefit) expense excluding items below	$ (173,906)	$ 39,530	$ 51,084
Amortization and adjustments to deferred income taxes on income tax regulatory assets and liabilities	219,514	(2,112)	(5,200)
Tax expense allocated to other comprehensive income, net of adoption of ASU No. 2018-02, and other	(51)	(50)	(51)
Deferred tax expense	$ 45,557	$ 37,368	$ 45,833

The components of the net deferred tax liability at Dec. 31 were as follows:

(Thousands of Dollars)	2017	2016 [(a)]
Deferred tax liabilities:		
Difference between book and tax bases of property	$ 270,425	$ 412,071
Regulatory assets	58,436	63,825
Pension expense	14,245	21,575
Other	6,855	9,666
Total deferred tax liabilities	$ 349,961	$ 507,137
Deferred tax assets:		
Regulatory liabilities	$ 55,768	$ (5,788)
NOL carryforward	12,606	35,216
Environmental remediation	8,068	25,842
Tax credit carryforward	4,644	3,704
Other employee benefits	3,868	6,132
Deferred investment tax credits	3,175	4,996
Other	5,145	6,442
Total deferred tax assets	$ 93,274	$ 76,544
Net deferred tax liability	$ 256,687	$ 430,593

(a) The prior period included in this footnote has been reclassified to conform to current year presentation.

7. Benefit Plans and Other Postretirement Benefits

Consistent with the process for rate recovery of pension and postretirement benefits for its employees, NSP-Wisconsin accounts for its participation in, and related costs of, pension and other postretirement benefit plans sponsored by Xcel Energy Inc. as multiple employer plans. NSP-Wisconsin is responsible for its share of cash contributions, plan costs and obligations and is entitled to its share of plan assets; accordingly, NSP-Wisconsin accounts for its pro rata share of these plans, including pension expense and contributions, resulting in accounting consistent with that of a single employer plan exclusively for NSP-Wisconsin employees.

Xcel Energy, which includes NSP-Wisconsin, offers various benefit plans to its employees. Approximately 71 percent of employees that receive benefits are represented by several local labor unions under several collective-bargaining agreements. At Dec. 31, 2017, NSP-Wisconsin had 383 bargaining employees covered under a collective-bargaining agreement, which expires in December 2019.

The plans invest in various instruments which are disclosed under the accounting guidance for fair value measurements which establishes a hierarchical framework for disclosing the observability of the inputs utilized in measuring fair value. The three levels in the hierarchy and examples of each level are as follows:

Level 1 — Quoted prices are available in active markets for identical assets as of the reporting date. The types of assets included in Level 1 are highly liquid and actively traded instruments with quoted prices.

Level 2 — Pricing inputs are other than quoted prices in active markets, but are either directly or indirectly observable as of the reporting date. The types of assets included in Level 2 are typically either comparable to actively traded securities or contracts, or priced with models using highly observable inputs.

Level 3 — Significant inputs to pricing have little or no observability as of the reporting date. The types of assets included in Level 3 are those with inputs requiring significant management judgment or estimation.

Specific valuation methods include the following:

Cash equivalents — The fair values of cash equivalents are generally based on cost plus accrued interest; money market funds are measured using quoted NAVs.

Insurance contracts — Insurance contract fair values take into consideration the value of the investments in separate accounts of the insurer, which are priced based on observable inputs.

Investments in commingled funds, equity securities and other funds — Equity securities are valued using quoted prices in active markets. The fair values for commingled funds are measured using NAVs, which take into consideration the value of underlying fund investments, as well as the other accrued assets and liabilities of a fund, in order to determine a per share market value. The investments in commingled funds may be redeemed for NAV with proper notice. Proper notice varies by fund and can range from daily with a few days' notice to annually with 90 days' notice. Private equity investments require approval of the fund for any unscheduled redemption, and such redemptions may be approved or denied by the fund at its sole discretion. Depending on the fund, unscheduled distributions from real estate investments may require approval of the fund or may be redeemed with proper notice, which is typically quarterly with 45-90 days' notice; however, withdrawals from real estate investments may be delayed or discounted as a result of fund illiquidity.

Investments in debt securities — Fair values for debt securities are determined by a third party pricing service using recent trades and observable spreads from benchmark interest rates for similar securities.

Derivative Instruments — Fair values for foreign currency derivatives are determined using pricing models based on the prevailing forward exchange rate of the underlying currencies. The fair values of interest rate derivatives are based on broker quotes that utilize current market interest rate forecasts.

Pension Benefits

Xcel Energy, which includes NSP-Wisconsin, has several noncontributory, defined benefit pension plans that cover almost all employees. Generally, benefits are based on a combination of years of service, the employee's average pay and, in some cases, social security benefits. Xcel Energy Inc.'s and NSP-Wisconsin's policy is to fully fund into an external trust the actuarially determined pension costs recognized for ratemaking and financial reporting purposes, subject to the limitations of applicable employee benefit and tax laws.

In addition to the qualified pension plans, Xcel Energy maintains a supplemental executive retirement plan (SERP) and a nonqualified pension plan. The SERP is maintained for certain executives that were participants in the plan in 2008, when the SERP was closed to new participants. The nonqualified pension plan provides unfunded, nonqualified benefits for compensation that is in excess of the limits applicable to the qualified pension plans, with distributions attributable to NSP-Wisconsin funded by NSP-Wisconsin's consolidated operating cash flows. The total obligations of the SERP and nonqualified plan as of Dec. 31, 2017 and 2016 were $37 million and $44 million, respectively, of which $1 million was attributable to NSP-Wisconsin in both 2017 and 2016. In 2017 and 2016, Xcel Energy recognized net benefit cost for financial reporting for the SERP and nonqualified plans of $5 million and $8 million, respectively, of which amounts attributable to NSP-Wisconsin were immaterial.

In 2016, Xcel Energy established rabbi trusts to provide partial funding for future distributions of the SERP and its deferred compensation plan. Rabbi trust funding of deferred compensation plan distributions attributable to NSP-Wisconsin will be supplemented by NSP-Wisconsin's consolidated operating cash flows as determined necessary. The amount of rabbi trust funding attributable to NSP-Wisconsin is immaterial. Also in 2016, Xcel Energy amended the deferred compensation plan to provide eligible participants the ability to diversify deferred settlements of equity awards, other than time-based equity awards, into various fund options.

Xcel Energy Inc. and NSP-Wisconsin base the investment-return assumption on expected long-term performance for each of the investment types included in the pension asset portfolio and consider the historical returns achieved by the asset portfolio over the past 20-year or longer period, as well as the long-term return levels projected and recommended by investment experts. Xcel Energy Inc. and NSP-Wisconsin continually review pension assumptions. The pension cost determination assumes a forecasted mix of investment types over the long term.

- Investment returns in 2017 were above the assumed level of 7.10 percent;
- Investment returns in 2016 were below the assumed level of 7.10 percent;
- Investment returns in 2015 were below the assumed level of 7.25 percent; and
- In 2018, NSP-Wisconsin's expected investment-return assumption is 7.10 percent.

The assets are invested in a portfolio according to Xcel Energy Inc.'s and NSP-Wisconsin's return, liquidity and diversification objectives to provide funding for plan obligations and minimize contributions to the plan, within appropriate levels of risk. The principal mechanism for achieving these objectives is the projected asset allocation given the long-term risk, return, and liquidity characteristics of each particular asset class. There were no significant concentrations of risk in any particular industry, index, or entity. Market volatility can impact even well-diversified portfolios and significantly affect the return levels achieved by pension assets in any year.

The following table presents the target pension asset allocations for NSP-Wisconsin at Dec. 31 for the upcoming year:

	2017	**2016**
Domestic and international equity securities	38%	40%
Long-duration fixed income and interest rate swap securities	23	23
Short-to-intermediate fixed income securities	21	16
Alternative investments	16	19
Cash	2	2
Total	100%	100%

The ongoing investment strategy is based on plan-specific investment recommendations that seek to minimize potential investment and interest rate risk as a plan's funded status increases over time. The investment recommendations result in a greater percentage of long-duration fixed income securities being allocated to specific plans having relatively higher funded status ratios and a greater percentage of growth assets being allocated to plans having relatively lower funded status ratios. The aggregate projected asset allocation presented in the table above for the master pension trust results from the plan-specific strategies.

Pension Plan Assets

The following tables present, for each of the fair value hierarchy levels, NSP-Wisconsin's pension plan assets that are measured at fair value as of Dec. 31, 2017 and 2016:

	Dec. 31, 2017				
(Thousands of Dollars)	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash equivalents	$ 8,091	$ —	$ —	$ —	$ 8,091
Commingled funds:					
U.S. equity funds	21,850	—	—	—	21,850
Non U.S. equity funds	3,900	—	—	8,479	12,379
U.S. corporate bond funds	14,035	—	—	—	14,035
Emerging market equity funds	—	—	—	13,381	13,381
Emerging market debt funds	3,198	—	—	7,079	10,277
Private equity investments	—	—	—	3,583	3,583
Real estate	—	—	—	8,309	8,309
Other commingled funds	206	—	—	4,965	5,171
Debt securities:					
Government securities	—	12,167	—	—	12,167
U.S. corporate bonds	—	10,178	—	—	10,178
Non U.S. corporate bonds	—	1,730	—	—	1,730
Equity securities:					
U.S. equities	4,863	—	—	—	4,863
Other	(1,334)	149	—	23	(1,162)
Total	$ 54,809	$ 24,224	$ —	$ 45,819	$ 124,852

	Dec. 31, 2016				
(Thousands of Dollars)	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash equivalents	$ 3,939	$ —	$ —	$ —	$ 3,939
Commingled funds:					
U.S. equity funds	21,415	—	—	—	21,415
Non U.S. equity funds	7,406	—	—	8,942	16,348
U.S. corporate bond funds	10,581	—	—	—	10,581
Emerging market equity funds	—	—	—	8,577	8,577
Emerging market debt funds	3,519	—	—	3,787	7,306
Commodity funds	—	—	—	889	889
Private equity investments	—	—	—	4,652	4,652
Real estate	—	—	—	8,108	8,108
Other commingled funds	—	—	—	8,752	8,752
Debt securities:					
Government securities	—	12,773	—	—	12,773
U.S. corporate bonds	—	9,432	—	—	9,432
Non U.S. corporate bonds	—	1,514	—	—	1,514
Mortgage-backed securities	—	254	—	—	254
Asset-backed securities	—	120	—	—	120
Equity securities:					
U.S. equities	4,219	—	—	—	4,219
Other	—	97	—	—	97
Total	$ 51,079	$ 24,190	$ —	$ 43,707	$ 118,976

There were no assets transferred in or out of Level 3 for the years ended Dec. 31, 2017, 2016 or 2015.

Benefit Obligations — A comparison of the actuarially computed pension benefit obligation and plan assets for NSP-Wisconsin is presented in the following table:

(Thousands of Dollars)	2017	2016
Accumulated Benefit Obligation at Dec. 31	$ 145,387	$ 146,448
Change in Projected Benefit Obligation:		
Obligation at Jan. 1	$ 157,457	$ 152,545
Service cost	4,618	4,417
Interest cost	6,218	6,816
Plan amendments	(713)	305
Actuarial loss	6,499	7,315
Benefit payments [(a)]	(17,331)	(13,941)
Obligation at Dec. 31	$ 156,748	$ 157,457

(Thousands of Dollars)	2017	2016
Change in Fair Value of Plan Assets:		
Fair value of plan assets at Jan. 1	$ 118,976	$ 119,314
Actual return on plan assets	13,923	6,163
Employer contributions	9,284	7,440
Benefit payments [(a)]	(17,331)	(13,941)
Fair value of plan assets at Dec. 31	$ 124,852	$ 118,976

(Thousands of Dollars)	2017	2016
Funded Status of Plans at Dec. 31:		
Funded status [(b)]	$ (31,896)	$ (38,481)

(a) 2017 amount includes approximately $13 million of lump-sum benefit payments used in the determination of a settlement charge.

(b) Amounts are recognized in noncurrent liabilities on NSP-Wisconsin’s consolidated balance sheets.

(Thousands of Dollars)	2017	2016
Amounts Not Yet Recognized as Components of Net Periodic Benefit Cost:		
Net loss	$ 80,429	$ 91,531
Prior service (credit) cost	(346)	750
Total	$ 80,083	$ 92,281

(Thousands of Dollars)	2017	2016
Amounts Not Yet Recognized as Components of Net Periodic Benefit Cost Have Been Recorded as Follows Based Upon Expected Recovery in Rates:		
Current regulatory assets	$ 5,548	$ 5,972
Noncurrent regulatory assets	74,535	86,309
Total	$ 80,083	$ 92,281
Measurement date	Dec. 31, 2017	Dec. 31, 2016

	2017	2016
Significant Assumptions Used to Measure Benefit Obligations:		
Discount rate for year-end valuation	3.63%	4.13%
Expected average long-term increase in compensation level	3.75	3.75
Mortality table	RP 2014	RP 2014

Mortality **—** In 2014, the Society of Actuaries published a new mortality table (RP-2014) that increased the overall life expectancy of males and females. In 2014, NSP-Wisconsin adopted this mortality table, with modifications, based on its population and specific experience. During 2017, a new projection table was released (MP-2017). NSP-Wisconsin evaluated the updated projection table and concluded that the methodology currently in use and adopted in 2016 is consistent with the recently updated 2017 table and continues to be representative of NSP-Wisconsin's population.

Cash Flows **—** Cash funding requirements can be impacted by changes to actuarial assumptions, actual asset levels and other calculations prescribed by the funding requirements of income tax and other pension-related regulations. Required contributions were made in 2015 through 2018 to meet minimum funding requirements.

Total voluntary and required pension funding contributions across all four of Xcel Energy's pension plans were as follows:

- $150 million in January 2018, of which $10 million was attributable to NSP-Wisconsin;
- $162 million in 2017, of which $9 million was attributable to NSP-Wisconsin;
- $125 million in 2016, of which $7 million was attributable to NSP-Wisconsin; and
- $90 million in 2015, of which $5 million was attributable to NSP-Wisconsin.

For future years, Xcel Energy and NSP-Wisconsin anticipate contributions will be made as necessary.

Plan Amendments **—** Xcel Energy, which includes NSP-Wisconsin, amended the Xcel Energy Pension Plan in 2017 to reduce supplemental benefits for non-bargaining participants as well as to allow the transfer of a portion of non-qualified pension obligations into the qualified plans. In 2016, the Xcel Energy Pension Plan was amended to change the discount rate basis for lump-sum conversion to annuity participants and annuity conversion to lump-sum participants.

Benefit Costs — The components of NSP-Wisconsin's net periodic pension cost were:

(Thousands of Dollars)	2017	2016	2015
Service cost	$ 4,618	$ 4,417	$ 4,759
Interest cost	6,218	6,816	6,520
Expected return on plan assets	(9,180)	(9,157)	(9,483)
Amortization of prior service cost	138	111	111
Amortization of net loss	5,846	5,392	6,804
Settlement charge [a]	7,107	—	—
Net periodic pension cost	14,747	7,579	8,711
Costs not recognized due to effects of regulation	(4,176)	—	—
Net benefit cost recognized for financial reporting	$ 10,571	$ 7,579	$ 8,711

(a) A settlement charge is required when the amount of lump-sum distributions during the year is greater than the sum of the service and interest cost components of the annual net periodic pension cost. In the fourth quarter of 2017 as a result of lump-sum distributions during the 2017 plan year, NSP-Wisconsin recorded a total pension settlement charge of $7 million, the majority of which was not recognized due to the effects of regulation. A total of $2 million of that amount was recorded in O&M expenses in the fourth quarter of 2017.

	2017	2016	2015
Significant Assumptions Used to Measure Costs:			
Discount rate	4.13%	4.66%	4.11%
Expected average long-term increase in compensation level	3.75	4.00	3.75
Expected average long-term rate of return on assets	7.10	7.10	7.25

In addition to the benefit costs in the table above, for the pension plans sponsored by Xcel Energy Inc., costs are allocated to NSP-Wisconsin based on Xcel Energy Services Inc. employees' labor costs. The amount allocated to NSP-Wisconsin was $3 million, $2 million and $2 million in 2017, 2016 and 2015, respectively. Pension costs include an expected return impact for the current year that may differ from actual investment performance in the plan. The return assumption used for 2018 pension cost calculations is 7.10 percent. The cost calculation uses a market-related valuation of pension assets. Xcel Energy, including NSP-Wisconsin, uses a calculated value method to determine the market-related value of the plan assets. The market-related value begins with the fair market value of assets as of the beginning of the year. The market-related value is determined by adjusting the fair market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return on the market-related value) during each of the previous five years at the rate of 20 percent per year. As these differences between actual investment returns and the expected investment returns are incorporated into the market-related value, the differences are recognized over the expected average remaining years of service for active employees.

Defined Contribution Plans

Xcel Energy, which includes NSP-Wisconsin, maintains 401(k) and other defined contribution plans that cover substantially all employees. The expense to these plans for NSP-Wisconsin was approximately $1 million in 2017, 2016 and 2015.

Postretirement Health Care Benefits

Xcel Energy, which includes NSP-Wisconsin, has a contributory health and welfare benefit plan that provides health care and death benefits to certain Xcel Energy retirees. NSP-Wisconsin discontinued contributing toward health care benefits for nonbargaining employees retiring after 1998 and for bargaining employees who retired after 1999.

Regulatory agencies for nearly all retail utility customers have allowed rate recovery of accrued postretirement benefit costs.

Plan Assets — Certain state agencies that regulate Xcel Energy Inc.'s utility subsidiaries also have issued guidelines related to the funding of postretirement benefit costs. These assets are invested in a manner consistent with the investment strategy for the pension plan.

The following table presents the target postretirement asset allocations for Xcel Energy Inc. and NSP-Wisconsin at Dec. 31 for the upcoming year:

	2017	2016
Domestic and international equity securities	24%	25%
Short-to-intermediate fixed income securities	60	57
Alternative investments	9	13
Cash	7	5
Total	100%	100%

Xcel Energy Inc. and NSP-Wisconsin base investment-return assumptions for the postretirement health care fund assets on expected long-term performance for each of the investment types included in the asset portfolio. Assumptions and target allocations are determined at the master trust level. The investment mix at each of Xcel Energy Inc.'s utility subsidiaries may vary from the investment mix of the total asset portfolio. The assets are invested in a portfolio according to Xcel Energy Inc.'s and NSP-Wisconsin's return, liquidity and diversification objectives to provide a source of funding for plan obligations and minimize contributions to the plan, within appropriate levels of risk. The principal mechanism for achieving these objectives is the projected asset allocation given the long-term risk, return, correlation and liquidity characteristics of each particular asset class. There were no significant concentrations of risk in any particular industry, index, or entity. Market volatility is not considered to be a material factor in postretirement health care costs.

The following tables present, for each of the fair value hierarchy levels, NSP-Wisconsin's proportionate allocation of the total postretirement benefit plan assets that are measured at fair value as of Dec. 31, 2017 and 2016:

	Dec. 31, 2017				
(Thousands of Dollars)	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash equivalents	$ 68	$ —	$ —	$ —	$ 68
Insurance contracts	—	115	—	—	115
Commingled funds:					
U.S. equity funds	172	—	—	—	172
U.S fixed income funds	79	—	—	—	79
Emerging market debt funds	94	—	—	—	94
Debt securities:					
Government securities	—	134	—	—	134
U.S. corporate bonds	—	147	—	—	147
Non U.S. corporate bonds	—	50	—	—	50
Asset-backed securities	—	54	—	—	54
Mortgage-backed securities	—	80	—	—	80
Equity securities:					
Non U.S. equities	82	—	—	—	82
Other	—	3	—	—	3
Total	$ 495	$ 583	$ —	$ —	$ 1,078

	Dec. 31, 2016				
(Thousands of Dollars)	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash equivalents	$ 25	$ —	$ —	$ —	$ 25
Insurance contracts	—	58	—	—	58
Commingled funds:					
U.S. equity funds	67	—	—	—	67
U.S fixed income funds	33	—	—	—	33
Emerging market debt funds	38	—	—	—	38
Other commingled funds	—	—	—	67	67
Debt securities:					
Government securities	—	46	—	—	46
U.S. corporate bonds	—	77	—	—	77
Non U.S. corporate bonds	—	21	—	—	21
Asset-backed securities	—	23	—	—	23
Mortgage-backed securities	—	36	—	—	36
Equity securities:					
Non U.S. equities	50	—	—	—	50
Other	—	2	—	—	2
Total	$ 213	$ 263	$ —	$ 67	$ 543

There were no assets transferred in or out of Level 3 for the years ended Dec. 31, 2017, 2016 and 2015.

Benefit Obligations — A comparison of the actuarially computed benefit obligation and plan assets for NSP-Wisconsin is presented in the following table:

(Thousands of Dollars)	2017	2016
Change in Projected Benefit Obligation:		
Obligation at Jan. 1	$ 14,973	$ 14,718
Service cost	29	24
Interest cost	590	651
Medicare subsidy reimbursements	—	7
Plan participants' contributions	71	87
Actuarial loss	2,069	775
Benefit payments	(1,368)	(1,289)
Obligation at Dec. 31	$ 16,364	$ 14,973

(Thousands of Dollars)	2017	2016
Change in Fair Value of Plan Assets:		
Fair value of plan assets at Jan. 1	$ 543	$ 418
Actual loss on plan assets	(6)	(12)
Plan participants' contributions	71	87
Employer contributions	1,838	1,339
Benefit payments	(1,368)	(1,289)
Fair value of plan assets at Dec. 31	$ 1,078	$ 543

(Thousands of Dollars)	2017	2016
Funded Status of Plans at Dec. 31:		
Funded status	$ (15,286)	$ (14,430)
Current liabilities	(269)	(822)
Noncurrent liabilities	(15,017)	(13,608)
Net postretirement amounts recognized on consolidated balance sheets	$ (15,286)	$ (14,430)

(Thousands of Dollars)	2017	2016
Amounts Not Yet Recognized as Components of Net Periodic Benefit Cost:		
Net loss	$ 10,553	$ 8,883
Prior service credit	(1,783)	(2,134)
Total	$ 8,770	$ 6,749

(Thousands of Dollars)	2017	2016
Amounts Not Yet Recognized as Components of Net Periodic Benefit Cost Have Been Recorded as Follows Based Upon Expected Recovery in Rates:		
Current regulatory assets	$ 110	$ —
Noncurrent regulatory assets	8,660	6,749
Total	$ 8,770	$ 6,749
Measurement date	Dec. 31, 2017	Dec. 31, 2016

	2017	2016
Significant Assumptions Used to Measure Benefit Obligations:		
Discount rate for year-end valuation	3.62%	4.13%
Mortality table	RP 2014	RP 2014
Health care costs trend rate — initial Pre-65	7.00%	5.50%
Health care costs trend rate — initial Post-65	5.50%	5.50%

Beginning with the Dec. 31, 2017 measurement, Xcel Energy Inc. and NSP-Wisconsin separated its initial medical trend assumption for pre-Medicare (Pre-65) and post-Medicare (Post-65) claims costs of 7.0 percent and 5.5 percent, respectively, in order to reflect different short-term expectations based on recent experience differences. The ultimate trend assumption remained at 4.5 percent for both Pre-65 and Post-65 claims costs as similar long-term trend rates are expected for both populations. The period until the ultimate rate is reached is five years. Xcel Energy Inc. and NSP-Wisconsin base the medical trend assumption on the long-term cost inflation expected in the health care market, considering the levels projected and recommended by industry experts, as well as recent actual medical cost increases experienced by the retiree medical plan.

A one-percent change in the assumed health care cost trend rate would have the following effects on NSP-Wisconsin:

	One-Percentage Point	
(Thousands of Dollars)	**Increase**	**Decrease**
APBO	$ 1,588	$ (1,344)
Service and interest components	65	(55)

***Cash Flows* —** The postretirement health care plans have no funding requirements under income tax and other retirement-related regulations other than fulfilling benefit payment obligations, when claims are presented and approved under the plans. Additional cash funding requirements are prescribed by certain state and federal rate regulatory authorities. Xcel Energy, which includes NSP-Wisconsin, contributed $20 million, $18 million and $18 million during 2017, 2016 and 2015, respectively, of which $2 million, $1 million and $1 million were attributable to NSP-Wisconsin. Xcel Energy expects to contribute approximately $12 million during 2018, of which $1 million is attributable to NSP-Wisconsin.

***Plan Amendments* —** In 2017 and 2016, there were no plan amendments made which affected the benefit obligation.

Benefit Costs — The components of NSP-Wisconsin's net periodic postretirement benefit costs were:

(Thousands of Dollars)	2017	2016	2015
Service cost	$ 29	$ 24	$ 29
Interest cost	590	651	653
Expected return on plan assets	(31)	(24)	(30)
Amortization of prior service credit	(351)	(351)	(351)
Amortization of net loss	436	330	456
Net periodic postretirement benefit cost	$ 673	$ 630	$ 757

	2017	2016	2015
Significant Assumptions Used to Measure Costs:			
Discount rate	4.13%	4.65%	4.08%
Expected average long-term rate of return on assets	5.80	5.80	5.80

In addition to the benefit costs in the table above, for the postretirement health care plans sponsored by Xcel Energy Inc., costs are allocated to NSP-Wisconsin based on Xcel Energy Services Inc. employees' labor costs.

Projected Benefit Payments

The following table lists NSP-Wisconsin's projected benefit payments for the pension and postretirement benefit plans:

(Thousands of Dollars)	Projected Pension Benefit Payments	Gross Projected Postretirement Health Care Benefit Payments	Expected Medicare Part D Subsidies	Net Projected Postretirement Health Care Benefit Payments
2018	$ 11,189	$ 1,352	$ 5	$ 1,347
2019	11,812	1,329	4	1,325
2020	12,361	1,298	3	1,295
2021	11,842	1,254	3	1,251
2022	11,640	1,215	3	1,212
2023-2027	58,627	5,111	14	5,097

Multiemployer Plans

NSP-Wisconsin contributes to several union multiemployer pension plans, none of which are individually significant. These plans provide pension benefits to certain union employees who may perform services for multiple employers and do not participate in the NSP-Wisconsin sponsored pension plans. Contributing to these types of plans creates risk that differs from providing benefits under NSP-Wisconsin sponsored plans, in that if another participating employer ceases to contribute to a multiemployer plan, additional unfunded obligations may need to be funded over time by remaining participating employers.

Contributions to multiemployer plans were as follows for the years ended Dec. 31, 2017, 2016 and 2015. There were no significant changes to the nature or magnitude of the participation of NSP-Wisconsin in multiemployer plans for the years presented:

(Thousands of Dollars)	2017	2016	2015
Multiemployer plan contributions:			
Pension	$ 248	$ 707	$ 944

8. Other Income, Net

Other income, net for the years ended Dec. 31 consisted of the following:

(Thousands of Dollars)	2017	2016	2015
Interest income	$ 716	$ 244	$ 332
Other nonoperating income	325	208	789
Insurance policy (expense) income	(195)	22	(228)
Other nonoperating expense	(13)	(13)	(10)
Other income, net	$ 833	$ 461	$ 883

9. Fair Value of Financial Assets and Liabilities

Fair Value Measurements

The accounting guidance for fair value measurements and disclosures provides a single definition of fair value and requires certain disclosures about assets and liabilities measured at fair value. A hierarchical framework for disclosing the observability of the inputs utilized in measuring assets and liabilities at fair value is established by this guidance. The three levels in the hierarchy are as follows:

Level 1 — Quoted prices are available in active markets for identical assets or liabilities as of the reporting date. The types of assets and liabilities included in Level 1 are highly liquid and actively traded instruments with quoted prices.

Level 2 — Pricing inputs are other than quoted prices in active markets, but are either directly or indirectly observable as of the reporting date. The types of assets and liabilities included in Level 2 are typically either comparable to actively traded securities or contracts, or priced with models using highly observable inputs.

Level 3 — Significant inputs to pricing have little or no observability as of the reporting date. The types of assets and liabilities included in Level 3 are those valued with models requiring significant management judgment or estimation.

Specific valuation methods include the following:

Cash equivalents — The fair values of cash equivalents are generally based on cost plus accrued interest; money market funds are measured using quoted NAVs.

Interest rate derivatives **—** The fair values of interest rate derivatives are based on broker quotes that utilize current market interest rate forecasts.

Commodity derivatives **—** The methods used to measure the fair value of commodity derivative forwards and options utilize forward prices and volatilities, as well as pricing adjustments for specific delivery locations, and are generally assigned a Level 2 classification. When contractual settlements relate to inactive delivery locations or extend to periods beyond those readily observable on active exchanges or quoted by brokers, the significance of the use of less observable forecasts of forward prices and volatilities on a valuation is evaluated, and may result in Level 3 classification.

Derivative Instruments Fair Value Measurements

NSP-Wisconsin enters into derivative instruments, including forward contracts, futures, swaps and options, for trading purposes and to manage risk in connection with changes in interest rates and utility commodity prices.

***Interest Rate Derivatives* —** NSP-Wisconsin enters into various instruments that effectively fix the interest payments on certain floating rate debt obligations or effectively fix the yield or price on a specified benchmark interest rate for an anticipated debt issuance for a specific period. These derivative instruments are generally designated as cash flow hedges for accounting purposes.

At Dec. 31, 2017, accumulated other comprehensive loss related to interest rate derivatives included $0.1 million of net losses expected to be reclassified into earnings during the next 12 months as the related hedged interest rate transactions impact earnings, including forecasted amounts for unsettled hedges, as applicable.

***Commodity Derivatives* —** NSP-Wisconsin may enter into derivative instruments to manage variability of future cash flows from changes in commodity prices in its electric and natural gas operations, as well as for trading purposes. This could include the purchase or sale of natural gas to generate electric energy and natural gas for resale.

The following table details the gross notional amounts of commodity options at Dec. 31:

(Amounts in Thousands) [(a)(b)]	**2017**	**2016**
MMBtu of natural gas	42	255

(a) Amounts are not reflective of net positions in the underlying commodities.
(b) Notional amounts for options are included on a gross basis, but are weighted for the probability of exercise.

Consideration of Credit Risk and Concentrations — NSP-Wisconsin continuously monitors the creditworthiness of the counterparties to its interest rate derivatives and commodity derivative contracts prior to settlement, and assesses each counterparty's ability to perform on the transactions set forth in the contracts. Given this assessment, as well as an assessment of the impact of NSP-Wisconsin's own credit risk when determining the fair value of derivative liabilities, the impact of credit risk was immaterial to the fair value of unsettled commodity derivatives presented in the consolidated balance sheets.

NSP-Wisconsin employs additional credit risk control mechanisms when appropriate, such as letters of credit, parental guarantees, standardized master netting agreements and termination provisions that allow for offsetting of positive and negative exposures. Credit exposure is monitored and, when necessary, the activity with a specific counterparty is limited until credit enhancement is provided.

***Financial Impact of Qualifying Cash Flow Hedges* —** The impact of qualifying interest rate cash flow hedges on NSP-Wisconsin's accumulated other comprehensive loss, included in the consolidated statements of common stockholder's equity and in the consolidated statements of comprehensive income, is detailed in the following table:

(Thousands of Dollars)	**2017**	**2016**	**2015**
Accumulated other comprehensive loss related to cash flow hedges at Jan. 1	$ (133)	$ (209)	$ (285)
After-tax net realized losses on derivative transactions reclassified into earnings	76	76	76
Accumulated other comprehensive loss related to cash flow hedges at Dec. 31	$ (57)	$ (133)	$ (209)

Pre-tax losses related to interest rate derivatives reclassified from accumulated other comprehensive loss into earnings were $0.1 million for each of the years ended Dec. 31, 2017, 2016 and 2015.

During the years ended Dec. 31, 2017, 2016 and 2015 changes in the fair value of natural gas commodity derivatives resulted in net losses of $0.3 million, $0.2 million and $0.7 million, recognized as regulatory assets and liabilities. The classification as a regulatory asset or liability is based on commission approved regulatory recovery mechanisms.

During the years ended Dec. 31, 2017, 2016 and 2015, $0.2 million, $0.8 million and $1.4 million of natural gas commodity derivatives settlement losses were recognized and were subject to purchased natural gas cost recovery mechanisms, which result in reclassifications of derivative settlement gains and losses out of income to a regulatory asset or liability, as appropriate.

NSP-Wisconsin had no derivative instruments designated as fair value hedges during the years ended Dec. 31, 2017, 2016 and 2015. Therefore, no gains or losses from fair value hedges or related hedged transactions were recognized for these periods.

Recurring Fair Value Measurements — The following table presents for each of the fair value hierarchy levels, NSP-Wisconsin's derivative assets and liabilities measured at fair value on a recurring basis:

	Dec. 31, 2017					
	Fair Value					
(Thousands of Dollars)	Level 1	Level 2	Level 3	Fair Value Total	Counterparty Netting [(a)]	Total [(b)]
Current derivative assets						
Natural gas commodity	$ —	$ 14	$ —	$ 14	$ —	$ 14

	Dec. 31, 2016					
	Fair Value					
(Thousands of Dollars)	Level 1	Level 2	Level 3	Fair Value Total	Counterparty Netting [(a)]	Total [(b)]
Current derivative assets						
Natural gas commodity	$ —	$ 149	$ —	$ 149	$ —	$ 149

(a) NSP-Wisconsin nets derivative instruments and related collateral in its consolidated balance sheet when supported by a legally enforceable master netting agreement, and all derivative instruments and related collateral amounts were subject to master netting agreements at Dec. 31, 2017 and 2016. The counterparty netting amounts presented exclude settlement receivables and payables and non-derivative amounts that may be subject to the same master netting agreements.

(b) Included in the prepayments balance of $3.5 million and $3.1 million at Dec. 31, 2017 and 2016, respectively, in the consolidated balance sheets.

Fair Value of Long-Term Debt

As of Dec. 31, 2017 and 2016, other financial instruments for which the carrying amount did not equal fair value were as follows:

	2017		2016	
(Thousands of Dollars)	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term debt, including current portion	$ 761,180	$ 856,106	$ 663,069	$ 730,284

The fair value of NSP-Wisconsin's long-term debt is estimated based on recent trades and observable spreads from benchmark interest rates for similar securities. The fair value estimates are based on information available to management as of Dec. 31, 2017 and 2016, and given the observability of the inputs to these estimates, the fair values presented for long-term debt have been assigned a Level 2.

10. Rate Matters

Tax Reform - Regulatory Proceedings

The specific impacts of the TCJA on retail customer rates are subject to regulatory approval. NSP-Wisconsin is in the process of quantifying the rate impacts of the TCJA and addressing these impacts in its open and recently concluded proceedings focused on retail base rate impacts for its utility subsidiaries.

In January 2018, the PSCW issued an order requiring public utilities to apply deferred accounting for the impacts of the TCJA. The PSCW has also requested that utilities provide responses to questions on tax reform and its impact on electric and natural gas revenue requirements. In February 2018, NSP-Wisconsin proposed levelizing upcoming rate cases, advancing infrastructure investments and buying down assets such as the regulatory asset for Ashland clean-up.

The MPSC has issued an order for utilities to use deferred accounting for the impacts of the TCJA. In February 2018, the MPSC issued an order directing each utility in Michigan to file an application for determination of the benefits related to the reduction in the corporate federal tax rate by March 30, 2018. The MPSC will address the remaining benefits related to the TCJA in the second quarter of 2018. NSP-Wisconsin plans to include the TCJA tax benefits as part of the electric rate case pending before the MPSC.

Recently Concluded Regulatory Proceedings — PSCW

Wisconsin 2018 Electric and Gas Rate Case — In May 2017, NSP-Wisconsin filed a request with the PSCW to increase electric rates by $25 million, or 3.6 percent, and natural gas rates by $12 million, or 10.1 percent, effective Jan. 1, 2018. The rate filing was based on a 2018 forecast test year, a ROE of 10 percent, an equity ratio of 52.53 percent and a forecasted rate base of approximately $1.2 billion for the electric utility and $138 million for the natural gas utility.

In December 2017, the PSCW approved electric and natural gas rate increases of approximately $9 million, or 1.4 percent, and $10 million, or 8.3 percent, respectively, based on a 9.8 percent ROE and an equity ratio of 51.45 percent. New rates went into effect on Jan. 1, 2018.

Pending Regulatory Proceedings - MPSC

Michigan 2018 Electric Rate Case — In November 2017, NSP-Wisconsin filed a request with the MPSC to increase rates for electric service by $1 million, or 7.1 percent. The filing was based on a 2018 forecast test year, a 10.1 percent ROE, an equity ratio of 52.5 percent and a forecasted average rate base of approximately $43 million. The primary driver of the requested increase is continuing investment in transmission and distribution infrastructure. The filing also included a request for step increases in 2019 and 2020 related to electric distribution system investments in those years. In addition to the MPSC staff, intervenors in the case include the Michigan Attorney General and the Association of Businesses Advocating Tariff Equity, a voluntary association of large industrial businesses. Hearings are scheduled for April 2018. The parties have agreed to meet in March 2018 to discuss potential settlement of the case.

Recently Concluded Regulatory Proceedings — MPUC

Monticello Prudence Investigation — In 2013, NSP-Minnesota completed the Monticello LCM/EPU project. The multi-year project extended the life of the facility and increased the capacity from 600 to 671 MW in 2015. The Monticello LCM/EPU project expenditures were approximately $665 million. Total capitalized costs were approximately $748 million, which includes AFUDC. In 2008, project expenditures were initially estimated at approximately $320 million, excluding AFUDC.

In 2015, the MPUC voted to allow for full recovery, including a return, on $415 million of the total plant costs (inclusive of AFUDC), but only allow recovery of the remaining $333 million of costs with no return on this portion of the investment. As a result, Xcel Energy recorded a pre-tax loss of $129 million in the first quarter of 2015, after which the remaining book value of the Monticello project represented the present value of the estimated future cash flows. As NSP-Wisconsin shares in the costs of the Monticello plant through the Interchange Agreement with NSP-Minnesota, the MPUC decision also affects NSP-Wisconsin. NSP-Wisconsin’s portion of the $129 million pre-tax loss, recorded in the first quarter of 2015, was approximately $5 million.

Pending Regulatory Proceedings — FERC

MISO ROE Complaints/ROE Adder — In November 2013, a group of customers filed a complaint at the FERC against MISO TOs, including NSP-Minnesota and NSP-Wisconsin. The complaint argued for a reduction in the ROE in transmission formula rates in the MISO region from 12.38 percent to 9.15 percent, and the removal of ROE adders (including those for RTO membership), effective Nov. 12, 2013.

In December 2015, an ALJ recommended the FERC approve a base ROE of 10.32 percent for the MISO TOs. The ALJ found the existing 12.38 percent ROE to be unjust and unreasonable. The recommended 10.32 percent ROE applied a FERC ROE policy adopted in a June 2014 order (Opinion 531). The FERC approved the ALJ recommended 10.32 percent base ROE in an order issued in September 2016. This ROE would be applicable for Nov. 12, 2013 to Feb. 11, 2015, and prospectively from the date of the FERC order. The total prospective ROE would be 10.82 percent, including a 50 basis point adder for RTO membership. Various parties requested rehearing of the September 2016 order. The requests are pending FERC action.

In February 2015, a second complaint seeking to reduce the MISO ROE from 12.38 percent to 8.67 percent prior to any adder was filed with the FERC, resulting in a second period of potential refund from Feb. 12, 2015 to May 11, 2016. In June 2016, the ALJ recommended a ROE of 9.7 percent, applying the methodology adopted by the FERC in Opinion 531. In April 2017, the D.C. Circuit vacated and remanded Opinion 531. It is unclear how the D.C. Circuit's opinion to vacate and remand Opinion 531 will affect the September 2016 FERC order or the timing and outcome of the second ROE complaint. In September 2017, certain MISO TOs (not including NSP-Minnesota and NSP-Wisconsin) filed a motion to dismiss the second ROE complaint. The motion to dismiss is pending FERC action.

As of Dec. 31, 2017, NSP-Minnesota has processed the refunds for the Nov. 12, 2013 to Feb. 11, 2015 complaint period based on the 10.32 percent ROE. NSP-Minnesota has also recognized a current refund liability consistent with the best estimate of the final ROE for the Feb. 12, 2015 to May 11, 2016 complaint period.

11. Commitments and Contingencies

Commitments

Fuel Contracts — NSP-Wisconsin has entered into various long-term commitments for the purchase and delivery of a significant portion of its current coal and natural gas requirements. These contracts expire in various years between 2018 and 2029. In addition, NSP-Wisconsin is required to pay additional amounts depending on actual quantities shipped under these agreements. As NSP-Wisconsin does not have an automatic electric fuel adjustment clause for Wisconsin retail customers, NSP-Wisconsin utilizes deferred accounting treatment for future rate recovery or refund when fuel costs differ from the amount included in rates by more than two percent on an annual basis, as determined by the PSCW after an opportunity for a hearing and an earnings test based on NSP-Wisconsin's authorized ROE.

The estimated minimum purchases for NSP-Wisconsin under these contracts as of Dec. 31, 2017 are as follows:

(Millions of Dollars)	Coal	Natural gas supply	Natural gas storage and transportation
2018	$ 6.4	$ 9.4	$ 13.3
2019	0.6	0.4	12.3
2020	0.6	0.3	10.1
2021	0.7	0.3	9.5
2022	0.7	0.2	8.2
Thereafter	0.7	—	30.5
Total [(a)]	$ 9.7	$ 10.6	$ 83.9

(a) Excludes additional amounts allocated to NSP-Wisconsin through intercompany charges.

Additional expenditures for fuel and natural gas storage and transportation will be required to meet expected future electric generation and natural gas needs.

Leases — NSP-Wisconsin leases a variety of equipment and facilities. These leases, primarily for office space, vehicles, aircraft and power-operated equipment, are accounted for as operating leases. Total expenses under operating lease obligations were approximately $1.2 million, $1.2 million and $1.1 million for 2017, 2016 and 2015, respectively.

Future commitments under operating leases are:

(Millions of Dollars)	
2018	$ 0.9
2019	0.9
2020	0.9
2021	0.8
2022	0.8
Thereafter	4.6
Total	$ 8.9

Variable Interest Entities — The accounting guidance for consolidation of variable interest entities requires enterprises to consider the activities that most significantly impact an entity's financial performance, and power to direct those activities, when determining whether an enterprise is a variable interest entity's primary beneficiary.

NSP-Wisconsin has entered into limited partnerships for the construction and operation of affordable rental housing developments which qualify for low-income housing tax credits. NSP-Wisconsin has determined the low-income housing limited partnerships to be variable interest entities primarily due to contractual arrangements within each limited partnership that establish sharing of ongoing voting control and profits and losses that does not consistently align with the partners' proportional equity ownership. NSP-Wisconsin has determined that it has the power to direct the activities that most significantly impact these entities' economic performance, and therefore NSP-Wisconsin consolidates these limited partnerships in its consolidated financial statements.

Equity financing for these entities has been provided by NSP-Wisconsin and the general partner of each limited partnership, and NSP-Wisconsin's risk of loss is limited to its capital contributions, adjusted for any distributions and its share of undistributed profits and losses; no significant additional financial support has been, or is required to be provided to the limited partnerships by NSP-Wisconsin. Obligations of the limited partnerships are generally secured by the housing properties of each limited partnership, and the creditors of each limited partnership have no significant recourse to NSP-Wisconsin or its subsidiaries. Likewise, the assets of the limited partnerships may only be used to settle obligations of the limited partnerships, and not those of NSP-Wisconsin or its subsidiaries.

Amounts reflected in NSP-Wisconsin's consolidated balance sheets for low-income housing limited partnerships include the following:

(Thousands of Dollars)	Dec. 31, 2017	Dec. 31, 2016
Current assets	$ 426	$ 375
Property, plant and equipment, net	1,882	2,025
Other noncurrent assets	137	125
Total assets	$ 2,445	$ 2,525
Current liabilities	$ 1,214	$ 1,269
Mortgages and other long-term debt payable	486	486
Other noncurrent liabilities	56	54
Total liabilities	$ 1,756	$ 1,809

Joint Operating System — The electric production and transmission system of NSP-Wisconsin is managed as an integrated system with that of NSP-Minnesota, jointly referred to as the NSP System. The electric production and transmission costs of the entire NSP System are shared by NSP-Minnesota and NSP-Wisconsin. A FERC approved agreement between the two companies, called the Interchange Agreement, provides for the sharing of all costs of generation and transmission facilities of the system, including capital costs. Such costs include current and potential obligations of NSP-Minnesota related to its nuclear generating facilities.

NSP-Minnesota's public liability for claims resulting from any nuclear incident is limited to $13.4 billion under the Price-Anderson amendment to the Atomic Energy Act. NSP-Minnesota has secured $450 million of coverage for its public liability exposure with a pool of insurance companies. The remaining $13.0 billion of exposure is funded by the Secondary Financial Protection Program, available from assessments by the federal government in case of a nuclear incident. NSP-Minnesota is subject to assessments of up to $127 million per reactor-incident for each of its three licensed reactors, to be applied for public liability arising from a nuclear incident at any licensed nuclear facility in the United States. The maximum funding requirement is $19 million per reactor per incident during any one year. These maximum assessment amounts are both subject to inflation adjustment by the NRC and state premium taxes. The NRC's last adjustment was effective September 2013.

NSP-Minnesota purchases insurance for property damage and site decontamination cleanup costs from Nuclear Electric Insurance Ltd. (NEIL) and European Mutual Association for Nuclear Insurance (EMANI). The coverage limits are $2.3 billion for each of NSP-Minnesota's two nuclear plant sites. NEIL also provides business interruption insurance coverage, including the cost of replacement power obtained during certain prolonged accidental outages of nuclear generating units. Premiums are expensed over the policy term. All companies insured with NEIL are subject to retroactive premium adjustments if losses exceed accumulated reserve funds. Capital has been accumulated in the reserve funds of NEIL and EMANI to the extent that NSP-Minnesota would have no exposure for retroactive premium assessments in case of a single incident under the business interruption and the property damage insurance coverage. However, in each calendar year, NSP-Minnesota could be subject to maximum assessments of approximately $19 million for business interruption insurance and $41 million for property damage insurance if losses exceed accumulated reserve funds.

Guarantees — NSP-Wisconsin provides a guarantee for payment of customer loans related to NSP-Wisconsin's farm rewiring program. NSP-Wisconsin's exposure under the guarantee is based upon the net liability under the agreement. The guarantee issued by NSP-Wisconsin limits the exposure of NSP-Wisconsin to a maximum amount stated in the guarantee. The guarantee contains no recourse provisions and requires no collateral.

The following table presents the guarantee issued and outstanding for NSP-Wisconsin:

(Millions of Dollars)	Guarantee Amount	Current Exposure	Term or Expiration Date	Triggering Event
Guarantee of customer loans for the Farm Rewiring Program[a]	$ 1.0	$ —	2020	[b]

[a] The term of this guarantee expires in 2020, which is the final scheduled repayment date for the loans. As of Dec. 31, 2017, no claims had been made by the lender.

[b] The debtor becomes the subject of bankruptcy or other insolvency proceedings.

Environmental Contingencies

NSP-Wisconsin has been or is currently involved with the cleanup of contamination from certain hazardous substances at several sites. In many situations, NSP-Wisconsin believes it will recover some portion of these costs through insurance claims. Additionally, where applicable, NSP-Wisconsin is pursuing, or intends to pursue, recovery from other PRPs and through the regulated rate process. New and changing federal and state environmental mandates can also create added financial liabilities for NSP-Wisconsin, which are normally recovered through the regulated rate process. To the extent any costs are not recovered through the options listed above, NSP-Wisconsin would be required to recognize an expense.

Site Remediation — Various federal and state environmental laws impose liability, without regard to the legality of the original conduct, where hazardous substances or other regulated materials have been released to the environment. NSP-Wisconsin may sometimes pay all or a portion of the cost to remediate sites where past activities of NSP-Wisconsin or other parties have caused environmental contamination. Environmental contingencies could arise from various situations, including sites of former MGPs operated by NSP-Wisconsin, its predecessors, or other entities; and third-party sites, such as landfills, for which NSP-Wisconsin is alleged to be a PRP that sent wastes to that site.

MGP Sites

Ashland MGP Site — NSP-Wisconsin was named a PRP for contamination at a site in Ashland, Wis. The Ashland/Northern States Power Lakefront Superfund Site (the Site) includes NSP-Wisconsin property, previously operated as a MGP facility (the Upper Bluff), and two other properties: an adjacent city lakeshore park area (Kreher Park); and an area of Lake Superior's Chequamegon Bay adjoining the park.

In 2012, NSP-Wisconsin agreed to remediate the Phase I Project Area (which includes the Upper Bluff and Kreher Park areas of the Site), under a settlement agreement with the EPA. In January 2017, NSP-Wisconsin agreed to remediate the Phase II Project Area (the Sediments), under a settlement agreement with the EPA. The settlement agreements were approved by the U.S. District Court for the Western District of Wisconsin. NSP-Wisconsin initiated a full scale wet dredge remedy of the Sediments in 2017. Going forward, NSP-Wisconsin anticipates completion of restoration activities of the Sediments in 2018 with finalization of Phase I Project Area construction and restoration activities in 2019. Groundwater treatment activities at the Site will continue.

The current cost estimate for the entire site (both Phase I Project Area and the Sediments) is approximately $168 million, of which approximately $138 million has been spent. As of Dec. 31, 2017 and 2016, NSP-Wisconsin had recorded a total liability of $30 million and $64 million, respectively, for the entire site.

NSP-Wisconsin has deferred the unrecovered portion of the estimated Site remediation costs as a regulatory asset. The PSCW has authorized NSP-Wisconsin rate recovery for all remediation costs incurred at the Site. In 2012, the PSCW agreed to allow NSP-Wisconsin to pre-collect certain costs, to amortize costs over a ten-year period and to apply a three percent carrying cost to the unamortized regulatory asset. In December 2017, the PSCW approved an NSP-Wisconsin natural gas rate case which included recovery of additional expenses associated with remediating the Site. The annual recovery of MGP clean-up costs will increase from $12 million in 2017 to $18 million in 2018.

Other MGP, Landfill or Disposal Sites — In addition to the site in Ashland, Wis., NSP-Wisconsin is currently involved in investigating and/or remediating an MGP, landfill or other disposal site. NSP-Wisconsin has identified one site where contamination is present and where investigation and/or remediation activities are currently underway. Other parties may have responsibility for some portion of the investigation and/or remediation activities that are underway. NSP-Wisconsin anticipates that these investigation or remediation activities will continue through at least 2018. NSP-Wisconsin had accrued $0.1 million for this site at Dec. 31, 2017 and 2016, respectively. NSP-Wisconsin anticipates that any amounts spent will be fully recovered from customers.

Environmental Requirements

Water and Waste

Asbestos Removal — Some of NSP-Wisconsin's facilities contain asbestos. Most asbestos will remain undisturbed until the facilities that contain it are demolished or removed. NSP-Wisconsin has recorded an estimate for final removal of the asbestos as an ARO. It may be necessary to remove some asbestos to perform maintenance or make improvements to other equipment. The cost of removing asbestos as part of other work is not expected to be material and is recorded as incurred as operating expenses for maintenance projects, capital expenditures for construction projects or removal costs for demolition projects.

Federal CWA Waters of the United States Rule — In 2015, the EPA and the U.S. Army Corps of Engineers (Corps) published a final rule that significantly expanded the types of water bodies regulated under the CWA and broadened the scope of waters subject to federal jurisdiction. In October 2015, the U.S. Court of Appeals for the Sixth Circuit issued a nationwide stay of the final rule and subsequently ruled that it, rather than the federal district courts, had jurisdiction over challenges to the rule. In January 2017, the U.S. Supreme Court agreed to resolve the dispute as to which court should hear challenges to the rule. A ruling is expected in 2018.

In February 2017, President Trump issued an executive order requiring the EPA and the Corps to review and revise the final rule. On June 27, 2017, the agencies issued a proposed rule that rescinds the final rule and reinstates the prior definition of "Water of the U.S." The agencies are also undertaking a rulemaking to develop a new definition of "Waters of the U.S."

Federal CWA Effluent Limitations Guidelines (ELG) — In 2015, the EPA issued a final ELG rule for power plants that use coal, natural gas, oil or nuclear materials as fuel and discharge treated effluent to surface waters as well as utility-owned landfills that receive coal combustion residuals. In 2017, the EPA delayed the compliance date for flue gas desulfurization wastewater and bottom ash transport until November 2020 while the agency conducts a rulemaking process to potentially revise the effluent limitations and pretreatment standards for these waste streams.

Federal CWA Section 316(b) — The federal CWA requires the EPA to regulate cooling water intake structures to assure that these structures reflect the best technology available for minimizing adverse environmental impacts to aquatic species. The EPA published the final 316(b) rule in 2014. The rule prescribes technology for protecting fish that get stuck on plant intake screens (known as impingement) and describes a process for site-specific determinations by each state for sites that must protect the small aquatic organisms that pass through the intake screens into the plant cooling systems (known as entrainment). NSP-Wisconsin believes at least two plants could be required by state regulators to make improvements to reduce entrainment. NSP-Wisconsin estimates the likely cost for complying with impingement requirements may be incurred between 2018 and 2027 and is approximately $4 million, while the total cost of entrainment improvements are anticipated to be immaterial. NSP-Wisconsin anticipates these costs will be fully recoverable in rates.

Air

GHG Emission Standard for Existing Sources (CPP) — In 2015, the EPA issued its final CPP rule for existing power plants. Among other things, the CPP requires that state plans include enforceable measures to ensure emissions from existing power plants achieve the EPA's state-specific interim and final emission performance targets.

The CPP was challenged by multiple parties in the D.C. Circuit Court. In February 2016, the U.S. Supreme Court issued an order staying the final CPP rule. The stay will remain in effect until the D.C. Circuit Court reaches its decision and the U.S. Supreme Court either declines to review the lower court's decision or reaches a decision of its own.

In March 2017, President Trump signed an executive order requiring the EPA Administrator to review the CPP rule and if appropriate publish proposed rules suspending, revising or rescinding it. Accordingly, the EPA requested that the D.C. Circuit Court hold the litigation in abeyance until the EPA completes its work under the executive order. The D.C. Circuit granted the EPA's request and is holding the litigation in abeyance, while considering briefs by the parties on whether the court should remand the challenges to the EPA rather than holding them in abeyance, determining whether and how the court continues or ends the stay that currently applies to the CPP.

In October 2017, the EPA published a proposed rule to repeal the CPP, based on an analysis that the CPP exceeds the EPA's statutory authority under the CAA. In the proposal, the EPA stated it has not yet determined whether it will promulgate a new rule to regulate GHG emissions from existing EGUs. In December 2017, the EPA issued an Advanced Notice of Proposed Rulemaking to take and consider comments on whether to issue a future rule and what such a rule should include.

Revisions to the NAAQS for Ozone — In 2015, the EPA revised the NAAQS for ozone by lowering the eight-hour standard from 75 parts per billion (ppb) to 70 ppb. In November 2017, the EPA published final designations of areas that meet the 2015 ozone standard. NSP-Wisconsin meets the 2015 ozone standard in all areas where its generating units operate.

Asset Retirement Obligations

Recorded AROs — AROs have been recorded for property related to the following: electric production (steam, other and hydro), electric distribution and transmission, natural gas distribution, and general property. The electric production obligations include asbestos, processed water and ash-containment facilities, storage tanks and control panels. The asbestos recognition associated with electric production includes certain specific plants. AROs also have been recorded for NSP-Wisconsin steam production related to processed water and ash-containment facilities such as solid waste landfills.

NSP-Wisconsin has recognized AROs for the retirement costs of natural gas mains and lines and for the removal of electric transmission and distribution equipment, which consists of obligations associated with polychlorinated biphenyl, lithium batteries, mercury and street lighting lamps. The common general ARO includes obligations related to storage tanks.

A reconciliation of NSP-Wisconsin's AROs for the years ended Dec. 31, 2017 and 2016 is as follows:

(Thousands of Dollars)	Beginning Balance Jan. 1, 2017	Liabilities Recognized	Accretion	Cash Flow Revisions	Ending Balance Dec. 31, 2017 [(a)]
Electric plant					
Steam production asbestos	$ 2,194	$ 949 [(b)]	$ 50	$ —	$ 3,193
Steam production ash containment	452	—	15	—	467
Electric distribution	32	—	3	—	35
Other	376	—	12	—	388
Natural gas plant					
Gas distribution	8,293	—	339	1,661 [(c)]	10,293
Common and other property					
Common miscellaneous	45	—	2	—	47
Total liability [(d)]	$ 11,392	$ 949	$ 421	$ 1,661	$ 14,423

(a) There were no ARO liabilities settled during the year ended Dec. 31, 2017.
(b) The liability recognized relates to asbestos at the French Island plant.
(c) Changes in the gas distribution ARO are mainly related to increased labor costs.
(d) Included in other long-term liabilities balance in the consolidated balance sheet.

(Thousands of Dollars)	Beginning Balance Jan. 1, 2016	Liabilities Settled	Accretion	Cash Flow Revisions	Ending Balance Dec. 31, 2016 [(a)]
Electric plant					
Steam production asbestos	$ 2,145	$ —	$ 49	$ —	$ 2,194
Steam production ash containment	617	—	18	(183)	452
Electric distribution	72	—	3	(43)	32
Other	391	(29)	14	—	376
Natural gas plant					
Gas distribution	6,367	—	256	1,670	8,293
Common and other property					
Common miscellaneous	95	—	2	(52)	45
Total liability [(b)]	$ 9,687	$ (29)	$ 342	$ 1,392	$ 11,392

(a) There were no ARO liabilities recognized during the year ended Dec. 31, 2016.
(b) Included in other long-term liabilities balance in the consolidated balance sheet.

Indeterminate AROs — Outside of the known and recorded asbestos AROs, other plants or buildings may contain asbestos due to the age of many of NSP-Wisconsin's facilities, but no confirmation or measurement of the amount of asbestos or cost of removal could be determined as of Dec. 31, 2017. Therefore, an ARO has not been recorded for these facilities.

Removal Costs — NSP-Wisconsin records a regulatory liability for the plant removal costs of generation, transmission and distribution facilities that are recovered currently in rates. Generally, the accrual of future non-ARO removal obligations is not required. However, long-standing ratemaking practices approved by applicable state and federal regulatory commissions have allowed provisions for such costs in historical depreciation rates. These removal costs have accumulated over a number of years based on varying rates as authorized by the appropriate regulatory entities. Given the long time periods over which the amounts were accrued and the changing of rates over time, NSP-Wisconsin has estimated the amount of removal costs accumulated through historic depreciation expense based on current factors used in the existing depreciation rates. Accordingly, the recorded amounts of estimated future removal costs are considered regulatory liabilities. Removal costs as of Dec. 31, 2017 and 2016 were $146 million and $140 million, respectively.

Legal Contingencies

NSP-Wisconsin is involved in various litigation matters that are being defended and handled in the ordinary course of business. The assessment of whether a loss is probable or is a reasonable possibility, and whether the loss or a range of loss is estimable, often involves a series of complex judgments about future events. Management maintains accruals for such losses that are probable of being incurred and subject to reasonable estimation. Management is sometimes unable to estimate an amount or range of a reasonably possible loss in certain situations, including but not limited to when (1) the damages sought are indeterminate, (2) the proceedings are in the early stages, or (3) the matters involve novel or unsettled legal theories. In such cases, there is considerable uncertainty regarding the timing or ultimate resolution of such matters, including a possible eventual loss. For current proceedings not specifically reported herein, management does not anticipate that the ultimate liabilities, if any, arising from such current proceedings would have a material effect on NSP-Wisconsin's financial statements. Unless otherwise required by GAAP, legal fees are expensed as incurred.

Employment, Tort and Commercial Litigation

***Gas Trading Litigation* —** e prime inc. (e prime) is a wholly owned subsidiary of Xcel Energy Inc. e prime was in the business of natural gas trading and marketing but has not engaged in natural gas trading or marketing activities since 2003. Thirteen lawsuits were commenced against e prime and Xcel Energy (and NSP-Wisconsin, in two instances) between 2003 and 2009 alleging fraud and anticompetitive activities in conspiring to restrain the trade of natural gas and manipulate natural gas prices.

e prime, Xcel Energy Inc. and its other affiliates were sued along with several other gas marketing companies. These cases were all consolidated in the U.S. District Court in Nevada. Six of the cases remain active, which includes a multi-district litigation (MDL) matter consisting of a Colorado class (Breckenridge), a Wisconsin class (Arandell Corp.), a Missouri class, a Kansas class, and two other cases identified as "Sinclair Oil" and "Farmland." In March 2017, summary judgment was granted by the MDL judge in favor of Xcel Energy and e prime in the Sinclair Oil and Farmland cases. In November 2017, the U.S District Court in Nevada granted summary judgment against two plaintiffs in the Arandell Corp. case in favor of Xcel Energy and NSP-Wisconsin, leaving only three individual plaintiffs remaining in the litigation. In addition, the plaintiffs' motions for class certification and remand back to originating courts in these cases were denied in March 2017. Plaintiffs have appealed the summary judgment motions granted in the Farmland and Sinclair Oil cases and the denial of class certification and remand to the U.S. Court of Appeals for the Ninth Circuit (Ninth Circuit). Oral arguments were heard before the Ninth Circuit in February 2018. A final decision is expected by the end of the first quarter of 2019. Xcel Energy, NSP-Wisconsin and e prime have concluded that a loss is remote.

Other Contingencies

See Note 10 for further discussion.

12. Regulatory Assets and Liabilities

NSP-Wisconsin's consolidated financial statements are prepared in accordance with the applicable accounting guidance, as discussed in Note 1. Under this guidance, regulatory assets and liabilities are created for amounts that regulators may allow to be collected, or may require to be paid back to customers in future electric and natural gas rates. Any portion of the business that is not rate regulated cannot establish regulatory assets and liabilities. If changes in the utility industry or the business of NSP-Wisconsin no longer allow for the application of regulatory accounting guidance under GAAP, NSP-Wisconsin would be required to recognize the write-off of regulatory assets and liabilities in net income or OCI.

The components of regulatory assets shown on the consolidated balance sheets of NSP-Wisconsin at Dec. 31, 2017 and 2016 are:

(Thousands of Dollars)	See Note(s)	Remaining Amortization Period	Dec. 31, 2017		Dec. 31, 2016	
Regulatory Assets			**Current**	**Noncurrent**	**Current**	**Noncurrent**
Environmental remediation costs	1, 11	Various	$ 16,006	$ 136,146	$ 10,669	$ 148,880
Pension and retiree medical obligations [a]	7	Various	5,674	87,505	5,989	93,160
Excess deferred taxes - TCJA	6	Various	—	22,605	—	—
State commission adjustments	1	Plant lives	716	15,932	703	14,008
Recoverable deferred taxes on AFUDC recorded in plant [b]	1	Plant lives	—	14,286	—	22,345
Losses on reacquired debt	4	Term of related debt	655	2,678	801	3,333
Other		Various	62	3,065	—	4,462
Total regulatory assets			$ 23,113	$ 282,217	$ 18,162	$ 286,188

(a) Includes the non-qualified pension plan.

(b) Includes a write-down of $11.3 million as a result of the revaluation of deferred tax gross up at the new federal tax rate at Dec. 31, 2017.

The components of regulatory liabilities shown on the consolidated balance sheets of NSP-Wisconsin at Dec. 31, 2017 and 2016 are:

(Thousands of Dollars)	See Note(s)	Remaining Amortization Period	Dec. 31, 2017		Dec. 31, 2016	
Regulatory Liabilities			**Current**	**Noncurrent**	**Current**	**Noncurrent**
Excess deferred taxes - TCJA [a]	6	Various	$ —	$ 236,589	$ —	$ —
Plant removal costs	11	Plant lives	—	146,370	—	139,735
Deferred electric production and natural gas costs	1	Less than one year	13,950	—	11,377	—
DOE settlement	11	Less than one year	5,261	—	4,822	—
Other		Various	1,501	3,848	1,229	8,454
Total regulatory liabilities			$ 20,712	$ 386,807	$ 17,428	$ 148,189

(a) Primarily relates to the revaluation of recoverable/regulated plant ADIT and $41.0 million revaluation impact of non-plant ADIT at Dec. 31, 2017.

13. Other Comprehensive Income

Changes in accumulated other comprehensive loss, net of tax, for the years ended Dec. 31, 2017 and 2016 were as follows:

	Gains and Losses on Cash Flow Hedges	
(Thousands of Dollars)	Year Ended Dec. 31, 2017	Year Ended Dec. 31, 2016
Accumulated other comprehensive loss at Jan. 1	$ (133)	$ (209)
Losses reclassified from net accumulated other comprehensive loss	76	76
Net current period other comprehensive income	76	76
Adoption of ASU No. 2018-02 [a]	(12)	—
Accumulated other comprehensive loss at Dec. 31	$ (69)	$ (133)

(a) In 2017, NSP-Wisconsin implemented ASU No. 2018-02 related to the TCJA, which resulted in reclassification of certain credit balances within net accumulated other comprehensive loss to retained earnings. For further information, see Note 2.

Reclassifications from accumulated other comprehensive loss for the years ended Dec. 31, 2017 and 2016 were as follows:

(Thousands of Dollars)	Amounts Reclassified from Accumulated Other Comprehensive Loss — Year Ended Dec. 31, 2017	Amounts Reclassified from Accumulated Other Comprehensive Loss — Year Ended Dec. 31, 2016
Losses on cash flow hedges:		
Interest rate derivatives	$ 126 [(a)]	$ 127 [(a)]
Total, pre-tax	126	127
Tax benefit	(50)	(51)
Total amounts reclassified, net of tax	$ 76	$ 76

[(a)] Included in interest charges.

14. Segments and Related Information

Operating results from the regulated electric utility and regulated natural gas utility are each separately and regularly reviewed by NSP-Wisconsin's chief operating decision maker. NSP-Wisconsin evaluates performance based on profit or loss generated from the product or service provided. These segments are managed separately because the revenue streams are dependent upon regulated rate recovery, which is separately determined for each segment.

NSP-Wisconsin has the following reportable segments: regulated electric utility, regulated natural gas utility and all other.

- NSP-Wisconsin's regulated electric utility segment generates electricity which is transmitted and distributed in Wisconsin and Michigan.
- NSP-Wisconsin's regulated natural gas utility segment purchases, transports, stores and distributes natural gas in portions of Wisconsin and Michigan.
- Revenues from operating segments not included above are below the necessary quantitative thresholds and are therefore included in the all other category. Those primarily include investments in rental housing projects that qualify for low-income housing tax credits.

Asset and capital expenditure information is not provided for NSP-Wisconsin's reportable segments because as an integrated electric and natural gas utility, NSP-Wisconsin operates significant assets that are not dedicated to a specific business segment, and reporting assets and capital expenditures by business segment would require arbitrary and potentially misleading allocations which may not necessarily reflect the assets that would be required for the operation of the business segments on a stand-alone basis.

To report income from operations for regulated electric and regulated natural gas utility segments, the majority of costs are directly assigned to each segment. However, some costs, such as common depreciation, common O&M expenses and interest expense are allocated based on cost causation allocators. A general allocator is used for certain general and administrative expenses, including office supplies, rent, property insurance and general advertising.

The accounting policies of the segments are the same as those described in Note 1.

(Thousands of Dollars)	Regulated Electric	Regulated Natural Gas	All Other	Reconciling Eliminations	Consolidated Total
2017					
Operating revenues [(a)]	$ 881,891	$ 122,353	$ 1,207	$ —	$ 1,005,451
Intersegment revenues	497	287	—	(784)	—
Total revenues	$ 882,388	$ 122,640	$ 1,207	$ (784)	$ 1,005,451
Depreciation and amortization	$ 88,946	$ 22,070	$ 200	$ —	$ 111,216
Interest charges and financing costs	29,396	2,761	23	—	32,180
Income tax expense	38,866	4,040	1,266	—	44,172
Net income	70,876	7,832	708	—	79,416

(Thousands of Dollars)	Regulated Electric	Regulated Natural Gas	All Other	Reconciling Eliminations	Consolidated Total
2016					
Operating revenues [(a)]	$ 849,946	$ 106,157	$ 1,130	$ —	$ 957,233
Intersegment revenues	397	487	—	(884)	—
Total revenues	$ 850,343	$ 106,644	$ 1,130	$ (884)	$ 957,233
Depreciation and amortization	$ 81,299	$ 16,794	$ 201	$ —	$ 98,294
Interest charges and financing costs	29,749	2,855	25	—	32,629
Income tax expense (benefit)	40,547	2,445	(90)	—	42,902
Net income (loss)	65,002	4,503	(370)	—	69,135

(Thousands of Dollars)	Regulated Electric	Regulated Natural Gas	All Other	Reconciling Eliminations	Consolidated Total
2015					
Operating revenues [(a)]	$ 834,998	$ 120,147	$ 1,396	$ —	$ 956,541
Intersegment revenues	419	498	—	(917)	—
Total revenues	$ 835,417	$ 120,645	$ 1,396	$ (917)	$ 956,541
Depreciation and amortization	$ 77,036	$ 14,034	$ 175	$ —	$ 91,245
Interest charges and financing costs	26,494	2,637	90	—	29,221
Income tax expense	40,654	2,501	1,083	—	44,238
Net income	69,398	4,862	376	—	74,636

(a) Operating revenues include $177 million, $170 million and $163 million of intercompany revenue for the years ended Dec. 31, 2017, 2016 and 2015 respectively. See Note 15 for further discussion of related party transactions by operating segment.

15. Related Party Transactions

Xcel Energy Services Inc. provides management, administrative and other services for the subsidiaries of Xcel Energy Inc., including NSP-Wisconsin. The services are provided and billed to each subsidiary in accordance with service agreements executed by each subsidiary. NSP-Wisconsin uses services provided by Xcel Energy Services Inc. whenever possible. Costs are charged directly to the subsidiary and are allocated if they cannot be directly assigned.

The electric production and transmission costs of the entire NSP System are shared by NSP-Minnesota and NSP-Wisconsin. The Interchange Agreement provides for the sharing of all costs of generation and transmission facilities of the system, including capital costs.

The table below contains significant affiliate transactions among the companies and related parties including billings under the Interchange Agreement for the years ended Dec. 31:

(Thousands of Dollars)	2017	2016	2015
Operating revenues:			
Electric	$ 177,234	$ 170,483	$ 163,255
Operating expenses:			
Purchased power	421,609	413,615	419,028
Transmission expense	68,613	61,920	54,070
Natural gas purchased for resale	47	41	45
Other operating expenses — paid to Xcel Energy Services Inc.	92,715	106,454	93,890
Interest expense	7	4	2

Accounts receivable and payable with affiliates at Dec. 31 were:

	2017		2016	
(Thousands of Dollars)	Accounts Receivable	Accounts Payable	Accounts Receivable	Accounts Payable
NSP-Minnesota	$ —	$ 17,825	$ —	$ 18,567
PSCo	—	61	—	974
SPS	—	7	333	—
Other subsidiaries of Xcel Energy Inc.	3,391	11,735	—	9,496
	$ 3,391	$ 29,628	$ 333	$ 29,037

16. Summarized Quarterly Financial Data (Unaudited)

	Quarter Ended			
(Thousands of Dollars)	March 31, 2017	June 30, 2017	Sept. 30, 2017	Dec. 31, 2017
Operating revenues	$ 264,931	$ 230,026	$ 247,511	$ 262,983
Operating income	42,775	29,067	38,392	37,994
Net income	22,419	14,241	22,325	20,431

	Quarter Ended			
(Thousands of Dollars)	March 31, 2016	June 30, 2016	Sept. 30, 2016	Dec. 31, 2016
Operating revenues	$ 254,850	$ 219,173	$ 246,144	$ 237,066
Operating income	35,448	27,778	46,342	30,360
Net income	17,631	12,625	24,221	14,658

Item 9 — Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A — Controls and Procedures

Disclosure Controls and Procedures

NSP-Wisconsin maintains a set of disclosure controls and procedures designed to ensure that information required to be disclosed in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms. In addition, the disclosure controls and procedures ensure that information required to be disclosed is accumulated and communicated to management, including the chief executive officer (CEO) and chief financial officer (CFO), allowing timely decisions regarding required disclosure. As of Dec. 31, 2017, based on an evaluation carried out under the supervision and with the participation of NSP-Wisconsin's management, including the CEO and CFO, of the effectiveness of its disclosure controls and the procedures, the CEO and CFO have concluded that NSP-Wisconsin's disclosure controls and procedures were effective.

Internal Control Over Financial Reporting

No change in NSP-Wisconsin's internal control over financial reporting has occurred during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, NSP-Wisconsin's internal control over financial reporting. NSP-Wisconsin maintains internal control over financial reporting to provide reasonable assurance regarding the reliability of the financial reporting. NSP-Wisconsin has evaluated and documented its controls in process activities, general computer activities, and on an entity-wide level. During the year and in preparation for issuing its report for the year ended Dec. 31, 2017 on internal controls under section 404 of the Sarbanes-Oxley Act of 2002, NSP-Wisconsin conducted testing and monitoring of its internal control over financial reporting. Based on the control evaluation, testing and remediation performed, NSP-Wisconsin did not identify any material control weaknesses, as defined under the standards and rules issued by the Public Company Accounting Oversight Board and as approved by the SEC and as indicated in Management Report on Internal Controls herein.

In 2016, NSP-Wisconsin implemented the general ledger modules, as well as initiated deployment of work management systems modules, of a new enterprise resource planning system to improve certain financial and related transaction processes. NSP-Wisconsin implemented additional work management systems modules in 2017. NSP-Wisconsin updated its internal control over financial reporting, as necessary, to accommodate modifications to its business processes and accounting systems. NSP-Wisconsin does not believe that this implementation had an adverse effect on its internal control over financial reporting.

This annual report does not include an attestation report of NSP-Wisconsin's independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by NSP-Wisconsin's independent registered public accounting firm pursuant to the rules of the SEC that permit NSP-Wisconsin to provide only management's report in this annual report.

Item 9B — Other Information

None.

PART III

Items 10, 11, 12 and 13 of Part III of Form 10-K have been omitted from this report for NSP-Wisconsin in accordance with conditions set forth in general instructions I (1) (a) and (b) of Form 10-K for wholly-owned subsidiaries.

Item 10 — Directors, Executive Officers and Corporate Governance

Item 11 — Executive Compensation

Item 12 — Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Item 13 — Certain Relationships and Related Transactions, and Director Independence

Information required under this Item is contained in Xcel Energy Inc.'s Proxy Statement for its 2018 Annual Meeting of Shareholders, which is incorporated by reference.

Item 14 — Principal Accountant Fees and Services

The information required by Item 14 of Form 10-K is set forth under the heading "Independent Registered Public Accounting Firm - Audit and Non-Audit Fees" in Xcel Energy Inc.'s definitive Proxy Statement for the 2018 Annual Meeting of Stockholders which definitive Proxy Statement is expected to be filed with the SEC on or about April 3, 2017. Such information set forth under such heading is incorporated herein by this reference hereto.

PART IV

Item 15 — Exhibits, Financial Statement Schedules

1.	Consolidated Financial Statements
	Management Report on Internal Controls Over Financial Reporting — For the year ended Dec. 31, 2017
	Report of Independent Registered Public Accounting Firm — Financial Statements
	Consolidated Statements of Income — For the three years ended Dec. 31, 2017, 2016 and 2015.
	Consolidated Statements of Comprehensive Income — For the three years ended Dec. 31, 2017, 2016 and 2015.
	Consolidated Statements of Cash Flows — For the three years ended Dec. 31, 2017, 2016 and 2015.
	Consolidated Balance Sheets — As of Dec. 31, 2017 and 2016.
	Consolidated Statements of Common Stockholder's Equity — For the three years ended Dec. 31, 2017, 2016 and 2015.
	Consolidated Statements of Capitalization — As of Dec. 31, 2017 and 2016.

2.	Schedule II — Valuation and Qualifying Accounts and Reserves for the years ended Dec. 31, 2017, 2016 and 2015.

3.	Exhibits

*	Indicates incorporation by reference
+	Executive Compensation Arrangements and Benefit Plans Covering Executive Officers and Directors

3.01*	Amended and restated articles of incorporation of NSP-Wisconsin (Exhibit 3.01 to Form S-4 (file no. 333-112033) Jan. 21, 2004).
3.02*	By-Laws of Northern States Power Co. (a Wisconsin corporation) as Amended and Restated on Sept. 26, 2013. (Exhibit 3.02 to Form 10-Q/A for the quarter ended Sept. 30, 2013 (file no. 001-03140)).
4.01*	Supplemental and Restated Trust Indenture dated March 1, 1991, between NSP-Wisconsin and First Wisconsin Trust company, providing for the issuance of First Mortgage Bonds (Exhibit 4.27 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2017).
4.02*	Trust Indenture dated Sept. 1, 2000, between NSP-Wisconsin and Firstar Bank, NA as Trustee (Exhibit 4.01 to Form 8-K (file no. 001-03140) dated Sept. 25, 2000).
4.03*	Supplemental Trust Indenture dated Sept. 1, 2003 between NSP-Wisconsin and US Bank National Association, supplementing indentures dated April 1, 1947 and March 1, 1991 (Exhibit 4.05 to Xcel Energy Form 10-Q (file no. 001-03034) for the quarter ended Sept. 30, 2003).
4.04*	Supplemental Trust Indenture dated as of Sept. 1, 2008 between NSP-Wisconsin and U.S. Bank National Association, as successor Trustee, creating $200 million principal amount of 6.375 percent First Mortgage Bonds, Series due Sept. 1, 2038 (Exhibit 4.01 of Form 8-K of NSP-Wisconsin dated Sept. 3, 2008 (file no. 001-03140)).
4.05*	Supplemental Trust Indenture dated as of Oct. 1, 2012 between NSP-Wisconsin and U.S. Bank National Association, as successor Trustee, creating $100 million principal amount of 3.700 percent First Mortgage Bonds, Series due Oct. 1, 2042 (Exhibit 4.01 of Form 8-K of NSP-Wisconsin dated Oct. 10, 2012 (file no. 001-03140)).
4.06*	Supplemental Trust Indenture dated as of June 1, 2014 between NSP-Wisconsin and U.S. Bank National Association, as successor Trustee, creating $100 million principal amount of 3.30 percent First Mortgage Bonds, Series due June 15, 2024. (Exhibit 4.01 of Form 8-K of NSP-Wisconsin dated June 23, 2014 (file no. 001-03140)).
4.07*	Supplemental Trust Indenture dated as of Nov. 1, 2017 between NSP-Wisconsin and U.S. Bank National Association, as successor Trustee, creating $100 million in aggregate principal amount of 3.75 percent First Mortgage Bonds, Series due Dec. 1, 2047. (Exhibit 4.01 of Form 8-K of NSP-Wisconsin dated Dec. 4, 2017 (file no. 001-03140)).
10.01*+	Xcel Energy Inc. Nonqualified Pension Plan (2009 Restatement) (Exhibit 10.02 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2008).
10.02*+	Xcel Energy Senior Executive Severance and Change-in-Control Policy (2009 Amendment and Restatement) (Exhibit 10.05 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2008).
10.03*+	Xcel Energy Inc. Non-Employee Directors Deferred Compensation Plan as amended and restated on Jan. 1, 2009 (Exhibit 10.08 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2008).
10.04*+	Form of Services Agreement between Xcel Energy Services Inc. and utility companies (Exhibit H-1 to Form U5B (file no. 001-03034) dated Nov. 16, 2000).
10.05*+	Xcel Energy Inc. Supplemental Executive Retirement Plan as amended and restated Jan. 1, 2009 (Exhibit 10.17 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2008).

10.06*	Restated Interchange Agreement dated Jan. 16, 2001 between NSP-Wisconsin and NSP- Minnesota (Exhibit 10.01 to NSP-Wisconsin Form S-4 (file no. 333-112033) dated Jan. 21, 2004).
10.07*+	Amendment dated Aug. 26, 2009 to the Xcel Energy Senior Executive Severance and Change-in-Control Policy (Exhibit 10.06 to Form 10-Q of Xcel Energy (file no. 001-03034) for the quarter ended Sept. 30, 2009).
10.08*+	Xcel Energy Executive Annual Incentive Award Plan Form of Restricted Stock Agreement (Exhibit 10.08 to Form 10-Q of Xcel Energy (file no. 001-03034) for the quarter ended Sept. 30, 2009).
10.09*+	Xcel Energy Inc. Executive Annual Incentive Award Plan (as amended and restated effective Feb. 17, 2010) (incorporated by reference to Appendix A to Schedule 14A, Definitive Proxy Statement to Xcel Energy (file no. 001-03034) dated April 6, 2010).
10.10*+	Xcel Energy Inc. 2005 Long-Term Incentive Plan (as amended and restated effective Feb. 17, 2010) (incorporated by reference to Appendix B to Schedule 14A, Definitive Proxy Statement to Xcel Energy (file no. 001-03034) dated April 6, 2010).
10.11*+	Stock Equivalent Plan for Non-Employee Directors of Xcel Energy Inc. as amended and restated effective Feb. 23, 2011 (Appendix A to the Xcel Energy Definitive Proxy Statement (file no. 001-03034) filed Apr. 5, 2011).
10.12*+	Xcel Energy Inc. Nonqualified Deferred Compensation Plan (2009 Restatement) (Exhibit 10.17 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2008).
10.13*+	First Amendment effective Nov. 29, 2011 to the Xcel Energy Inc. Nonqualified Deferred Compensation Plan (2009 Restatement) (Exhibit 10.07 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2011).
10.14*+	Second Amendment dated Oct. 26, 2011 to the Xcel Energy Inc. Senior Executive Severance and Change-in-Control Policy (Exhibit 10.18 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2011).
10.15*+	First Amendment dated Feb. 20, 2013 to the Xcel Energy Inc. Executive Annual Incentive Award Plan (as amended and restated effective Feb. 17, 2010) (Exhibit 10.01 to Form 10-Q of Xcel Energy (file no. 001-03034) for the quarter ended March 31, 2013).
10.16*+	Fourth Amendment dated Feb. 20, 2013 to the Xcel Energy Senior Executive Severance and Change-in-Control Policy (Exhibit 10.02 to Form 10-Q of Xcel Energy (file no. 001-03034) for the quarter ended March 31, 2013).
10.17*+	First Amendment dated May 21, 2013 to the Xcel Energy Inc. 2005 Long-Term Incentive Plan (as amended and restated effective Feb. 17, 2010) (Exhibit 10.21 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2013).
10.18*+	Second Amendment dated May 21, 2013 to the Xcel Energy Inc. Nonqualified Deferred Compensation Plan (2009 Restatement) (Exhibit 10.22 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2013).
10.19*+	Xcel Energy Inc. 2005 Long-Term Incentive Plan Form of Long-Term Incentive Award Agreement (Exhibit 10.23 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2013).
10.20*+	Xcel Energy Inc. 2015 Omnibus Incentive Plan (incorporated by reference to Appendix B to Schedule 14A, Definitive Proxy Statement to Xcel Energy Inc. (file no. 001-03034) dated April 6, 2015).
10.21*+	Stock Equivalent Program for Non-Employee Directors of Xcel Energy Inc. (As First Effective May 20, 2015) under the Xcel Energy Inc. 2015 Omnibus Incentive Plan. (Exhibit 10.02 to Form 8-K of Xcel Energy, dated May 26, 2015 (file no. 001-03034).
10.22*+	Form of Xcel Energy Inc. 2015 Omnibus Incentive Plan Award Agreement and Award Terms and Conditions (Restricted Stock Units and Performance Share Units) under the Xcel Energy Inc. 2015 Omnibus Incentive Plan. (Exhibit 10.03 to Form 8-K of Xcel Energy, dated May 26, 2015 (file no. 001-03034).
10.23*+	Xcel Energy Inc. 2015 Omnibus Incentive Plan Form of Award Agreement. (Exhibit 10.28 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2015).
10.24*+	Xcel Energy Inc. Executive Annual Incentive Award Sub-plan pursuant to the Xcel Energy Inc. 2015 Omnibus Incentive Plan. (Exhibit 10.29 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2015).
10.25*+	Fifth Amendment dated May 3, 2016 to the Xcel Energy Senior Executive Severance and Change-in-Control Policy (Exhibit 10.01 to Form 10-Q of Xcel Energy (file no. 001-03034) for the quarter ended June 30, 2016).
10.26*	Second Amended and Restated Credit Agreement, dated as of June 20, 2016 among NSP-Wisconsin, as Borrower, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A. and Barclays Bank Plc, as Syndication Agents, and Wells Fargo Bank, National Association and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Documentation Agents. (Exhibit 99.05 to Form 8-K of Xcel Energy dated June 20, 2016 (file no. 001-03034)).
10.27*+	Third Amendment dated Sept. 30, 2016 to the Xcel Energy Inc. Nonqualified Deferred Compensation Plan (2009 Restatement) (Exhibit 10.01 to Form 10-Q of Xcel Energy (file no. 001-03034) for the quarter ended Sept. 30, 2016).

10.28*+	Form of Xcel Energy Inc. 2015 Omnibus Incentive Plan Award Agreement and Award Terms and Conditions (Restricted Stock Units and Performance Share Units) under the Xcel Energy Inc. 2015 Omnibus Incentive Plan. (Exhibit 10.33 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2016).
10.29*+	Fourth Amendment to the Xcel Energy Inc. Nonqualified Deferred Compensation Plan (2009 Restatement) (Exhibit 10.1 to Form 10-Q of Xcel Energy for the quarter ended Sept. 30, 2017 (file no. 001-03034)).
10.30*+	Sixth Amendment dated Feb. 22, 2018 to Xcel Energy Senior Executive Severance and Change-in-Control Policy (Exhibit 10.30 to Form 10-K of Xcel Energy (file no. 001-03034) for the year ended Dec. 31, 2017.
12.01	Statement of Computation of Ratio of Earnings to Fixed Charges.
23.01	Consent of Independent Registered Public Accounting Firm.
31.01	Principal Executive Officer's certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02	Principal Financial Officer's certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.01	Statement pursuant to Private Securities Litigation Reform Act of 1995.
101	The following materials from NSP-Wisconsin's Annual Report on Form 10-K for the year ended Dec. 31, 2017 are formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Statements of Income, (ii) the Consolidated Statements of Comprehensive Income, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Balance Sheets, (v) the Consolidated Statements of Stockholder's Equity, (vi) the Consolidated Statements of Capitalization, (vii) Notes to Consolidated Financial Statements, (viii) document and entity information, and (ix) Schedule II.

SCHEDULE II

NSP-WISCONSIN AND SUBSIDIARIES
VALUATION AND QUALIFYING ACCOUNTS
YEARS ENDED DEC. 31, 2017, 2016 AND 2015
(amounts in thousands)

		Additions			
	Balance at Jan. 1	Charged to Costs and Expenses	Charged to Other Accounts (a)	Deductions from Reserves (b)	Balance at Dec. 31
Allowance for bad debts:					
2017	$ 4,865	$ 4,105	$ 952	$ 5,049	$ 4,873
2016	5,128	3,730	1,008	5,001	4,865
2015	5,821	3,947	1,161	5,801	5,128

(a) Recovery of amounts previously written off.

(b) Deductions relate primarily to bad debt write-offs.

Item 16 — Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this annual report to be signed on its behalf by the undersigned thereunto duly authorized.

	NORTHERN STATES POWER COMPANY (A WISCONSIN CORPORATION)
Feb. 23, 2018	/s/ ROBERT C. FRENZEL
	Robert C. Frenzel
	Executive Vice President, Chief Financial Officer and Director
	(Principal Financial Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities on the date indicated above.

/s/ BEN FOWKE	/s/ MARK E. STOERING
Ben Fowke	Mark E. Stoering
Chairman, Chief Executive Officer and Director	President and Director
(Principal Executive Officer)	
/s/ ROBERT C. FRENZEL	/s/ JEFFREY S. SAVAGE
Robert C. Frenzel	Jeffrey S. Savage
Executive Vice President, Chief Financial Officer and Director	Senior Vice President, Controller
(Principal Financial Officer)	(Principal Accounting Officer)
/s/ MARVIN E. MCDANIEL, JR.	
Marvin E. McDaniel, Jr.	
Director	

SUPPLEMENTAL INFORMATION TO BE FURNISHED WITH REPORTS FILED PURSUANT TO SECTION 15(D) OF THE ACT BY REGISTRANTS WHICH HAVE NOT REGISTERED SECURITIES PURSUANT TO SECTION 12 OF THE ACT

NSP-Wisconsin has not sent, and does not expect to send, an annual report or proxy statement to its security holder.

Exhibit 12.01

NSP-WISCONSIN AND SUBSIDIARIES
STATEMENT OF COMPUTATION OF
RATIO OF EARNINGS TO FIXED CHARGES
(amounts in thousands, except ratio)

	Year Ended Dec. 31				
	2017	**2016**	**2015**	**2014**	**2013**
Earnings, as defined:					
Pretax income	$ 123,588	$ 112,037	$ 118,874	$ 113,045	$ 95,877
Add: Fixed charges	35,431	34,849	33,073	29,686	28,325
Total earnings, as defined	$ 159,019	$ 146,886	$ 151,947	$ 142,731	$ 124,202
Fixed charges, as defined:					
Interest charges	$ 35,040	$ 34,452	$ 32,731	$ 29,273	$ 27,797
Interest component of leases	391	397	342	413	528
Total fixed charges, as defined	$ 35,431	$ 34,849	$ 33,073	$ 29,686	$ 28,325
Ratio of earnings to fixed charges	4.5	4.2	4.6	4.8	4.4

Exhibit 23.01

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-203664-02 on Form S-3 of our report dated February 23, 2018, relating to the consolidated financial statements and financial statement schedule of Northern States Power Company, a Wisconsin corporation, and subsidiaries appearing in this Annual Report on Form 10-K of Northern States Power Company, a Wisconsin corporation, for the year ended December 31, 2017.

/s/ DELOITTE & TOUCHE LLP
Minneapolis, Minnesota
February 23, 2018

Exhibit 31.01

CERTIFICATION

I, Ben Fowke, certify that:

1. I have reviewed this report on Form 10-K of Northern States Power Company (a Wisconsin corporation);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: Feb. 23, 2018

/s/ BEN FOWKE

Ben Fowke
Chairman, President and Chief Executive Officer

Exhibit 31.02

CERTIFICATION

I, Robert C. Frenzel, certify that:

1. I have reviewed this report on Form 10-K of Northern States Power Company (a Wisconsin corporation);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: Feb. 23, 2018

/s/ ROBERT C. FRENZEL

Robert C. Frenzel
Executive Vice President, Chief Financial Officer and Director

Exhibit 32.01

OFFICER CERTIFICATION

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Northern States Power Company, a Wisconsin corporation (NSP-Wisconsin) on Form 10-K for the year ended Dec. 31, 2017, as filed with the SEC on the date hereof (Form 10-K), each of the undersigned officers of NSP-Wisconsin certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

(1) The Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of NSP-Wisconsin as of the dates and for the periods expressed in the Form 10-K.

Date: Feb. 23, 2018

/s/ BEN FOWKE
Ben Fowke
Chairman, President and Chief Executive Officer

/s/ ROBERT C. FRENZEL
Robert C. Frenzel
Executive Vice President, Chief Financial Officer and Director

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to NSP-Wisconsin and will be retained by NSP-Wisconsin and furnished to the SEC or its staff upon request.

Exhibit 99.01

NSP-Wisconsin Cautionary Factors

The Private Securities Litigation Reform Act provides a "safe harbor" for forward-looking statements to encourage disclosures without the threat of litigation, providing those statements are identified as forward-looking and are accompanied by meaningful, cautionary statements identifying important factors that could cause the actual results to differ materially from those projected in the statement. Forward-looking statements are made in written documents and oral presentations of NSP-Wisconsin, Xcel Energy Inc. or any of its other subsidiaries. These statements are based on management's beliefs as well as assumptions and information currently available to management. Such forward-looking statements are intended to be identified in this document by the words "anticipate," "believe," "estimate," "expect," "intend," "may," "objective," "outlook," "plan," "project," "possible," "potential," "should" and similar expressions. In addition to any assumptions and other factors referred to specifically in connection with such forward-looking statements, factors that could cause NSP-Wisconsin's actual results to differ materially from those contemplated in any forward-looking statements include, among others, the following:

- Economic conditions, including inflation rates, monetary fluctuations and their impact on capital expenditures;
- The risk of a significant slowdown in growth or decline in the U.S. economy, the risk of delay in growth recovery in the U.S. economy or the risk of increased cost for insurance premiums, security and other items as a consequence of past or future terrorist attacks;
- Trade, monetary, fiscal, taxation and environmental policies of governments, agencies and similar organizations in geographic areas where NSP-Wisconsin has a financial interest;
- Customer business conditions, including demand for their products or services and supply of labor and materials used in creating their products and services;
- Financial or regulatory accounting principles or policies imposed by the FASB, the SEC, the FERC and similar entities with regulatory oversight;
- Availability or cost of capital such as changes in: interest rates; market perceptions of the utility industry, NSP-Wisconsin, Xcel Energy Inc. or any of its other subsidiaries; or security ratings;
- Factors affecting utility and nonutility operations such as unusual weather conditions; catastrophic weather-related damage; unscheduled generation outages, maintenance or repairs; unanticipated changes to fossil fuel, nuclear fuel or natural gas supply costs or availability due to higher demand, shortages, transportation problems or other developments; nuclear or environmental incidents; cyber incidents; or electric transmission or natural gas pipeline constraints;
- Employee workforce factors, including loss or retirement of key executives, collective-bargaining agreements with union employees, or work stoppages;
- Increased competition in the utility industry or additional competition in the markets served by NSP-Wisconsin, Xcel Energy Inc. and its other subsidiaries;
- State, federal and foreign legislative and regulatory initiatives that affect cost and investment recovery, have an impact on rate structures and affect the speed and degree to which competition enters the electric and natural gas markets; industry restructuring initiatives; transmission system operation and/or administration initiatives; recovery of investments made under traditional regulation; nature of competitors entering the industry; retail wheeling; a new pricing structure; and former customers entering the generation market;
- Environmental laws and regulations, including legislation and regulations relating to climate change, and the associated cost of compliance;
- Rate-setting policies or procedures of regulatory entities, including environmental externalities, which are values established by regulators assigning environmental costs to each method of electricity generation when evaluating generation resource options;
- Nuclear regulatory policies and procedures, including operating regulations and spent nuclear fuel storage;
- Social attitudes regarding the utility and power industries;
- Cost and other effects of legal and administrative proceedings, settlements, investigations and claims;
- Technological developments that result in competitive disadvantages and create the potential for impairment of existing assets;
- Risks associated with implementations of new technologies; and
- Other business or investment considerations that may be disclosed from time to time in NSP-Wisconsin's SEC filings, including "Risk Factors" in Item 1A of this Form 10-K, or in other publicly disseminated written documents.

NSP-Wisconsin undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The foregoing review of factors should not be construed as exhaustive.