

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING

A PROFESSIONAL CORPORATION

232 SOUTH CAPITOL AVENUE, SUITE 1000

LANSING, MICHIGAN 48933

TELEPHONE (517) 482-2400 FACSIMILE (517) 482-7227

JACK C. DAVIS, PC
KARL L. GOTTING, PC
DAVID M. LICK
HARVEY J. MESSING
JAMES R. NEAL
KENNETH W. BEALL
MICHAEL G. OLIVA
JEFFREY W. BRACKEN
CATHERINE A. JACOBS
RONALD W. BLOOMBERG
MICHAEL H. RHODES
HOWARD J. SOIFER

JEFFREY L. GREEN
GARY L. FIELD
SHERRI A. WELLMAN
KELLY K. REED
JEFFREY S. THEUER
DANIEL L. PULTER
ELDONNA M. RUDDOCK
KEVIN J. RORAGEN
THERESA A. SHEETS
SCOTT R. NANNINI
JARED A. ROBERTS
LISA A. HANSON

PLUMMER SNYDER
(1900-1974)

GEORGE W. LOOMIS
QUENTIN A. EWERT
WILLIAM D. PARSLEY
OF COUNSEL

SUE ANN GEIERSBACH
OF COUNSEL-SPECIAL PROJECTS

June 5, 2000

Dorothy Wideman
Executive Secretary
Michigan Public Service Commission
6545 Mercantile Way
Lansing, Michigan 48911

HAND DELIVERY
(e-file)

Re: Northern States Power Company-Wisconsin
d/b/a Xcel Energy
MPSC Case No. U-12651

Dear Ms. Wideman:

Enclosed for filing are an original and four (4) copies of the testimony and exhibits of Donald F. Reck and Gerald W. Marx. The testimony and exhibits of Mr. Marx support the unbundling of existing commercial, industrial and residential rates. These unbundled rates are revenue neutral, and do not reflect an increase in the cost of service to any of the Company's existing electric customers, and therefore, may be authorized without the time and expense of hearings.

Finally, enclosed for filing is an original Proof of Service.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Sherri A. Wellman
Sherri A. Wellman

SAW/kkf

Enclosure

cc: Parties of Record

F:\Kelly\HJM-SAW Files\Nspw\U-12651\Wideman 060601 wpd.wpd

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
NORTHERN STATES POWER COMPANY-)
WISCONSIN for the approval of its plan to)
Implement 2000 PA 141.)

Case No. U-12651

PROOF OF SERVICE

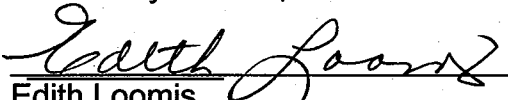
STATE OF MICHIGAN)
) SS
COUNTY OF INGHAM)

Kelly Kay Fitzgerald, being duly sworn, deposes and says that she is employed in the law offices of Loomis, Ewert, Parsley, Davis & Gotting, P.C. and that on the 5th day of June, 2001, she served a copy of **testimony and exhibits of Donald F. Reck and Gerald W. Marx**, upon the persons on the attached service list by enclosing same in a sealed envelope with first-class postage fully prepaid, addressed to them at the addresses set forth and by depositing the envelopes and contents in the United States government mail.



Kelly Kay Fitzgerald

Subscribed and sworn to before me
this 5th day of June, 2001.



Edith Loomis

Notary Public;

Ingham County, Michigan

My Commission Expires: 12/05/2004

F:\Kelly\HJM-SAW Files\Nspw\U-12651\POS 060501wpd.wpd

IMPLEMENTATION PLAN 2000 PA 141
Case Nos. U-12651

SERVICE LIST

ALJ Daniel E. Nickerson

611 West Ottawa Street
Ottawa State Office Building 2nd Floor
P.O. Box 30695
Lansing, Michigan 48909-8195
daniel.e.nickerson@cis.state.mi.us

Christine M. Soneral

Dykema Gossett PLLC
800 Michigan National Tower
Lansing, Michigan 48933
cmason@dykema.com

Robert A. LeFevre

Clark Hill, PLC
2455 Woodlake Circle
Okemos, Michigan 48864
rlefevre@clarkhill.com

Brian W. Coyer

Knaggs, Harter, Brake & Schneider
1375 S. Washington Ave., Ste.300
Lansing, Michigan

Larry G. Watterworth

Assistant Attorney General
6545 Mercantile Way, Suite 15
Lansing, Michigan 48911
watterworthl@ag.state.mi.us

James D. Florip

Gillard, Bauer, Mazrum, Florip
109 East Chisholm
Alpena, Michigan 49707
jdflorip@gillardlaw.com

Don L. Keskey

Knaggs, Harter, Brake & Schneider
1375 S. Washington Ave., Ste. 300
Lansing, Michigan 48910
kblaw@voyager.net

Richard Aaron

222 N. Washington Square, Suite 400
Lansing, Michigan 48933-1800
rja@honigman.com

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
Northern States Power Company - Wisconsin)
d/b/a Xcel Energy, for approval of its plan for)
implementation of 2000 PA 141)
-----)

Case No. U-12651

Direct Testimony of
Gerald W. Marx

On Behalf of:

Northern States Power Company-Wisconsin
d/b/a Xcel Energy

Filed: June 5, 2001

DIRECT TESTIMONY OF GERALD W. MARX

1 **Q. Please state your name and business address.**

2 A. My name is Gerald W. Marx. My business address is 1414 West Hamilton Avenue,
3 P.O. Box 8, Eau Claire, Wisconsin 54702-0008.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed as Senior Pricing Analyst by Xcel Energy Services Inc., the service
6 Company for Xcel Energy Inc. Xcel Energy Services Inc. provides corporate and
7 other services, including regulatory services, to Xcel Energy Inc. and its
8 subsidiaries. Xcel Energy Inc. is the holding company created by the merger of
9 Northern States Power Company and New Century Energies, Inc. Northern States
10 Power Company, a Minnesota corporation (NSP-Minnesota) and Northern States
11 Power Company, a Wisconsin corporation ("NSP-W" or the "Company"), are both
12 wholly-owned operating subsidiaries of Xcel Energy Inc. My duties presently
13 include electric rate design, cost of service analyses, rate administration and related
14 activities on behalf of NSP-W.

15 **Q. Would you summarize your educational and professional background?**

16 A. I have a Bachelor of Electrical Engineering degree from the University of
17 Minnesota (1969), and a Master of Electrical Engineering degree from Santa Clara
18 University (1976). I am a Registered Professional Engineer in both Wisconsin and
19 Minnesota. From 1977 to 1982, I was employed by Northern States Power
20 Company of Minnesota (NSP-M) in Minneapolis, as a generation planning

1 engineer; and later as a rate engineer. Since April 1982, I have been employed by
2 NSP-W in the Rate and Pricing areas.

3 **Q. Have you previously testified before this Commission?**

4 A. Yes, I have in Case No. U-11777.

5 **PURPOSE OF TESTIMONY**

6 **Q. What is the purpose of your testimony in this proceeding?**

7 A. The purpose of my testimony is to sponsor the Company's submission for approval
8 of proposed commercial and industrial unbundled service schedules in compliance
9 with Sec.10b.(2) of PA 141 of 2000. In conjunction with the proposed unbundled
10 commercial and industrial tariffs, the Company is also proposing unbundled
11 residential service schedules. All of these proposed unbundled service schedules, in
12 concert with the tariff sheets presented by Mr. Reck, are designed to implement
13 Retail Open Access Service for NSP-W retail electric Michigan customers,
14 beginning on January 1, 2002.

15 **Q. Please summarize your testimony?**

16 A. My testimony presents the Company's proposed unbundled Service Schedules and
17 the underlying rate development including the supporting analysis performed using
18 the unbundled customer class cost of service study (COSS). The COSS is based
19 upon the 1998 Test Year retail electric settlement agreement in Case No. U-11777,
20 as approved by the Commission on January 6, 1999. From that case, I have
21 utilized the embedded COSS to calculate the unbundled cost responsibilities for the
22 retail customer classes. The cost analysis provides the basis for the split of revenue
23 requirements between the two general categories of power supply and distribution

1 services. This split is incorporated in the unbundled tariffs proposed for the 2002
2 calendar year. The rate level development utilizes calendar year 2002 budgeted
3 billing units.

4 **ORDER OF TESTIMONY**

5 **Q. In what order will you present the remainder of your testimony?**

6 A. The order is as follows:

- 7 1) Description of the proposed Unbundled Service Schedules
- 8 2) Description of the proposed Unbundled Electric rate design
- 9 3) Results of the Unbundled Class Cost of Service Study

10 **Q. Are you sponsoring an Exhibit in this proceeding?**

11 A. Yes, I am sponsoring two exhibits. Exhibit A-____(GWM-1) contains the proposed
12 electric Unbundled Service Schedules for implementing open access in the NSP-W
13 Michigan service territory. Exhibit A-____(GWM-2), in the first 16 pages,
14 compares the present rate levels and proposed unbundled rate levels for the year
15 2002 and presents the billing units and revenues generated under both present
16 (bundled) and proposed (unbundled) rate levels. In pages 17 to 19 of my Exhibit
17 A-____ (GWM-2), I provide a summary results of the 1998 Test Year unbundled
18 COSS. This study was used to determine the split of distribution versus power
19 supply costs for NSP-W Michigan retail electric customers.

20 **Q. Were these exhibits prepared by you or under your supervision?**

21 A. Yes, they were.

22 **PROPOSED UNBUNDLED SERVICE SCHEDULES**

23 **Q. Please describe the service schedules in your Exhibit A-____ (GWM-1).**

1 A. The proposed service schedules are listed in the Table of Contents of my Exhibit A-
2 ____ (GWM-1). The schedules contain the unbundled rate levels and terms and
3 conditions of service to provide NSP-W electric customers with Company-provided
4 distribution service. Electric supply is a customer choice and can be provided by an
5 Alternative Electric Supplier (AES) or by the Company. Generally we have
6 modified the bundled or traditional service schedules so that they now contain
7 distribution charges separated from power supply charges. For a customer selecting
8 power supply from an AES, the distribution charges would be found on the tariff
9 sheet that previously contained the customer's bundled rates. We are also including
10 proposed distribution service extension rule changes to recognize unbundled
11 distribution rates.

12 **Q. Do these service schedules provide for customers who choose to have power**
13 **supply provided by either an AES or the Company?**

14 A. Yes, they do. Both sources of power supply are supported in these service
15 schedules. AES choice is provided according to Open Access Customer Supply
16 Service CSS-1, while Company power supply choice is provided according to
17 System Supply Service SSS-1. For example, if a large industrial customer
18 receiving service according to Large Industrial Service schedule MI-1 chooses an
19 AES, then service is provided according to schedules MI-1 and CSS-1. If a
20 customer chooses Company-provided power supply service, then service is
21 provided according to schedules MI-1 and SSS-1.

22 **Q. Does the Company propose an effective date for the proposed service**
23 **schedules?**

1 A. Yes, we are proposing the service schedules become effective January 1, 2002 to
2 coincide with the requirements of P. A. 141.

3 **Q. For which customer classes is NSP-W proposing customer choice of an AES?**

4 A. Generally, we are proposing customer choice for Residential, Small Commercial,
5 Large Commercial, Industrial and Municipal Pumping customers. In addition, we
6 have developed proposed unbundled service schedules for optional load
7 management services under which only Company-provided power supply is
8 available. These proposed distribution and power supply service schedules are
9 listed in the Table of Contents of my Exhibit A-____ (GWM-1).

10 **Q. Please explain the services provided by schedules listed under the Distribution**
11 **Service Schedules title.**

12 A. The Distribution Service Schedules provide for all distribution delivery-related
13 services provided by the Company to meet the requirements of implementing retail
14 open access. These services generally include billing, metering, customer service
15 and information, distribution delivery service, and distribution settlement. These
16 services are provided under the general framework of the present NSP-W Michigan
17 retail electric customer classes, such as residential, small commercial and industrial
18 customer classes. Each distribution service schedule contains a listing of the power
19 supply options available under that distribution service.

20 **Q. Are you proposing unbundled distribution service schedules for your optional**
21 **load management services?**

22 A. Yes, although the load management services do not provide for a customer to select
23 an AES, these unbundled optional load management services are proposed to

1 indicate the unbundled rate levels to customers who have opted for the load
2 management services. Power Supply for the load management customers is only
3 available with Company-provided power supply according to System Supply
4 Service SSS-1. Providing this information enables these customers to compare
5 their rate levels to rate levels of customers opting for customer choice.

6 **Q. What service schedules provide for power supply service?**

7 A. The power supply service schedules are listed under the heading of Power Supply
8 Service Schedules in the Table of Contents of my Exhibit A-____(GWM-1). The
9 power supply service schedules provide for customer power supply from an AES
10 according to schedule CSS-1, for Company provided default service according to
11 schedule SDS-1 and for Company provided System Supply Service according to
12 schedule SSS-1.

13 **Q. Will customers who do not choose an AES continue to receive their power**
14 **supply from the Company?**

15 A. Yes, for Customers who do not choose power supply from an AES, the Company is
16 obligated to serve these customers. The Company provides this power supply
17 service for these Customers according to service schedule SSS-1.

18 **Q. For Customers who choose an AES, what power supply service schedule**
19 **applies?**

20 A. Upon switching, the customer is served by an AES according to Customer Supply
21 Service schedule CSS-1. Under this schedule, the AES is responsible for securing
22 generation and transmission service to serve the customer's load.

1 **Q. Can these customers switch from AES-provided power supply service to**
2 **Company-provided power supply service?**

3 A. Yes, according to certain conditions. If the customer's power supply service from
4 the AES terminates such that the Company, without proper prior notice, must
5 provide Customer with power supply service, then the Company provides service
6 under Supply Default Service schedule SDS-1. If the Customer provides proper
7 prior notice for returning to Company-provided power supply service, then the
8 Company provides power supply service to the customer according to System
9 Supply Service schedule SSS-1.

10 **Q. Does the Company make special provision for a customer who is slammed by**
11 **an AES for power supply service?**

12 A. Yes, the Company makes special provision to protect customers who are being
13 served under SSS-1 and who discover that they have been slammed by an AES for
14 power supply service. Such Customer may request immediate return to SSS-1
15 service, without the requisite prior notice and without penalty.

16 **Q. After the proposed implementation date of January 1, 2002, will customers**
17 **who choose to continue to receive their power supply from the Company, see a**
18 **change in their total rate levels?**

19 A. As compared to present rates, customers will see no change in their total rate levels.
20 The monthly customer charge is the same. Also, the proposed unbundled rate
21 levels total to an amount equal to the bundled present rate levels that are in effect
22 prior to January 1, 2002. For example, under Residential Service MR-1, the

1 bundled energy charge is 6.7 ¢ per kWh. The proposed unbundled charge levels for
2 schedule MR-1 total to the bundled rate level as shown below:

<u>Charge Component</u>	<u>Rate Level (¢ per kWh)</u>
Distribution Charge	2.69
Power Supply	<u>4.01</u>
Bundled Energy Charge	6.70

7 **Q. Will customers who choose an AES, see a change in their total rate levels?**

8 A. Yes, those customers will see a change to the extent their AES's rate levels for
9 power supply service differ from those of the Company.

10 **NEW TERMS AND CONDITIONS OF SERVICE**

11 **Q. Has NSP-W added new terms and conditions of service to the proposed**
12 **unbundled service schedules to accommodate the customer choice program?**

13 A. Yes, new considerations have been included in the proposed unbundled service
14 schedules to accommodate the customer choice program. In addition, the
15 unbundled tariffs reference the joint MEGA RAS-1 schedules sponsored by Mr.
16 Reck, concerning proposed Retail Access Service terms and conditions of service.

17 **Q. Do any of these new provisions apply to all customers, whether or not they**
18 **participate in the customer choice program?**

19 A. The new provisions only apply to those customers who choose an AES according to
20 Service Schedule CSS-1. These include, but are not limited to additional
21 requirements pertaining to Metering, Supplier Switching Limitations, System
22 Power Factor Charges, System Default Service, System Supply Service, Customer
23 Supply Service and distribution facility extension considerations.

1 **Q. Generally what are the new electrical usage metering provisions related to**
2 **customer choice?**

3 A. The Company proposes additional metering options for customers participating in
4 the choice program. These metering options are provided by the Company to allow
5 choice customers some flexibility in their AES arrangements. Smaller customers
6 participating in the choice program may opt for either an energy-only recording
7 meter or a Time-of-Day recording meter or a 15-minute interval demand recording
8 meter (with phone line data retrieval). The various monthly charges for these
9 metering options may be found in the proposed Service Schedules. For example, a
10 single-phase Small Commercial Service MSC-1 customer may choose either a
11 standard kWh meter for \$ 4.25 per month or an interval demand meter for \$ 13.25
12 per month.

13 **Q. Are there any proposed mandatory metering requirements for customers**
14 **participating in the choice program ?**

15 A. Yes, for customers with demands over 25 kW and who participate in the choice
16 program, interval demand metering is mandatory. The metering configuration
17 records 15-minute usage interval data on a monthly basis. The meter data is
18 retrieved by phone line and used to reconcile the customer's usage levels to the
19 power provided by an AES.

20 **Q. Does the company have a more cost effective method of matching or**
21 **reconciling the customer's load to the AES's generation output?**

22 A. No, the Company has not been able to find a more cost effective method than the
23 use of interval demand metering.

1 **Q. What are the provisions for customers who do not choose an AES ?**

2 A. If a Customer does not choose to switch to an AES for power supply, then the
3 Company provides power supplier to the customer according to full requirements
4 service schedule SSS-1. Service according to schedule SSS-1 includes all requisite
5 generation, transmission, distribution and ancillary services.

6 **Q. What are the provisions for customers who choose an AES and subsequently**
7 **their chosen AES ceases to provide power supply to the customer ?**

8 A. When a Customer, who receives distribution service from the Company, is no
9 longer served by a chosen AES, the customer either searches for another AES or,
10 by default, receives power supply service from the Company. Under default
11 service the customer receives power supply from the Company according to
12 schedule SDS-1 for a period of up to 6 months. After service according to SDS-1,
13 the customer may switch to service according to schedule SSS-1. Under these
14 circumstances, the mandatory minimum term of service for the customer under
15 schedule SSS-1 is 12 months.

16 **Q. For distribution facility extensions, what changes are proposed to**
17 **accommodate these proposed unbundled rates?**

18 A. The Company proposes to modify the annual revenue tests for service extensions to
19 recognize annual distribution revenues (when appropriate). This consideration
20 accommodates circumstances where a customer has chosen power supply from an
21 AES and where the Company provides only distribution delivery service. The
22 proposed service schedules that incorporate these modifications are presented in my

1 Exhibit A-____ (GWM-1), as shown on Tariff Sheet numbers 37, 38 and 39, listed
2 in the Table of Contents under the title of Distribution Extension Schedules.

3 **UNBUNDLED ELECTRIC RATE DESIGN**

4 **Q. On what test period is the Company's open access rate design based?**

5 A. The rate design is based on forecasted 2002 billing units and revenues. The first
6 seven pages of my Exhibit A-____ (GWM-2) provides a comparison of the present
7 and proposed unbundled rate levels for each service schedule.

8 **Q. What is the general development process that was followed in designing the**
9 **unbundled rates for NSP-W?**

10 A. In providing a revenue neutral rate design for NSP-W electric service, the present
11 revenues for a customer class are separated into the two main categories of
12 distribution and power supply. (More detail of the costs comprising these two
13 categories is provided below in the discussion of the COSS.) The COSS provides
14 the major customer class apportionment factors of total revenues into distribution
15 and power supply. These factors are incorporated into the unbundled rate design in
16 which appropriately similar customer groups are coordinated for setting distribution
17 rate levels. Once the distribution rate levels are set, the power supply rate levels are
18 calculated so that the total revenues for each rate class remain the same; this
19 provides a rate class revenue-neutral, rate design for the open access program.

20 **Q. For smaller customers that are not demand metered, what customer classes**
21 **are coordinated to provide the same distribution rate levels?**

22 A. A summary of the present and proposed unbundled rate levels are shown in my
23 Exhibit A-____ (GWM-2). As shown on Pages 1, 2 and 6, the five non-demand

1 metered customer classes of MR-1, MR-2, MSC-1, MST-1 and MPA-1 all have the
2 same proposed distribution rate level of 2.69 ¢ per kWh. The power supply
3 component for these customers is derived by subtracting their distribution rate level
4 from their bundled total rate level.

5 **Q. For larger commercial and industrial customers that are demand metered,**
6 **what customer classes are coordinated to provide the same distribution per**
7 **kWh rate levels?**

8 A. For demand metered customers, the rate design incorporates the same distribution
9 charge per kWh rate level. As shown on pages 2,3,4,5 of my Exhibit A-
10 ____ (GWM-2), the four demand metered customer classes of MCI-1, MPC-2,
11 MI-1, MPC-1 all have the same proposed distribution rate level of 1.20 ¢ per kWh.
12 This rate level is also proposed for the MOP-1 Optional Off-Peak Service, shown
13 on Page 6 of the same exhibit. For the demand-metered schedules, the remainder
14 of the distribution related revenues are collected through a distribution demand
15 charge.

16 **Q. Do the proposed unbundled rate components sum to the present bundled rate**
17 **level?**

18 A. Yes they do. This was a general rate design constraint. For example, the present
19 bundled rate levels for the MCI-1 customer are also shown on Page 2 of my Exhibit
20 A- ____ (GWM-2). As shown on line 38, Page 2, the two proposed unbundled per
21 kWh rate levels sum to the present bundled 3.64 ¢ per kWh rate. As shown on line
22 30, Page 2, the two proposed unbundled per kW unbundled rate levels sum to the
23 present bundled \$ 7.45 per kW rate. For all the other demand-metered customer

1 rate classes and the MOP-1 Optional Off-Peak Service, the proposed unbundled
2 rate levels sum to the present bundled rate levels.

3 **Q. Does this rate design constraint produce a revenue neutral, unbundled rate**
4 **design set?**

5 A. Yes it does. As shown on Page 8 of my Exhibit A-____ (GWM-2), the Present
6 Revenues (produced by bundled rates) equal the Proposed Revenues (produced by
7 unbundled rates). This is true for each customer class and for the total utility.

8 **Q. What are the present provisions for System Power Factor Charges?**

9 A. Under the Company's present rates, an MCI-1, MI-1, MPC-1 or MPC-2 customer
10 with a demand over 100 kW is assessed system power factor charges during any
11 billing month when the customer has a monthly power factor below 90 %. These
12 charges are assessed through upward adjustment of the billing demand which is
13 then applied to the monthly demand charge(s).

14 **Q. Would you give an example of how the System Power Factor Charge**
15 **calculated according to present rates?**

16 A. Yes, I will. The power factor adjustment is similar for the MCI-1, MI-1, MPC-1
17 and MPC-2 customer classes. The following example is for a 200 kW, MCI-1
18 secondary voltage customer, with an 85 % power factor. The unadjusted demand
19 billing units of 200 kW provides \$ 1,490 of revenue. The Power Factor
20 Adjustment to the monthly billing demand is the ratio of 90 % divided by 85 % or
21 approximately 1.06. The power factor adjustment provides for 212 kW of billing
22 demand, which, when multiplied by the monthly demand charge of \$ 7.45 per kW
23 provides an additional \$ 89.40 of demand-related revenue due to power factor

1 adjustment. The power factor charge calculation method for the other rate classes
2 mentioned above is similar.

3 **Q. Are you proposing to maintain these System Power Factor Charge provisions**
4 **for customers served according to the proposed SSS-1 and CSS-1 services?**

5 A. Yes, we proposed to maintain the low power factor charges for this same set of
6 customers whether they are served according to either SSS-1 or CSS-1. Preserving
7 this charge is important, because the proposed system power factor charge is chiefly
8 related to distribution system power factor improvement. Furthermore,
9 incorporating this charge will preserve the revenue neutrality principle of this filing
10 and continue to provide the same price signal to customers.

11 **Q. Please provide an example of how a customer served according to proposed**
12 **Schedule SSS-1 is charged for low power factor.**

13 A. This example is based on the same customer used above, namely, a 200 kW, MCI-1
14 secondary voltage customer, with an 85 % power factor, and served according to
15 schedules MCI-1 and SSS-1. The unadjusted demand related-revenue for the 200
16 kW customer is the same amount of \$ 1,490. The System Power Factor
17 Adjustment to the monthly billing demand is the ratio of 90 % divided by 85 % or
18 about 1.06. The power factor adjustment provides for an additional 12 kW of
19 billing demand, which, when multiplied by the total of monthly demand charges of
20 \$ 7.45 per kW provides the same additional revenue of \$ 89.40. The total monthly
21 power factor related charges are the sum of the additional power factor related
22 revenues of \$ 26.04 collected under the service schedule MCI-1 Distribution
23 Demand Charge and \$ 63.36 collected under the service schedule SSS-1 Demand

1 Charge for MCI-1 customers. This proposed treatment is similar for MI-1
2 customers served according to the proposed SSS-1 service.

3 **Q. How would MI-1 and MCI-1 customers who are served according to proposed**
4 **Schedule CSS-1 be assessed System Power Factor Charges?**

5 A. We propose that a customer served according to schedule CSS-1, would receive
6 the same power factor charge treatment as customers served according to schedule
7 SSS-1. These provisions are shown for schedules MCI-1 and MI-1 on sheets 150-
8 156 of my Exhibit A-___(GWM-1). Under the proposed treatment, a 200 kW
9 MCI-1 secondary voltage customer, with an 85 % power factor, and served
10 according to schedule CSS-1, would be assessed a monthly power factor charge of
11 \$ 89.40. The total monthly power factor related charges are the sum of the
12 additional power factor related revenues of \$ 26.04 collected under the service
13 schedule MCI-1 Distribution Demand Charge and \$ 63.36 collected under the
14 service schedule MCI-1 System Power Factor Demand Charge. This is the same
15 charge level that the MCI-1 customer would receive if served according to the
16 proposed SSS-1 schedule. Also, this proposed treatment is similar for MI-1
17 customers served according to the proposed CSS-1 service.

18 **Q. What is the basis for charging both SSS-1 and CSS-1 customers the same**
19 **amounts for low power factor?**

20 A. We propose the same treatment because the power factor charges provide
21 customers with the price signal related to distribution system power factor
22 improvement. At the same time, the system benefits of power factor correction
23 improve not only the distribution system performance adjacent to the customer's

1 location, but generally provide system benefits to the adjacent interconnected
2 transmission and distribution system. These benefits of power factor improvement
3 are shared by both the SSS-1 and CSS-1 customers.

4 **Q. How would MPC-1 or MPC-2 customers be billed for power factor charges**
5 **under the proposed schedules as compared to present rates?**

6 A. For the MPC-1 and MPC-2 customers, the process of calculating power factor
7 charges is essentially the same under both present and proposed rates. For these
8 customers, only proposed schedule SSS-1 is available for power supply service.
9 Proposed service schedule SSS-1 provides the customer with the same rate levels
10 and treatment as do the present rates.

11 **UNBUNDLED ELECTRIC COST OF SERVICE STUDY**

12 **Q. Is the customer choice rate design based upon a recent class cost of service**
13 **study?**

14 A. Yes, we have used the COSS which is based on the last NSP-W rate proceeding
15 before the Commission. The settlement in Case No. U-11777 was approved, by the
16 Commission on January 6, 1999. The COSS comports with the 1998 Test Period
17 NSP-W revenue requirements as approved by the Commission. A summary of the
18 cost study is presented on pages 17 to 19 of my Exhibit A-____ (GWM-2).

19 **Q. Please generally describe the class cost of service study and the customer**
20 **classes presented therein.**

21 A. The cost study presents the approved 1998 Test Year settlement revenue
22 requirements of the NSP-W Michigan retail electric cost jurisdiction. The
23 jurisdictional total revenue requirement is spread across the customer classes in the

1 cost allocation process. The cost study provides results for the following general
2 customer classes: (1) residential, (2) non-demand-metered general service, (3)
3 demand-metered general service, (4) municipal pumping, (5) large commercial, (6)
4 street lighting and (7) automatic protective lighting.

5 **Q. What rate of return does the study reflect for each customer class?**

6 A. The study results reflect the overall 8.49 % settlement rate of return for each
7 customer class.

8 **Q. Into what categories are costs are grouped for the customer classes?**

9 A. In the COSS, the revenue requirements are grouped into five functional categories
10 as follows: (1) customer, (2) transmission, (3) production, (4) distribution, and (5)
11 energy.

12 **Q. Generally, how are the plant, plant related and O&M accounts separated into**
13 **the five functions listed above?**

14 A. Generally, the Federal Energy Regulatory Commission (FERC) Uniform System of
15 Accounts provides guidance for the functional separation of plant, plant related and
16 O&M accounts.

17 **ALLOCATION OF SHARED OR COMMON COSTS**

18 **Q. The Administrative and General O&M expenses and the General and**
19 **Common plant are in more of shared or common category of costs. How are**
20 **these costs assigned to the five major functional use categories?**

21 A. In general, the majority of these shared costs are allocated, rather than directly
22 assigned. These common or shared costs represent approximately 10% of the total
23 revenue requirement for NSP-W Michigan retail electric jurisdiction.

1 **Q. What method is used to allocate those shared or common revenue requirement**
2 **components that can not easily be directly assigned?**

3 A. Where possible, components with an easily identifiable functional use are directly
4 assigned to one of the five functional cost categories. Costs that can not be directly
5 assigned to a functional category are allocated, using a functional cost allocator.
6 Shared expenses such as income taxes, property insurance, property taxes,
7 Administrative and General (A&G) expenses, and General and Common (G&C)
8 plant-related revenue requirements are spread amongst the five functional
9 categories, based upon using the appropriate allocation process. For example,
10 income taxes are spread to the five functions, based upon functional rate base.
11 administrative salaries, office supplies and employee pensions are spread based
12 upon the employee labor distribution among the five functional cost categories.
13 Electric common and general plant revenue requirements receive a similar spread to
14 the five functional cost categories, based upon employee labor. For property
15 insurance expense included in FERC account No. 924, some detail information is
16 available classifying the expense as being either production, transmission or other.
17 The production and transmission components are directly assigned to their
18 respective categories and the other component is allocated to the remaining
19 functional categories, based upon plant values.

20 **COSS SUMMARY RESULTS**

21 **Q. Where are the results of this functional cost allocation process described?**

22 A. The results are shown on page 19 of my Exhibit A-____ (GWM-2). The results
23 show the split of revenue requirements for rate design purposes. Study results for

the five functional groups are shown, along with an unbundled rate design summary, grouping the five into two major rate design groups. These two major groups are called Distribution and Power Supply. On lines 35 and 36, the percentage of cost attributed to these two major groups are shown. For example, for the total Michigan jurisdiction, Power Supply represents 61.58 % and the Distribution group represents 38.42 % of total revenue requirements

Q. What are the results for the major cost of service customer classes ?

A. For the major cost of service customer classes, the portion of costs related to Power Supply versus Distribution is repeated below:

<u>Cost of Service Class</u>	<u>Power Supply</u>	<u>Distribution</u>
Michigan Retail Total	61.6 %	38.4 %
Residential	53.1 %	46.9 %
Non-demand general service	56.5%	43.5 %
Demand-metered general service	65.6 %	34.4 %
Municipal pumping	63.1 %	36.9 %
Large commercial-sec.	71.5 %	28.5 %
Large commercial-pri.	71.9 %	28.1 %.
Large Commercial-transmission	93.4 %	6.6 %

Q. Are these percentages used to develop the proposed unbundled rate levels developed in the unbundled service schedules included in your Exhibit A-____ (GWM-1)?

A. Yes they are. The rate design process described previously in my testimony uses these cost of service derived percentages to design the proposed unbundled rate

1 levels. The proposed rates are designed so that the 2002 revenues are split between
2 distribution and power supply functions in a ratio that reflects the cost of service
3 results shown above.

4 **Q. Does this conclude your testimony?**

5 **A. Yes it does.**