

Direct Testimony and Schedules
Walter T. Grivna

Before the South Dakota Public Utilities Commission
State of South Dakota

In the Matter of the Application of Northern States Power Company,
a Minnesota corporation
For Authority to Increase Rates for Electric Service in State of South Dakota

Docket No. EL09-____
Exhibit__(WTG-1)

Transmission

June 30, 2009

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2
3 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

4 A. My name is Walter T. Grivna. My business address is 250 Marquette Avenue,
5 Minneapolis, Minnesota 55401.

6
7 Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

8 A. I am employed by Northern States Power Company, a Minnesota corporation
9 with operations in South Dakota (“Xcel Energy” or the “Company”) as
10 Manager, Transmission Asset Management in the transmission business unit.
11 My responsibilities include: (i) supervising department engineers in planning
12 the electric transmission systems for the Company and Northern States Power
13 Company, a Wisconsin corporation (“NSP-Wisconsin”) (jointly the “NSP
14 Companies”) in Minnesota, North Dakota, South Dakota, Wisconsin and the
15 Upper Peninsula of Michigan; (ii) overseeing the development of local and
16 regional transmission system plans, including coordinated joint planning with
17 the Midwest Independent Transmission System Operator, Inc. (“MISO”), the
18 Mid-Continent Area Power Pool Regional Transmission Committee (“MAPP
19 RTC”), the Minnesota Transmission Owners (“MTO”) and other utilities to
20 ensure reliable transmission service; (iii) recommending the construction of
21 such plans to NSP Companies’ management and the MISO; (iv) participating
22 in and supporting MISO sponsored transmission service studies, generation
23 interconnection studies, long range regional plan development, load service
24 planning and other transmission planning activities required by MISO to
25 perform its obligations under the MISO Open Access Transmission and
26 Energy Markets Tariff (“TEMT”) and the MISO Transmission Owner’s
27 Agreement (“TOA”); and (v) providing technical support for regulatory

1 aspects of transmission system planning activities and contract development
2 for the NSP Companies.

3
4 Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.

5 A. I am an Electrical Engineer with a Masters in Business Administration degree
6 and have held various positions in the Transmission Planning area of the
7 Company (and its predecessor Northern States Power Company) for more
8 than 30 years. Further information about my education and experience is
9 included in my resume provided here as Exhibit____(WTG-1), Schedule 1.

10
11 Q. FOR WHOM ARE YOU TESTIFYING?

12 A. I am testifying on behalf of the Company.

13
14 Q. WERE YOUR DIRECT TESTIMONY AND ATTACHED SCHEDULES PREPARED
15 EITHER BY YOU OR UNDER YOUR SUPERVISION?

16 A. Yes, my direct testimony and all attached schedules were prepared by me or
17 under my supervision.

18
19 **II. PURPOSE OF TESTIMONY**

20
21 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

22 A. The Company has invested significant capital in various transmission assets in
23 order to meet the growing needs of our customers, maintain the integrity of
24 the existing transmission system to ensure safe, reliable service to our
25 customers while, at the same time, supporting our initiatives to improve and
26 protect the environment. I will provide an overview of the transmission
27 system changes with a particular focus on the transmission investments since

1 2006 (the last year in which the Company's earnings were at or above
2 authorized levels). I conclude my direct testimony by sharing our plans for
3 continued investment in the expansion of our transmission system over the
4 next few years.

5
6 Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

7 A. The Company has invested significant capital funds to provide a reliable
8 transmission system supporting the transmission needs of our consumers, and
9 to prepare for additional growth and generation. Our request for an increase
10 in rates in this proceeding will in part provide recovery of these important and
11 necessary investments in our electric network. I recommend that the South
12 Dakota Public Utilities Commission ("Commission") approve our request to
13 include in rate base our investments in transmission. The transmission plant
14 additions in 2007 and 2008, including transmission plant additions qualifying
15 for the Transmission Cost Recovery ("TCR") Rider, totaled \$392 million. In
16 addition, we have added \$126 million of larger 2009 transmission facilities for
17 a total of \$518 million since 2006.

18
19 The Company also proposes transferring to base rates the two projects
20 currently being recovered through the TCR Rider. As Company witness Ms.
21 Anne E. Heuer further explains, while this has the effect of increasing total
22 capital investment by an additional \$241 million, these investments are already
23 being recovered from our customers under the TCR Rider and, therefore, do
24 not add to our overall revenue recovery need.

1 **III. TRANSMISSION SYSTEM INVESTMENTS**

2

3 **A. Summary of Transmission System Changes Since 1992**

4

5 Q. PLEASE PROVIDE AN OVERVIEW OF THE COMPANY’S TRANSMISSION SYSTEM.

6 A. The NSP Companies are vertically integrated jurisdictional electric utilities that
7 own and operate electric transmission facilities in five upper Midwestern
8 states: Minnesota, North Dakota, and South Dakota; and Wisconsin and the
9 Upper Peninsula of Michigan, respectively. The NSP Companies operate as an
10 integrated transmission system (the “NSP System”) of approximately 7,100
11 line miles of transmission facilities; operate a Balancing Authority (an entity
12 responsible for maintaining a balance between load and energy supply within
13 its designated Balancing Authority area) certified by the North American
14 Electric Reliability Corporation (“NERC”); and serve approximately 1.3
15 million retail and wholesale customers. The NSP Companies conduct
16 planning, on a comprehensive basis, for the integrated NSP System to serve all
17 NSP System loads, including the loads of the NSP Companies, other investor
18 owned utilities, cooperatives and municipal load serving entities (“LSEs”)
19 connected to the NSP System.

20

21 The NSP Companies are members of the MISO, a Federal Energy Regulatory
22 Commission (“FERC”) approved Regional Transmission Organization
23 (“RTO”). The NSP Companies transferred functional control of their high
24 voltage transmission facilities (100 kV and above) to MISO effective February
25 1, 2002. Access to the NSP System transmission facilities is available through
26 the MISO Open Access Transmission, Energy and Ancillary Services Market
27 Tariff (“MISO Tariff”).

28

1 As members of MISO, the NSP Companies fully participate in the annual
2 MISO Transmission Expansion Planning (“MTEP”) process. Approval of the
3 MTEP by the MISO Board of Directors certifies the MISO’s plan to meet the
4 transmission needs of all stakeholders, subject to any required regulatory
5 approvals. The MTEP is developed and discussed with MISO stakeholder
6 committees in all the stages of its development, and incorporates all
7 transmission plans for facilities above 100 kV for member utilities. All recent
8 and future transmission investments by the NSP Companies have been, and
9 will continue to be, planned and approved through this process.

10
11 Q. PLEASE DESCRIBE HOW THE TRANSMISSION SYSTEM HAS CHANGED SINCE 1992
12 AND MORE SPECIFICALLY SINCE 2006.

13 A. One of the main drivers of transmission investment is load growth. In 1992
14 the NSP Companies’ peak electric demand was approximately 6100 MW.
15 This compares with the projection for 2009 of approximately 8700 MW. This
16 growth has required a steady level of transmission investment. During the
17 period from 1992 until the year 2002, most of this transmission investment
18 was done by reconstructing older transmission lines to support higher
19 capacity. In some cases this could be accomplished by using a special high
20 capacity transmission conductor that had become available in the early 1980’s.
21 In other cases a total reconstruction of the transmission line was required.
22 There were two notable exceptions to this.

23
24 In 1996, the Minnesota-Manitoba Transmission Upgrade (“MMTU”) project
25 was constructed. The purpose of this project was to increase the aggregate
26 transfer capabilities of the 230 kV and 500 kV systems that interconnect
27 central Canada and the upper Midwest U.S. electrical systems. This was a joint

1 project with the Manitoba Hydro Electric Board. It entailed the addition of
2 series capacitors at the Chisago County substation and a new Roseau County
3 substation. In addition, a static var compensator was added to the Minnesota
4 Power Forbes substation and special high speed capacitor installations were
5 made at various North Dakota, and Minnesota substations.

6
7 In 2002, NSP constructed a 60 Mile 230 kV line from Rugby, North Dakota to
8 the Canadian border. This was a portion of a larger 230 kV line extending
9 from Harvey, North Dakota to Glenboro in Manitoba, Canada. Manitoba
10 Hydro constructed the segment of line from the Canadian Boarder to
11 Glenboro. Otter Tail Power Company constructed the segment of line from
12 Harvey to Rugby. This line met the following needs:

- 13
- 14 • Increased Manitoba-U.S. power transfer capability (both northward and
15 southward).
 - 16 • Load-serving capability in the Minot/Rugby/Rolette, Fargo/Grand Forks,
17 and Northwestern Minnesota areas.
 - 18 • Generation outlet capability from the North Dakota lignite coal fields.
 - 19 • Bulk power system voltage stability enhancement.
- 20

21 After 2004 the addition of new generation also became a factor in requiring
22 new transmission.

23
24 Q. PLEASE DESCRIBE THE NEW GENERATION AND THE ASSOCIATED
25 TRANSMISSION ADDITIONS.

26 A. Since 2004, a number of generators have been added to the NSP System,
27 requiring significant investments in transmission facilities. Following is a list

1 of the new generation facilities and the transmission facilities or upgrades
2 necessary to support them:

3
4 1. ***Angus Anson Generator # 4 Interconnection Project***—This
5 generation project added a 180 MW combustion turbine at the
6 Company’s Angus Anson Peaking Plant located near Sioux Falls, South
7 Dakota, and became operational in 2005. The transmission investment
8 provides for 115 kV substation equipment and 0.3 miles of 115 kV
9 transmission line at Split Rock Substation adjacent to the peaking plant.
10 The total cost of this project was approximately \$1.7 million.

11
12 2. ***Blue Lake Generator # 7 and # 8 Interconnection Project***—This
13 generation project added two combustion turbines for a combined
14 increase of 385 MW to the Company’s Blue Lake Natural Gas Generating
15 Plant, located in Shakopee, Minnesota. It became operational in 2005.
16 The transmission investment provides for additional substation
17 interconnection facilities at the Blue Lake substation, bringing the existing
18 McLeod County-Black Dog 230 kV line into the Blue Lake substation
19 and upgrading the capacity of the 10-mile section to the Black Dog
20 substation. The total cost of this project was approximately \$11.0
21 million.

22
23 3. ***Faribault Energy Park Interconnection Project***—This project
24 includes the equipment needed to provide for interconnection of two
25 combustion turbines (300 MW) owned by the Minnesota Municipal
26 Power Agency at the Faribault Energy Park located just north of
27 Faribault, Minnesota (approximately 30 miles south of the Twin Cities).

1 The first unit became operational in 2006, and the second unit became
2 operational in 2008. The transmission investment includes building a new
3 substation, increasing the capacity of 25 miles of 115 kV transmission and
4 13 miles of 69 kV transmission. The total cost of this project was
5 approximately \$35 million.

6
7 4. ***Southwest Minnesota 425 MW project***—This investment
8 accommodates the addition of 130 MW of wind generation located along
9 the Buffalo Ridge of Southwestern Minnesota. This investment includes
10 the construction of 54 miles of new 115 kV and 161 kV lines in
11 southwest and southern Minnesota, 53 miles of upgrades to existing 115
12 kV line, and several new substations to support the additional wind
13 generation. This project was completed in 2007, at a total cost of
14 approximately \$85 million.

15
16 5. ***Southwest Minnesota 825 MW Project***—This investment
17 accommodates an additional 400 MW of wind Generation located along
18 the Buffalo Ridge area of Southwestern Minnesota and Eastern South
19 Dakota. This investment includes 95 miles of new 345 kV line, 64 miles
20 of new 115 kV line and 40 miles of upgrades to 115 kV line, as well as
21 additional substation facilities. This project includes the new 345-115 kV
22 Brookings substation, 9 miles of 115 kV line and 10 miles of 345 kV line
23 in South Dakota. This project was completed in 2008 and cost
24 approximately \$250 million, of which approximately \$100 million of the
25 total cost is associated with the new 345 kV line.

26 6. ***Mankato Energy Center Interconnection Project***—This project
27 includes the construction necessary for interconnection of a 380 MW

1 combined cycle plant in Mankato, Minnesota. This plant became
2 operational in 2006. The transmission investment provides for upgrades
3 to the Wilmarth 345 kV, 115 kV, and 69 kV substation to accommodate
4 the interconnection. It also provided three short (less than 0.5 miles)
5 transmission lines, one 345 kV and two 115 kV. The total cost of this
6 project is approximately \$20 million.

7
8 **7. *High Bridge Generating Station Combined Cycle Plant Project***—

9 This project interconnected the 575 MW combined-cycle generating
10 facility at the Company’s High Bridge Generation station, which became
11 operational in 2008. The transmission investment replaced the existing
12 115 kV substation at High Bridge and upgraded the capacity of 5 miles of
13 2 circuit 115 kV transmission. The transmission project cost
14 approximately \$18 million.

15
16 **8. *Colville Combustion Turbine plant Interconnection Project***—

17 This project includes construction of a new 350 MW combustion turbine near
18 Cannon Falls in southeast Minnesota. This generating plant became
19 operational in 2008, and the Company buys the output to serve its native
20 load customers. The transmission investment was to construct a 115 kV
21 breaker substation, generator interconnection, and upgrades two 115-69
22 kV transformers. In addition, this required the upgrade of the 10-mile
23 115 kV line to Empire, 6-mile Cannon Falls-Miesville 69 kV line, 14-mile
24 Cannon Falls- Northfield 69 kV line and 5-mile Traverse-Great River
25 Energy (“GRE”) 69 kV line. The transmission project cost
26 approximately \$12 million.

27

1 9. ***Riverside Generating Station Combined Cycle Plant Project***—This
2 project is to interconnect a new 511 MW Combustion Turbine generating
3 facility at the Company’s Riverside Generation station, which became
4 operational in 2009. The transmission investment added new
5 interconnections into the Riverside 115 kV substation. The transmission
6 project cost approximately \$4 million.

7
8 10. ***Chanarambie # 4 transformer***—This project added an additional 115-
9 34.5 kV transformer at the Chanarambie substation. This was required to
10 accommodate an additional 50 MW of wind generation at the
11 Chanarambie substation. Completed late in 2008, the transmission
12 project cost approximately \$3.5 million.

13
14 11. ***Buffalo Ridge Incremental Generation Outlet (“BRIGO”)***
15 ***Transmission Project***—In 2006 the Company proposed the
16 construction of three 115 kV lines in southwest Minnesota and eastern
17 South Dakota to accommodate an additional 350 MW of generation
18 outlet capability from the Buffalo Ridge area of Minnesota and South
19 Dakota. The Commission granted a Facility Permit in early 2009, I expect
20 this project will be completed in 2009 at a projected cost of
21 approximately \$69 million (does not include allowance for funds used
22 during construction, “AFUDC”).

23
24 Q. HAVE THERE BEEN OTHER RECENT TRANSMISSION PROJECTS?

25 A. Yes. Since 2005, the Company has made some additional larger transmission
26 investments to improve or maintain robust system performance or for
27 interconnections with other utilities. These include:

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1. ***Lawrence-Lincoln County, South Dakota Project***—This investment upgrades the capacity of the Lawrence -Lincoln County 115 kV line and associated substations in Sioux Falls, South Dakota. The 11-mile upgrade was necessary to mitigate unacceptable transmission line loadings during transmission outages. This project was completed in 2007 at a cost of approximately \$7 million.

2. ***Sherburne County/St. Cloud Project***—This investment includes construction of a new 345/115 kV transmission source at the Sherburne County substation in the far northwestern suburb of the Twin Cities, and upgrades in the capacity of 22 miles of the 115 kV line to St. Cloud, in central Minnesota. This project was necessary to mitigate unacceptable transmission line loadings during transmission outages. This project, which was completed in 2007, and cost approximately \$17 million.

3. ***Southeast Metro Project***— This project included the reconstruction of six miles of 115 kV to high capacity double circuit transmission between the Red Rock and Rogers Lake substations just south of St. Paul, Minnesota. The project mitigated unacceptable transmission line loadings during transmission outages. This project was completed in 2005 at a cost of approximately \$11 million

4. ***Maple River-Red River, North Dakota Project***—This project increased the capacity of the 6-mile Maple River-Red River 115 kV line and included the installation of a second 187 MVA 230/115 kV transformer at Maple River Substation, near Fargo, North Dakota. This upgrade was necessary

1 to accommodate load growth in the City of Fargo metropolitan area, and
2 prevent overloads during transmission line outages. This project was
3 completed in 2005 at a cost of \$6 million.

4
5 5. ***Minnesota/Wisconsin 345 kV Rebuild Project***—This is a joint NSP-
6 Minnesota and NSP-Wisconsin project that restored degraded portions of
7 the King-Eau Claire 345 kV line, spanning between the eastern suburbs of
8 Saint Paul, MN and Eau Claire, Wisconsin and the Prairie Island-Pleasant
9 Valley 345 kV line in Southeast Minnesota. Approximately one-third of
10 the 144 miles of transmission line and structures were replaced. The NSP-
11 Minnesota Company’s portion of the project was completed in 2006 and
12 its portion of the cost of this project was approximately \$11 million.

13
14 6. ***Mankato 115 kV Loop***—This investment rebuilds and converts the
15 Wilmarth - Southbend 69 kV line around Mankato to 115 kV and is a joint
16 project with Great River Energy (“GRE”). The Company’s portion
17 includes reconstruction of approximately nine miles of 69 kV line to 115
18 kV and one new substation along with other substation upgrades. This
19 project is necessary to mitigate unacceptable transmission line and
20 substation equipment loadings and low voltages during transmission
21 outages. It is scheduled to be completed in 2009 and expected to cost
22 \$11 million (does not include AFUDC).

23
24 7. ***New Ulm Transmission Service Project***—The city of New Ulm
25 became a full service customer of MISO. Providing the City with reliable
26 transmission service required a new 115 kV substation and short

1 transmission line. This project is scheduled to be completed in 2010 and
2 estimated to cost \$11 million (does not include AFUDC).

3

4 Q. IN ADDITION TO THE LARGER PROJECTS YOU HAVE IDENTIFIED HAVE THERE
5 BEEN ADDITIONAL TRANSMISSION PROJECTS?

6 A Yes, the Company has made numerous additional investments, the more
7 significant ones are summarized in the following Table 1.

8

Table 1			
Other Significant Transmission Project Costs			
with 2007-2009 In-Service Dates			
	Year In-Service		
	\$ Millions		
Projects completed in 2007	2007	2008	2009
Air Lake- Vermillion River new 115 kV line	\$4.9		
Fair Park-Northfield 69 kV capacity increase	\$6.7		
Prairie Island-Red Rock capacity increase	\$2.9		
Inver Hills- Koch Refinery 115 kV capacity increase	\$1.9		
Edina- Eden Prairie 115 kV capacity increase	\$2.4		
West Faribault 115-69 kV transformer	\$1.5		
Replace Minnesota Valley 115-69 kV transformer	\$1.3		
Projects completed in 2008			
Champlin Tap projects		\$2.7	
Transmission to add Kohlman Lake 2nd distribution		\$2.5	
Projects completed or substantially completed in 2009 (does not include AFUDC)			
Mary Lake - Buffalo 115KV line			\$4.2
Lake Polaski replace failed TR1			\$1.5
Chisago Co replace TR 6			\$1.3
500 kV Emergency Restoration Project			\$2.8
Grove Lake Switching Station			\$2.6
Wilmarth-LGS 345 kv line upgrade			\$6.5

1 Q. PLEASE DESCRIBE HOW TRANSMISSION INVESTMENTS HAVE AFFECTED THE
2 NEED TO INCREASE BASE RATES.

3 A. Since our last electric rate case in 1992, the Company has made significant
4 investments in our transmission system. The level of investments has recently
5 increased substantially from previous years. In 2007 and 2008 our total
6 transmission plant investment was \$392 million. In addition we have included
7 \$126 million in 2009 larger transmission plant additions in this request. Ms
8 Anne Heuer explains how this impacts customer rates. More details are
9 provided in Exhibit____(WTG-1), Schedule 2.

10

11 **B. Investments Qualifying for a Transmission Cost Recovery Rider**

12 Q. PLEASE DESCRIBE THE PROJECTS CURRENTLY BEING RECOVERED THROUGH
13 THE TCR RIDER.

14 A. The costs of two projects are currently being recovered through the TCR
15 rider, with a total investment of \$241 million. This is made up primarily of
16 the Southwest Minnesota 825 MW transmission project I described earlier,
17 and includes the 825 MW substation projects at Yankee, Fenton, Nobles
18 County and the series capacitor project. The remaining project is the \$3
19 million Rock County wind interconnection substation.

20

21 Q. PLEASE EXPLAIN HOW A PROJECT MAY QUALIFY FOR A RIDER.

22 A. To incent electric utilities to make certain kinds of transmission investment,
23 the South Dakota legislature has provided for special rate treatment for certain
24 new or modified transmission facilities. Under S.D. Codified Laws § 49-34A-
25 25.1, the Company, with Commission approval, may place into rates the
26 revenue requirements associated with transmission investments that meet
27 certain statutory criteria outside of a rate case. Qualifying transmission

1 facilities must be longer than five miles with a design capacity of at least 34.5
2 kV. The statute also authorizes recovery for substations and transformers
3 associated with the eligible transmission facilities. S.D. Codified Laws § 49-
4 34A-25.4 requires the transmission costs be prudently incurred and achieve
5 transmission system improvements at the lowest reasonable cost to ratepayers.
6

7 Q. PLEASE EXPLAIN THE IMPACT OF THESE RIDERS ON THE NEED FOR THIS RATE
8 INCREASE.

9 A. While these investments will be transferred from the transmission rider
10 treatment into base rates in this proceeding, as discussed in the direct
11 testimony of Ms. Heuer, recovering these costs through base rates is similar to
12 their treatment under the rider and does not drive the Company's need to
13 request a rate increase.
14

15 **C. Efforts to Control Transmission Investment Costs**

16 Q. THE TRANSMISSION INVESTMENTS YOU DISCUSSED ARE CAUSING UPWARD
17 PRESSURE ON RATES TO CUSTOMERS. WHAT IS THE COMPANY DOING TO
18 CONTROL TRANSMISSION INVESTMENT COSTS?

19 A. The Xcel Energy transmission business unit has implemented a number of
20 programs to help control the cost of transmission developments. These
21 include efforts to:

- 22 1. Review proposal details earlier and by a wide variety of transmission
23 functional areas to identify concerns or opportunities before substantial
24 engineering work has been performed, thereby avoiding the added expense
25 to redesign projects due to scope changes. This is being implemented
26 through what Xcel Energy refers to as Constructability reviews.
- 27 2. Selective use of higher ambient wind speed in establishing lines ratings.

1 3. Establish transformer alliances with manufacturers.

2
3 Q. PLEASE EXPAND ON CONSTRUCTABILITY REVIEWS AND HOW THEY MAY SAVE
4 TRANSMISSION INVESTMENT COSTS.

5 A. Every project starts with a small team of engineers who review the need and
6 purpose for a project, the alternatives considered and establish a cost estimate
7 for the project. The recommended project is then subjected to two
8 constructability reviews. The first presents the recommended project to a
9 much broader team, which includes Transmission Operations, Regulatory,
10 Permitting, Land and Right of Way, Construction, and others. This group
11 reviews the proposed project and identifies any concerns with the plan;
12 suggests possible improvements to the plan; or identifies any major issues that
13 may result in the project not being acceptable. Before a project is approved
14 for inclusion in the Company's budgeting process, it must go through this
15 constructability review. This process has been in effect for about 2 years.

16
17 A second constructability review phase occurs during the detailed design of
18 the project. This review focuses on assuring the design meets the requested
19 project scope, identifying any operating maintenance or constructability issues
20 the design may create, outage coordination, and considers any alternative
21 designs that may better support these areas.

22
23 Savings from both reviews comes in the form of easier maintenance and
24 construction, avoiding project scope changes late in the project with the
25 associated re-design work, and occasionally lower cost alternatives.

26

1 Q. PLEASE EXPAND ON SELECTIVE USE OF HIGHER AMBIENT WIND SPEEDS IN
2 ESTABLISHING LINE RATINGS AND HOW THEY MAY SAVE TRANSMISSION COSTS.

3 A. As the Company installs a new transmission line, it establishes a line rating
4 used to manage operation of the new line as part of the grid. The line rating is
5 established so the Company can avoid overloading the line and damaging it.

6
7 One of the parameters that limits a transmission line's rating is the
8 temperature of the conductor. When electricity is flowing through a
9 transmission line it creates heat. The more electricity flowing, the more heat is
10 created. However, wind blowing across the line will help cool the line. The
11 Company's old design standard was to rate and design a transmission line for 2
12 feet / second ambient wind speed. Xcel Energy recently completed analysis
13 of minimum wind speed during hot temperatures in Minnesota and has
14 determined in many cases, a higher 4 feet /second wind speed assumption is
15 appropriate. This would allow for approximately a 15% increase in capacity of
16 a line, because the Company can assume the cooling effect of the wind will
17 keep the line within its rating. This allows greater utilization of a transmission
18 line asset, because the line does not need to be operated as conservatively.

19

20 Q. CAN ALL COMPANY TRANSMISSION LINES HAVE THEIR RATING INCREASED BY
21 USING THE 4 FEET/SECOND WIND SPEED ASSUMPTION?

22 A. No. This standard is only applicable under specific conditions. First, all parts
23 of the line must be located where it is not shielded from the wind. This means
24 no valleys, high trees, buildings, etc. near the line. Also, all the substation
25 equipment must be sufficient to handle the higher capacity. Finally, the
26 Company's transmission lines have been built over many decades and under

1 many design standards. A survey is needed to confirm if an individual line
2 meets present design standards at the higher assumed wind speed.

3
4 Q. WHAT KIND OF EXTERNAL MARKET FACTORS HAS THE COMPANY
5 EXPERIENCED RELATIVE TO THE COST OF TRANSMISSION COMPONENTS?

6 A. Over the past several years, global demand for the raw materials used in
7 making the various transmission facilities and substation equipment necessary
8 for new transmission investment has increased, and has affected the installed
9 cost of new transmission facilities.

10
11 One example is the steel used in transmission towers. During 2005, the NSP
12 Companies were designing the rebuild of three 345 kV lines, one in Minnesota
13 and two in Wisconsin. At that time, the estimated cost of welded tubular steel
14 was \$1.35 per pound. This estimate was based on then recent actual
15 purchases. The actual price paid in 2006 and 2007 was 30% higher (\$1.75 per
16 pound) as a result of increased market demand and higher market prices. The
17 higher cost of steel resulted in the project costs being higher than expected.
18 Although steel prices have fallen apparently due to the recent economic down
19 turn, as the economy recovers, the Company expects higher global demand
20 and future renewed upward pressure on steel prices.

21
22 Similar market effects showed up in the price of finished products such as
23 transformers. Table 2 shows actual purchase prices for similar sized
24 transformers since 2005. In all cases there have been major increases in prices.

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Table 2
Recent Large Transformer Purchase Prices

Year Purchased	50 MVA (Distr)	112 MVA	120 MVA	448 MVA	672 MVA
2005				\$1,995,000	
2006	\$ 775,000	\$1,115,000	\$1,040,000		\$2,505,000
2007		\$1,352,000			\$3,570,000
2008	\$ 990,000		\$1,545,000	\$3,760,000	
% Increase	28%	21%	49%	88%	43%

5

6 Q. COULD TRANSMISSION ALLIANCES PROVIDE POTENTIAL BENEFITS?

7 A. Xcel Energy is in the early process of assessing a type of partnering concept
8 with vendors and is presently investigating the potential benefits of entering
9 into an alliance with a couple of transformer vendors. The purpose of this
10 alliance is to promise a certain number of transformer orders. In exchange,
11 the Company would expect to get lower prices and shorter lead times, since
12 the manufacturer can save costs by not making multiple bids and by making
13 fewer new transformer designs. It is our goal to have manufacturers bid for
14 the opportunity to participate in such an alliance.

15

V. FUTURE TRANSMISSION INVESTMENTS

16

17
18 Q. DOES THE COMPANY HAVE PLANS FOR FUTURE, ADDITIONAL MAJOR
19 TRANSMISSION EXPANSION?

20 A. Yes. It has been almost three decades since the electric network serving the
21 Minnesota, South Dakota and North Dakota region has been expanded to any
22 large degree. During this time the demand for power has continued to grow.

1 To continue to reliably serve the growing needs of consumers in this region,
2 significant new generation and transmission will need to be added.

3
4 Transmission-owning utilities in the upper Midwest area are highly
5 interconnected, and there is a long history of coordinated regional planning
6 through the MAPP Regional Transmission Committee and various MAPP
7 sub-regional planning groups (“SPGs”) in the years prior to the formation of
8 the MISO. The Company has become involved in an initiative of investor-
9 owned, cooperative and municipal power agency transmission-owning and
10 transmission dependent utilities in the historic MAPP region. These utilities
11 are planning and constructing new transmission infrastructure as needed to
12 serve regional load growth, provide the additional transmission needed for
13 new regional generation resources, and to meet regional reliability needs
14 through approximately the year 2020. This initiative is referred to as the
15 “CapX 2020” transmission expansion initiative.

16
17 Q. PLEASE DESCRIBE MORE ABOUT THE CAPX 2020 INITIATIVE.

18 A. In 2004, five regional utilities -- the NSP Companies, GRE, Minnesota Power
19 (“MP”), Missouri River Energy Services (“MRES”) and Otter Tail Power
20 Company (“OTP”) -- agreed to conduct the engineering studies they believed
21 were needed to establish a framework or comprehensive plan for the
22 development of transmission infrastructure to meet the increasing demand for
23 electricity in the service areas of these utilities encompassing portions of
24 Minnesota, South Dakota, North Dakota, Iowa and Wisconsin. Since 2004,
25 additional entities have joined the effort. They include: Dairyland Power
26 Cooperative (“DPC”), Central Minnesota Municipal Power Agency
27 (“CMMPA”), Minnkota Power Cooperative (“MPC”), Rochester Public

1 Utilities (“RPU”), Southern Minnesota Municipal Power Agency (“SMMPA”),
2 and Wisconsin Public Power, Inc. (“WPPI”).¹ The participants in the CapX
3 2020 initiative include both Midwest ISO member utilities and non-Midwest
4 ISO members. In addition, other utilities have lent their technical support in
5 many of the detailed studies associated with this initiative.

6
7 Q. WHAT CAPX 2020 PROJECTS ARE CURRENTLY UNDERWAY?

8 A. The CapX 2020 projects will require authorization from multiple states and
9 approval for multiple permits with participants having thus far received
10 Certificates of Need from the Minnesota Commission for three major
11 transmission projects. These include the approximately 150 miles Twin
12 Cities–LaCrosse 345 KV line, the approximately 250 mile Twin Cities–Fargo
13 345 kV line, and the 200 mile Twin Cities–Brookings, South Dakota 345 kV
14 line. Minnesota Commission approval for a 4th major transmission project, the
15 68 mile Bemidji–Grand Rapids 230 kV line, is expected shortly. These
16 projects are expected to go in service starting in 2011 with completion in 2015.

17
18 Q. DO YOU ANTICIPATE OTHER MAJOR TRANSMISSION DEVELOPMENT?

¹ CMMPA is a joint action agency of 12 municipal members located in south central Minnesota. DPC is a generation and transmission (“G&T”) cooperative that provides the wholesale electrical requirements and other services for 25 electric distribution cooperatives and 19 municipal utilities in Wisconsin, Minnesota, Iowa and Illinois. GRE is a G&T cooperative and provides wholesale electric service to 28 distribution cooperatives in Minnesota. MP is a division of ALLETE and supplies retail electric service to 141,000 customers and wholesale electric service to 16 municipalities in Minnesota. MPC is a G&T cooperative serving 11 member-owner distribution cooperatives in eastern North Dakota and northwestern Minnesota. MRES is a joint action agency of 23 municipal members located in Iowa, Minnesota, South Dakota and North Dakota . OTP provides electricity and energy services to more than 129,000 customers in Minnesota, South Dakota, and North Dakota. RPU is the largest municipal utility in the state of Minnesota serving 45,000 electric customers in the City of Rochester. SMMPA is a joint action agency of 18 members in central Minnesota. WPPI is a municipal joint action agency serving 46 municipal utilities in Wisconsin, Iowa and Minnesota.

1 A. Yes. A major study recently completed by the Minnesota Transmission
2 Owners determined the detailed requirements for the next major transmission
3 project. The main conclusion of this study is the next major transmission
4 development should be the replacement of an old low capacity 230 kV line
5 between the Twin Cities and Granite Falls with a high capacity 345 kV line. It
6 will likely be required between 2015 and 2020.

7
8 In addition, MISO is now conducting a study to evaluate the additional
9 transmission required to satisfy the renewable energy portfolio requirements in
10 several upper Midwest states. This study is referred to as the Regional
11 Generator Outlet Study. This study is coordinated with the Upper Midwest
12 Transmission Development Initiative, in which the State of South Dakota is
13 participating. These two initiatives could result in additional transmission
14 investments by the Company and/or other utilities.

15
16 **VI. CONCLUSION**

17
18 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

19 A. The Company has invested significant capital funds to provide a reliable
20 transmission system in support the transmission needs of our customers, and
21 to prepare for additional growth and generation. Our request for an increase
22 in rates in this proceeding will in part provide recovery of these important and
23 necessary investments in our electric network. I recommend the Commission
24 approve our request to include in base rates our investments in transmission,
25 which were required for reliable performance of our transmission system. This
26 includes the transfer of \$241 million from the TCR Rider to base rates. These

1 costs are necessary to provide reliable electric service to our customers, and
2 should be recoverable in rates from customers in South Dakota.

3

4 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

5 A. Yes, it does.

Statement of Qualifications
Walter T. Grivna

Education:

Bachelor of Electrical Engineering, 1977

University of Minnesota, Institute of Technology

Master of Business Administration, 1981

College of St. Thomas.

Employment:

Northern States Power Company, a Minnesota corporation

May 2002 to Present Manager Transmission Asset Management

Current Responsibilities:

- Supervises department engineers in planning the electric transmission systems for NSP-Minnesota and NSP-Wisconsin.
- Oversees the development of local and regional transmission system plans, including coordinated joint planning with the Midwest Independent Transmission System Operator, Inc. (“MISO”), the Mid-Continent Area Power Pool Regional Transmission Committee (“MAPP RTC”) and other utilities to ensure reliable transmission service.
- Recommends the construction of such plans to Xcel Energy Inc. management and the MISO. Participates in and supports MISO sponsored transmission service studies, generation interconnection studies, long range regional plan development, load service planning and other transmission planning activities required by MISO to perform its obligations under the MISO Open Access Transmission and Energy Markets Tariff (“TEMT”) and the MISO Transmission Owner’s Agreement (“TOA”).
- Provides technical support for regulatory aspects of transmission system planning activities and contract development for the NSP Operating Companies.

April 1999 to May 2002

Principal Planning Engineer

December 1994 to April 1999

Geographic Planning Leader

July 1986 to December 1994

Superintendent, Transmission Planning

November 1989 to April 1990

Superintendent, Operations Coordination

June 1977 to July 1986

Engineer, Assistant Planning, Associate Planning,
Planning and Senior Planning Engineer

June 1975 to June 1977

Engineering Intern

**NSPM
2007 Transmission Additions**

budget_numbe	parent	parent_desc	yend
MN0001950	10458467	MN Sub Capac Reinf Trans Subs	(3,817.67)
MN0001950	10458467	MN Sub Capac Reinf Trans Subs	(11,031.46)
MN0001950	10458467	MN Sub Capac Reinf Trans Subs	(38,525.76)
MN0001950	10505477	RRU Team Subs MN_DBS	245.26
MN0001950	10505477	RRU Team Subs MN_DBS	(51.09)
MN0001950	10692228	West Hastings 12.5 kV Source	(1,879,230.36)
MN0001950	10726975	Install Roger Lake RLK064 Brkr	(317,384.48)
MN0001950 Total			(2,249,795.56)
MN120000L	10304278	MN 2003 T-line misc projects	69,888.00
MN120000L	10304278	MN 2003 T-line misc projects	(69,888.00)
MN120000L Total			-
MN120000R	10426904	Transmission Rail Road Land Easemen	0.35
MN120000R Total			0.35
MN120000S	10008169	99 TRANS SUB BLKT - VARIOUS RE	5,740.00
MN120000S	10160215	Mn Transmissin Sub Blanket	(41.64)
MN120000S	10374660	Sherco Sub - Replace 5 leaking	(24,630.46)
MN120000S	10438644	MN Transmission Sub Relaying B	(89.63)
MN120000S	10519682	2004 SD Tran Sub Blanket	(30,836.61)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(545.39)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(1,242.98)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(3,846.96)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(3,973.73)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(5,366.53)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(9,290.10)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(11,004.11)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(12,762.09)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(13,813.50)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(19,335.64)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(25,062.70)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(26,631.09)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(60,647.90)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(76,071.54)
MN120000S	10525696	2005 NSP Tran Sub Blanket Tran	(93,051.85)
MN120000S	10614947	Forbes - Replace Line Relaying	(10.62)
MN120000S	10626485	2006 NSP Sub Blanket	(3,620.23)
MN120000S	10673530	2005 ND Tran Sub Blanket	435.69
MN120000S	10673530	2005 ND Tran Sub Blanket	(5,083.24)
MN120000S	10673530	2005 ND Tran Sub Blanket	(10,895.76)
MN120000S Total			(431,678.61)
MN120003S	10454677	Red Rock Replace Leaky Breaker	998.87
MN120003S Total			998.87
MN120004S	10860703	Sherco Sub - Relays	(3,841.05)
MN120004S Total			(3,841.05)
MN120006L	10007945	2001 Trans Ln Blkt Equip Failu	1,214.78
MN120006L	10160211	Mn Transmission Ln Blanket	6,357.44
MN120006L	10160211	Mn Transmission Ln Blanket	1,889.14
MN120006L	10160211	Mn Transmission Ln Blanket	1,024.22
MN120006L	10525688	2005 NSP Tran Line Blanket	40,977.27
MN120006L	10525688	2005 NSP Tran Line Blanket	21,808.83
MN120006L	10525688	2005 NSP Tran Line Blanket	20,659.17

**NSPM
2007 Transmission Additions**

budget_number	parent	parent_desc	yend
MN120006L	10525688	2005 NSP Tran Line Blanket	11,307.61
MN120006L	10525688	2005 NSP Tran Line Blanket	4,228.61
MN120006L	10525688	2005 NSP Tran Line Blanket	2,822.17
MN120006L	10525688	2005 NSP Tran Line Blanket	2,746.12
MN120006L	10525688	2005 NSP Tran Line Blanket	1,888.47
MN120006L	10525688	2005 NSP Tran Line Blanket	46.74
MN120006L	10525688	2005 NSP Tran Line Blanket	(286.46)
MN120006L	10525688	2005 NSP Tran Line Blanket	(33,643.42)
MN120006L	10525688	2005 NSP Tran Line Blanket	(33,998.46)
MN120006L	10525688	2005 NSP Tran Line Blanket	(37,041.40)
MN120006L	10525688	2005 NSP Tran Line Blanket	(205,573.43)
MN120006L	10632000	2006 NSP Tran Line Blanket	(37.51)
MN120006L	10632000	2006 NSP Tran Line Blanket	(65.05)
MN120006L	10632000	2006 NSP Tran Line Blanket	(490.85)
MN120006L	10632000	2006 NSP Tran Line Blanket	(574.39)
MN120006L	10632000	2006 NSP Tran Line Blanket	(784.27)
MN120006L	10632000	2006 NSP Tran Line Blanket	(835.79)
MN120006L	10632000	2006 NSP Tran Line Blanket	(6,453.32)
MN120006L	10632000	2006 NSP Tran Line Blanket	(9,851.54)
MN120006L	10632000	2006 NSP Tran Line Blanket	(20,049.52)
MN120006L	10632000	2006 NSP Tran Line Blanket	(27,321.98)
MN120006L	10632000	2006 NSP Tran Line Blanket	(40,687.20)
MN120006L	10632000	2006 NSP Tran Line Blanket	(46,798.64)
MN120006L	10632000	2006 NSP Tran Line Blanket	(58,914.86)
MN120006L	10632000	2006 NSP Tran Line Blanket	(68,543.10)
MN120006L	10632000	2006 NSP Tran Line Blanket	(98,798.35)
MN120006L	10632000	2006 NSP Tran Line Blanket	(119,683.33)
MN120006L	10632000	2006 NSP Tran Line Blanket	(134,142.86)
MN120006L	10648235	Trans Line Land Special Assessments	(75,177.44)
MN120006L	10753792	2006 ND Tran Line Blanket	23.92
MN120006L	10753792	2006 ND Tran Line Blanket	(5,106.71)
MN120006L	10753792	2006 ND Tran Line Blanket	(5,274.48)
MN120006L	10753792	2006 ND Tran Line Blanket	(99,276.77)
MN120006L	10761283	2006 SD Tran Line Blanket	19.41
MN120006L	10761283	2006 SD Tran Line Blanket	(64.91)
MN120006L	10761283	2006 SD Tran Line Blanket	(2,474.04)
MN120006L	10761283	2006 SD Tran Line Blanket	(104,450.04)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(687.04)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(730.71)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(802.05)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(992.67)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(1,495.48)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(1,827.23)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(1,862.30)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(2,338.68)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(2,467.16)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(2,534.73)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(2,720.40)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(2,721.82)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(3,000.08)

**NSPM
2007 Transmission Additions**

budget_number	parent	parent_desc	yend
MN120006L	10780769	NSP 5-Year Line Blanket Author	(3,251.53)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(3,292.73)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(3,668.34)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(4,933.71)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(5,009.92)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(5,076.55)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(5,130.80)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(6,193.79)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(6,306.23)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(8,190.23)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(8,979.38)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(9,006.61)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(9,983.38)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(11,824.70)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(14,162.07)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(15,061.37)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(20,563.62)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(32,880.04)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(42,664.70)
MN120006L	10780769	NSP 5-Year Line Blanket Author	(85,153.13)
MN120006L	10911857	ND Transmission Line Blanket	(2,386.75)
MN120006L	10911857	ND Transmission Line Blanket	(2,505.88)
MN120006L	10911857	ND Transmission Line Blanket	(106,996.45)
MN120006L	10911857	ND Transmission Line Blanket	(176,017.40)
MN120006L	10911859	SD Transmission Line Blanket	(431.14)
MN120006L Total			(1,733,237.02)
MN120007L	10008142	0737 Relocation For Cty Rd 110	(47,625.86)
MN120007L	10008143	0902 Relocate For Hwy 61 Bridg	70,798.78
MN120007L	10128704	Relocate Zumbro Falls-Peoples	5,743.55
MN120007L	10128743	0724 RELOCATION CITY OF PIPEST	921.38
MN120007L	10128750	0732- RELOCATE BLCK OAK 69KV	7,439.44
MN120007L	10129061	0709 Relocate - Agrilink	(6,348.14)
MN120007L	10129357	0726 Relocation For Pipestone	1,885.52
MN120007L	10129368	0737 Relocation To Ug For City	0.04
MN120007L	10140376	0736 Relocate Birch-Manning	(14,581.56)
MN120007L	10155936	Nsp Blanket Relocations	755,466.06
MN120007L	10155936	Nsp Blanket Relocations	269,185.10
MN120007L	10155936	Nsp Blanket Relocations	141,577.22
MN120007L	10155936	Nsp Blanket Relocations	29,656.78
MN120007L	10155936	Nsp Blanket Relocations	29,641.92
MN120007L	10155936	Nsp Blanket Relocations	24,652.01
MN120007L	10155936	Nsp Blanket Relocations	24,260.32
MN120007L	10155936	Nsp Blanket Relocations	16,081.06
MN120007L	10155936	Nsp Blanket Relocations	10,982.15
MN120007L	10155936	Nsp Blanket Relocations	8,294.53
MN120007L	10155936	Nsp Blanket Relocations	2,940.28
MN120007L	10155936	Nsp Blanket Relocations	2,734.36
MN120007L	10155936	Nsp Blanket Relocations	2,316.64
MN120007L	10155936	Nsp Blanket Relocations	1,667.37
MN120007L	10155936	Nsp Blanket Relocations	1,302.68

**NSPM
2007 Transmission Additions**

budget_numbe	parent	parent_desc	yend
MN120007L	10155936	Nsp Blanket Relocations	326.54
MN120007L	10155936	Nsp Blanket Relocations	38.86
MN120007L	10155936	Nsp Blanket Relocations	4.79
MN120007L	10155936	Nsp Blanket Relocations	3.17
MN120007L	10155936	Nsp Blanket Relocations	-
MN120007L	10155936	Nsp Blanket Relocations	-
MN120007L	10155936	Nsp Blanket Relocations	(0.04)
MN120007L	10155936	Nsp Blanket Relocations	(23.28)
MN120007L	10155936	Nsp Blanket Relocations	(39.59)
MN120007L	10155936	Nsp Blanket Relocations	(280.86)
MN120007L	10155936	Nsp Blanket Relocations	(4,422.39)
MN120007L	10155936	Nsp Blanket Relocations	(5,522.08)
MN120007L	10155936	Nsp Blanket Relocations	(173,768.24)
MN120007L	10155936	Nsp Blanket Relocations	(288,696.97)
MN120007L	10155936	Nsp Blanket Relocations	(390,556.67)
MN120007L	10155936	Nsp Blanket Relocations	(444,903.36)
MN120007L	10155936	Nsp Blanket Relocations	(1,137,457.97)
MN120007L	10231050	0832 Summit To Loon 161kv Reco	(9,088.99)
MN120007L	10622959	2005 MN Tran Line Relocation B	3,271.11
MN120007L	10622959	2005 MN Tran Line Relocation B	(1,165.96)
MN120007L	10622959	2005 MN Tran Line Relocation B	(1,657.21)
MN120007L	10622959	2005 MN Tran Line Relocation B	(11,196.90)
MN120007L	10622959	2005 MN Tran Line Relocation B	(12,773.80)
MN120007L	10622959	2005 MN Tran Line Relocation B	(24,191.53)
MN120007L	10622959	2005 MN Tran Line Relocation B	(33,111.88)
MN120007L	10622959	2005 MN Tran Line Relocation B	(34,945.13)
MN120007L	10622959	2005 MN Tran Line Relocation B	(39,737.69)
MN120007L	10622959	2005 MN Tran Line Relocation B	(53,419.79)
MN120007L	10622959	2005 MN Tran Line Relocation B	(77,994.01)
MN120007L	10622959	2005 MN Tran Line Relocation B	(117,307.23)
MN120007L	10622959	2005 MN Tran Line Relocation B	(137,455.65)
MN120007L	10622959	2005 MN Tran Line Relocation B	(169,087.76)
MN120007L	10622959	2005 MN Tran Line Relocation B	(236,663.29)
MN120007L	10622959	2005 MN Tran Line Relocation B	(285,067.62)
MN120007L	10622959	2005 MN Tran Line Relocation B	(436,313.67)
MN120007L	10630292	2005 Tran Line Reloc Easement	(1,537.04)
MN120007L	10630292	2005 Tran Line Reloc Easement	(25,326.63)
MN120007L	10630292	2005 Tran Line Reloc Easement	(59,750.09)
MN120007L	10785193	SD Relocation Blanket	-
MN120007L	10785193	SD Relocation Blanket	(22,764.87)
MN120007L	10785193	SD Relocation Blanket	(24,714.26)
MN120007L	10785193	SD Relocation Blanket	(38,188.73)
MN120007L	10785206	ND Relocation Blanket	(45,456.22)
MN120007L	10785206	ND Relocation Blanket	(70,802.49)
MN120007L Total			(3,072,753.79)
MN130000L	10007974	#780 - Relocate Koch - Inver G	(500,109.32)
MN130000L	10008041	17-641 #808 115kv Underground	(14,331.56)
MN130000L	10008047	17-647 #782 Remv 69kv #782	239.81
MN130000L	10008067	Glk-Lex 115kv Upgrade	(2,476.88)
MN130000L	10008071	Harvey-Glenboro - New 230kv Tr	(21.84)

**NSPM
2007 Transmission Additions**

budget_number	parent	parent_desc	yend
MN130000L	10008117	5529 - Add Second Circuit To R	11,307.88
MN130000L	10008121	Transmission- Buffalo Ridge L	1,634.12
MN130000L	10008121	Transmission- Buffalo Ridge L	(5,078.53)
MN130000L	10142848	Traverse - Gre Work,Reterm. 69	6,534.64
MN130000L	10142848	Traverse - Gre Work,Reterm. 69	1,275.43
MN130000L	10229723	5534 Chanarambie To Lake Yankt	(0.05)
MN130000L	10229725	5535 Lake Yankton To Lyon Cty	(3.81)
MN130000L	10229725	5535 Lake Yankton To Lyon Cty	(202.97)
MN130000L	10229944	Sheyenne-Cass Co 115kv Recondu	109,182.42
MN130000L	10229944	Sheyenne-Cass Co 115kv Recondu	(109,182.42)
MN130000L	10230254	Gre Victor Switching Station	3,661.94
MN130000L	10230319	Mn Valley Install 187mva Tx Fr	(99,244.89)
MN130000L	10230607	5533 Alk-Vmr New 115kv Line	(218,672.75)
MN130000L	10230607	5533 Alk-Vmr New 115kv Line	(1,238,707.77)
MN130000L	10230607	5533 Alk-Vmr New 115kv Line	(3,429,222.02)
MN130000L	10231088	0876 Mn Valley To Franklin 425	(3,368,954.79)
MN130000L	10231088	0876 Mn Valley To Franklin 425	(10,080,223.16)
MN130000L	10231129	Lakefield To Fox 161 Kv Line	(62,019.67)
MN130000L	10231129	Lakefield To Fox 161 Kv Line	(116,742.32)
MN130000L	10350627	0825 PIP-MNV-Terminate @ Lyon Co	10,664.95
MN130000L	10371283	Maple River - Red River 115KV	329,182.42
MN130000L	10371283	Maple River - Red River 115KV	(329,182.42)
MN130000L	10371318	Reconductor Lawrence-Lincoln C	(3,622,753.84)
MN130000L	10371335	Westgate-Deephaven-Excelsior I	(55,368.28)
MN130000L	10374581	Aldrich-St. Louis Park 115kv R	(692.84)
MN130000L	10374946	0869 Alex to Douglas County Re	(11,508.27)
MN130000L	10374949	0832 Loon Tap to W. Fairbult S	318,123.65
MN130000L	10374994	0824 Paynesville to Wakefield	5,181.36
MN130000L	10390928	G291 Rice Cty - Fairbault-Mari	(446.58)
MN130000L	10443087	Replace Line from Sherco to St	(1,079,434.88)
MN130000L	10443087	Replace Line from Sherco to St	(6,419,331.08)
MN130000L	10468157	5539 Black Dog - Blue Lake Upg	(7,937.19)
MN130000L	10483669	0900 McLoed - Blue Lake Line I	28,674.38
MN130000L	10490891	Lakefield Gen Station-Watonan Jct 1	175.10
MN130000L	10493780	WAK-MLK 69kv Rebuild	229,129.00
MN130000L	10512239	0832 Reconductor Line for Fair	(27,385.26)
MN130000L	10512239	0832 Reconductor Line for Fair	(193,364.99)
MN130000L	10512243	0705 Rebuild Line FAP-NOF for	92,960.06
MN130000L	10512243	0705 Rebuild Line FAP-NOF for	(6,793,943.77)
MN130000L	10524058	Prairie Island to Red Rock 345	(77,102.11)
MN130000L	10524058	Prairie Island to Red Rock 345	(2,907,784.77)
MN130000L	10524108	Inver Hills- Koch Refinery 115	23,571.25
MN130000L	10524108	Inver Hills- Koch Refinery 115	3,566.02
MN130000L	10524108	Inver Hills- Koch Refinery 115	(972,112.87)
MN130000L	10524445	West Faribault - Fair Park 69k	(53,086.21)
MN130000L	10525664	0707 West Fairbault 69kv Line	72,240.01
MN130000L	10581641	5543 Wilmarth-Calpine Gen Inte	(126.44)
MN130000L	10623081	0706 New Line to West Fairbaul	19,387.48
MN130000L	10631889	Edina - Eden Prairie 115kv rec	(2,447,117.11)
MN130000L	10632224	Scada control switches for lin	(128,744.80)

**NSPM
2007 Transmission Additions**

budget_numbe	parent	parent_desc	yend
MN130000L	10691391	Mankato 115kv Underground	(1,660,983.30)
MN130000L	10829991	MN Valley - Relocate Controls	(374,961.08)
MN130000L Total			(45,141,870.92)
MN130000R	10285779	0832 Summit To Loon 115kv Land	8,904.85
MN130000R	10285792	0876 Minn Vly To Franklin Land	(929.56)
MN130000R	10285818	0823 Willmar/Kerhoven Land Pwo	(708.16)
MN130000R	10285823	5535 Lay To Lyc + 0725 Land Pw	20.23
MN130000R Total			7,287.36
MN130000S	10008228	Rogers Lake - Line Terminatio	409.87
MN130000S	10008312	Loon Lake - Replace Transforme	(5.56)
MN130000S	10130660	Chisago Sub- Southward Flow	(409.74)
MN130000S	10229982	Benton Co Sub - Replace 230115	(3,567.86)
MN130000S	10230076	Lake Yankton Substation	(42.63)
MN130000S	10230958	2003 Glenco Substation Plannin	(1,749.52)
MN130000S	10240432	Empire Sub - 115kv Line Termin	(118,219.99)
MN130000S	10371294	Maple River Sub 230/115 Transf	(857.95)
MN130000S	10371302	Sherburne Co Sub Increase capa	(109,365.86)
MN130000S	10371302	Sherburne Co Sub Increase capa	(589,119.23)
MN130000S	10371302	Sherburne Co Sub Increase capa	(8,700,500.84)
MN130000S	10371309	New Lakefield Gen Station 115K	466.73
MN130000S	10371309	New Lakefield Gen Station 115K	(33,518.03)
MN130000S	10371331	West Fairbault Sub. Transforme	27,389.79
MN130000S	10371331	West Fairbault Sub. Transforme	(267.76)
MN130000S	10371331	West Fairbault Sub. Transforme	(23,360.08)
MN130000S	10371353	Westgate Capacitor Bank	(1,449,975.55)
MN130000S	10374680	Blue Lake Sub. - Replace 1 lea	(1,206.84)
MN130000S	10374801	Franklin Sub. 115/69kv line te	19,969.98
MN130000S	10374801	Franklin Sub. 115/69kv line te	(144,037.25)
MN130000S	10374942	Douglas County: Bus, Trap, Ter	(594,994.24)
MN130000S	10374963	West Fairbault: Loon Tap Line	(1,288.93)
MN130000S	10382734	Balta Switching Station Swamp	(126,624.06)
MN130000S	10448558	SCADA metering transmission su	(315.54)
MN130000S	10458413	Split Rock Substation - New Li	(1,730.96)
MN130000S	10458432	Blue Lake Sub - Generation Int	272.02
MN130000S	10458432	Blue Lake Sub - Generation Int	(148,578.84)
MN130000S	10512248	Fairbault Energy Park Substati	(1,184.11)
MN130000S	10512248	Fairbault Energy Park Substati	(1,886,312.07)
MN130000S	10525655	Loon Lake New Transformer	(267.86)
MN130000S	10525829	Lake Field Generating Station	14,914.30
MN130000S	10525998	Inver Hills Over stressed brea	(390,832.51)
MN130000S	10534117	Wilmarth Substation - Generati	2,874.10
MN130000S	10534117	Wilmarth Substation - Generati	(93,759.41)
MN130000S	10538632	LAW - Lawrence Sub Increase Te	1,478.02
MN130000S	10538632	LAW - Lawrence Sub Increase Te	(1,777,604.06)
MN130000S	10581889	Tap to Slayton Dist Sub Tran line w	(225,412.68)
MN130000S	10595996	Eastwood Sub Tran Line Replacement	(13,547.34)
MN130000S	10614802	Lincoln County Sub Tran Upgrad	(286.46)
MN130000S	10622949	Inver Hills Sub Line terminati	(921,121.40)
MN130000S	10641644	Shane Wind Farm Sub	(20.31)
MN130000S	10692249	Replace MNV 69/13.8/23 kV TR	(1,321,086.88)

**NSPM
2007 Transmission Additions**

budget_numbe	parent	parent_desc	yend
MN130000S	10693990	Liberty Substation	(220,305.48)
MN130000S	10723494	Wilmarth Sub - Line Term	(4,158.56)
MN130000S	10777420	Chanarambie Sub-Add Buss Diffe	(118,878.63)
MN130000S	10798747	Eden Prairie switch rep	(19,110.17)
MN130000S	10822597	West Hastings Add Breakers	(895,155.55)
MN130000S	10830006	Canton 2nd Dist Transformer line	(238,327.38)
MN130000S	10830021	Paynesville Trans Sub Cap Bank Add	5,719.93
MN130000S	10890078	GRE Asset Swap Balta Sub	(13,437.66)
MN130000S	10950178	Merriam Park-Replace HB Line R	(87,149.08)
MN130000S	10950185	Shepard Road-Replace HB Line R	(146,966.39)
MN130000S	10965925	Stewart Substation	(209,248.70)
MN130000S Total			(20,560,415.21)
MN130005L	10542910 0979	MN 345kv PI-Byron-Pleasan	(34,607.81)
MN130005L	10585248 0981	MN 345 King-Eau Claire	(281,953.03)
MN130005L Total			(316,560.84)
MN140000S	10950183	Rogers Lake-Replace HB Line Re	(110,631.29)
MN140000S Total			(110,631.29)
MN150000L	10371891	GRE Oakwood Substation Interconnect	(198,166.34)
MN150000L	10371906	GRE Westwood #2 Interconnectio	12,993.98
MN150000L	10560330	1.5MW Wind Interconnect S. Bra	(172.49)
MN150000L	10581626 0974	Wilmarth-Calpine Gen Inte	(359.52)
MN150000L	10581632 5542	Wilmarth-Calpine Gen Inte	(227.25)
MN150000L	10614949	1/1/07Shane Wind Farm (G398)	(23,270.94)
MN150000L	10626028	Yankee Doodle Sub Interconect	242,265.13
MN150000L	10626028	Yankee Doodle Sub Interconect	(79,050.36)
MN150000L	10626028	Yankee Doodle Sub Interconect	(136,320.63)
MN150000L	10673537	G408 McHenery Wind Interconnection	818.10
MN150000L Total			(181,490.32)
MN150000R	10709858	Brownnton City Interconnection	(99,438.12)
MN150000R Total			(99,438.12)
MN150000S	10560334	8MW Wind Interconnect W. Pipes	(2,250.79)
MN150000S	10614792	Calpine Trans Service Request	(1,710,559.05)
MN150000S	10817264	New Williams Brothers Pipeline Inte	(259,901.75)
MN150000S Total			(1,972,711.59)
MN150002R	10843963	Colvill Substation Land	(154,190.93)
MN150002R Total			(154,190.93)
MN160000S	10525977	Ask - MERP Station Aux Trans	39,278.07
MN160000S Total			39,278.07
MN160001L	10516548	Hbr - MERP Gener Incr Tr	(390.97)
MN160001L	10595643	Hbr - MERP Relocate Transmissi	(16,481.83)
MN160001L	10595643	Hbr - MERP Relocate Transmissi	(1,677,974.46)
MN160001L	10595643	Hbr - MERP Relocate Transmissi	(3,667,069.39)
MN160001L Total			(5,361,916.65)
MN180000L	10311808	SWMN825 SPK to LFJ 345 Transmi	3,783.88
MN180000L	10311808	SWMN825 SPK to LFJ 345 Transmi	(3,738,114.29)
MN180000L	10311808	SWMN825 SPK to LFJ 345 Transmi	(4,102,531.02)
MN180000L	10311808	SWMN825 SPK to LFJ 345 Transmi	(5,671,055.59)
MN180000L	10311808	SWMN825 SPK to LFJ 345 Transmi	(27,719,825.61)
MN180000L	10311808	SWMN825 SPK to LFJ 345 Transmi	(37,840,422.66)
MN180000L	10375942	Buffalo Ridge to White new 115	(44.21)

**NSPM
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budget_numbe	parent	parent_desc	yend
MN180000L	10375942	Buffalo Ridge to White new 115	(335.48)
MN180000L	10375942	Buffalo Ridge to White new 115	(245,276.43)
MN180000L	10375942	Buffalo Ridge to White new 115	(247,945.84)
MN180000L	10375942	Buffalo Ridge to White new 115	(756,357.36)
MN180000L	10375942	Buffalo Ridge to White new 115	(20,312,513.72)
MN180000L	10851374	Buffalo Ridge to White SD Line	(705,521.21)
MN180000L	10851374	Buffalo Ridge to White SD Line	(2,859,905.60)
MN180000L Total			(104,196,065.14)
MN180000R	10167983	SWMN825: LAND AND RIGHTS	12,200.26
MN180000R	10709832	Yankee Substation Land Purchas	(2,132.64)
MN180000R	10709834	Brookings Co. Sub Land Purchase	(989.97)
MN180000R	10821405	SWMN825 BRI to BOK 115 line RO	(11,270.11)
MN180000R	10821405	SWMN825 BRI to BOK 115 line RO	(308,987.83)
MN180000R	10821455	SWMN825 BRI to BOK 115 line SD	(13,748.24)
MN180000R	10821455	SWMN825 BRI to BOK 115 line SD	(187,596.19)
MN180000R Total			(512,524.72)
MN180000S	10374968	Buffalo Ridge: 115 Line Term Y	(2,165,423.94)
MN180000S	10374983	Chanarambie - 115 line term Fe	(976,697.83)
MN180000S	10606046	Xcel White Sub Interconnect wi	(2,528,526.55)
MN180000S	10606046	Xcel White Sub Interconnect wi	(7,263,013.11)
MN180000S Total			(12,933,661.43)
MN180001S	10374579	Establish Yankee 115/34.5kv St	(481,753.25)
MN180001S	10374579	Establish Yankee 115/34.5kv St	(512,272.91)
MN180001S	10374579	Establish Yankee 115/34.5kv St	(844,851.95)
MN180001S	10374579	Establish Yankee 115/34.5kv St	(4,432,690.19)
MN180001S Total			(6,271,568.30)
MN180002S	10516930	Establish Fenton 115/34.5 kV s	(242,062.22)
MN180002S	10516930	Establish Fenton 115/34.5 kV s	(8,110,225.30)
MN180002S Total			(8,352,287.52)
MN180003L	10709835	0982 - Lakefield Jct to Lakefi	(309,684.15)
MN180003L Total			(309,684.15)
MN180003S	10375729	Series Comp Wilmarth - Lakefie	(228,748.72)
MN180003S	10375729	Series Comp Wilmarth - Lakefie	(319,247.79)
MN180003S	10375729	Series Comp Wilmarth - Lakefie	(7,173,906.87)
MN180003S Total			(7,721,903.38)
MN180005L	10560320	12 MW Wind Interconnect Rock C	(48,117.93)
MN180005L Total			(48,117.93)
MN180017S	10632011	Red Rock Gas Breakers	(729,686.28)
MN180017S	10632016	Parker Lake Gas Breakers	(1,155,049.05)
MN180017S Total			(1,884,735.33)
Grand Total			(223,573,515.15)

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
MN0001905	R-Delivery Work on Trans Sub-MN	10505477	RRU Team Subs MN_DBS	(753,113)	
		10692228	West Hastings 12.5 kV Source	(4)	
		10726975	Install Roger Lake RLK064 Brkr	(302,333)	
		10885736	High Bridge Sub Install 115kV Switc	(22)	
		GP TOTAL			
MN120000L	R-Trans-Routine < \$5M-L	10007919	2001 Trans Ln Blkt - Unkn Repl	8,047	
		10008005	0984-Relocate 35kv Str On Sher	1,448	
		10008010	0729-Relocation For City Of Si	2,153	
		10008022	19-787 #735 Jasper Relocate 69	(123,401)	
		10008072	09-675 #806 115kv Slp-Ald Reco	269	
		10008152	0707 - Rebuild Fab-Wef	1,565	
		10008155	0707- Rebuild To Double Circui	3,427	
		10008156	0725 - Rebuild To 115/69kv Dou	149,813	
		10129049	0814 raise 115kv line on LUCE	4,803	
		10137303	PAT-WAK 115kv reconductor line	4,020	
		10140372	5528 Relocate Koch-Rosemount	199	
		10141692	0835 Relocate Twin Lk-Indiana	18	
		10141695	0737 Relocate Gleason Lk-Mound	95	
		10796820	NSP Lapp Insultor Blanket	(176,086)	
		GP TOTAL			(123,631)
MN120000R	R-Trans-Routine < \$5M-R	11055870	MN Substation Land	(361,179)	
		GP TOTAL			(361,179)
MN120000S	R-Trans-Routine < \$5M-S	10008286	18-644 Parkers Lake 115kv Conn	130	
		10374660	Sherco Sub - Replace 5 leaking	(746)	
		10525696	2005 NSP Tran Sub Blanket Tran	(1,154,766)	
		10614798	50 Overstressed Breakers 115kv	(1,567,151)	
		10783147	NSP 5-Year Relay Blanket Auth	(57,046)	
		10847711	Monticello Sub- Replace Static Rela	(478,562)	
		10847722	Lake Pulaski Sub- Replace Line Rela	(225,746)	

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		10847725	Sherco Sub- replace line relaying	(254,241)	
		GP TOTAL			(3,738,130)
MN120004S	R-Trans-Routine-TIP-S-Relays-S	10860703	Sherco Sub - Relays	3,841	
		11063718	G172-Adams Sub Relay Replacement	(321,824)	
		GP TOTAL			(317,982)
MN120006L	R-Trans-Routine-NSP Line B-L	10007945	2001 Trans Ln Blkt Equip Failu	147,000	
		10007946	2002 Trans Ln Blkt Equip Failu	1,961	
		10160211	Mn Transmission Ln Blanket	6,305	
		10230636	2003 Mn Transmission Capital B	70	
		10525688	2005 NSP Tran Line Blanket	27,055	
		10632000	2006 NSP Tran Line Blanket	(1,657)	
		10753792	2006 ND Tran Line Blanket	(1,697)	
		10780769	NSP 5-Year Line Blanket Author	(2,801,725)	
		10911857	ND Transmission Line Blanket	(156,378)	
		10911859	SD Transmission Line Blanket	(97,049)	
		10941756	500kv line - NCI Replacements	(807,066)	
		GP TOTAL			(3,683,181)
MN120007L	R-Trans-Routine-NSP Reloc B-L	10008140	5401 Relocation City Of Annand	8,389	
		10008144	0763 Relocate Line For City Of	2,937	
		10071375	0771-Relocate For Mecleod Cty	1,360	
		10071379	0739 Relocate Zumbrota Line At	15,474	
		10128708	0748 Relocate Bird Island-Hect	34,506	
		10129354	0707 Relocation Near Watervill	2,200	
		10129355	0754 Relocation On Hwy 55 Mapl	1,153	
		10129356	0839 Relocate For City Of Farg	1,804	
		10129357	0726 Relocation For Pipestone	14,029	
		10129359	LN 5400 - Relocate	2,071	
		10140376	0736 Relocate Birch-Manning	1,922	
		10140467	0701 Relocate Coon Rpd-CrowRvr	3,682	
		10141685	0832 Relocate BkDg-Faribault	10,829	

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		10143324	0749 Relocate Agrilink	10,026	
		10155936	Nsp Blanket Relocations	(2,732,368)	
		10622959	2005 MN Tran Line Relocation B	(8,109,890)	
		10785193	SD Relocation Blanket	(136,296)	
		10785206	ND Relocation Blanket	(442,914)	
		GP TOTAL			(11,311,084)
MN130000L	Trans-Specific-MN < \$5M-L	10008007	0825-Relocation On Pipestone C	606	
		10008023	UPGRADE LINE 5503	127,136	
		10008054	17-647new115kv#5530	349,002	
		10008064	#0839 Reconductor Sheyenne To	16	
		10008065	#0866 Reconductor Sheyenne To	98	
		10008067	Glk-Lex 115kv Upgrade	(11,850)	
		10008069	New Ter-Fvw-Wes 115kv Line	4,242	
		10008094	10-617 #831 Ext 115 To Orono S	7,348	
		10008110	0748 Add New Structure At Oliv	4,450	
		10008118	0808 - Underground 115kv Line	1,502,021	
		10008120	18-644 Elm Creek-Parkers Lake	1,476	
		10008121	Transmission- Buffalo Ridge L	80,980	
		10008126	Line 0846: Tap Dbl - Hbr 115k	247,790	
		10008137	0808- Underground 115kv Line(P	249	
		10128777	0726 REL SLAYTON TO PIPESTONE	1,905	
		10129047	Wlm-Lfd-Upgrade To 100 Deg C	463	
		10129091	0729 Relocate Lawrence-Cliff	6,792	
		10129094	0859 Relocation-Newport -MnDOT	85	
		10129097	5507 Relocate-InverHills-MnDOT	12,719	
		10141689	0832 Relocate in Dakota Cty	35	
		10230319	Mn Valley Install 187mva Tx Fr	56,824	
		10230607	5533 Alk-Vmr New 115kv Line	(7,824)	
		10231088	0876 Mn Valley To Franklin 425	(72,006)	
		10231129	Lakefield To Fox 161 Kv Line	2,392,500	
		10371318	Reconductor Lawrence-Lincoln C	324,723	

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		10371335	Westgate-Deephaven-Excelsior I	(1,023)	
		10374581	Aldrich-St. Louis Park 115kv R	(355)	
		10374946	0869 Alex to Douglas County Re	173,811	
		10443087	Replace Line from Sherco to St	139,642	
		10468157	5539 Black Dog - Blue Lake Upg	(452)	
		10512239	0832 Reconductor Line for Fair	315,918	
		10512243	0705 Rebuild Line FAP-NOF for	(485)	
		10524058	Prairie Island to Red Rock 345	162,435	
		10524108	Inver Hills- Koch Refinery 115	2,890	
		10524123	Oakdale-Tanners Lake 115kV	(1,016,550)	
		10525664	0707 West Fairbault 69kv Line	212	
		10623081	0706 New Line to West Fairbault	(155)	
		10631612	Champlin - Champlin Tap	(871,976)	
		10631889	Edina - Eden Prairie 115kv rec	(4,604)	
		10632219	Scada control switches for lin	(108,873)	
		10632224	Scada control switches for lin	(23,096)	
		10632238	South Dakota Switch 4x90	(173,535)	
		10632242	Pipeston Tracy Switches	(245,241)	
		10632249	Scada control switches line #0	(353,361)	
		10632313	Champlin tap to Crooked Lake	(1,303,549)	
		10691391	Mankato 115kv Underground	31,031	
		10774735	Mary lake - Buffalo 115KV	(383)	
		10774824	SCADA control switches - line	(229,975)	
		10940739	City of Jackson - Line	(254,887)	
		10942453	Hyland Lake - Dean Lake	(497,272)	
		11002526	G417 RAHR Transmission Line at KODA	(294,433)	
		11024852	Renville Dist. capacity upgrade-Lin	(229,006)	
		11082503	Vermillion River Dam	(602,094)	
		11096276	0880 - Replace Structure 160	(362,624)	
		11102549	Credit River Line	(127,583)	
		11127220	Waseca Substation, Line	(75,924)	

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total	
		11143225	Tracy T-Line	(36,928)		
		0	WO #10171051 Arlington Sub-Dist-MN	8,422		
		GP TOTAL				(950,224)
MN130000R	Trans-Specific-MN < \$5M-R	10285779	0832 Summit To Loon 115kv Land	9,118		
		10285855	0722 Franklin To Bird Is. Land	4,320		
		10630292	2005 Tran Line Reloc Easement	(51,405)		
		10914218	Canton 2nd Dist Tran line Easement	(4,129)		
		10985590	Line 0815 Easement	(149,638)		
		10985603	Rock Co Sub Land	(34,421)		
		11095239	Grove Lake Substation Land	(51,169)		
		11104946	LFJ-FL 161 S&LR	(1,693,768)		
		GP TOTAL				(1,971,091)
MN130000S	Trans-Specific-MN < \$5M-S	10008194	2002 Trans Sb-Equip Failure Sm	1,489		
		10008203	New Lcr Sub	18,979		
		10130660	Chisago Sub- Southward Flow	(1)		
		10371302	Sherburne Co Sub Increase capa	(33,892)		
		10371353	Westgate Capacitor Bank	(2,712)		
		10374942	Douglas County: Bus, Trap, Ter	(8)		
		10382734	Balta Switching Station Swamp	(627)		
		10458432	Blue Lake Sub - Generation Int	(24,404)		
		10512248	Fairbault Energy Park Substati	(420)		
		10525998	Inver Hills Over stressed brea	13,870		
		10534117	Wilmarth Substation - Generati	(1,718)		
		10538632	LAW - Lawrence Sub Increase Te	(12,226)		
		10595996	Eastwood Sub Tran Line Replacement	13		
		10614800	McHenery Wind Farm G408	(7,546)		
		10622949	Inver Hills Sub Line terminati	5,341		
		10692249	Replace MNV 69/13.8/23 kV TR	(116)		
		10693990	Liberty Substation	(22,504)		
		10777449	Long Lake 115 KV bus upgrade	(150,048)		
		10822597	West Hastings Add Breakers	(416)		

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		10830006	Canton 2nd Dist Transformer line	40	
		10830021	Paynesville Trans Sub Cap Bank Add	(30,860)	
		10854829	Lennox New Substation Tap	(159,053)	
		10890078	GRE Asset Swap Balta Sub	(470)	
		10941910	Cedar Lake 2nd Transformer	(244,706)	
		10943031	Replace King transformer	(2,719,018)	
		10945468	NSPM- PCB Removal and Replacem	(186,282)	
		10950176	Daytons Bluff-Replace HB Line	(177,194)	
		10950178	Merriam Park-Replace HB Line R	(471)	
		10950185	Shepard Road-Replace HB Line R	(2,121)	
		10955839	South Shakopee Xfmr #2	(283,297)	
		10965925	Stewart Substation	(63,643)	
		10977691	Vermillion River Dist Sub	(330,411)	
		10989626	Young America (YAM) Switches	(183,247)	
		10989628	Jordan(JOR) Control Switches	(145,204)	
		11055848	Waseca Substation Bus Tie Switch	(91,689)	
		11070838	SD PCB Removal	(96,003)	
		11115864	G060 Moraine II Interconnection,Sub	(51,933)	
		GP TOTAL			(4,982,507)
MN130001L	Trans-Specific-500kv Emerg Restor-L	10871283	500kV Rebuild Land	(13,338)	
		GP TOTAL			(13,338)
MN130005L	Trans-Specific-MN WI 345kv-L-MN	10542910	0979 MN 345kv PI-Byron-Pleasan	146,649	
		10585248	0981 MN 345 King-Eau Claire	3,799	
		GP TOTAL			150,448
MN140000S	R-Trans-Prod-Routine-S	10950183	Rogers Lake-Replace HB Line Re	193	
		GP TOTAL			193
MN150000L	MN-Interconnect < \$5M-L	10560330	1.5MW Wind Interconnect S. Bra	(30,433)	
		10581626	0974 Wilmarth-Calpine Gen Inte	(14,965)	
		10614949	1/1/07Shane Wind Farm (G398)	9	
		10872794	Cannon Falls Line TSR for F053	(5,073,859)	

**NSPM
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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		11078097	Kenyon G620 Line Interconnection	22	
		GP TOTAL			(5,119,227)
MN150000R	MN-Interconnect < \$5M-R	10709858	Brownnton City Interconnection	(6,304)	
		GP TOTAL			(6,304)
MN150000S	MN-Interconnect < \$5M-S	10329873	gen intercnct-MN Tx subs-capital	430	
		10607054	8.25MW Wind Intercon Pipestone	(12,846)	
		10607449	4.95 MW Wind Intercon Pipeston	(16,615)	
		10614792	Calpine Trans Service Request	(412)	
		10796757	Jackson 161 kV interconnect	(495,788)	
		10817264	New Williams Brothers Pipeline Inte	(313)	
		11078094	Kenyon G620 Sub Interconnection	(394)	
		GP TOTAL			(525,938)
MN150002L	MN-Interconnect-Cannon Falls-L	10758402	Cannon Falls G405 Interconnection	(1,769,936)	
		GP TOTAL			(1,769,936)
MN150002R	MN-Interconnect-Cannon Falls-R	10843963	Colvill Substation Land	5,206	
		GP TOTAL			5,206
MN150002S	Interconnect-Cannon Falls-S	10758417	Cannon Falls G405 Sub	(5,005,848)	
		GP TOTAL			(5,005,848)
MN160001L	MERP - High Bridge-L	10595643	Hbr - MERP Relocate Transmissi	15,629	
		GP TOTAL			15,629
MN160001S	MERP - High Bridge-S	10516540	Hbr - MERP Gen Add Tra S	(9,335,609)	
		GP TOTAL			(9,335,609)
MN160002S	MERP - Riverside-S	10516536	Riv - MERP Generation Tran	(3,405,961)	
		GP TOTAL			(3,405,961)
MN180000L	TCR1 - 825 Wind-L	10311808	SWMN825 SPK to LFJ 345 Transmi	(55,131,679)	
		10375942	Buffalo Ridge to White new 115	3,117,657	
		10851374	Buffalo Ridge to White SD Line	(3,271,277)	
		11081486	825 Wind Line SD	(12,784,423)	
		GP TOTAL			(68,069,721)
MN180000R	TCR1 - 825 Wind-R	10815902	0953 LJK to SPK MN Land Rights	(6,895,928)	

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		10815915	0953 LJK to SPK SD Land Rights	(941,220)	
		10820701	NOB to CHB 115 line land rights SWM	(1,497,605)	
		10821405	SWMN825 BRI to BOK 115 line RO	(21,879)	
		10821455	SWMN825 BRI to BOK 115 line SD	(30,310)	
		GP TOTAL			(9,386,942)
MN180000S	TCR1 - 825 Wind-S	10374968	Buffalo Ridge: 115 Line Term Y	(33,855)	
		10374978	Nobles - 345/35kv Sub SWMN825	(13,608,235)	
		10374983	Chanarambie - 115 line term Fe	(30,256)	
		10606046	Xcel White Sub Interconnect wi	778,745	
		10778922	Split Rock Sub SD Tran Sub	(3,557,221)	
		10789078	MNV cap bank 825 MW wind	(2,812,284)	
		GP TOTAL			(19,263,105)
MN180001S	TCR2 - Yankee-S	10374579	Establish Yankee 115/34.5kv St	(71,051)	
		GP TOTAL			(71,051)
MN180002S	TCR3 - Fenton-S	10516930	Establish Fenton 115/34.5 kV s	(271,774)	
		GP TOTAL			(271,774)
MN180003S	TCR4 - Series-S	10375729	Series Comp Wilmarth - Lakefie	(86,769)	
		GP TOTAL			(86,769)
MN180004S	TCR5 - Nobles Cty-S	10831264	Community Wind South	(2,587,103)	
		10863445	Community Wind South Direct	(544,586)	
		GP TOTAL			(3,131,690)
MN180005L	TCR6 - Rock Cty-L	10560320	12 MW Wind Interconnect Rock C	(356,311)	
		GP TOTAL			(356,311)
MN180005S	TCR6 - Rock Cty-S	10516949	Establish Rock Co 161 kV inter	(2,932,374)	
		GP TOTAL			(2,932,374)
MN180006L	TCR7 - BRIGO-L	10783520	Yankee-Brookings line	(6,926)	
		10955834	1200 MW Wind Outlet Line 5546	(13,392)	
		GP TOTAL			(20,318)
MN180006S	TCR7 - BRIGO-S	11000007	1200 MW Wind Outlet Lake Yankton Su	0	
		GP TOTAL			0
MN180007L	TCR8 - Chisago/Apple River-L	10008018	Chi-Lcr 115kv Line	2,495	

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Grandparent Number	Grandparent Description	Parent Number	Parent Description	Closings from CWIP to Plant In-Service	Grandparent Total
		GP TOTAL			2,495
MN180016S	TCR9-SF6 Breakers-2008-Sub-MN	10941889	Blue Lake - Breakers	(1,119,864)	
		GP TOTAL			(1,119,864)
MN180017S	TCR9-SF6 Breakers-2007-Sub-MN	10632011	Red Rock Gas Breakers	(27,550)	
		10632016	Parker Lake Gas Breakers	(31,261)	
		GP TOTAL			(58,812)
MN180022L	TCR22-Chanarambie #4 Spare Trsfmr-L	11016483	CHB #4 Txfmer Line	(12,618)	
		GP TOTAL			(12,618)
MN180022S	TCR22-Chanarambie #4 Spare Trfmr-S	11005111	Chanarambie #4 Transformer	(751)	
		GP TOTAL			(751)
ZZZ - 10285821	0982 Wilmarth To Lakefield Lan	10285821	0982 Wilmarth To Lakefield Lan	407	
		GP TOTAL			407
10MWF4000	MWF New Substation	11126001		(9,480,115)	
	MWF New Transmission	11126007		(813,855)	
		GP TOTAL			(10,293,970)
MN0001901			WO# 10010786 Terminal Sub-Tran-MN	29,542	29,542
MN200000S			WO# 10611940 Northfield Sub-Dist-MN	698,223	
			WO# 10640456 Elm Creek Sub-Tran-MN	(2)	698,221
ND0002913			WO# 10010786 Terminal Sub-Tran-MN	(19,100)	(19,100)
	2008 Additions to PIS - Transmission			(167,869,670)	(167,869,670)

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
MN180006L	TCR7 - BRIGO-L			43,709,348
		10783520	Yankee-Brookings line	
		10783533	BRIGO MN Lines	
		10955834	1200 MW Wind Outlet Line 5546	
		10985598	BRIGO SD Lines	
MN180006S	TCR7 - BRIGO-S			22,875,255
		10774478	BRIGO MN Subs	
		10774890	Yankee 115 KV ring bus	
		10965996	1200MW Wind Outlet Nobles Cty S	
		10966002	BRIGO SD Subs	
			1200 MW Wind Outlet Lake	
		11000007	Yankton Su	
		11000009	1200 Wind Outlet Fenton ub	
MN130000L	Trans-Specific-MN < \$5M-L			19,400,501
		10008007	0825-Relocation On Pipestone C	
		10008023	UPGRADE LINE 5503	
		10008054	17-647new115kv#5530	
		10008064	#0839 Reconductor Sheyenne To	
		10008065	#0866 Reconductor Sheyenne To	
		10008067	Glk-Lex 115kv Upgrade	
		10008069	New Ter-Fvw-Wes 115kv Line	
		10008094	10-617 #831 Ext 115 To Orono S	
		10008110	0748 Add New Structure At Oliv	
		10008118	0808 - Underground 115kv Line	
		10008120	18-644 Elm Creek-Parkers Lake	
		10008121	Transmission- Buffalo Ridge L	
		10008126	Line 0846: Tap Dbl - Hbr 115k	
		10008137	0808- Underground 115kv Line(P 0726 REL SLAYTON TO	
		10128777	PIPESTONE	
		10129047	Wlm-Lfd-Upgrade To 100 Deg C	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		10129091	0729 Relocate Lawrence-Cliff	
		10129094	0859 Relocation-Newport -MnDOT	
		10129097	5507 Relocate-InverHills-MnDOT	
		10141689	0832 Relocate in Dakota Cty	
		10230319	Mn Valley Install 187mva Tx Fr	
		10230607	5533 Alk-Vmr New 115kv Line	
		10231088	0876 Mn Valley To Franklin 425	
		10231129	Lakefield To Fox 161 Kv Line	
		10371318	Reconductor Lawrence-Lincoln C	
		10371335	Westgate-Deephaven-Excelsior I	
		10374581	Aldrich-St. Louis Park 115kv R	
		10374946	0869 Alex to Douglas County Re	
		10443087	Replace Line from Sherco to St	
		10468157	5539 Black Dog - Blue Lake Upg	
		10512239	0832 Reconductor Line for Fair	
		10512243	0705 Rebuild Line FAP-NOF for	
		10524058	Prairie Island to Red Rock 345	
		10524108	Inver Hills- Koch Refinery 115	
		10524123	Oakdale-Tanners Lake 115kV	
		10525664	0707 West Fairbault 69kv Line	
		10623081	0706 New Line to West Fairbault	
		10631612	Champlin - Champlin Tap	
		10631889	Edina - Eden Prairie 115kv rec	
		10632219	Scada control switches for lin	
		10632224	Scada control switches for lin	
		10632238	South Dakota Switch 4x90	
		10632242	Pipeston Tracy Switches	
		10632249	Scada control switches line #0	
		10632313	Champlin tap to Crooked Lake	
		10691391	Mankato 115kv Underground	
		10711750	NSP Tran Line Rebate	
		10774735	Mary lake - Buffalo 115KV	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		10774824	SCADA control switches - line	
		10817537	Meyhew Lake sub interconnect	
		10932230	Mary Lake Line	
		10940739	City of Jackson - Line	
		10942416	Eagle Lake - Switches	
		10942453	Hyland Lake - Dean Lake	
		10942462	Kegan Lake - Lebanon Hills	
		10942553	Woodbury - Tanners Lake	
		10999120	Hungry Hollow-Ballard Cnr G417 RAHR Transmission Line at	
		11002526	KODA	
		11018570	0816 Wilson-Black Dog 115kV Li	
		11024852	Renville Dist. capacity upgrade-Lin	
		11061078	G185-Uilk Farm Transmission Line	
		11065581	HPFF upgrade - Lines	
		11082503	Vermillion River Dam Split Rock Cherry Creek 115kV	
		11083198	Line Osakis (West Union) Ssauk Centre	
		11083232	Li	
		11083242	Lake City 2nd Source Line Douglas County 2nd 115/69 Xfmr	
		11083259	Line	
		11083633	Traverse-St Peter Line GRE Yankee Doodle 2nd Source	
		11083673	Line	
		11086809	GRE Lyon Co-Milroy tap 69 kV Line	
		11089865	Grove Lake Line	
		11095223	Marathon Oil Line	
		11096264	0892 - Replace Battle Creek Struct	
		11096276	0880 - Replace Structure 160	
		11102549	Credit River Line	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		11111895	Blue Lake-Wilmarth 345 kV Sub	
		11111937	Wilmarth-Lakefield Gen capac, Line	
		11118456	0808 - Replace Structure #5, Line	
		11127220	Waseca Substation, Line	
		11132385	Easement for Line 5301, Line	
		11143225	Tracy T-Line	
		11150353	Slayton Line, Removal	
		11155228	GRE-Sartell Interconnection	
		11165813	Blue Lake - Hazel 345kV Line	
		11169474	0754-New Pole,Lake Pulaski, Line	
		11169560	G626 Wind Interconnect, Line	
			0715 Wilmarth-Johnson Tap 69kV	
		11174725	Line	
			Hiawatha Project Transmission,	
		11177566	Line	
			GRE - St Lawrence	
		11180728	Interconnect,Line	
		11180733	GRE - Lismore Line Interconnection	
		11189816	GRE-Ritter Park Interconnect, Line	
		11189818	Arden Hill Slack Span, Line	
MN130000S	Trans-Specific-MN < \$5M-S			15,006,558
		10008194	2002 Trans Sb-Equip Failure Sm	
		10008203	New Lcr Sub	
		10130660	Chisago Sub- Southward Flow	
		10230419	Vermillion River Sub - Add New	
		10325700	Nobles Transmission Substation	
		10371302	Sherburne Co Sub Increase capa	
		10371353	Westgate Capacitor Bank	
		10374942	Douglas County: Bus, Trap, Ter	
		10382734	Balta Switching Station Swamp	
		10458432	Blue Lake Sub - Generation Int	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		10512248	Fairbault Energy Park Substati	
		10525998	Inver Hills Over stressed brea	
		10534117	Wilmarth Substation - Generati	
		10538632	LAW - Lawrence Sub Increase Te	
		10622949	Inver Hills Sub Line terminati	
		10693990	Liberty Substation	
		10774765	Monticello Fault Recorder Upgrade	
		10774784	Prairie Island Fault Recorder Upgra	
		10774857	Split Rock Fault Recorder Upgrade	
			Upgrade Parkers Lake Fault	
		10774863	Recorder	
		10777426	Coon Creek Fault Recorder	
		10777449	Long Lake 115 KV bus upgrade	
		10822597	West Hastings Add Breakers	
		10830006	Canton 2nd Dist Transformer line	
			Paynesville Trans Sub Cap Bank	
		10830021	Add	
		10854829	Lennox New Substation Tap	
		10890078	GRE Asset Swap Balta Sub	
		10941910	Cedar Lake 2nd Transformer	
		10942503	Paynesville Breaker Installati	
		10942542	Tracy SW Cap Bank	
		10943031	Replace King transformer	
		10945466	Rahr Malting Generation Interc	
			NSPM- PCB Removal and	
		10945468	Replacem	
		10950176	Daytons Bluff-Replace HB Line	
		10950178	Merriam Park-Replace HB Line R	
		10950185	Shepard Road-Replace HB Line R	
		10955825	Smart Sub 3 Control Panels Mer	
		10955839	South Shakopee Xfmr #2	
		10965925	Stewart Substation	
		10965933	Comm Wind N - G586 at Yankee S	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		10977691	Vermillion River Dist Sub	
		10989626	Young America (YAM) Switches	
		10989628	Jordan(JOR) Control Switches	
		11008451	Kohlman Lake Transformer	
		11042799	Chisago County - Replace TR06	
		11055848	Waseca Substation Bus Tie Switch	
		11059769	Grove Lake Switching Substation	
		11061076	G185-Uilk Farm Wind Substation	
		11065578	Basset Creek Substation	
		11070838	SD PCB Removal	
		11081155	Sheyenne- Install Fault Recorder Roseau Co- Replace Series Cap	
		11081159	Contr	
		11081162	Prairie - Upgrade Fault recorder	
		11081177	Inver Hills - Replace 345 kV line R	
		11081180	Forbes - Replace RTU s	
		11081185	Chisago Co - Fault Recorder	
		11082406	Oaskis 2nd Dist Trans Sub	
		11082412	Arsenal Dist 115kV Sub Split Rock Cherry Creek 115 kV	
		11083203	Sub	
		11083225	Paynesville 115/69 Transformer Douglas County 2nd 115/69 Xmfr	
		11083265	Sub	
		11083637	Transmission Oil Containment sub	
		11083639	Sheyenne Oil Containment	
		11083645	Parkers Lake Oil Containment Sub	
		11083668	Lake Emily Cap Bank Sub GRE Yankee Doodle 2nd Source	
		11083678	Sub GRE Crooked Lk-Enterprize Park	
		11086454	115k	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		11095220	Marathon Oil Sub	
		11095248	Wilson Sub 115kV Line Term	
		11095251	Black Dog Sub 115kV Line Term	
		11111903	Blue Lake-Wilmarth 345 kV Sub Wilmarth-Lakefield Gen	
		11111935	capacity,Sub G060 Moraine II	
		11115864	Interconnection,Sub	
		11125561	MN Valley 115kV Relay Rpl, Sub G386 Lakefield Elm Creek	
		11132946	Intcnt,Sub Mn Valley-Replace 230kV Relay,	
		11142433	Sub Lake Pulaski-Replace Failed	
		11162794	TR1,Sub	
		11165808	Blue Lake Substation Chemolite 5P32 Breaker	
		11169506	Sectionalize	
		11169549	Wilson 5M173 Breaker, Sub	
		11169559	G636 Sub Wind Interconnect, Sub	
		11180732	GRE - Lismore Sub Interconnection	
		11184334	G349 Brookings Wind Int. Sub	
		11189804	Colville Breaker Sectionalizing,Sub	
		11191790	Mapleton Switch Replmnt, Sub	
MN130002S	Trans-Specific- Mankato 115kv Loop-S			6,000,486
		10999054	South Bend Subststion Wilmarth Sub - Remove Transf/Chg	
		10999070	Re	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
			Eastwood Sub-New 115kV	
		10999081	Termination	
MN180022S	TCR22- Chanarambie #4 Spare Trfmr-S			5,005,811
		11005111	Chanarambie #4 Transformer	
MN120001S	R-Trans-Rout- Spare Transformers-S			4,417,685
MN0001905	R-Delivery Work on Trans Sub-MN			3,927,113
		10458467	MN Sub Capac Reinf Trans Subs	
		10505477	RRU Team Subs MN_DB5	
		10692228	West Hastings 12.5 kV Source	
		10726975	Install Roger Lake RLK064 Brkr	
		10797015	Install new 2nd bank 50 MVA at	
		10885736	High Bridge Sub Install 115kV Switc Repl Scada At E Winona Sub,	
		10954166	NSPPM	
MN130003L	Trans-Specific-New Ulm TSR-L			3,659,704
		10942578	New Ulm TSR	
		10999139	Ft. Ridgely - West New Ulm Sub	
		10999142	Install 69kV Line 0719 Searle	
		11001602	Line 0837 Fort Ridgely Swan-Lake	
MN120000S	R-Trans-Routine < \$5M-S			3,434,193
		10008286	18-644 Parkers Lake 115kv Conn	
		10374660	Sherco Sub - Replace 5 leaking	
		10519682	2004 SD Tran Sub Blanket	
		10525696	2005 NSP Tran Sub Blanket Tran	
		10614798	50 Overstressed Breakers 115kv	
		10673530	2005 ND Tran Sub Blanket	

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
		10780775	NSP 5-Year Sub Blanket Authori	
		10783147	NSP 5-Year Relay Blanket Auth	
		10847711	Monticello Sub- Replace Static Rela Lake Pulaski Sub- Replace Line	
		10847722	Rela	
		10847725	Sherco Sub- replace line relaying	
		11065588	MN Trans Sub Comm Blanket	
MN130001L	Trans-Specific- 500kv Emerg Restor-L			3,086,244
		10796786	500 kV Line	
		10871283	500kV Rebuild Land	
MN120006L	R-Trans-Routine- NSP Line B-L			2,140,967
MN180018L	TCR18 - SW Twin Cities-L			2,022,273
MN130002L	Trans-Specific- Mankato 115kv Loop-L			1,848,001
MN180008S	TCR9-SF6 Breakers-Sub-MN			1,702,885
MN180014S	TCR-Spare Wind Transformer-Sub- MN			1,702,593
MN120007L	R-Trans-Routine- NSP Reloc B-L			1,575,926
MN180006R	TCR7 - BRIGO-R			1,558,349
MN120004S	R-Trans-Routine- TIP-S-Relays-S			1,334,960
MN120005L	R-Trans-Routine- TIP-L-Wood Struct- L			773,572

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
MN180009L	TCR10 - CapX2020 - Line 1-L			678,137
MN120000L	R-Trans-Routine < \$5M-L			492,930
MN120000R	R-Trans-Routine < \$5M-R			256,841
MN130003R	Trans-Specific-New Ulm TSR-R			151,116
MN180000L	TCR1 - 825 Wind-L			150,446
			SWMN825 SPK to LFJ 345	
		10311808	Transmi	
		10375942	Buffalo Ridge to White new 115	
		10851374	Buffalo Ridge to White SD Line	
		10875908	SWTU 825 Wind	
		11081486	825 Wind Line SD	
MN130002R	Trans-Specific- Mankato 115kv Loop-R			137,304
MN150002R	MN-Interconnect- Cannon Falls-R			129,776
MN180016S	TCR9-SF6 Breakers-2008-Sub- MN			19,600
MN180003S	TCR4 - Series-S			3,559
		10375729	Series Comp Wilmarth - Lakefie	
MN180017S	TCR9-SF6 Breakers-2007-Sub- MN			261
MN150000L	MN-Interconnect < \$5M-L			209

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Grandparent Number	Grandparent Description	Parent Work Order	Parent Work Order Description	Plant Additions
MN130005L	Trans-Specific-MN WI 345kv-L-MN			129
MN150002S	Interconnect- Cannon Falls-S			(180,000)
MN130000R	Trans-Specific-MN < \$5M-R			(345,302)
MN150000S	MN-Interconnect < \$5M-S			(509,176)
Total Transmission Plant Additions				146,168,252

2009 Projects used in South Dakota rate case

Grandparent Number	Grandparent Name	Additions
MN180006L	TCR7 - BRIGO-L	43,709,348
MN180006S	TCR7 - BRIGO-S	22,875,255
MN130000L	Trans-Specific-MN < \$5M-L	19,400,501
MN130000S	Trans-Specific-MN < \$5M-S	15,006,558
MN130002S	Trans-Specific-Mankato 115kv Loop-S	6,000,486
MN180022S	TCR22-Chanarambie #4 Spare Trfmr-S	5,005,811
MN0001905	R-Delivery Work on Trans Sub-MN	3,927,113
MN130003L	Trans-Specific-New Ulm TSR- L	3,659,704
MN120000S	R-Trans-Routine < \$5M-S	3,434,193
MN130001L	Trans-Specific-500kv Emerg Restor-L	3,086,244
	total	\$126,105,212