

Direct Testimony and Schedules  
Allen D. Krug

Before the North Dakota Public Service Commission  
State of North Dakota

In the Matter of the Application of  
Northern States Power Company, a Minnesota Corporation

For Authority to Increase Rates for  
Electric Service in North Dakota

Case No. PU-07-\_\_\_\_  
Exhibit 6

**Wholesale Margins**

December 7, 2007

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1 **I. INTRODUCTION AND QUALIFICATIONS**

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

4 A. My name is Allen D. Krug. My business address is 550 15<sup>th</sup> Street, Suite 1200,  
5 Denver, Colorado 80202.

6  
7 Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?

8 A. I am testifying on behalf of Northern States Power Company, a Minnesota  
9 Corporation (“Xcel Energy” or the “Company”) operating in North Dakota.

10  
11 Q. BY WHOM ARE YOU EMPLOYED, AND WHAT IS YOUR POSITION?

12 A. I am a Regulatory Consultant for Xcel Energy Services Inc., the service  
13 company subsidiary of Xcel Energy Inc. My resume is included as  
14 Exhibit\_\_\_(ADK-1), Schedule 1.

15  
16 Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

17 A. In 1982, I began employment with the Minnesota Department of Commerce  
18 (the “Department”), a state agency responsible for regulating electric, natural  
19 gas and telephone utilities in Minnesota. I held several positions with the  
20 Department, ultimately assuming the position of Supervisor of electric  
21 regulation. I began employment with Xcel Energy in June of 1998 as a  
22 Regulatory Contract Coordinator. I held several positions with Xcel Energy,  
23 ultimately assuming my current position in 2003.

24  
25 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

26 A. I sponsor the Company’s proposed treatment of wholesale margins in this  
27 general rate case proceeding for the North Dakota Public Service Commission

1 (“NDPSC” or “Commission”) to consider. Due to recent changes in energy  
2 markets that I describe later in my testimony, establishing an appropriate level  
3 of test-year wholesale margins to incorporate into base rates would be  
4 difficult. Therefore, to minimize risks to both the customers and the  
5 Company -- and to better align ratepayer and shareholder interests -- I  
6 propose to implement a margin-sharing plan through the Fuel Clause  
7 Adjustment (“FCA”).

8  
9 Q. HOW HAVE YOU ORGANIZED YOUR TESTIMONY?

10 A. First, I provide a brief overview of various market changes that influence our  
11 procurement of resources to meet our customers’ needs. This information  
12 provides context for the second section of my testimony in which I introduce  
13 our proposal for sharing wholesale margins in this general electric rate case.

14  
15 **II. MARKET OVERVIEW**

16  
17 Q. PLEASE DESCRIBE BRIEFLY THE CURRENT STATE OF THE WHOLESALE ENERGY  
18 MARKETS IN WHICH XCEL ENERGY OPERATES.

19 A. Until approximately a decade ago, wholesale electric energy markets in the  
20 Upper Midwest market consisted primarily of vertically integrated utilities  
21 making wholesale capacity or energy sales or purchases at “cost-based” rates  
22 regulated by the Federal Energy Regulatory Commission (“FERC”). Except  
23 for long-term bilateral transactions, such as the Company's diversity exchange  
24 and capacity purchase transactions with the Manitoba Hydro Electric Board  
25 (“Manitoba Hydro”), or capacity sales to utilities in eastern Wisconsin, most  
26 energy transactions were short-term, “economy energy” transactions by  
27 regulated utilities under cost-based rates.

1 Today, as a result of federal and FERC restructuring initiatives, wholesale  
2 energy markets have evolved to be very complex, competitive and volatile.  
3 Some of the most prominent changes include:

- 4 • *Market Participants.* There are numerous entities now authorized to  
5 make wholesale sales at “market-based” rates, and “open access”  
6 transmission service is available to deliver the capacity and/or energy.  
7 Many of these participants do not serve any retail electric customers.  
8
- 9 • *Generation Mix.* More electric generation is fueled by natural gas, and  
10 wholesale natural gas fuel prices have been both rising and volatile.
- 11 • *Tightening Markets.* Because of increasing electricity demand, limited  
12 generation supplies, and transmission capacity limitations, underlying  
13 prices for energy commodities -- both fuel and electricity -- are showing  
14 dramatic and unprecedented increases.
- 15 • *New Tools.* Many of the energy products and financial hedging tools  
16 now available to NSP were not available a decade ago.

17  
18 This increased complexity and volatility in the energy markets appears to be  
19 part of a permanent change, and will dictate how we develop resource  
20 strategies to obtain least-cost resources for our customers.

21  
22 Finally, as perhaps the most significant change, FERC in 2003 ordered  
23 Midwest Independent System Operator (“MISO”) to implement its Day 2  
24 wholesale market. After extensive efforts by both MISO and market  
25 participants (including Xcel Energy) and several contested regulatory  
26 proceedings at FERC, the Day 2 market went “live” on April 1, 2005. My  
27 testimony will discuss MISO Day 2 in the context of its impact on wholesale

1 trading activities. Mr. Stephen Beuning will discuss MISO Day 2 from a retail  
2 viewpoint.

3  
4 Q. HOW HAS THE MISO DAY 2 MARKET AFFECTED THE COMPANY'S TRADING  
5 OPERATIONS?

6 A. It has greatly increased the complexity of meeting our customers' power  
7 supply needs. The Day 2 market design created a central power exchange for  
8 all day-ahead and real-time energy purchases and sales. In this new market, all  
9 participants must offer their generation to the market and all load-serving  
10 entities must purchase energy from this centralized market. MISO then clears  
11 the entire market, subject to transmission constraints, on a day-ahead and real-  
12 time basis. This broad market-clearing process is in stark contrast to the pre-  
13 MISO Day 2 world, where individual utilities coordinated transactions through  
14 voluntary bilateral agreements and were not subject to must-offer  
15 requirements for their generating resources. The result has been that  
16 individual utilities now have less direct control over how their customers'  
17 needs will be met on a day-ahead and real-time basis, what prices they will  
18 ultimately pay for purchased power and what prices they will receive for  
19 generating energy beyond what is needed to meet their native load  
20 requirements.

21  
22 **III. WHOLESALE MARGINS**

23  
24 Q. HOW DO YOU DEFINE WHOLESALE MARGINS FOR THIS PROCEEDING?

25 A. Wholesale margins are the revenue dollars above the cost of fuel and  
26 purchased power associated with short-term wholesale energy and capacity  
27 transactions. Short-term transactions are generally defined as transactions of

1 less than one year in duration. Longer term transactions, such as our long-  
2 term agreements to supply power to municipal entities in our region, are not  
3 included in this definition and would not be included in the sharing  
4 mechanism that I will propose below. Xcel Energy earns wholesale margins  
5 whenever we make profitable sales into the wholesale market. Opportunities  
6 for such sales typically arise when resources dedicated to serving our retail  
7 customers exceed customer needs during a given time period (e.g., hour, day,  
8 month or season). Consequently, if we have unused resources after meeting  
9 the needs of our retail customers, we will attempt to sell energy produced by  
10 these supply resources into the wholesale market to make a profit (margin).  
11 The Company has engaged in these “asset-based” wholesale sales for many  
12 years. Asset-based margins would include ancillary sales (e.g. the sale of  
13 spinning reserves on a recallable basis). Another type of wholesale activity is  
14 called, non-asset-based, or “proprietary commodity,” trading. This activity  
15 was not present at the time of our last electric general rate case. This activity  
16 does not rely on Company owned generation resources typically used to meet  
17 retail load; instead, it stems from wholesale energy purchases and sales that we  
18 execute solely for the purpose of generating wholesale margins.

19  
20 In this following section of my testimony, I first discuss the Company’s  
21 proposal for traditional, asset-based wholesale margins, then our proposal for  
22 the treatment of non-asset-based trading margins.  
23  
24  
25  
26  
27

1 **A. Asset-Based Trading**

2

3 Q. HOW WERE ASSET-BASED WHOLESALE MARGINS REFLECTED IN THE FINAL  
4 ORDER OF THE PREVIOUS ELECTRIC RATE CASE PROCEEDING, CASE NO. PU-  
5 400-92-399?

6 A. The Commission approved a revenue requirement that included a margin  
7 credit to the North Dakota retail cost of service in the amount of \$1.5 million,  
8 the anticipated test-year level of wholesale margins allocable to North Dakota.  
9 (The total Company asset based wholesale margins were \$28 million.) Since  
10 that time, the Company has been at risk for any under-recoveries of this  
11 amount between rate cases, while the ratepayers did not directly benefit from  
12 any over-recoveries of this amount.

13

14 Q. HAVE THERE BEEN ANY DEVELOPMENTS THAT WOULD AFFECT THE  
15 TREATMENT OF ASSET-BASED WHOLESALE MARGINS IN THIS PENDING RATE  
16 CASE?

17 A. Yes. First, the nature of the margins themselves has changed substantially  
18 since the time of our last rate case. Second, there have been changes in the  
19 overall electricity marketplace that affect both the anticipated level of future  
20 wholesale margins and their predictability.

21

22 Q. PLEASE DESCRIBE THE NATURE OF COMPANY ASSET-BASED WHOLESALE  
23 MARGINS IN THE 1993 TEST YEAR.

24 A. In the Company's last general rate case, approximately 30% of the \$ 1.5  
25 million in total margins were projected from longer-term (one- to two-year)  
26 capacity sales to other investor-owned utilities. An additional 60% was  
27 projected from firm energy sales primarily associated with those capacity sales,

1 plus certain mid-term seasonal energy sales. Of the \$1.5 million in total  
2 wholesale margins in the 1993 test year, only about 10% were attributed to  
3 projected sales into the spot energy market.  
4

5 Q. HAS THE COMPANY GENERATED ASSET-BASED WHOLESALE SALES MARGINS IN  
6 EXCESS OF THE \$28 MILLION TOTAL COMPANY BUDGET SINCE THE RETAIL  
7 CREDIT WAS ESTABLISHED IN CASE NO. PU-400-92-399?

8 A. Exhibit \_\_ (ADK-1), Schedule 2 provides a history of wholesale sales margin  
9 activity since 1994 the first year following the 1993 test year. In some years  
10 between 1993 and the filing of this rate case, the Company under-recovered  
11 the \$28 million amount, and in other years it collected more. In the last few  
12 years, the Company has collected more than \$28 million. Since 1993, the  
13 Company has averaged approximately \$40.8 million annually in wholesale  
14 margins  
15

16 Q. PLEASE COMPARE AND CONTRAST THE ASSET-BASED WHOLESALE MARGINS IN  
17 THE 1993 TEST YEAR TO THOSE THE COMPANY EXPECTS TO EARN IN 2008.

18 A. As the electric supply needs of our customers have increased since 1993, the  
19 Company's unused base-load resources have largely been absorbed by growth  
20 in native load and the Company has increasingly relied on purchases from  
21 third parties. Since the Company is now a significant net purchaser of capacity  
22 and energy, our available resources to make wholesale sales differs significantly  
23 from 1993. In the past, the Company was able to make sales commitments  
24 extending beyond the day-ahead and real time markets. These commitments  
25 were based upon reasonable expectations that the Company would have  
26 resources in excess of our native load obligations. Since these types of  
27 commitments can no longer be made, the Company's wholesale sales budget

1 for the 2008 test-year consists solely of daily and hourly short-term sales, a  
2 stark contrast to the one- to two-year transactions that contributed to the \$1.5  
3 million margin credit in the 1992 rate case. Hourly and daily sales are strictly  
4 dependent on hourly and daily variation in load and resources that randomly  
5 occur for all market participants, including the Company. These opportunities  
6 are less predictable and more volatile than longer-term capacity and energy  
7 sales, making it difficult to establish a forecast for a fixed credit to the cost of  
8 service that is sufficiently accurate for ratemaking purposes. As such, I believe  
9 a fixed credit to base rates is no longer an effective regulatory approach to the  
10 treatment of wholesale margins.

11  
12 Q. PLEASE EXPAND ON WHY YOU BELIEVE THAT A FIXED CREDIT IS NOT AN  
13 EFFECTIVE REGULATORY APPROACH?

14 A. Because of the uncertainty surrounding a forecast of annual asset-based  
15 wholesale margins, a fixed credit would create substantial risk for both the  
16 Company and our North Dakota customers. Our previous ability to derive a  
17 reasonably accurate forecast that could establish a reasonable fixed margin  
18 credit in base rates was primarily linked to long-term wholesale capacity sales.  
19 As such, it was relatively easy to develop a credit based on known and  
20 predictable revenue streams. Now that our wholesale margins are generated  
21 from very short-term sales (e.g., daily and hourly sales), forecasts are much  
22 more unpredictable.

23  
24 As such, the fixed margin credit approach would place undue risk on both the  
25 Company and our customers: the Company would bear the risk that the credit  
26 is set too high to achieve in the test year and beyond; ratepayers would bear  
27 the risk that the credit is set too low. Therefore, a fixed credit does not align

1 the interests of the Company and our customers. A different approach is  
2 warranted that results in “win-win” outcomes.

3  
4 Q. HOW DOES THE COMPANY FORECAST SHORT-TERM ASSET-BASED WHOLESale  
5 MARGINS?

6 A. The Company relies on the same forecasting tools that we have used for the  
7 past several years, namely a production cost simulation of the operation of our  
8 system that incorporates forecasted loads, generation availability, and market  
9 prices. This simulation is performed with our PROSYM software model of the  
10 system.

11  
12 Q. WHAT IS THE COMPANY’S FORECAST FOR ASSET-BASED WHOLESale MARGINS  
13 FOR THE TEST-YEAR 2008?

14 A. Using PROSYM, we have forecasted asset-based wholesale margins of  
15 approximately \$42.6 million, net of transmission costs, for Xcel Energy, of  
16 which \$2.1 million is attributable to the North Dakota Jurisdiction. The  
17 Company’s 2008 operating budget includes this margin estimate. Like any  
18 predictive production cost model, the PROSYM model relies on a large  
19 number of forecasted values, and changes in the price of power and fuel can  
20 change the model’s final results. With that said, I believe the PROSYM  
21 margin forecast is the most accurate available.

22  
23 Q. GIVEN THE UNCERTAINTY YOU CITE, IS THE COMPANY PROPOSING AN  
24 ALTERNATIVE TO THE FIXED CREDIT FOR ASSET-BASED WHOLESale MARGINS?

25 A. Yes. Rather than rely on an asset-based wholesale margin forecast to derive an  
26 unchanging fixed credit to base rates, the Company proposes a mechanism  
27 that shares the benefits of actual asset-based wholesale margins through the

1 fuel cost recovery (“FCR”) mechanism in a manner similar to what Montana-  
2 Dakota Utilities (“MDU”) uses in North Dakota (approved in Case No. PU-  
3 399-03-296). This method reduces the uncertainty and risk to customers and  
4 Company alike, as benefits are shared as they are created.

5  
6 Q. HOW DOES THE SHARING OF ASSET-BASED WHOLESALE SALES MARGINS  
7 THROUGH THE FCR BENEFIT CUSTOMERS?

8 A. I believe that economic regulation is most effective when the interests of the  
9 customer and the utility are aligned. As the Commission is well aware,  
10 incentive mechanisms are an effective way to align the interests of the  
11 customer and the Company, encouraging behavior that is beneficial to both.  
12 They are typically designed to increase the likelihood of larger total benefits  
13 being created compared to a regulatory treatment that does not encourage  
14 efficient behavior.

15  
16 Q. DO YOU HAVE A SPECIFIC PROPOSAL FOR THE COMMISSION TO CONSIDER?

17 A. Yes. In light of the uncertainty surrounding a test-year forecast of wholesale  
18 margins, I recommend that the estimated asset-based wholesale margin credits  
19 be removed from the base cost of service and hence base rates. Instead, the  
20 Commission should approve a sharing mechanism implemented through the  
21 proposed FCR to lower customer bills by passing through actual asset-based  
22 wholesale margins as they are achieved. Specifically, the Company proposes  
23 that, consistent with the sharing percentages approved by the Commission for  
24 MDU in Case No. PU-399-03-296, ratepayers receive 85 percent of the actual,  
25 asset-based wholesale margins achieved with shareholders retaining the  
26 remaining 15 percent. Under this approach, if the asset-based margins  
27 allocated to the North Dakota jurisdiction were \$3 million in a single year,

1 North Dakota customers would receive 85 percent or a \$2.6 million credit  
2 through the FCR, and shareholders would retain \$0.4 million.

3  
4 Q. WHY DOES IT MAKE SENSE TO ALLOW THE COMPANY TO RETAIN A SMALL  
5 PORTION OF ACTUAL ELECTRIC WHOLESALE MARGINS REALIZED?

6 A. The Commission has previously acknowledged the benefits of providing  
7 utilities in North Dakota with appropriate incentives to encourage  
8 achievement of additional cost savings or revenues that would ultimately  
9 reduce customer charges for retail electric service. In Case No. PU-439-94-  
10 590 the Commission issued its “Guidelines for Alternative Regulation” which  
11 states, among other things, that “regulatory signals should encourage short and  
12 long term cost optimization...” The Commission subsequently approved  
13 performance-based regulatory models for both Xcel Energy and Otter Tail  
14 Power Company (Case No. PU-400-00-195 and Case No. PU-401-00-36,  
15 respectively) establishing a 50/50 sharing of earnings exceeding an authorized  
16 earnings range. With the relatively small but sufficient incentive of being able  
17 to retain 15 percent of wholesale margins, the Company would be encouraged  
18 to make cost-effective investments in energy trading infrastructure or incur  
19 additional operation and maintenance costs at our plant sites as needed to  
20 maximize these sales.

21  
22 **B. Non-Asset Based Trading**

23  
24 Q. PLEASE DESCRIBE THIS SECOND TYPE OF TRADING CALLED NON-ASSET BASED  
25 TRADING THAT CAN ALSO CREATE WHOLESALE MARGINS.

26 A. Non-asset based trading is the practice of purchasing energy in the wholesale  
27 market over and above our customers’ needs and attempting to resell it for a

1 profit. In these transactions, the Company operates as a competitive marketer  
2 of wholesale energy, with the potential for economic gains and the risk of  
3 losses. Although the introduction of centralized power markets like MISO has  
4 increased the types of transactions included in non-asset based trading  
5 activities, this basic description still applies. This activity has increased due to  
6 the issuance of the Energy Policy Act in 1992, in which FERC began the  
7 active promotion of competitive energy markets and began providing market  
8 participants with equal access to the transmission grid.

9  
10 Q. IS THIS MARKET-BASED ACTIVITY REGULATED?

11 A. Yes. This activity is regulated by the FERC. Although the sale prices are not  
12 subjected to significant regulation, the treatment of margins is regulated. The  
13 Joint Operating Agreement (“JOA”), a FERC-approved tariff between NSP  
14 and the other Xcel Energy utility operating companies, anticipated such  
15 trading, defined in that agreement as “Non System Marketing.”

16  
17 Q. PLEASE DESCRIBE THE JOA AND ITS PURPOSE.

18 A. The JOA was established in 2000 with the completion of the Xcel Energy Inc.  
19 merger. Its purpose is to coordinate the trading and resource acquisition  
20 activities of the Xcel Energy utility operating companies, including the  
21 Company. The JOA ensures that we coordinate these activities, including  
22 Non-System Marketing, to the joint benefit of all of the operating companies.

23  
24 Q. WHAT GUIDANCE DOES THE JOA PROVIDE REGARDING REGULATORY  
25 TREATMENT OF MARGINS GENERATED FROM THESE ACTIVITIES?

26 A. The JOA requires that all margins from such activity -- regardless of which  
27 utility operating company executed a specific transaction -- be pooled and

1 allocated among the companies based on the prior year's peak demand. Once  
2 this allocation is made, the margins are subject to the applicable retail  
3 regulatory treatment of the relevant state jurisdiction.

4  
5 Q. WHAT IS THE CURRENT REGULATORY TREATMENT OF THESE NON-ASSET  
6 BASED TRANSACTIONS IN THE NORTH DAKOTA JURISDICTION?

7 A. There is no specific guidance regarding such transactions, as they were not  
8 anticipated at the time of our 1992 electric rate case. The credit to the retail  
9 cost of service adopted in our most recent electric general rate case was based  
10 on anticipated asset-based wholesale transactions only. Thus, ratepayers have  
11 been unaffected by any gains or losses due to non-asset-based trading activity  
12 since the merger.

13  
14 Q. IS IT APPROPRIATE FOR REGULATED UTILITIES TO ENGAGE IN NON-ASSET  
15 BASED TRADING ACTIVITIES?

16 A. Yes. FERC has for many years promoted competition in wholesale markets.  
17 At present, most utilities, including the Company, have FERC-approved  
18 market-based sales tariffs that allow them to make wholesale sales at market-  
19 based rates. Utilities have actively participated in these markets, and have  
20 increased such activities as the competitive markets have matured and  
21 deepened.

22  
23 The Company also has a compelling interest in full participation in the electric  
24 energy trading markets, as failure to do so would cause our customers to incur  
25 higher costs through less informed and more costly economic purchase and  
26 operational decisions. Less information in a commodity market translates into  
27 a risk of the utility paying more for purchases and receiving less for its sales.

1 Thus, this trading activity benefits our customers by generating substantial  
2 market price intelligence that is applied to a wide variety of system marketing  
3 and operational decisions.

4  
5 Q. CAN YOU EXPAND ON HOW MARKET INTELLIGENCE FROM NON-ASSET BASED  
6 MARKETING ACTIVITY BENEFITS XCEL ENERGY CUSTOMERS?

7 A. Yes. Although one of the benefits of MISO has been the increased  
8 transparency of power prices, other regional markets primarily to the north  
9 and west of MISO do not have transparent prices, and events in these regional  
10 markets can impact the power supply prices in the upper Midwest. Our  
11 proprietary trading activities create price discovery in other markets that can  
12 then be used to adjust our power prices upwards or downwards.

13  
14 In addition, non-asset trading allows us to be active in multiple markets on a  
15 daily and even hourly basis. This activity provides a wealth of information  
16 concerning the outage status of generation, utility load expectations,  
17 transmission constraints, and other market fundamentals that impact price.  
18 Absent this effort, we would not be talking to these market participants daily,  
19 and our phone calls to customers and suppliers would not be treated with the  
20 same priority. In addition, these trading activities often identify beneficial  
21 opportunities for our customers. These additional trading activities provide us  
22 substantially greater knowledge of our potential economic alternatives for  
23 asset-based purchases and sales to benefit our native load. Finally, other  
24 market participants are aware of our marketing activities in areas outside of the  
25 upper Midwest; such knowledge serves to keep the prices they offer us in line  
26 with true market prices.

27

1 Q. WHAT IS THE COMPANY'S FORECAST FOR NON-ASSET BASED WHOLESALE  
2 MARGINS FOR THE TEST-YEAR 2008?

3 A. The amount included in the 2008 test-year for non-asset based wholesale  
4 margins is \$260,000.

5

6 Q. CAN NON-ASSET-BASED TRADING ACTIVITIES RESULT IN LOSSES AS WELL AS  
7 GAINS?

8 A. Yes. Unlike traditional wholesale margins created from short-term surplus  
9 generation sales, non-asset trading can result in both positive wholesale  
10 margins and losses. While the Company has never experienced losses from  
11 this activity on an aggregate annual basis, losses can and do occur on  
12 individual transactions or during shorter-term trading periods.

13

14 Q. WHAT REGULATORY TREATMENT OF THIS ACTIVITY DO YOU PROPOSE FOR  
15 THIS PROCEEDING?

16 A. I recommend a similar sharing mechanism for non-asset trading activity, with  
17 a smaller percentage of the net gain flowing to North Dakota retail customers.  
18 Like asset-based wholesale margins, the margins created from this activity  
19 cannot be forecasted using a production cost model or any other asset-based  
20 model, making a forecast of Non-asset margins for the North Dakota  
21 jurisdiction unreliable. Further, the pooled nature of these margins under the  
22 JOA makes it even more difficult to develop a forecast, since the amounts  
23 would depend on the activities of all Xcel Energy operating companies. A  
24 sharing mechanism would allow the benefit of the margins actually achieved to  
25 flow through to customers, while retaining our incentive for active and  
26 aggressive participation in this market.

27

1 Q. WHAT SPECIFICALLY DO YOU PROPOSE?

2 A. I propose that North Dakota customers receive 15 percent of the  
3 jurisdictional allocation of the margins created by non-asset-based  
4 transactions, with shareholders retaining the other 85 percent. We would  
5 credit the FCR in an amount of 15 percent of actual, non-asset-based margins  
6 as they are achieved and pooled pursuant to the JOA, similar to the approach I  
7 proposed for the asset-based margins. Like that proposal, this simple  
8 approach aligns the interests of our customers and the Company.

9

10 Q. WOULD CUSTOMERS BEAR ANY RISKS UNDER YOUR PROPOSAL?

11 A. No. As I noted above, there is some risk of loss in this type of trading,  
12 although we have never experienced a net loss on an annual basis. However,  
13 given the types of risks associated with non asset-based trading, the  
14 Company's proposed sharing mechanism includes ratepayer protection against  
15 any net aggregate annual losses. Thus, assuming that non-asset based margins  
16 are positive in a calendar year, ratepayers would receive 15 percent of these  
17 margins. In the event that net aggregate losses are incurred for the calendar  
18 year, the Company would not flow these losses through the FCR, and  
19 shareholders would bear all of these losses.

20

21 Q. WHY DO YOU PROPOSE HERE THAT CUSTOMERS RECEIVE ONLY 15 PERCENT OF  
22 NON-ASSET-BASED MARGINS, COMPARED TO YOUR PROPOSAL TO RETURN 85  
23 PERCENT OF ASSET-BASED MARGINS?

24 A. The Company proposes to bear all of the risks of non-asset-based activity.  
25 This is in stark contrast to asset-based activity, where the costs associated with  
26 the assets used to make these sales are embedded in rates, putting our  
27 customers at risk to optimize the value derived from these assets. Clearly, a

1 significantly higher ratepayer retention rate is justified in the case of asset-  
2 based sales.

3  
4 Q. WOULD A VARIANCE TO THE COMMISSION'S FUEL CLAUSE RULES BE REQUIRED  
5 FOR YOUR MARGIN-SHARING PROPOSAL FOR NON-ASSET-BASED TRADING  
6 MARGINS?

7 A. No, I don't believe so. N.D. Admin. Rules 69-09-02-39, of the Commission's  
8 rules grants the Commission the authority to modify the standards for  
9 determining fuel costs and sales for good cause shown. Based on the above  
10 discussion, good cause has been shown for allowing the flow through of the  
11 wholesale margins using the fuel clause mechanisms as discussed in my  
12 testimony.

13  
14 Q. WOULD A TARIFF CHANGE BE REQUIRED?

15 A. Yes. The FCA tariff sponsored by Mr. Zins provides for the treatment of  
16 these margins through the FCA.

17  
18 **IV. SUMMARY AND CONCLUSION**

19  
20 Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS IN THIS PROCEEDING.

21 A. I believe the Commission should take a new approach to the treatment of  
22 wholesale margins in our rate case, given the considerable uncertainty  
23 surrounding any forecast of test year margin levels and the evolving wholesale  
24 electricity marketplace. This new approach should be based on our actual  
25 annual performance in achieving wholesale margins and not on a single  
26 forecasted test year. The margin credits should flow through the existing FCR

1 mechanism rather than base rates to allow for timely pass through to  
2 customers.

3  
4 Consistent with this discussion, I recommend the Commission approve the  
5 Company's sharing proposals for wholesale margins. Specifically, the  
6 Commission should approve ratepayer retention of 85 percent of the benefits  
7 of the annually achieved asset-based margins. The actual amounts realized  
8 would be shared in this manner through the FCR. With respect to non-asset-  
9 based trading, I recommend that ratepayers receive 15 percent of all realized  
10 margins, following application of the JOA and that they bear no risk of  
11 aggregate losses from this activity in a calendar year.

12  
13 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

14 A. Yes, it does.

1 STATE OF NORTH DAKOTA  
2 BEFORE THE  
3 PUBLIC SERVICE COMMISSION  
4  
5

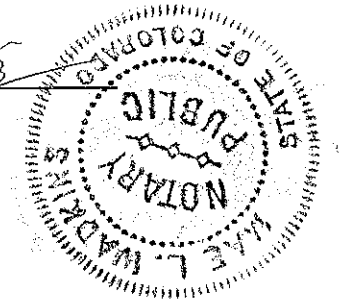
6 In the Matter of the Application of Northern )  
7 States Power Company, a Minnesota Corporation )  
8 For Authority to Increase Rates for Electric Service )  
9 in North Dakota )

Case No. PU-07-\_\_\_\_


10  
11  
12  
13 **AFFIDAVIT OF**  
14 **Allen D. Krug**  
15  
16

17 I, the undersigned, being duly sworn, depose and say that the foregoing is  
18 the Direct Testimony of the undersigned, and that such Direct Testimony and the  
19 exhibits or schedules sponsored by me to the best of my knowledge, information  
20 and belief, are true, correct, accurate and complete, and I hereby adopt said  
21 testimony as if given by me in formal hearing, under oath.  
22

23  
24   
25 \_\_\_\_\_  
26 Allen D. Krug  
27  
28  
29



30 Subscribed and sworn to before me, this 4th day of December, 2007.  
31

32   
33 \_\_\_\_\_  
34 Notary Public  
35  
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# Al Krug

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## ***EDUCATION***

1980 University of California, Los Angeles  
MA, Economics  
1978 Queens College, City University of New York  
BA, Economics

## ***WORK EXPERIENCE***

2003- Present **Xcel Energy Services, Inc., Denver, Colorado**  
***Regulatory Consultant***

- Develop regulatory strategy for Commercial Operations
- Coordinate compliance activity
- Coordinate internal and external audits of trading activity

1998- 2003 **Xcel Energy Services, Inc., Minneapolis, MN**  
***Manager Renewable Energy/Regulatory Contract Coordinator***

- Develop corporate strategies for renewable energy development.
- Represent Company at state regulatory and legislative proceedings regarding renewable energy issues.
- Negotiate purchased power contracts for renewable energy.
- Manage Energy Market's regulatory interactions with internal and external stakeholders.

1994-1998 **Minnesota Department of Commerce, St. Paul, MN**  
***Supervisor, Electric Regulatory Unit***

- Manage regulatory staff to participate in state regulatory proceedings before the Minnesota Public Utilities Commission.
- Submit expert testimony in regulatory proceedings.
- Represent the Department of Commerce before the Minnesota legislature.

1982 - 1994 **Minnesota Department of Commerce, St. Paul, MN**  
***Principal Statistical Analyst***

- Submit expert testimony in regulatory proceedings.
- Perform economic and statistical analysis to support regulatory and energy policy initiatives.

**NORTHERN STATES POWER COMPANY**  
**NSP HISTORICAL WHOLESALE ACTIVITY**  
**TOTAL COMPANY**  
**(Dollars in Thousands)**

<b>YEAR</b>	<b>MARGIN</b>
1993T	\$28,117
1993A	\$28,121
1994A	\$19,626
1995A	\$19,412
1996A	\$16,134
1997A	\$16,809
1998A	\$31,263
1999A	\$26,542
2000A	\$57,797
2001A	\$51,627
2002A	\$29,272
2003A	\$59,600
2004A	\$89,200
2005A	\$74,326
2006A	\$51,529
Average	\$40,804

T = Test Year 1993 Budget data

A = Actual Year data

**Notes:**

Source:

Column (3), (4) & (7) from Sales Summary

- (1) Option Revenues, account E456 are included within the Energy and Demand Revenues  
other minor differences are due to rounding and timing of journal entries
- (2) Incremental costs were adjusted by \$7,480 in 1999 to reflect MAPP refund in the appropriate year.
- (3) Includes Wholesale transmission demand costs and option expenses and joint use revenues.