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February 20, 2012

Ms. Mary Jo Kunkle
Executive Secretary
Michigan Public Service Commission
6545 Mercantile Way
P.O. Box 30221
Lansing, MI 48909

RE: In the Matter of the Application of Consumers Energy Company for Approval of a Power Supply Cost Recovery Plan and for Authorization of Monthly Power Supply Cost Recovery Factors for the Year 2012

Dear Ms. Kunkle:

Included in this electronic file are Consumers Energy Company's supplemental direct testimony/second direct testimony and exhibits of Company witnesses Richard T. Blumenstock, Shawn D. Burgdorf, Laura M. Collins, Brian D. Gallaway, David B. Kehoe, Richard J. Polena, David F. Ronk, Jr., and Lincoln D. Warriner. Also included is a Proof of Service. This is a paperless filing and is therefore being filed only in a PDF format.

In order to assist the parties, I have indicated below which witnesses have prepared supplemental testimony **in addition** to their previously-filed direct testimony. These witnesses include:

Richard Blumenstock
Shawn Burgdorf
Laura Collins
Brian Gallaway
Richard Polena
Dave Ronk

The following witnesses have filed direct testimony **that replaces** their previously-filed direct testimony:

David B. Kehoe
Lincoln Warriner.

In addition to the supplemental testimony, certain supplemental exhibits are also included with this filing. Exhibits that have been revised have been renumbered. Exhibits that have not been altered are **not** included in this filing. These are Exhibits A-1 (RTB-1), A-2 (RTB-2), A-17 (RJP-3) and A-19 (DFR-2).

Please contact me with any questions.

Sincerely,

John C. Shea

cc: Hon. Dennis W. Mack
Parties to Attachment 1 to Proof of Service

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SUPPLEMENTAL DIRECT TESTIMONY

OF

RICHARD T. BLUMENSTOCK

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

RICHARD T. BLUMENSTOCK
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. Richard T. Blumenstock, 1945 West Parnall Road, Jackson, Michigan.

3 Q. Are you the same Richard T. Blumenstock who previously filed testimony in this case?

4 A. Yes.

5 Q. What is the purpose of your supplemental testimony?

6 A. The purpose of my supplemental testimony is to describe the significant changes in the
7 Midwest Energy Market that have occurred since the original filing of the 2012 PSCR
8 Plan, the expected impact these changes will have on Consumers Energy Company
9 (“Consumers Energy” or the “Company”) in 2012, and the intended operating actions the
10 company will take in response to the changes.

11 Q. Why is the Company filing supplemental direct testimony in this case?

12 A. The Company is filing supplemental direct testimony because of the significant changes
13 in the cost of fuels experienced since the Company’s September 2011 filing of direct
14 testimony and the resulting effect on the Midwest Energy Market. These changes have
15 caused the Company to take extraordinary measures to vary our fuel acquisition strategy,
16 modify our plant operation strategy, and reforecast our PSCR costs.

17 Q. Are you sponsoring any exhibits?

18 A. No.

19 **ELECTRIC MARKET CHANGES**

20 Q. Please describe the changes that have occurred in the Midwest Energy Markets since the
21 original filing of the 2012 PSCR Plan.

22 A. Prices for electricity in the Midwest Energy Market over the last three months of 2011
23 fell to their lowest level since the inception of the Midwest Energy Market. The average

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1 electric price in the fourth quarter of 2011 was \$28.08 per MWh. The lowest average
2 electric price for any prior fourth quarter was \$29.51 per MWh. The month of December
3 2011, in particular, had the lowest average electric price of any prior December since the
4 inception of the Midwest Energy Market. The average electric price in December of
5 2011 was \$28.05 per MWh, which is 17% below the previous lowest December average
6 of \$33.80 per MWh.

7 Q. What is driving this change in electric prices in the Midwest Energy Market?

8 A. The primary driver is the low price for natural gas. Prices for natural gas have continued
9 to drop throughout the last quarter of 2011. According to the Energy Information
10 Administration (“EIA”), the monthly average Henry Hub Spot Gas prices for September
11 through December of 2011 were \$3.90, \$3.57, \$3.24, and \$3.17 per Mcf, respectively.
12 Industry analysts attribute the price drop to a recent growth in natural gas production
13 resulting from the application of technological advances and continued drilling in shale
14 plays with high concentrations of natural gas liquids and crude oil. Low natural gas
15 prices have the effect of lowering fuel cost for generators using natural gas as fuel. With
16 such low fuel costs, natural gas fired generators have incremental and average costs
17 below generators having coal or oil as fuel sources. This results in Midwest Independent
18 Transmission System Operator, Inc. (“MISO”), the entity responsible for administering
19 the Midwest Energy Market, committing and dispatching lower cost natural gas-fueled
20 generators before higher cost coal-fueled and oil-fueled generators to meet electric
21 demand requirements.

22 Q. Does the Company expect these market conditions to continue into 2012?

23 A. Yes. The Company expects prices for natural gas will continue to be depressed in 2012.

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1 The NYMEX futures for natural gas used in the Company's September 2011 filing of the
2 2012 PSCR Plan were effective as of August 29, 2011, and showed an average natural
3 gas price for 2012 of \$4.39 per MMBtu. The NYMEX futures for natural gas used in this
4 Supplemental filing were effective as of December 28, 2011, and showed an average
5 natural gas price for 2012 of \$3.35 per MMBtu. Industry consensus is that prices for
6 natural gas in 2012 will be lower than natural gas prices experienced in 2011. The EIA's
7 latest forecast issued in February of 2012 calls for an average 2012 price of Henry Hub
8 Spot Gas of \$3.35 per MMBtu, which is 16% lower than the actual 2011 price of \$4.00
9 per MMBtu. Since electric prices reflect trends in fuel prices, lower natural gas prices in
10 2012 will result in lower electric prices in 2012.

11 **IMPACT ON CONSUMERS ENERGY**

12 Q. What impact have these market changes had on the Company?

13 A. MISO has greatly increased usage of natural gas-fueled combined cycle facilities
14 throughout the MISO footprint, including the Company's Zeeland Combined Cycle Plant.
15 Increased usage of natural gas has displaced usage of coal-fueled facilities throughout the
16 MISO footprint, including the Company's coal-fueled facilities. This is simply due to the
17 MISO's commitment and dispatch methodology of using lowest cost generation to meet
18 electric demand.

19 The best demonstration of the impact can be seen in the utilization factors for the
20 Zeeland Combined Cycle Plant and the coal-fueled fleet of generators as they evolved
21 over the last three months of 2011. Utilization factor is a measure of how much a
22 generator is used and is calculated by dividing a generator's actual generation by the
23 offered capacity.

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1 Through September of 2011, the Zeeland Combined Cycle Plant had a
2 year-to-date utilization factor of 31%. The monthly utilization factors in October,
3 November, and December of 2011 were 39%, 55% and 70%, respectively. Through
4 September of 2011, the Company's coal-fueled fleet of generators had a year-to-date
5 utilization factor of 79%. The monthly utilization factors in October, November and
6 December were 72%, 58% and 55%, respectively. These trends in utilization factor
7 clearly demonstrate that MISO utilized lower cost natural gas-fueled generation to meet
8 electric demands.

9 Q. Does the Company expect these impacts to continue in 2012?

10 A. Yes. The Company fully expects the previously described market changes to continue in
11 2012, ultimately resulting in higher utilization by MISO of natural gas-fueled, combined
12 cycle plants, lower utilization by MISO of coal-fueled plants, and depressed energy
13 prices in the Midwest Energy Market.

14 **CONSUMERS ENERGY'S RESPONSE**

15 Q. How does the Company intend to respond to these market conditions?

16 A. The Company intends to respond in two ways. First, the Company's coal-fueled
17 generators will be operated using different blends of fuel depending on the variable cost
18 of production and the relative value of energy. Second, the Company's coal-fueled
19 generators are expected to experience increased cycling operations.

20 Q. Please describe the Company's plan to operate its coal-fueled generators using different
21 fuel blends.

22 A. Prior to 1988 the Company operated its coal-fueled generators using eastern coal.
23 Beginning in the mid-1990s, after considerable testing of the effect of western coal on the

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1 operation of some of the Company's generating plants, the Company utilized a blend of
2 eastern and western coal that reduced its cost of production while still achieving the
3 maximum power output of each generating unit. From time to time, when market prices
4 are below the cost of production for one or more coal-fueled generators, the Company, on
5 a temporary basis, successfully increased the amount of western coal in its fuel blends so
6 as to lower its cost of production with a modest temporary reduction in maximum output.
7 The reason for blending coal in this manner is that the delivered cost of western coal, on a
8 per MMBtu basis, is lower than the delivered cost of eastern coal.

9 In 2012, during periods when electric prices are near or lower than the generating
10 units' cost of production, the Company's coal-fueled generators are expected to increase
11 their use of western coal above the level where they can achieve full power output using
12 only coal. This will have the effect of lowering the generator's production cost and
13 subsequently its price offer in the Midwest Energy Market for the operating range fueled
14 by coal. Lowering the generator's price offer makes the generator a more valuable
15 resource to the Midwest Energy Market. Loss of the generator's real power capability
16 over the operating range fueled by coal will not be detrimental since electric demand
17 during low electric price periods will be met by MISO through commitment and dispatch
18 of lower cost generation resources.

19 In 2012, during periods when electric prices are higher than the generator's cost
20 of production, the Company's coal-fueled generators are expected to increase their use of
21 eastern coal to the level necessary to provide maximum output of the generating unit.
22 This will have the effect of increasing the generator's cost of production and price offer
23 in the Midwest Energy Market, but will also provide the generator's full real power

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1 capability. The higher price offer will be acceptable in the high electric price period.
2 Further, offering the full real power capability will make the generator a more valuable
3 resource to the Midwest Energy Market.

4 Q. How will the Company vary fuel blends for its coal-fueled generators according to
5 market demand?

6 A. Each day, by 11:00 AM, the Company will forecast the next day's market prices. If the
7 forecasted prices are high enough to warrant the use of eastern coal at a given generator,
8 the Company will offer the generator based on a blend of eastern and western coal over
9 the entire operating range of the generator. If the forecasted prices are not high enough to
10 warrant the use of eastern coal at a given generator, the Company will offer the generator
11 based on 100% western coal up to the maximum real power capability achievable on
12 100% western coal. Some of the Company's coal-fueled generators can produce
13 additional real power in overfire operation. Where possible, the Company will offer the
14 additional real power from overfire operation to the Midwest Energy Market.

15 By 4:00 PM of the same day, MISO will determine the schedule for real power
16 production from each generator for the next operating day and will inform the Company
17 of the schedule. The Company will then prepare for the next day's fuel blends according
18 to the schedule. Generally, changing fuel blends can only be accomplished once a day
19 due to fuel handling restrictions.

20 Q. Please describe the Company's ability to experience increased cycling operations at the
21 coal-fueled generators.

22 A. The Company's coal-fueled generators were originally designed for continuous,
23 base-load operation. The Company intends to shutdown coal-fueled generators for

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1 extended time periods when electric prices in the Midwest Energy Market are forecasted
2 to be significantly and consistently below the cost of production for a given generator.
3 Plant personnel are taking measures to lessen the impact of cycling operations as much as
4 possible. As part of the decision to cycle a coal-fueled generator, the Company will
5 consider the cost of cycling operations.

6 Q. How does the Company offer coal-fueled generators in cycling mode in the Midwest
7 Energy Market?

8 A. The Company's coal-fueled generators are not feasible to cycle on a daily basis due to the
9 generators having start-up times in the 24-hour range, which is a typical start-up time for
10 coal-fueled generators. MISO makes commitment decisions in the Day-Ahead Market
11 based on a 24-hour operating outlook. This is not a sufficient time period to
12 accommodate typical coal-plant start-up times. Therefore, the Company evaluates the
13 profitability of each of its coal-fueled generators over a longer operating outlook than
14 what MISO considers when making commitment decisions. When the evaluation
15 indicates a generator is likely to receive revenue in excess of the variable cost of
16 operations over the operating outlook, the Company offers the generator as a "Must Run"
17 resource to ensure the generator is committed in the Midwest Energy Market during the
18 period the generator is expected to have a beneficial net energy value. When the
19 evaluation indicates a generator is not likely to receive revenue in excess of the variable
20 cost of operations over the operating outlook, the Company offers the generator as an
21 "Economic" resource, thereby allowing MISO to commit or decommit the generator
22 based on MISO's view of the economic dispatch of the system as well as the reliability
23 needs of the region. These evaluation scenarios are subject to other operational

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1 considerations that may result in different resource status offers.

2 **MARKET STRATEGY**

3 Q. Has there been a change in the strategy you laid out in your direct testimony in this case?

4 A. No. The Company's strategy remains the same - to offer electric demand and generation
5 resource parameters such as availability, capability, and cost into the Midwest Energy
6 Market as accurately as possible.

7 Q. Is the Company's intention to vary fuel blends according to market demands a change in
8 strategy?

9 A. No. The Company has always considered fuel blend changes in response to market
10 demands, but generally has not done so in the past since the cost of production of
11 coal-fueled generation was considerably lower than the market price of power. Last year,
12 during periods of low electric prices that occurred primarily during weekends, the
13 Company routinely changed fuel blends (increased western coal use) so as to maximize
14 the net energy value of the generators. The Company fully intends to do the same in
15 2012, but to a greater extent due to forecasted lower electric prices.

16 Q. Is the Company's intention to cycle coal-fueled generators a change in strategy?

17 A. No. The Company has traditionally considered cycling coal-fueled generators,
18 particularly during extended holiday periods in which lower electric prices were
19 expected. However, cycling was not warranted due to electric prices generally being
20 above the production cost of coal-fueled generators. This changed during the last quarter
21 of 2011 when natural gas prices continued to fall making some natural gas fueled
22 combined cycle generating facilities comparable or less costly than some coal-fueled
23 generators.

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1 Q. Is the Company's intent to continue to vary fuel blends and cycle coal-fueled generators
2 in response to market conditions prudent, reasonable and in the best interest of the
3 Company's customers?

4 A. Yes. The outlook for 2012 is based on actual market conditions leading up to 2012 as
5 well as industry consensus on expected 2012 market conditions. Therefore, the outlook
6 is reasonable. The Company's intended responses to the changing market conditions
7 allows us to be as competitive and valuable as possible, which should result in reduced
8 PSCR expenses. Therefore, the intended responses are prudent and in the best interest of
9 customers.

10 Q. Does this complete your testimony?

11 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SECOND DIRECT TESTIMONY

OF

SHAWN D. BURGDORF

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

SHAWN D. BURGDORF
SECOND DIRECT TESTIMONY

QUALIFICATIONS

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

3 A. Shawn D. Burgdorf, 1945 W. Parnall Rd, Jackson, Michigan.

4 Q. By whom are you employed?

5 A. Consumers Energy Company (“Consumers Energy” or “Company”).

6 Q. What is your position with Consumers Energy?

7 A. I am a General Engineer in the Transmission and Regulatory Strategies Section of Energy
8 Supply Operations.

9 Q. Please state your educational background and business experience.

10 A. I received a Bachelor of Science degree in mechanical engineering in 2005 from the
11 University of Michigan. From January 2006 until the present, I have been employed by
12 Consumers Energy. Initially, I worked as a General Engineer in the Company’s
13 production cost modeling group. In that position I supported the development of power
14 supply forecasts. I held this position until August 2009 at which time I transferred into
15 my current position within the Transmission and Regulatory Strategies Section of Energy
16 Supply Operations. In this position, I am responsible for monitoring and analyzing the
17 filings by the Midwest Independent System Operator (“MISO”) at the Federal Energy
18 Regulatory Commission (“FERC”). In addition, I support the Company’s involvement in
19 stakeholder and transmission planning activities at the MISO, FERC, and Michigan
20 Public Service Commission (“MPSC” or “Commission”). I am also responsible for
21 forecasting future transmission and certain energy market related costs expected to
22 impact the Company.

SHAWN D. BURGDORF
SECOND DIRECT TESTIMONY

1 Q. Have you ever appeared in any proceedings before the Michigan Public Service
2 Commission (“MPSC” or “Commission”)?

3 A. Yes. I have provided testimony in:

- 4 • MPSC Case No. U-16149 regarding the Company’s 2010 – 2011 Gas Cost
5 Recovery (“GCR”) Plan,
- 6 • MPSC Case No. U-16485 regarding the Company’s 2011 – 2012 Gas Cost
7 Recovery (“GCR”) Plan, and
- 8 • MPSC Case No. U-16924 regarding the Company’s 2012 – 2013 Gas Cost
9 Recovery (“GCR”) Plan

10 **PURPOSE OF TESTIMONY**

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

12 A. The purpose of my testimony is to: 1) identify certain transmission and energy market
13 expenses for 2012 for which the Company seeks recovery in the Company’s 2012 PSCR
14 plan; 2) identify generation-related credits to total PSCR costs relating to Schedule 2
15 Reactive revenues; and 3) describe the Company’s effort to manage its transmission
16 related costs.

17 Q. Are you sponsoring any exhibits in connection with your testimony?

18 A. Yes. I am sponsoring the following exhibit:

19 Exhibit A-25 (SDB-2)	Transmission and Energy Market Administration
20	Expenses
21	

22 Q. Was this exhibit prepared by you or under your direct supervision?

23 A. Yes.

SHAWN D. BURGDORF
SECOND DIRECT TESTIMONY

TRANSMISSION AND ENERGY MARKET EXPENSE

1
2 Q. What transmission and energy market expense does the Company seek recovery for in
3 the Company's 2011 PSCR plan?

4 A. The Company seeks to recover all of the charges imposed on the Company under the
5 MISO's Open Access Transmission, Energy and Operating Reserve Markets Tariff
6 ("TEMT") which is filed with and approved by the Federal Energy Regulatory
7 Commission ("FERC").

8 Q. Has the Commission previously approved the recovery of Transmission, Energy and
9 Operating Reserve Market ("Market") costs through the PSCR process?

10 A. Yes. In MPSC Case Nos. U-13917, U-14274, U-14701, U-15001, U-15415, U-15675
11 and U-16045; the Company's PSCR plan cases for 2004, 2005, 2006, 2007, 2008, 2009
12 and 2010; the Commission approved recovery of expenses incurred under the MISO's
13 TEMT in the Company's PSCR factor. I am informed by counsel that the Commission's
14 actions with respect to transmission expenses was approved by the Michigan Supreme
15 Court in its order in *Attorney General v Michigan Public Service Commission*,
16 483 Mich 998 (May 1, 2009).

17 Q. Are the rates assessed and revenues distributed by MISO subject to FERC review?

18 A. Yes. Thus, all of the charges incurred and revenues received through MISO by the
19 Company are based on the FERC-approved TEMT.

20 Q. Please list each transmission and energy market charge that has been projected for 2012
21 in the Company's total transmission costs.

22 A. The transmission and energy-market-related charges included in the total transmission
23 costs projected for 2012 (and shown in Exhibit A-25 (SDB-2) page 1 of 5) are incurred as

SHAWN D. BURGDORF
SECOND DIRECT TESTIMONY

1 a result of the mandated expenses charged to Consumers Energy by MISO pursuant to
2 MISO Schedules 1, 2, 9, 10, 10-FERC, 16, 17, 24, 26 and 26-A. The charges imposed
3 pursuant to these schedules are discussed more fully below.

4 Q. Has the Company forecasted other MISO charges?

5 A. Yes. As discussed by Mr. Ronk, the impact of other MISO charges is included in the
6 projection of energy costs.

7 Q. Are your projections based on the demand and sales information provided by Company
8 witness Warriner?

9 A. Yes.

10 Q. Please describe the MISO Schedule 1 rate and the forecasted cost of this expense.

11 A. MISO Schedule 1 is a service required to schedule the movement of power through, out
12 of, within or into a control area and is provided by the transmission operators within the
13 control area and MISO. The rate for this service is a MISO-wide rate. Applying this rate
14 to the Company's forecasted monthly coincident peak produces the Company's
15 forecasted expense. This forecasted expense for each plan year is shown on Exhibit A-25
16 (SDB-2), line 15.

17 Q. Please describe the MISO Schedule 2 rate and forecasted cost of this expense.

18 A. MISO Schedule 2 is an ancillary service required to be provided by MISO for Reactive
19 Supply and Voltage Control from Generation Sources. The rate for this service is a
20 pricing zone wide rate. Applying the applicable pricing zone rate to the Company's
21 forecasted monthly coincident peak produces the Company's forecasted expense. This
22 forecasted expense for each plan year is shown on Exhibit A-25 (SDB-2), line 16.

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SECOND DIRECT TESTIMONY

1 Q. Please describe the MISO Schedule 9 rate and the forecasted cost of this expense.

2 A. MISO Schedule 9 is the network transmission service rate that applies to the Company's
3 entire retail load within the MISO footprint. MISO utilizes the "license plate" rate
4 approach, which means that the rate applicable to each customer is that of the
5 transmission owner in the pricing zone where the load is located. The Company pays the
6 rate for the Michigan Joint Zone ("MJZ"). This rate is calculated per MISO's
7 Attachment O and is updated biannually. The Company's forecasted expense for each
8 plan year is shown on Exhibit A-25 (SDB-2), line 17.

9 Q. Please describe the MISO Schedule 10 rates and forecasted cost of this expense.

10 A. MISO Schedule 10 recovers MISO expenses associated with the operation of MISO in
11 the provision of transmission service within the MISO footprint. MISO assesses
12 Schedule 10 with two rates. The first rate is applied to peak load at a 100% load factor.
13 The Company's forecasted expense for each plan year for this portion of Schedule 10 is
14 shown on Exhibit A-25 (SDB-2) line 18. The second rate is applied to actual volume of
15 MWh of transmission service received. The Company's forecasted expense for each plan
16 year for this portion of Schedule 10 is shown on Exhibit A-25 (SDB-2), line 19.

17 Q. Please describe the MISO Schedule 10-FERC rate and the forecasted cost of the expense.

18 A. MISO Schedule 10-FERC is utilized to allocate to MISO's wholesale transmission
19 customers the amount of the FERC Annual Fee that MISO is assessed. The FERC
20 Annual Fee is designed to reimburse the federal government for all of the costs incurred
21 by the FERC under Parts II and III of the Federal Power Act and related statutes per 18
22 CFR Part 382. The Company's forecasted expenses for each plan year are shown on
23 Exhibit A-25 (SDB-2), line 20.

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SECOND DIRECT TESTIMONY

1 Q. Please describe the MISO Schedule 16 rate and forecasted cost of expense.

2 A. MISO Schedule 16 is designed to recover MISO administrative service costs associated
3 with MISO Financial Transmission Rights (“FTR”) process. In forecasting the Schedule
4 16 expense, I multiplied the Company’s monthly coincident peak load at a 100% load
5 factor against the MISO budgeted Schedule 16 rate to produce the expected expense.
6 The Company’s forecasted expenses for each plan year are shown on Exhibit A-25
7 (SDB-2) line 21.

8 Q. Please describe the MISO Schedule 17 rate and forecasted cost of expense.

9 A. MISO Schedule 17 is designed to recover MISO administrative service costs associated
10 with the Midwest Energy and Operating Reserves Market. The rate is charged to all
11 injections and withdrawals in the market. The Company’s forecasted expenses for each
12 plan year are shown on Exhibit A-25 (SDB-2) on line 22.

13 Q. Please describe the MISO Schedule 24 rate and forecasted cost of expense.

14 A. MISO Schedule 24 is a Control Area Operator Cost Recovery charge used to recover
15 Control Area costs incurred with the implementation of the Market. This rate is charged
16 on the same basis as Schedule 17. The Company’s forecasted expenses for each plan
17 year are shown on Exhibit A-25 (SDB-2) on line 23.

18 Q. Please describe the MISO Schedule 26 rate and forecasted cost of expense.

19 A. MISO Schedule 26 is a Network Upgrade Charge from MISO’s Transmission Expansion
20 Plan (“MTEP”). This schedule is applied on the same basis as Schedule 9. It reflects the
21 sharing of MTEP project costs as allocated according to Attachment FF of the TEMT.
22 The Company’s forecasted expenses for each plan year are shown on Exhibit A-25
23 (SDB-2) line 24.

SHAWN D. BURGDORF
SECOND DIRECT TESTIMONY

1 Q. Please describe the MISO Schedule 26-A rate and forecasted cost of expenses.

2 A. MISO Schedule 26-A is the Multi-Value Project Usage Rate (“MUR”) and is a MISO
3 System-wide rate charged to Monthly Net Actual Energy Withdrawals, certain Export
4 Schedules, and Through Schedules. The rate is calculated using the formula included in
5 Attachment MM of the Tariff. The charges under this Schedule 26-A shall be in addition
6 to any charges under Schedules 7, 8, 9, and 26. Grandfathered Agreements will not be
7 charged this Schedule. The Company’s forecasted expenses for each plan year are shown
8 on Exhibit A-25 (SDB-2) line 25.

9 Q. What is the total amount of transmission and energy market expenses that you propose to
10 add to the total power costs in each year of the PSCR plan?

11 A. Each of the expenses described above, as well as the total expenses for each plan year, is
12 identified on Exhibit A-25 (SDB-2). The total cost for the first year of the plan equals
13 \$291,961,785 and can be found on Line 29, column (o) of page 1 of Exhibit A-25
14 (SDB-2). It is composed of \$283,972,303 of transmission expenses (Line 27, column
15 (o)) and \$7,989,483 of energy market administration expenses (Line 28, column (o)).

16 **SCHEDULE 2 REACTIVE REVENUE REQUIREMENT CREDIT**

17 Q. What is the basis for proposing to credit reactive revenue requirements revenues against
18 total PSCR costs?

19 A. Consumers Energy provides generation-related reactive services that are necessary for the
20 transmission of power. Consumers Energy incurs an expense under the TEMT when it
21 receives reactive service within Michigan Joint Zone pricing zone. The Company
22 believes that the revenues received from this service should be credited against total

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1 power costs for Consumers Energy's retail customers via the PSCR factor, since the
2 expense for the service is included in the PSCR.

3 Q. Have you identified the revenues the Company expects to receive in 2012 from
4 Schedule 2?

5 A. Yes. The Company expects to receive \$19,706,000. This amount is composed of the
6 FERC approved revenue requirements established in FERC Docket Nos. OA96-77 and
7 ER04-1110.

8 **COMPANY ACTIVITIES RELATED TO TRANSMISSION COST**
9 **MANAGEMENT**

10
11 Q. Are there any additional items that may impact your forecast?

12 A. Yes. Among the more significant items being discussed and/or pending before FERC are
13 methods for funding MISO transmission system expansion (Regional Expansion Criteria
14 and Benefits ("RECB")) and cross-border allocation of costs with PJM regarding both
15 transmission system expansion and the elimination of the Regional Through and Out Rate
16 on transactions that cross the MISO-PJM Border. The uncertain outcome of the
17 Multi-Value Project rehearing requests as well as the impact of FERC Order 1000 will
18 most likely have a financial impact after 2012.

19 Q. How have you forecasted the potential changes in costs and revenues from these items?

20 A. I continue to forecast cost as if the currently filed MISO tariff remained in effect through
21 the planning period.

22 Q. Does the Company take actions to mitigate transmission related costs?

23 A. Yes. The Company actively participates in the transmission provider's stakeholder
24 process dealing with transmission planning and project approval. It is primarily through
25 this stakeholder process that the Company works to assure new transmission investments

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1 are justified and allocated on a cost causation basis. Additionally, the Company actively
2 monitors and intervenes in tariff filings by the MISO and transmission owners to assure
3 that the new tariff provisions are in compliance with FERC policy and are based on cost
4 causation principles.

5 Q. Is the Company involved in other activities to mitigate transmission related costs?

6 A. Yes. Under the FERC-approved MISO tariff, transmission owners recover their
7 Operations and Maintenance (“O&M”) expenses through an “Attachment O” formula
8 rate that utilizes the actual costs incurred and reported on the transmission owners’ FERC
9 Form 1 reports. The Company actively reviews the “Attachment O” rates of the
10 Michigan Joint Zone transmission owners to assure the application of the formula is
11 consistent with the tariff.

12 Q. Can you identify some of the MISO stakeholder groups the Company actively follows
13 that impact transmission expenses?

14 A. Yes. The Company has been very active in the MISO’s transmission related groups such
15 as the East Subregional Planning Meetings, Michigan Technical Study Task Force,
16 Planning Advisory Committee, Planning Subcommittee, Advisory Committee, Regional
17 Expansion Criteria and Benefits Task Force and the MISO Board of Directors System
18 Planning Committee. The Company’s focus is to monitor and defend against
19 unnecessary transmission cost within Michigan.

20 Q. How does participating in these groups impact the Company’s transmission expense?

21 A. By actively participating in the stakeholder process regarding proposed transmission
22 projects, the Company can independently validate the need for the project before the
23 project is approved by the MISO Board of Directors in the MTEP. If the Company does

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1 not believe a project is needed, it can raise issues with the MISO before the project is
2 approved.

3 Q. Does that mean that the MISO will reject a project Consumers Energy or another
4 customer or interested party does not believe is needed?

5 A. No. Third party input to the MISO and transmission owners is advisory only.

6 Q. What other strategies has the Company used to reduce the cost of transmission for its
7 customers?

8 A. Consumers Energy monitors and intervenes in FERC proceedings involving the MISO
9 and the transmission owners providing service to the Company.

10 Q. What was the purpose of these interventions?

11 A. The Company generally intervenes in transmission filings to assure that issues are
12 resolved according to FERC policy. When the Company believes the filings at FERC
13 will have a negative impact on the Company's transmission cost, the Company will
14 protest.

15 Q. Are there other activities Consumers Energy has been engaged in regarding transmission
16 planning and cost allocation?

17 A. Yes. Consumers Energy is a founding member and actively participates with other
18 companies through the Coalition for Fair Transmission Policy ("CFTP") to develop and
19 advocate industry positions at the federal level supporting policies on transmission
20 planning and cost allocation. The Company is also an active participant within the MISO
21 Northeast Transmission Customers which consists of the Michigan Attorney General, the
22 Association of Businesses Advocating Tariff Equity ("ABATE"), Consumers Energy
23 Company, Detroit Edison Company, the Michigan Municipal Electric Association

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1 (“MMEA”), and the Michigan Public Power Agency (“MPPA”). The group has protested
2 and advocated for fair transmission cost allocation as it pertains to the Multi-Value
3 Project filing by MISO.

4 Q. Does this conclude your direct written testimony?

5 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

EXHIBIT

OF

SHAWN D. BURGDORF

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

Line	Description (a)	Source / Calculation (b)	Jan (c)	Feb (d)	Mar (e)	Apr (f)	May (g)	Jun (h)	Jul (i)	Aug (j)	Sep (k)	Oct (l)	Nov (m)	Dec (n)	TOTAL (o)
1	Billing Determinants	Worksheet SDB-1	5,596	5,348	5,131	4,797	5,656	6,879	7,446	7,711	6,356	5,223	5,296	5,706	71,144
2	Peak MWs	Worksheet SDB-2	3,108,021	2,961,675	2,978,338	2,739,508	2,867,817	3,187,304	3,463,059	3,456,348	2,950,185	2,940,106	2,988,610	3,244,896	36,894,367
3	Deferred MWs	Worksheet SDB-3													
4	Schedule 1 - System Control and Dispatch	Worksheet SDB-6	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172
5	Schedule 2 - Reactive Support	Worksheet SDB-4	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298	387,0298
6	Schedule 9 - Network Transmission Service	Worksheet SDB-5	2,739,9044	2,669,6974	2,669,6974	2,669,6974	2,669,6974	2,739,9044	2,739,9044	2,739,9044	2,739,9044	2,739,9044	2,739,9044	2,739,9044	2,739,9044
7	Schedule 10 - ISO Cost Recovery Adder - Energy Basis	Worksheet SDB-6	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882	0,0882
8	Schedule 10 - ISO Cost Recovery Adder - FERC Annual Charge	Worksheet SDB-6	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451
9	Schedule 10 - ISO Cost Recovery Adder - FERC Annual Charge	Worksheet SDB-6	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451
10	Schedule 16 - ISO Cost Adder - Energy Markets	Worksheet SDB-6	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870	0,0870
11	Schedule 17 - ISO Cost Adder - Energy Markets	Worksheet SDB-6	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128
12	Schedule 24 - Balancing Area Cost Adder - Energy Markets	Worksheet SDB-6	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956	707,1956
13	Schedule 26 - Network Upgrade Charge from Transmission Expansion Plan	Worksheet SDB-6a	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214	0,0214
14	Schedule 26A - Multi-Value Project Usage Rate	Worksheet SDB-6a													
15	Schedule 1 - System Control and Dispatch	Line 1 * Line 4	\$ 310,6333	\$ 301,7119	\$ 289,4777	\$ 270,6333	\$ 319,0966	\$ 388,094	\$ 420,0822	\$ 436,0333	\$ 356,5888	\$ 296,2211	\$ 300,3099	\$ 321,8600	\$ 4,013,745
16	Schedule 2 - Reactive Support	Line 1 * Line 5	2,130,986	2,069,835	1,985,850	1,856,582	2,188,040	2,652,378	2,881,824	2,894,387	2,459,961	2,045,639	2,060,159	2,208,005	27,534,846
17	Schedule 9 - Network Transmission Service	Line 1 * Line 6	14,277,542	14,277,542	13,988,217	12,806,217	15,099,908	18,847,302	20,401,328	21,127,403	17,414,832	14,483,135	14,584,511	15,631,155	193,071,625
18	Schedule 10 - ISO Cost Recovery Adder - Demand Basis	Line 1 * Line 7	280,125	296,360	242,409	219,319	287,212	314,398	351,779	364,288	290,996	249,322	243,368	268,527	3,368,233
19	Schedule 10 - ISO Cost Recovery Adder - Energy Basis	Line 1 * Line 8	140,982	133,567	124,522	113,522	140,982	156,182	165,800	165,800	132,569	107,660	107,660	114,345	1,458,363
20	Schedule 10 - ISO Cost Recovery Adder - FERC Annual Charge	Line 1 * Line 9	70,491	67,283	62,261	56,727	70,491	78,091	82,904	82,904	66,285	54,732	54,732	60,360	759,983
21	Schedule 10 - ISO Cost Recovery Adder - FERC Annual Charge	Line 1 * Line 10	70,491	67,283	62,261	56,727	70,491	78,091	82,904	82,904	66,285	54,732	54,732	60,360	759,983
22	Schedule 16 - ISO Cost Adder - Energy Markets	Line 1 * Line 11	48,168	44,666	45,810	41,446	50,437	59,435	66,478	68,444	54,916	47,133	45,991	50,934	625,367
23	Schedule 17 - ISO Cost Adder - Energy Markets	Line 1 * Line 12	540,448	515,314	518,231	476,674	499,000	554,695	602,572	601,405	513,332	417,578	421,758	459,891	5,619,620
24	Schedule 24 - Balancing Area Cost Adder - Energy Markets	Line 1 * Line 13	78,514	75,916	76,245	70,131	73,416	81,610	88,654	88,654	75,525	63,286	63,286	76,764	944,496
25	Schedule 26 - Network Upgrade Charge from Transmission Expansion Plan	Line 1 * Line 14	3,893,819	3,782,082	3,628,621	3,392,417	3,999,898	4,864,799	5,265,779	5,453,195	4,494,935	3,784,402	4,034,551	4,374,315	50,312,725
26	Schedule 26A - Multi-Value Project Usage Rate	Line 3 * Line 13	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
27	Total Transmission Expenses	Lines 15-20 + 24-26	\$ 21,777,298	\$ 21,127,579	\$ 20,307,207	\$ 18,971,185	\$ 22,320,595	\$ 27,572,626	\$ 28,858,393	\$ 29,659,326	\$ 25,477,192	\$ 21,271,884	\$ 21,418,518	\$ 22,968,957	\$ 283,972,303
28	Total Energy Market Administration Expenses	Lines 21-23	669,119	635,797	640,286	586,252	622,913	695,740	757,704	758,731	643,773	634,039	644,513	698,615	7,989,483
29	Total Transmission and Energy Market Administration Expenses	Lines 27 + 28	\$ 22,446,418	\$ 21,763,376	\$ 20,947,493	\$ 19,557,437	\$ 22,943,508	\$ 28,268,366	\$ 30,616,097	\$ 31,659,600	\$ 26,120,965	\$ 21,905,922	\$ 22,063,031	\$ 23,667,573	\$ 291,961,785

Line	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
	Source / Calculation	(f)	(d)	(e)	(f)	(f)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1	Billing Determinants													
2	Hours per Month	5,539	5,854	5,191	4,937	5,691	6,035	7,462	7,740	6,396	5,396	5,835	5,745	71,499
3	Delivered MWs	3,151,090	2,881,993	2,963,611	2,771,300	2,822,106	3,241,185	3,524,334	3,413,147	3,011,791	2,999,635	3,031,283	3,320,718	37,362,193
4	Workpaper SDB-6	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172
5	Schedule 1 - System Control and Dispatch	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929	385,1929
6	Schedule 2 - Reactive Support	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001	2,943,8001
7	Workpaper SDB-4	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801	0.0801
8	Schedule 10 - ISO Cost Recovery Adder - Demand Basis	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451
9	Schedule 10-FERC - ISO Cost Recovery Adder - FERC Annual Change	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110
10	Schedule 16 - ISO Cost Adder - Financial Transmission Rights	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820
11	Schedule 17 - ISO Cost Adder - Energy Markets	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520	931,9520
12	Schedule 26 - Network Upgrade Charge from Transmission Expansion Plan	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628	0.1628
13	Workpaper SDB-5a													
14	Schedule 26-A - Mkt-Value Project Usage Rate													
15	Expenses	\$ 312,495	\$ 302,058	\$ 291,169	\$ 272,890	\$ 320,506	\$ 380,561	\$ 422,113	\$ 438,668	\$ 360,290	\$ 300,478	\$ 302,001	\$ 324,117	\$ 4,024,338
16	Schedule 1 - System Control and Dispatch	2,133,283	2,062,323	1,987,980	1,863,178	2,188,281	2,659,757	2,862,013	2,881,393	2,459,842	2,051,537	2,061,837	2,212,933	27,544,757
17	Schedule 2 - Reactive Support	16,305,709	15,761,106	15,192,952	14,239,161	16,723,728	20,414,862	22,120,762	22,893,977	18,896,421	15,746,496	15,626,322	16,992,283	211,066,390
18	Workpaper SDB-4	262,901	240,338	248,667	231,126	243,704	270,315	286,929	292,998	251,183	200,770	232,895	276,948	3,116,007
19	Schedule 10 - ISO Cost Recovery Adder - Demand Basis	142,114	129,978	135,012	124,866	131,787	146,177	158,947	165,443	135,832	105,711	106,711	118,764	1,486,035
20	Schedule 10-FERC - ISO Cost Recovery Adder - FERC Annual Change	45,331	39,577	42,298	38,309	46,493	54,688	61,233	63,344	50,577	43,588	42,386	47,017	574,790
21	Schedule 16 - ISO Cost Adder - Financial Transmission Rights	5,162,882	4,898,671	4,803,605	4,507,852	5,294,420	6,435,129	6,972,865	7,213,309	5,951,446	4,963,577	4,988,739	5,354,085	66,642,959
22	Schedule 17 - ISO Cost Adder - Energy Markets	513,079	489,263	487,437	451,239	527,749	635,216	692,223	708,337	572,031	490,388	493,571	540,699	6,085,533
23	Schedule 24 - Base Mkt-Value Project Usage Rate	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
24	Schedule 26 - Network Upgrade Charge from Transmission Expansion Plan													
25	Schedule 26-A - Mkt-Value Project Usage Rate													
26	MTC Agency Agreement													
27	Total Transmission Expenses	\$ 25,981,537	\$ 24,172,990	\$ 23,386,794	\$ 21,901,739	\$ 25,634,242	\$ 31,144,343	\$ 33,761,056	\$ 34,886,498	\$ 28,807,737	\$ 24,176,108	\$ 24,926,727	\$ 26,102,693	\$ 323,351,454
28	Total Energy Market Administration Expenses	642,428	596,009	609,826	583,448	600,525	669,216	729,446	729,437	621,613	612,419	617,427	676,655	7,659,662
29	Total Transmission and Energy Markets Administration Expenses	\$ 25,742,314	\$ 24,756,992	\$ 23,996,620	\$ 22,485,487	\$ 26,234,767	\$ 31,813,559	\$ 34,490,503	\$ 35,615,935	\$ 29,429,350	\$ 24,788,527	\$ 24,912,854	\$ 26,779,318	\$ 331,010,126

Line	Description (A)	Source / Calculation (B)	Jan (C)	Feb (D)	Mar (E)	Apr (F)	May (G)	Jun (H)	Jul (I)	Aug (J)	Sep (K)	Oct (L)	Nov (M)	Dec (N)	Total (O)
1	Billing Determinants	Workpaper SDB-1	5,694	5,693	5,917	4,930	5,610	7,954	7,630	7,684	6,636	5,483	5,599	5,939	78,264
2	Hourly Month	Hourly Month 24	744	744	744	744	744	744	744	744	720	744	720	744	8,720
3	Delivered MWhs	Workpaper SDB-3	3,227,202	2,969,723	3,060,636	2,851,216	2,976,210	3,308,330	3,590,689	3,593,163	3,082,783	3,062,816	3,114,615	3,341,848	38,159,541
4	Schedule 1 - System Control and Dispatch	Workpaper SDB-6	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172
5	Schedule 2 - Reactive Support	Workpaper SDB-4	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152	376,4152
6	Schedule 3 - Network Transmission Service	Workpaper SDB-5	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094	3,101,1094
7	Schedule 4 - ISO Cost Recovery/Adler - Demand Basis	Workpaper SDB-6	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627
8	Schedule 5 - ISO Cost Recovery/Adler - Energy Basis	Workpaper SDB-6	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627	0.0627
9	Schedule 10 - FERC - ISO Cost Recovery/Adler - FERC Annual Change	Workpaper SDB-6	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451
10	Schedule 16 - ISO Cost Adder - Financial Transmission Rights	Workpaper SDB-6	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110
11	Schedule 17 - ISO Cost Adder - Energy Markets	Workpaper SDB-6	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820	0.0820
12	Schedule 20 - Network Upgrades Change from Transmission Expansion Plan	Workpaper SDB-5a	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436	929,8436
13	Schedule 26-A - Multi-Value Project Usage Rate	Workpaper SDB-5a	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085	0.3085
14	Expenses	Line 1 - Line 4	\$ 321,240	\$ 310,633	\$ 293,970	\$ 281,522	\$ 328,232	\$ 397,967	\$ 430,463	\$ 444,733	\$ 388,743	\$ 308,336	\$ 310,407	\$ 333,389	\$ 4,138,735
15	Schedule 1 - System Control and Dispatch	Line 1 - Line 5	2,143,398	2,072,542	2,001,389	1,878,312	2,190,260	2,652,233	2,872,048	2,967,657	2,460,249	2,063,884	2,071,036	2,224,237	27,000,265
16	Schedule 2 - Reactive Support	Line 1 - Line 6	17,657,717	17,074,709	16,488,599	15,474,536	16,045,356	21,839,235	23,730,690	24,520,676	20,228,150	17,053,129	17,112,222	18,378,066	227,803,074
17	Schedule 3 - Network Transmission Service	Line 1 - Line 7	280,444	280,444	280,444	280,444	280,444	280,444	280,444	280,444	280,444	280,444	280,444	280,444	3,316,864
18	Schedule 4 - ISO Cost Recovery/Adler - Demand Basis	Line 3 - Line 8	265,887	265,887	265,887	265,887	265,887	265,887	265,887	265,887	265,887	265,887	265,887	265,887	3,190,447
19	Schedule 5 - ISO Cost Recovery/Adler - Energy Basis	Line 3 - Line 9	287,201	287,201	287,201	287,201	287,201	287,201	287,201	287,201	287,201	287,201	287,201	287,201	3,446,412
20	Schedule 10 - FERC - ISO Cost Recovery/Adler - FERC Annual Change	Line 3 - Line 10	145,547	145,547	145,547	145,547	145,547	145,547	145,547	145,547	145,547	145,547	145,547	145,547	1,720,995
21	Schedule 16 - ISO Cost Adder - Financial Transmission Rights	Line 1 - Line 2 - Line 10	46,600	40,700	43,514	39,521	47,623	55,888	66,444	68,523	51,766	44,873	43,576	48,359	589,366
22	Schedule 17 - ISO Cost Adder - Energy Markets	Line 1 - Line 2 - Line 11	82,616	82,616	82,616	82,616	82,616	82,616	82,616	82,616	82,616	82,616	82,616	82,616	993,305
23	Schedule 20 - Network Upgrades Change from Transmission Expansion Plan	Line 3 - Line 12	5,294,530	5,119,719	4,943,979	4,639,920	5,410,760	6,559,117	7,094,707	7,330,887	6,077,468	5,098,333	5,116,000	5,494,446	66,179,855
24	Schedule 26-A - Multi-Value Project Usage Rate	Line 3 - Line 13	995,731	995,731	995,731	995,731	995,731	995,731	995,731	995,731	995,731	995,731	995,731	995,731	11,773,859
25	METC Agency Agreement	Line 3 - Line 14	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
26	Total Transmission Expenses	Lines 15-20 + 24-26	\$ 27,106,134	\$ 26,115,484	\$ 25,332,409	\$ 23,757,641	\$ 27,559,409	\$ 33,329,448	\$ 36,067,691	\$ 37,212,330	\$ 30,889,760	\$ 26,131,759	\$ 26,232,169	\$ 28,179,994	\$ 347,914,228
27	Total Energy Market Administration Expenses	Lines 21-23	658,477	691,866	623,849	599,111	611,431	683,177	745,239	743,890	636,261	624,582	634,107	694,474	7,824,414
28	Total Transmission and Energy Market Administration Expenses	Lines 27 + 28	\$ 27,764,611	\$ 26,717,350	\$ 25,956,258	\$ 24,357,752	\$ 28,171,340	\$ 34,012,576	\$ 36,813,929	\$ 37,958,229	\$ 31,526,021	\$ 26,757,341	\$ 26,866,276	\$ 28,861,968	\$ 355,738,642

Consumers Energy Company
 2015 Transmission and Energy Market Administration Expenses

Line	Source / Calculation	Jan (c)	Feb (d)	Mar (e)	Apr (f)	May (g)	Jun (h)	Jul (i)	Aug (j)	Sep (k)	Oct (l)	Nov (m)	Dec (n)	TOTAL (o)
1	Billing Determinants													
2	Hours per Month	5,798	5,601	5,415	5,085	5,877	7,150	7,222	7,946	6,827	5,576	5,601	6,005	74,403
3	Delivered MWhs	3,280,308	3,013,229	3,111,955	2,896,653	3,019,828	3,353,471	3,629,406	3,821,951	3,123,560	3,095,599	3,147,616	3,376,383	38,668,959
4	Rates													
5	Worker SD#1-6	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172
6	Worker SD#1-6	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864	371,2864
7	Worker SD#1-6	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633	3,119,0633
8	Worker SD#1-6	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878	0,0878
9	Worker SD#1-6	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451	0,0451
10	Worker SD#1-6	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820	0,0820
11	Worker SD#1-6	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128	0,0128
12	Worker SD#1-6	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373	932,6373
13	Worker SD#1-6	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625	0,4625
14	Worker SD#1-6													
15	Schedule 1 - System Control and Dispatch	\$ 527,107	\$ 515,993	\$ 306,499	\$ 289,891	\$ 331,964	\$ 403,388	\$ 459,654	\$ 448,291	\$ 373,877	\$ 314,582	\$ 315,993	\$ 330,785	\$ 3,387,765
16	Schedule 1 - System Control and Dispatch	16,501,919	17,873,275	17,279,753	16,226,674	18,756,014	22,754,264	24,553,005	25,265,240	21,071,324	17,729,546	17,839,037	18,093,602	222,276,543
17	Schedule 1 - System Control and Dispatch	273,058	238,253	255,021	231,754	276,778	325,868	383,699	374,218	302,032	262,603	285,271	282,807	3,441,333
18	Schedule 1 - System Control and Dispatch	2,815,941	2,882,522	2,423,290	2,318,356	2,748,742	3,283,541	3,893,879	3,818,970	3,149,439	2,682,464	2,836,981	2,852,496	34,935,335
19	Schedule 1 - System Control and Dispatch	427,942	411,880	441,316	402,273	469,977	566,228	631,197	650,000	524,886	456,534	441,360	468,445	5,689,920
20	Schedule 1 - System Control and Dispatch	47,451	41,403	44,316	40,273	46,977	56,628	63,197	65,000	52,486	45,634	44,360	46,845	569,920
21	Schedule 1 - System Control and Dispatch	537,971	494,170	475,051	462,252	549,969	669,826	764,895	740,128	618,353	520,905	525,701	560,687	6,341,709
22	Schedule 1 - System Control and Dispatch	5,072,475	5,223,270	5,059,230	4,742,481	5,441,109	6,669,346	7,201,825	7,410,728	6,180,585	5,201,365	5,252,701	5,600,687	69,384,071
23	Schedule 1 - System Control and Dispatch	1,917,109	1,393,268	1,439,246	1,326,471	1,326,471	1,529,346	1,678,101	1,675,116	1,444,615	1,431,683	1,455,740	1,561,543	17,884,002
24	Schedule 1 - System Control and Dispatch	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
25	Schedule 1 - System Control and Dispatch													
26	MTC Agency Agreement													
27	Total Transmission Expenses	\$ 28,617,295	\$ 27,526,843	\$ 26,755,825	\$ 25,102,399	\$ 28,825,491	\$ 34,785,192	\$ 37,583,543	\$ 38,007,199	\$ 32,250,071	\$ 27,422,488	\$ 27,559,636	\$ 29,957,520	\$ 364,558,514
28	Total Energy Market Administration Expenses	693,397	612,711	634,345	599,479	620,657	692,446	751,143	751,752	644,713	632,950	641,148	689,307	7,929,655
29	Total Transmission and Energy Market Administration Expenses	\$ 29,310,692	\$ 28,139,554	\$ 27,390,168	\$ 25,691,878	\$ 29,446,148	\$ 35,477,638	\$ 38,334,685	\$ 38,758,951	\$ 32,894,784	\$ 28,055,438	\$ 28,200,794	\$ 30,646,827	\$ 372,528,169

Line	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
	(A)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)
1	Billing Determinants	5,595	5,724	5,516	5,155	6,025	7,245	7,611	8,097	6,719	5,659	5,695	6,095	75,523
2	Hours per Month	688	688	744	720	744	720	744	744	720	744	720	744	8,784
3	Delivered MWhs	3,338,878	3,161,051	3,135,923	2,942,114	3,063,814	3,399,498	3,675,254	3,670,280	3,170,625	3,139,070	3,191,801	3,423,531	38,311,919
4	Schedule 1 - System Control and Dispatch	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172	\$ 56,4172
5	Schedule 2 - Reactive Support	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731	366,2731
6	Schedule 3 - Network Transmission Service	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685	3,395,5685
7	Schedule 4 - ISO Cost Recovery Adder - Demand Basis	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853	0.0853
8	Schedule 5 - ISO Cost Recovery Adder - Energy Basis	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451	0.0451
9	Schedule 10-FERC - ISO Cost Recovery Adder - FERC Annual Charge	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110
10	Schedule 16 - ISO Cost Adder - Financial Transmission Rights	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850	0.0850
11	Schedule 17 - ISO Cost Adder - Energy Markets	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074	905,5074
12	Schedule 25 - Network Upgrade Chops from Transmission Expansion Plan	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486	0.4486
13	Schedule 26A - Mkt-Value Project Usage Rate													
14	Schedule 26A - Mkt-Value Project Usage Rate													
15	Schedule 1 - System Control and Dispatch	\$ 32,015	\$ 32,032	\$ 311,197	\$ 291,395	\$ 338,616	\$ 408,798	\$ 440,675	\$ 451,733	\$ 379,687	\$ 319,209	\$ 321,296	\$ 343,863	\$ 343,863
16	Schedule 2 - Reactive Support	2,155,517	2,096,547	2,020,363	1,891,801	2,188,371	2,654,015	2,890,959	2,932,749	2,460,889	2,072,373	2,086,925	2,232,455	2,232,455
17	Schedule 3 - Network Transmission Service	19,982,821	19,438,234	18,729,956	17,535,111	20,380,202	24,520,075	26,432,005	27,082,259	22,736,735	19,146,398	19,271,574	20,625,153	20,625,153
18	Schedule 4 - ISO Cost Recovery Adder - Demand Basis	293,398	277,540	275,334	258,318	288,476	328,476	322,687	322,249	278,881	225,610	220,240	230,596	230,596
19	Schedule 5 - ISO Cost Recovery Adder - Energy Basis	150,574	142,953	141,430	132,680	138,178	153,317	166,754	165,529	142,895	141,572	143,950	154,401	154,401
20	Schedule 10-FERC - ISO Cost Recovery Adder - FERC Annual Charge	48,163	43,823	45,143	40,907	49,120	57,368	63,305	65,529	53,214	46,305	45,104	49,881	49,881
21	Schedule 16 - ISO Cost Adder - Financial Transmission Rights	5,328,911	5,183,124	4,994,779	4,676,946	5,434,655	6,561,307	7,072,918	7,250,388	6,084,104	5,123,361	5,156,865	5,519,068	5,519,068
22	Schedule 17 - ISO Cost Adder - Energy Markets	1,497,682	1,418,001	1,408,729	1,378,789	1,374,882	1,524,865	1,646,425	1,646,425	1,422,896	1,408,141	1,431,795	1,535,748	1,535,748
23	Schedule 24 - Balance Area Cost Adder - Energy Markets													
24	Schedule 26 - Network Upgrade Chops from Transmission Expansion Plan													
25	Schedule 26A - Mkt-Value Project Usage Rate													
26	MTC Agency Agreement													
27	Total Transmission Expenses	\$ 30,019,912	\$ 29,131,124	\$ 28,141,565	\$ 26,346,449	\$ 30,418,273	\$ 36,453,198	\$ 39,115,594	\$ 40,243,431	\$ 33,812,793	\$ 29,755,099	\$ 28,953,201	\$ 31,000,296	\$ 31,000,296
28	Total Energy Market Administration Expenses	681,176	643,158	639,714	598,732	630,020	701,833	769,753	761,411	653,855	641,472	659,270	698,983	698,983
29	Total Transmission and Energy Markets Administration Expenses	\$ 30,701,088	\$ 29,774,282	\$ 28,781,279	\$ 26,945,181	\$ 31,048,293	\$ 37,155,131	\$ 40,074,278	\$ 41,004,842	\$ 34,467,166	\$ 29,396,572	\$ 29,603,471	\$ 31,699,279	\$ 31,699,279

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SUPPLEMENTAL DIRECT TESTIMONY

OF

LAURA M. COLLINS

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

LAURA M. COLLINS
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. Laura M. Collins, One Energy Plaza, Jackson, Michigan.

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

4 A. I am employed by Consumers Energy Company (“Consumers Energy” or the
5 “Company”) as a Senior Rate Analyst II in the Revenue Section of the Rates Department.

6 Q. Are you the same Laura M. Collins that provided direct testimony in this docket?

7 A. Yes.

8 Q. What is the purpose of your supplemental testimony?

9 A. The purpose of my supplemental testimony is to update the calculation of the 2012 PSCR
10 plan factor based on the changes presented in the supplemental filings of the other
11 Company witnesses.

12 Q. What changes have been made to the plan factor calculation?

13 A. The system power supply costs, transmission expense, urea costs, aqueous ammonia cost
14 and total system requirements have been updated to reflect the changes made by the other
15 witnesses in this case.

16 Q. What is the result of those changes?

17 A. Updating the items listed above resulted in a 2012 PSCR Factor of \$0.00342/kWh. This
18 is a decrease of \$0.00211/kWh from the original filed factor of \$0.00553/kWh.

19 Q. Are you sponsoring any exhibits in connection with your testimony?

20 A. Yes, I am sponsoring the following exhibit:

21 Exhibit A-26 (LMC-2) Supplemental Calculation of 2012 PSCR Factor.

22 Q. Was this exhibit prepared by you or under your supervision?

23 A. Yes.

LAURA M. COLLINS
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Please summarize Exhibit A-26 (LMC-2).

2 A. Exhibit A-26 (LMC-2) is intended to replace Exhibit A-4 (LMC-1) which was previously
3 distributed to the parties but which is not being introduced into this record by the
4 Company. Exhibit A-26 (LMC-2) shows the updated calculation of the 2012 PSCR
5 factor including: (i) total power supply costs provided by Mr. Polena; (ii) transmission
6 expenses provided by Mr. Burgdorf; (iii) Schedule 2 Reactive Revenue due to service to
7 retail open access (“ROA”) customers, also provided by Mr. Burgdorf; and (iv) NO_x
8 allowance expenses, urea costs, and aqueous ammonia costs provided by Mr. Kehoe.

9 Q. Please describe in more detail the calculations in Exhibit A-26 (LMC-2).

10 A. The 2012 PSCR factor is calculated by first summing the total system power supply costs
11 on Line 1, the net transmission expenses on line 4, and the total of NO_x allowance costs,
12 urea costs, and aqueous ammonia costs (“Total Environmental Costs”) shown on Line 8.
13 That sum, shown on Line 9, is divided by total system kWh requirements on Line 10,
14 provided to me by Company witness Warriner, to determine the average cost per kWh of
15 requirements on Line 11. From this quotient is subtracted the base recovery factor
16 (shown on Line 12) collected through the standard tariffs as approved by the
17 Commission¹. This remaining per kWh amount (\$0.00315 set forth on Line 13) is
18 multiplied by the Line and Transformation Loss Factor on Line 14 to determine the 2012
19 per kWh PSCR factor of \$0.00342 at sales, shown on Line 15. Exhibit A-26 (LMC-2)
20 includes the most recent calculation of the 2012 PSCR factor and is intended to replace
21 the previously-filed Exhibit A-4 (LMC-1).

¹ See Rule C8. Power Supply Cost Recovery Clause; Paragraph B.(1).

LAURA M. COLLINS
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Does this conclude your testimony?

2 A. Yes.

STATE OF MICHIGAN

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In the matter of the application of)
CONSUMERS ENERGY COMPANY)
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Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

EXHIBIT

OF

LAURA M. COLLINS

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

Consumers Energy Company
Calculation of 2012 PSCR Factor

<u>Line</u>			
1	System Power Supply Costs ¹		\$ 1,633,233,000
	System Transmission Expenses		
2	Total Transmission Expenses ²	\$ 291,961,785	
3	Less: Schedule 2 Reactive Revenue ³	(19,706,000)	
4	Net Transmission Expenses		\$ 272,255,785
	Environmental Costs		
5	NOx Allowance Costs ⁴	\$ 405	
6	Urea Costs ⁵	5,537,000	
7	Aqueous Amonia ⁶	505,000	
8	Total Environmental Costs		\$ 6,042,405
9	Total System Power Supply Costs		\$ 1,911,531,190
10	Total System Requirements in kWh ⁷		36,894,368,000
	Jurisdictional Factor Calculation		
11	Average Cost at Requirements (Line 8 / Line 9)		\$ 0.05181
12	Less: Base Recovery Factor ⁸		\$ 0.04866
13	Remaining Cost per kWh (Line 10 - Line 11)		\$ 0.00315
14	Line & Transformation Loss Factor ⁹		1.086
15	2012 PSCR Factor at Sales (Line 12 x Line 13)		\$ 0.00342

Sources: ¹Exhibit A-38 (RJP-1R), Line 26
²Exhibit A-25 (SDB-2), page 1 of 5, line 29, column "o"
³SDBurgdorf Testimony, Page 8, Line 5
⁴Exhibit A-35 (DBK-8), page 1 of 5, line 22
⁵Exhibit A-36 (DBK-9), line 5, column "2012"
⁶Exhibit A-37 (DBK-10), line 3, column "2012"
⁷Exhibit A-44 (LDW-9), page 3 of 3, line 13 "Total," column "2012"
⁸Per Order in Case No. U-15645
⁹Per Rule C-8 of the Company Tariffs

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SUPPLEMENTAL DIRECT TESTIMONY

OF

BRIAN D. GALLAWAY

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Would you please state your name and business address?

2 A. Brian D. Gallaway, 1945 Parnall Rd, Jackson, Michigan.

3 Q. By whom are you employed?

4 A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”)
5 as Director of Fossil Fuel Supply in the Energy Supply Operations Department.

6 Q. Are you the same Brian D. Gallaway that submitted direct testimony in this case?

7 A. Yes, I am.

8 Q. What is the purpose of this supplemental testimony?

9 A. I am filing this supplemental direct testimony to supplement my original direct testimony
10 filed in this proceeding. In my original direct testimony, filed with the 2012 PSCR plan
11 case application of Consumers Energy Company (“Consumers Energy” or the
12 “Company”), I explained the new Cross State Air Pollution Rule (“CSAPR”), detailed the
13 potential impacts of the rule, and outlined some of the considerations being evaluated by
14 the Company in developing a compliance strategy for the new rule. I also indicated in my
15 original testimony that once the Company’s compliance strategy had been finalized, and
16 depending on the impact on PSCR cost, that it may be necessary to file supplemental
17 testimony to resolve PSCR cost issues. This supplemental direct testimony discusses the
18 actions taken by the Company since the original filing of the 2012 PSCR plan case,
19 specifically with regard to fuel purchases to comply with CSAPR, the current status of
20 CSAPR, and how the recent drop in the price of natural gas has affected fuel utilized for
21 generation. This supplemental direct testimony also summarizes the decision made by the
22 Company on another open issue at the time the 2012 PSCR plan case was filed, that being
23 the Company’s decision regarding the use of the SEMCO lateral pipeline connecting the

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 Zeeland Plant to the ANR pipeline system.

2 Q. Are you sponsoring any exhibits with your supplemental testimony?

3 A. Yes, I am sponsoring the following exhibits that were prepared by me or under my
4 supervision:

5 Exhibit A-27 (BDG-6), NYMEX Henry Hub Prices

6 Exhibit A-28 (BDG-7), Coal Contract & Annual Purchase Data

7 Exhibit A-29 (BDG-8), Estimated As-Burned Coal Costs – 2012

8 Exhibit A-30 (BDG-9), Estimated As-Burned Oil & Gas Costs – 2012

9 Exhibit A-31 (BDG-10), Estimated As-Burned Coal Costs (2013-2016)

10 Exhibit A-32 (BDG-11), Estimated As-Burned Oil & Gas Costs (2013-2016)

11 These exhibits replace, respectively, Exhibits A-5 (BDG-1), Exhibits A-6 (BDG-2),
12 Exhibits A-7 (BDG-3), Exhibits A-8 (BDG-4), and Exhibits A-9 (BDG-5) in my original
13 direct testimony.

14 **CSAPR – Prior to December 30, 2011**

15 Q. Can you briefly summarize the CSAPR from your original direct testimony and the
16 decisions being evaluated by the Company at that time as a result of the CSAPR?

17 A. Yes. The CSAPR was finalized on August 8, 2011 and required coal-fired plants in 28
18 states, including Michigan, to reduce and SO₂ and NO_x emissions beginning with a first
19 stage reduction in 2012 and a second stage reduction in 2014. The Company's SO₂
20 emissions allocated under CASPR would require actual SO₂ emissions to be reduced by
21 approximately 15% in 2012 and 50% in 2014. Because of the lack of time available to
22 physically modify the generating units to meet these requirements (through the installation
23 of back end control equipment to remove SO₂ after combustion), the Company's only

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 option to meet the first stage emission reduction by January 1, 2012 was to reduce the
2 sulfur content of the fuel burned prior to the combustion process.

3 Q. How did the Company plan to reduce the sulfur content of its fuels prior to the combustion
4 process to comply with the CSAPR?

5 A. The only practical means to accomplish this is to reduce the fuel input in total, or by
6 adjusting fuel blends to increase the use of lower sulfur western coal and decrease the use
7 of higher sulfur eastern coal. Since the Company already maximizes its use of western
8 coal with the objective of achieving full unit capability when needed, any increase in
9 western coal burn to comply with the CSAPR would result in generating units operating at
10 a derated capacity, which we anticipated would translate into higher PSCR costs as the
11 energy lost from that derated capacity is replaced with higher cost generation.

12 Q. How does a sudden and/or significant change in western coal blend affect the Company's
13 coal purchasing strategy and the coal commitments the Company has already made for
14 2012?

15 A. Prior to filing the 2012 PSCR plan, the Company had made contractual commitments for
16 eastern and western coal at levels consistent with our normal purchasing strategy and
17 consistent with our projected western coal blends. As is typically done, room was left for
18 spot coal purchases to account for minor western coal blend variations, unit availability,
19 and other factors that affect coal unit dispatch and therefore fuel burned. To comply with
20 the CSAPR, it would be necessary for most of the Company's coal fleet to operate at very
21 high blends of western coal, greatly reducing the amount of eastern coal needed in 2012.
22 This translated into an immediate oversupply of contract eastern coal and an undersupply
23 of contract western coal. Efforts would be necessary to reduce the Company's eastern

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 commitments for 2012 and increase western coal commitments through spot purchases in
2 2012.

3 Q. Between the time that CSPAR was finalized (August 11, 2011) and the 2012 PSCR plan
4 was filed (September 30, 2011), please summarize the actions taken by the Company to
5 reduce its eastern coal commitments?

6 A. As noted in my original testimony, the Company:

- 7 1. Did not purchase 4th quarter 2011 spot eastern coal as it typically would have done
8 following its normal coal purchasing strategy.
- 9 2. Exercised an option with an eastern supplier to ship low sulfur coal rather than mid
10 sulfur coal in 2012 by paying slightly more to reflect a difference in market price
11 between the two coals.
- 12 3. Mutually agreed with an eastern coal supplier to discontinue all negotiations for an
13 eastern coal commitment that had been planned for 2013 delivery.
- 14 4. Delayed issuing an RFP for vessel delivery of eastern coal from Lake Erie ports to
15 the BCCobb plant.

16 Q. To what extent were these actions included in the original 2012 PSCR plan?

17 A. All of the above four actions were included in the plan. As noted in my original direct
18 testimony, the Company knew its compliance strategy would include reducing eastern
19 coal burn, which led directly to the Company taking the four actions noted above.
20 However, the Company anticipated that further action would be necessary to fully comply
21 with the CSPAR and thus I included reference to the anticipation that a supplemental
22 filing would be necessary once compliance requirements had been evaluated.

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. What actions did the Company take after the 2012 PSCR plan case was filed to reduce the
2 sulfur content of the fuels?

3 A. Discussions continued with the eastern coal suppliers from whom the Company had firm
4 coal purchases in 2012 in an attempt to reduce or eliminate the Company's contractual
5 obligation to take the coal or to reduce its sulfur content. Items considered to accomplish
6 this included: (1) terminating the agreement(s) with the suppliers consent, (2) converting a
7 higher sulfur eastern coal to lower sulfur eastern coal, (3) converting a higher sulfur
8 eastern coal to a lower sulfur western coal (for suppliers that had coal to offer in both the
9 eastern and western markets), (4) sell coal back to the supplier, or (5) where suppliers
10 were willing, sell the coal to a third party trader. As could be expected, this was a difficult
11 task because the CSAPR was causing a great deal of uncertainty in the eastern coal
12 market. That market was becoming stagnant because of the uncertainty. Also
13 contributing to the stagnation of the eastern coal market was the fact that the industry was
14 beginning to get some indication of what SO₂ allowance prices might be, even though the
15 market was still developing. Speculation that SO₂ allowance prices in 2012 could be
16 several to many thousands of dollars per ton significantly impacted the price and trading
17 volumes of eastern coal in the market. As a result, eastern coal spot prices have fallen
18 from approximately \$81/ton at the time the original 2012 PSCR plan was prepared, to
19 under \$70/ton as of the time that this supplemental direct testimony was being prepared,
20 and are currently in the mid \$60/ton range.

21 Q. Did the Company consider invoking contractual provisions such "Force Majeure" clauses
22 to reduce or eliminate its contractual obligations under its eastern coal contracts for 2012?

23 A. Yes. I am informed by counsel that all of the Company's eastern coal contracts have

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 Force Majeure provisions that, under certain circumstances, would excuse the
2 performance of a party under the contract in the event of the occurrence of certain stated
3 events that are completely outside of the party's control that prevent performance. I am
4 further informed by counsel that these events are typically natural events or so-called
5 "Acts of God," but that the definition of "Force Majeure may also include
6 government-imposed rules and regulations. I am further informed by counsel that Force
7 Majeure clauses typically do not extend to circumstances that only lead to less than
8 desirable economic consequences for either party. For example, if the EPA through the
9 CSAPR had outlawed the burning of the higher sulfur eastern coal, then it is possible that
10 the Company could have declared Force Majeure and may have been excused from
11 performance under the contract. However, the CSAPR did not outlaw the burning of
12 higher sulfur eastern coal, but instead made it more expensive to burn it. Hence, coal
13 suppliers could argue that the Company's efforts to reduce or eliminate higher sulfur
14 eastern coal burn is a negative economic consequence rather than a valid Force Majeure
15 event.

16 Q. Absent the ability to declare Force Majeure, was the Company successful in reducing its
17 eastern coal contract commitments with its coal suppliers?

18 A. Yes. Of the five eastern coal agreements identified to be in effect for 2012 in my original
19 filed Exhibit A-5 (BDG-1), the Company was successful in negotiating termination
20 arrangements with four of them.

21 Q. Can you elaborate further on which eastern coal contracts were terminated and the net
22 impact on this supplemental filing?

23 A. Yes. Contracts "I", "K", "L", and "M" identified in my original Exhibit A-5 (BDG-1) are

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 no longer in place for 2012. The total eastern tonnage removed from the 2012 PSCR plan
2 affected by these agreements is 803,000 tons and the contractual purchase obligation
3 eliminated is approximately \$58,938,000. To be excused from this contractual obligation,
4 the Company agreed to pay termination fees totaling \$1,716,000. The agreement with one
5 of the suppliers also required the Company to purchase 187,500 tons of western coal in
6 2012 as part of the settlement.

7 Q. Do you believe the \$1,716,000 expense the Company incurred to terminate these four
8 eastern coal contracts should be an expense recoverable through the PSCR process?

9 A. Yes. All of the affected contracts were prudently entered into to provide security of
10 supply and to provide price risk protection to Consumers Energy's electric customers,
11 using methods that have been reviewed in testimony and discovery in the PSCR process
12 for many years. The Company's contractual commitments for eastern coal were at
13 approximately 67% of its total expected delivery requirements, which is at the lower end
14 of the typical 70% to 90% targeted range.

15 The actions initiated and finally taken by the Company to terminate the contracts
16 were in response to new environmental regulations for which no other options existed.
17 Inasmuch as the new CSAPR rule was finalized on August 8, 2011, there was not time to
18 engineer, construct, and install backend pollution control equipment to enable compliance
19 by January 1, 2012. The Company's only viable option to reduce SO₂ emissions was to
20 reduce the sulfur input to the combustion process through the fuel it burns.

21 Q. What are the Company's plans for recovering the expense it incurred for terminating the
22 four eastern coal agreements?

23 A. According to accounting rules, because the termination fees were paid in 2011, they were

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 booked in the year they were incurred (2011). For this reason, they have been included in
2 the Company's 2011 actual fuel expense and will be resolved in the 2011 PSCR
3 reconciliation proceeding.

4 **CSAPR – After December 30, 2011**

5 Q. What is the current status of the CSAPR?

6 A. On December 30, 2011, the D.C. Circuit Court issued an order staying the CSAPR
7 pending the court's resolution of the petitions for review of the rule. The court has set the
8 process in motion to hear oral arguments in April of 2012. It is uncertain when the
9 CSAPR will come back into effect.

10 Q. How does the stay of the CSAPR impact the Company's decision to terminate the four
11 eastern coal agreements and its plan to recover the termination fees through the PSCR
12 process?

13 A. It has no impact. Because the Company's prudent decisions to enter into the contracts for
14 the benefit of its electric customers and because of the Company's prudent decisions to
15 relieve itself of the obligations of the contracts due to the CSAPR, the Company will still
16 seek to recover these contract termination fees in the PSCR process as noted above. The
17 Company made coal purchasing and termination decisions with the known facts it had at
18 the time the decisions were made. All eastern coal termination agreements were finalized
19 before the stay was issued.

20 Q. Are there other factors that have affected coal and gas burn since the time the 2012 PSCR
21 plan case was filed?

22 A. Yes. Natural gas prices have decreased substantially and are projected to be at lower
23 levels for a longer period of time than was previously projected. Exhibit A-27 (BDG-6)

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 shows the NYMEX Henry Hub gas prices at the time the 2012 PSCR plan case was
2 prepared and how those values have progressively declined each month through the end of
3 2011.

4 Q. How have these declining natural gas prices affected coal utilization over this period?

5 A. Natural gas generation prior to the filing of the 2012 PSCR plan case were generally the
6 marginal units in the MISO region, closely related to the MISO LMP, and higher in cost
7 than coal generation. As natural gas prices have declined, so has the cost of natural gas
8 generation and so have MISO LMP's, to a point where gas combined cycle units often
9 operate at a lower cost than some coal units, and are therefore dispatched ahead of some
10 coal units. Higher cost coal units, those that typically burn a blend of eastern and western
11 coal to achieve full generation capacity, are finding it necessary to increase their western
12 blend, and sacrificing MW production if necessary, to stay competitive with natural gas.
13 Mr. Blumenstock and Mr. Polena have more discussion on this topic in their supplemental
14 direct testimony.

15 Q. At the time the 2012 PSCR Plan Case was filed, what effect did you expect the CSAPR to
16 have on coal burn, gas burn, and on total PCSR costs?

17 A. Because of the limitations being imposed on SO₂ emissions and the anticipation that SO₂
18 allowance prices would be very high, it was expected there would be significant
19 reductions in eastern coal burn, and possibly moderate reductions in total coal burn. The
20 reductions in coal burn would largely be attributable to the large increase in dispatch cost,
21 especially for coal units, and especially for coal units that burn large amounts of higher
22 sulfur eastern coal, due to the expectation that the SO₂ allowance price included in the
23 dispatch cost calculation would be very large. It was also expected that burn volumes of

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 gas would increase and displace higher sulfur coal generation. At that time, the cost of gas
2 generation was higher than coal generation. These impacts would likely decrease overall
3 coal burn and cost, increase gas burn and cost, and total PSCR expense would be higher
4 because of higher levels of gas generation and the inclusion of expensive SO₂ allowance
5 costs on the coal units.

6 Q. Now that the CSAPR has been stayed and with natural gas prices projected to be lower,
7 how would you compare the coal and natural gas burn with that if the CSAPR had been
8 implemented?

9 A. Similar to the case if CSAPR had been implemented, the Company expected to see a
10 significant reduction in eastern coal burn, a moderate increase in western coal burn and
11 increases in gas fired generation. The supplemental direct testimony offered by both
12 Mr. Blumenstock and Mr. Polena elaborate further on the impacts that lower gas prices are
13 expected to have on coal and gas generation in this supplemental filing.

14 Q. How do the burn volumes in this supplemental filing compare with the burn volumes in
15 the original 2012 PSCR plan filing?

16 A. Eastern coal burn volume decreased from 1,482 kTons to 152 kTons, western coal volume
17 increased from 8,422 kTons to 9,122 kTons, and gas increased from 22.5 Bcf to 30.9 Bcf.
18 On a per unit total cost basis, coal cost decreased from \$3.22/MMBtu to \$3.00/MMBtu
19 and gas cost decreased from \$5.66/Mcf to \$4.31/Mcf.

20 Q. Have you updated the exhibits from your original testimony to include the changes in coal,
21 oil, and gas volume and cost that you have discussed here?

22 A. Yes. Exhibit A-28 (BDG-7), Exhibit A-29 (BDG-8), Exhibit A-30 (BDG-9), Exhibit A-31
23 (BDG-10), and Exhibit A-32 (BDG-11) reflect the Company's updated projections and

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 reflect the stay on the CSAPR, the termination of four eastern coal agreements, and
2 updated fuel pricing.

3 Q. Does the Company's termination of four of its eastern coal agreements have any negative
4 impact on this supplemental filing, inasmuch as the agreements were terminated in
5 anticipation of CSAPR and that the CSPAR has been stayed?

6 A. No. Over 800,000 tons of now unneeded eastern coal with a contractual commitment of
7 almost \$59 million was terminated at a cost of \$1.7 million. Eastern contract
8 commitments and burn in the original 2012 PSCR plan were 935 kTons and 1,482 kTons,
9 respectively. Eastern contract commitments and burn in this supplemental filing are 132
10 kTons and 151 kTons, respectively. The elimination of the four eastern contracts has
11 actually helped the Company align its contractual eastern coal requirements with the
12 current projected burn resulting from substantially lower natural prices and our ability to
13 economically take advantage of higher western coal blends.

14 In other words, termination of the four eastern coal contracts was prudent due to the fact it
15 enabled the Company to lower its PSCR cost as a result of lower gas prices, which caused
16 lower MISO LMPs, which in turn enabled the Company to significantly reduce its
17 expected eastern coal burn, regardless of the status of CSAPR.

18 **SEMCO Lateral Pipeline Decision**

19 Q. In the original 2012 PSCR Plan Case filing in September, the Company stated that it had a
20 decision to make by the end of 2011 regarding the use of the SEMCO pipeline, that being
21 whether to make an additional final annual demand charge payment and purchase the
22 pipeline or to extend the transportation services contract and continue making annual
23 demand charge payments. At the time, you indicated the Company assumed it would be

BRIAN D. GALLAWAY
SUPPLEMENTAL DIRECT TESTIMONY

1 making the final annual demand charge payment and purchasing the pipeline. What was
2 the Company's decision?

3 A. The Company has decided that it will exercise its option to extend the transportation
4 services contract with SEMCO for the lateral pipeline for an additional five years, with the
5 option to purchase the pipeline at that time or extend the transportation service contract an
6 additional five years.

7 Q. How did the Company reach this decision?

8 A. The Company reached this decision through an economic analysis examining its estimated
9 cost of owning and operating the pipeline. The SEMCO transportation agreement detailed
10 cost requirements for four options available to the Company. The four options evaluated
11 were:

- 12 1. Option 1 – Pay an additional final annual demand charge in 2011 and purchase the
13 pipeline.
- 14 2. Option 2 – Extend the transportation services contract for five years, pay an
15 additional annual demand charge, and purchase the pipeline at the end of the
16 period.
- 17 3. Option 3 – Extend the transportation services contract for ten years and purchase
18 the pipeline at the end of that period.
- 19 4. Option 4 – Extend the transportation services contract for five years, renew the
20 transportation services contract for another five years, and purchase the pipeline at
21 the end of that period.

22 Option 2, the option selected by the Company, was the least cost alternative.

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1 Q. What is the impact of this decision in this supplemental filing compared to the original
2 2012 plan case filing last September?

3 A. This decision will reduce PSCR expense by \$2,995,000 in 2012 and increase PSCR
4 expense by \$700,000 for each of the remaining years in the plan (2013-2016). This
5 change in PSCR expense is included in Exhibit A-30 (BDG-9) and Exhibit A-32
6 (BDG-11).

7 Q. Does this conclude your prepared supplemental testimony?

8 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

EXHIBITS

OF

BRIAN D. GALLAWAY

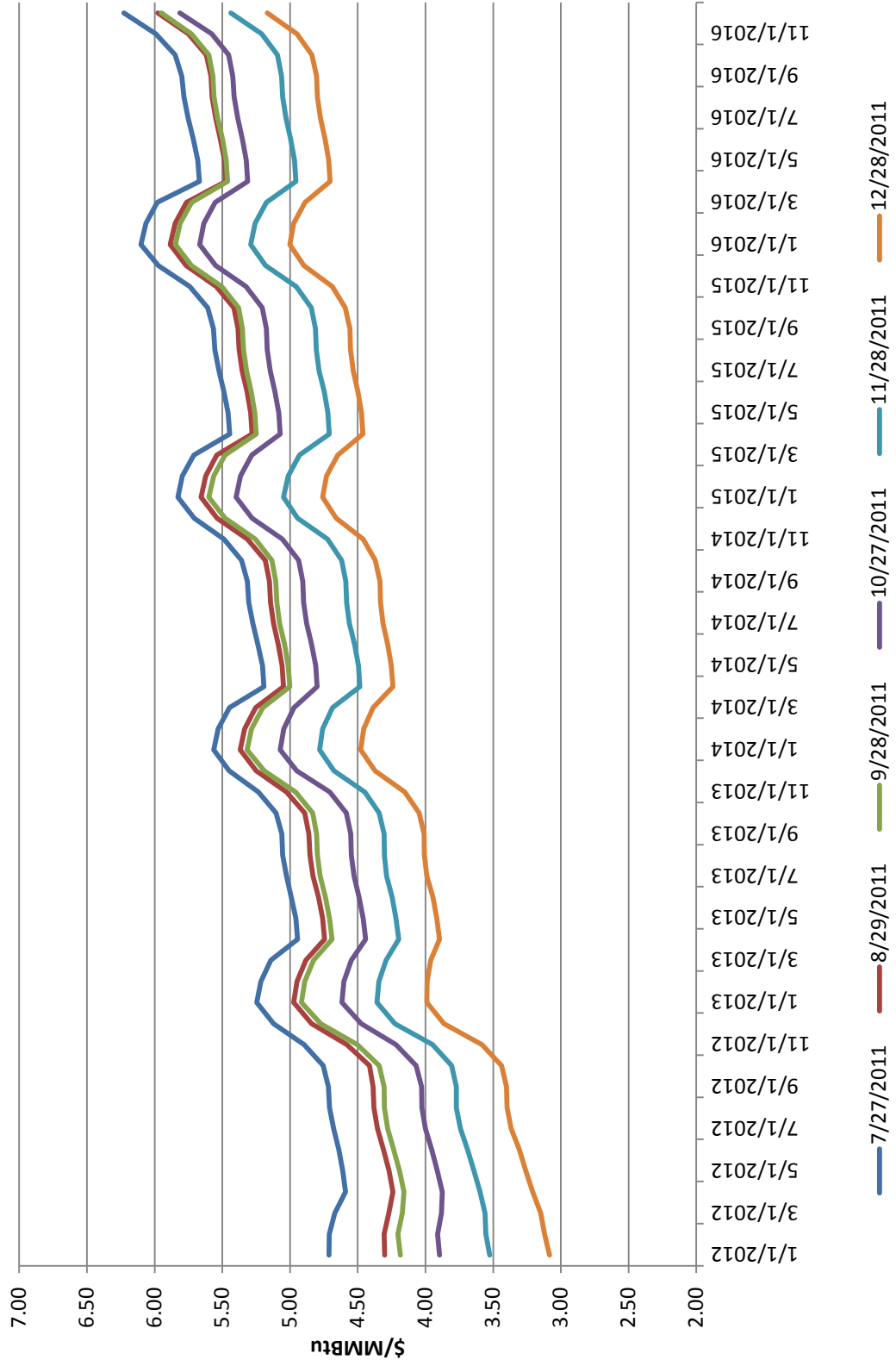
ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

NYMEX Henry Hub (Commodity Index)

Case No: U-16890
Exhibit: A-27 (BDG-6)
Witness: BD Galloway
Date: February 2012



MICHIGAN PUBLIC SERVICE COMMISSION
 CONSUMERS ENERGY COMPANY

Case No: U-16890
 Exhibit: A-28 (BDG-7)
 Witness: BD Galloway
 Date: February 2012
 Page: 1 of 1

Coal Contract & Annual Purchase Data

<u>Line</u>	<u>(a)</u> Supplier	<u>(b)</u> Coal Type	<u>(c)</u> Contract Start Date	<u>(d)</u> Contract End Date	<u>(e)</u> 2012 Volume (Tons)
1	A	Western	1/1/2012	12/31/2012	561,600
2	B	Western	1/1/2012	12/31/2014	936,000
3	C	Western	1/1/2010	12/31/2012	936,000
4	D	Western	1/1/2010	12/31/2012	1,310,400
5	E	Western	1/1/2011	12/31/2013	873,303
6	F	Western	1/1/2011	12/31/2013	258,570
7	G	Western	1/1/2011	12/31/2013	300,000
8	H	Western	1/1/2011	12/31/2013	555,979
9	I	Eastern	4/4/2012	42/31/2012	132,000
10	J	Eastern	1/1/2012	12/31/2014	132,000
11	K	Eastern	4/4/2010	42/31/2012	407,000
12	L	Eastern	4/4/2014	42/31/2012	132,000
13	M	Eastern	4/4/2012	42/31/2012	132,000
14	N	Western	1/1/2012	12/31/2014	1,600,560
15	O	Western	1/1/2012	12/31/2012	187,200
16	P	Western	1/1/2012	12/31/2012	150,000
17	Q	Western	1/1/2012	12/31/2012	130,000
18	R	Western	1/1/2012	12/31/2012	93,600
19	S	Western	1/1/2012	3/31/2012	327,600
20	T	Western	1/1/2012	12/31/2012	100,000
21				Total	8,452,812

MICHIGAN PUBLIC SERVICE COMMISSION
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Case No: U-16890
 Exhibit: A-29 (BDG-8)
 Witness: BDGalloway
 Date: February 2012
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Estimated As-Burned Coal Costs - 2012

<u>Line</u>	<u>(a)</u> <u>Plant</u>	<u>(b)</u>	<u>(c)</u> <u>Burn Volume</u> <u>(Tons)</u>	<u>(d)</u> <u>Burn Dollars</u>
1	JHCampbell 1-2		2,011,271	\$ 110,401,608
2	JHCampbell 3 (CE Owned)		2,621,303	\$ 133,365,248
3	BCCobb 4-5		970,479	\$ 48,730,934
4	DEKarn 1-2		1,699,737	\$ 88,125,132
5	JCWeadock 7-8		986,722	\$ 51,157,256
6	JRWWhiting 1-3		984,403	\$ 53,362,260
			<u>9,273,915</u>	\$ 485,142,438
7	Total Primary Fuel			\$ 485,142,438
8	Total Auxiliary Fuel			\$ 8,852,683
9	Total Freeze/Dust Treatment			\$ 1,577,109
10	State Air Emission Fees			\$ 701,133
11	Total Coal Cost			\$ 496,273,363

MICHIGAN PUBLIC SERVICE COMMISSION
 CONSUMERS ENERGY COMPANY

Case No: U-16890
 Exhibit: A-30 (BDG-9)
 Witness: BD Galloway
 Date: February 2012
 Page: 1 of 1

Estimated As-Burned Oil & Gas Costs - 2012

<u>Line</u>	<u>(a)</u> Plant	<u>(b)</u>	<u>(c)</u> Burn Volume (BBLs/MCF)	<u>(d)</u> Burn Dollars
1	Zeeland Generating Station		28,200,513	\$ 108,365,327
2	DEKarn 3-4 - Oil		0	\$ 1
3	DEKarn 3-4 - Gas		2,744,763	\$ 14,818,428
4	BCCobb 1-3		-	\$ -
5	Combustion Turbines - Oil		-	\$ -
6	Combustion Turbines - Gas		-	\$ 503,940
				\$ 123,687,696
7	Total Primary Fuel			\$ 123,687,696
8	Total Auxiliary Fuel			\$ 9,678,508
9	State Air Emission Fees			\$ 62,287
10	Total Oil & Gas Cost			\$ 133,428,490

MICHIGAN PUBLIC SERVICE COMMISSION
 CONSUMERS ENERGY COMPANY

Case No: U-16890
 Exhibit: A-31 (BDG-10)
 Witness: BD Galloway
 Date: February 2012
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Estimated As-Burned Coal Costs
 2013 - 2016

<u>Line</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>	<u>(e)</u>	<u>(f)</u>
	<u>Burn Volume (Tons)</u>					
	<u>Plant</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	
1	JHCampbell 1-2	1,846,628	2,023,642	2,356,673	2,154,147	
2	JHCampbell 3 (CE Owned)	2,695,747	2,880,280	2,563,911	3,190,581	
3	BCCobb 4-5	1,001,770	1,058,260	282,301	-	
4	DEKarn 1-2	1,805,956	1,534,801	1,949,703	1,892,382	
5	JCWeadock 7-8	986,675	1,041,532	285,051	-	
6	JRWhiting 1-3	1,056,796	1,080,438	298,465	-	
7	Total Burn Tonnage	9,393,571	9,618,952	7,736,104	7,237,110	
	<u>Burn Dollars</u>					
	<u>Plant</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	
8	JHCampbell 1-2	\$ 99,063,702	\$ 116,116,748	\$ 138,139,916	\$ 128,146,020	
9	JHCampbell 3 (CE Owned)	\$ 144,442,080	\$ 165,324,308	\$ 150,156,924	\$ 189,512,385	
10	BCCobb 4-5	\$ 51,630,380	\$ 57,160,203	\$ 15,487,456	\$ -	
11	DEKarn 1-2	\$ 96,058,641	\$ 85,700,208	\$ 112,830,019	\$ 111,848,829	
12	JCWeadock 7-8	\$ 52,271,526	\$ 58,521,489	\$ 16,211,719	\$ -	
13	JRWhiting 1-3	\$ 58,821,743	\$ 62,189,018	\$ 17,365,086	\$ -	
14	Total Primary Fuel	\$ 502,288,073	\$ 545,011,974	\$ 450,191,118	\$ 429,507,235	
15	Total Primary Fuel	\$ 502,288,073	\$ 545,011,974	\$ 450,191,118	\$ 429,507,235	
16	Total Auxiliary Fuel	\$ 9,071,193	\$ 8,890,690	\$ 7,052,825	\$ 5,944,842	
17	Total Freeze/Dust Treatment	\$ 1,641,331	\$ 1,710,683	\$ 1,344,410	\$ 1,264,038	
18	State Air Emission Fees	\$ 701,133	\$ 711,650	\$ 722,325	\$ 733,160	
19	Total Coal Burn Cost	\$ 513,701,730	\$ 556,324,997	\$ 459,310,679	\$ 437,449,275	

MICHIGAN PUBLIC SERVICE COMMISSION
 CONSUMERS ENERGY COMPANY

Case No: U-16890
 Exhibit: A-32 (BDG-11)
 Witness: BD Galloway
 Date: February 2012
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Estimated As-Burned Oil & Gas Costs
 2013 - 2016

<u>Line</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>	<u>(e)</u>	<u>(f)</u>
	<u>Burn Volume (BBLs/MCF)</u>					
	<u>Plant</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	
1	Zeeland Generating Station	15,021,147	12,554,618	26,456,593	30,212,003	
2	DEKarn 3-4 - Oil	1	0	2,273	1,472	
3	DEKarn 3-4 - Gas	1,736,785	1,746,875	2,308,868	2,260,218	
4	BCCobb 1-3	-	-	-	-	
5	Combustion Turbines - Oil	-	-	-	-	
6	Combustion Turbines - Gas	-	-	-	-	
7						

Burn Dollars

	<u>Plant</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
8	Zeeland Generating Station	\$ 69,033,578	\$ 64,609,409	\$ 140,894,903	\$ 164,821,251
9	DEKarn 3-4 - Oil	\$ 48	\$ 4	\$ 140,506	\$ 90,341
10	DEKarn 3-4 - Gas	\$ 12,314,811	\$ 13,288,554	\$ 16,757,871	\$ 16,803,780
11	BCCobb 1-3	\$ -	\$ -	\$ -	\$ -
12	Combustion Turbines - Oil	\$ -	\$ -	\$ 1	\$ 2
13	Combustion Turbines - Gas	\$ 503,940	\$ 503,940	\$ 503,940	\$ 503,940
14	Total Primary Fuel	\$ 81,852,377	\$ 78,401,906	\$ 158,297,221	\$ 182,219,314
15	Total Primary Fuel	\$ 81,852,377	\$ 78,401,906	\$ 158,297,221	\$ 182,219,314
16	Total Auxiliary Fuel	\$ 6,368,971	\$ 6,108,957	\$ 12,652,673	\$ 14,590,278
18	State Air Emission Fees	\$ 62,287	\$ 63,221	\$ 64,169	\$ 65,132
19	Total Oil & Gas Burn Cost	\$ 88,283,635	\$ 84,574,084	\$ 171,014,064	\$ 196,874,723

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SECOND DIRECT TESTIMONY

OF

DAVID B. KEHOE

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

DAVID B. KEHOE
SECOND DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. David B. Kehoe, 1945 W. Parnall Road, Jackson, Michigan.

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

4 A. I am employed by Consumers Energy Company (“Consumers Energy” or the
5 “Company”) as Director of Staff, Electric Generation.

6 Q. Please describe your educational background.

7 A. I received a Bachelor of Science (Chemistry) degree in December 1977 from the
8 University of Michigan. I also received a Masters degree (Business Administration) in
9 May 1982 from the University of Detroit.

10 Q. Please describe your business experience.

11 A. In 1978 I began working as an Associate Engineer for The Detroit Edison Company
12 (“Detroit Edison”). In this capacity I worked at Detroit Edison’s Engineering Research
13 Department largely serving as an analytical chemist specializing in instrumental
14 analytical chemistry. From mid 1982 to September 1989 I held the position of Fuels
15 Engineer, and was responsible for both the operation of Detroit Edison’s Fuels laboratory
16 as well as for consulting with the operating power plants on fuel and combustion product
17 impacts. Additionally, from 1985 until 1989 I was in charge of the Polychlorinated
18 Biphenyls (“PCB”) analysis laboratory. This laboratory analyzed soil and oil samples for
19 the presence of PCBs and was part of Detroit Edison’s program to remove PCBs from
20 existing equipment and to verify the absence of PCBs from soil samples that came from
21 remediation of transformer-oil spills. While at Detroit Edison, I was also a member of
22 the American Chemical Society, the ASTM Committee on Corrosion and Deposits from
23 Combustion Gasses, and ASTM D-5 Committee.

DAVID B. KEHOE
SECOND DIRECT TESTIMONY

1 In 1998 I left the position of Senior Engineer at Detroit Edison and went to CQ
2 Inc., a subsidiary of the Electric Power Research Institute. While at CQ Inc. I held the
3 position of Project Manager, and consulted with utilities, coal companies and engineering
4 firms on fuel selection and fuel impacts. Additionally, I served on the Department of
5 Energy coal research project peer review panel.

6 In 1998, I left CQ Inc. and joined CMS Generation, a subsidiary of CMS Energy,
7 as a Plant Support Manager. My responsibilities included negotiation of long-term
8 service agreements, power purchase agreements, operation and maintenance agreements
9 for new and existing power plants, providing operations review and cost estimates in
10 development of new power plants, and providing technical assistance to existing power
11 generating assets. In 2000, I became the Asset Manager for the Jorf Lasfar Energy
12 Company in Morocco, and was responsible for representing CMS Energy's interests in
13 that project. In that capacity I also served on the Management Committee of Jorf Lasfar,
14 which functions as that project's board of directors. As such, I was responsible for
15 dividend declarations, cash management policy, setting annual goals and objectives,
16 reviewing performance and establishing salary bonus structure for the project
17 management. In addition, I also served in a similar capacity for the GasAtacama project
18 in northern Chile. In April of 2004, I accepted the position of Director of Staff, Electric
19 Generation.

20 Q. What are your responsibilities as Director of Staff, Electric Generation?

21 A. As Director of Staff, Electric Generation, I am responsible for strategic planning for the
22 electric generation business of Consumers Energy. This function includes air quality and
23 regulatory oversight as well as financial planning and budgeting.

DAVID B. KEHOE
SECOND DIRECT TESTIMONY

1 Q. Have you previously testified before the Michigan Public Service Commission (the
2 “Commission”)?

3 A. Yes. I sponsored testimony in the following cases: Case Nos. U-13917 and U-13917-R
4 (2004 PSCR Plan and Reconciliation cases); Case Nos. U-14274 and U-14274-R (2005
5 PSCR Plan and Reconciliation cases); Case Nos. U-14701 and U-14701-R (2006 PSCR
6 Plan and Reconciliation cases); Case No. U-14347 (2006 Electric Rate case); Case Nos.
7 U-15001 and U-15001-R (2007 PSCR Plan and Reconciliation cases); Case Nos.
8 U-15415 and U-15415-R (2008 PSCR Plan and Reconciliation cases); Case No. U-15245
9 (2008 Electric Rate case); Case Nos. U-15675 and U-15675-R (2009 PSCR Plan and
10 Reconciliation case); Case No. U-15645 (2009 Electric Rate case); Case No. U-16113
11 (2009 Show Cause Order); Case No. U-16054 (2009 Depreciation Practices for Electric
12 and Common Utility Plant); Case No. U-16055 (2009 Depreciation Practices for
13 Ludington Pumped Storage Plant); Case No. U-16045 and U-16045-R (2010 PSCR Plan
14 and Reconciliation cases); Case No. U-16191 (2010 Electric Rate case); Case No.
15 U-16432 (2011 PSCR Plan case); Case No. U-16536 (2011 Depreciation Practices for
16 Lake Winds Energy Park); Case No. U-16794 (2011 Electric Rate case).

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

18 A. The purpose of my testimony is to: 1) identify and explain the major fossil and
19 Ludington plant outages that are planned for this period; 2) identify and support
20 Consumers Energy’s periodic outage plans and random outage rate (“ROR”) projections
21 for the 2012 PSCR plan year; 3) compare the projected ROR for fossil, hydro,
22 Ludington and peaker units with actual ROR experienced in the five-year period
23 2006-2010; 4) address availability of generating units for the five-year forecast period;

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1 5) identify forecasted air emissions allowances for the 2012 PSCR plan year, as well as
2 the period 2013 through 2016; 6) identify forecasted urea expenses for the 2012 PSCR
3 plan year, as well as the period 2013 through 2016; and 7) identify forecasted aqueous
4 ammonia expenses for the 2012 PSCR plan year, as well as the period 2013 through
5 2016, and request this expense be included in all future PSCR Plan cases.

6 Q. Are you sponsoring exhibits with your testimony?

7 A. Yes, I am sponsoring the following exhibits:

8 Exhibit A-33 (DBK-6) Major Outages in the 2012 PSCR Plan.

9 Exhibit A-34 (DBK-7) 2012 PSCR Random Outage Rate Projections.

10 Exhibit A-35 (DBK-8) 2012-2016 NOx Allowance Budget.

11 Exhibit A-36 (DBK-9) 2012-2016 Urea Expenses.

12 Exhibit A-37 (DBK-10) 2012-2016 Aqueous Ammonia Expenses.

13 **Major Generating Plant Outages for 2012**

14 Q. Please define major generating plant outages.

15 A. Major generating plant outages are defined as outages that last 28 days or more. These
16 outages generally deal with major pieces of equipment that require disassembly and
17 repair and/or replacement.

18 Q. Please describe the outages that have been reflected by Company witness Polena in the
19 dispatch of the Company's generating plants in this case.

20 A. Exhibit A-33 (DBK-6) describes those outages.

21 Q. Please describe the major activities, planned start dates and durations for each of the
22 outages listed on Exhibit A-33 (DBK-6).

23 A. I describe the individual outages in the following testimony.

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1 Ludington 1

2 The outage at Ludington 1 is scheduled to begin January 3, 2012 and is projected to last
3 for 66 days. The outage is for cavitation repairs, penstock inspection and testing and
4 thrust bearing replacement.

5 Ludington 5

6 The outage at Ludington 5 is scheduled to begin March 19, 2012 and is projected to last
7 for 35 days. The outage is for cavitation repairs, penstock inspection and testing and
8 shaft packing.

9 Campbell 3

10 The outage at Campbell 3 is scheduled to begin March 31, 2012 and is projected to last
11 for 30 days. The outage will be to perform turbine valve maintenance and SCR catalyst
12 cleaning and maintenance.

13 Karn 3

14 The outage at Karn 3 is scheduled to begin April 14, 2012 and is projected to last for 46
15 days. The outage is for boiler repairs and stack work.

16 Whiting 2

17 The outage at Whiting 2 is scheduled to begin September 8, 2012 and is projected to last
18 for 55 days. The outage is for a turbine/generator inspection, boiler work, replacing the
19 economizer.

20 Ludington 6

21 The outage at Ludington 6 is scheduled to begin September 10, 2012 and is projected to
22 last for 56 days. The outage is for shaft packing, cavitation repairs, penstock inspection
23 and testing and thrust bearing replacement.

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1 **Miscellaneous Outages**

2 Q. Are there other outages projected for 2012?

3 A. Yes. There are planned outages scheduled for various generating plants that are all
4 shorter than twenty-eight days. These outages are scheduled to remove screens from
5 valves after turbine inspections, to remove zebra mussels from raw water piping, to
6 chemically clean boiler tube internals, or to perform work on precipitators or other
7 equipment that will not operate for extended periods without attention. All of these
8 planned outages have been scheduled for periods that avoid high replacement power
9 expenses.

10 **Mothballed Generating Units**

11 Q. Please define what is meant by mothballing generating units.

12 A. Mothballing refers to removing the generating unit from operations for the present, but
13 maintaining the unit in a physical state such that it can become operational at a future
14 date when market conditions are more conducive to their operation.

15 Q. Please provide an update on the generating units that Consumers Energy has mothballed.

16 A. Cobb Units 1-3 were “mothballed” in 2009 and are expected to continue in that status.
17 Consumers Energy will continue to evaluate the economics and timing of returning these
18 units to service.

19 Q. Does Consumers Energy have additional generating units in a mothball status?

20 A. Yes. Consumers Energy received approval from Midwest ISO (“Independent
21 Transmission System Operator”) to mothball the following Combustion Turbine Units
22 (CTs) effective October 14, 2010;

- 23 • Thetford 1,2, 5, 6 & 7

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1 • Weadock A

2 • Whiting A

3 Q. Does Consumers Energy intend to mothball additional units?

4 A. Yes. In August 2011, Consumers Energy filed a request with Midwest ISO to mothball
5 the following Combustion Turbine Units (CTs);

6 • Campbell A

7 • Gaylord 1-4

8 • Morrow A & B

9 • Thetford 3, 4, 8 & 9

10 • Straits

11 Midwest ISO is expected to approve this request in February 2012.

12 Q. Does Consumers Energy intend to mothball additional units?

13 A. Yes. On December 2, 2011, Consumers Energy announced the following coal fired
14 generating units would be mothballed in 2015;

15 • B.C. Cobb 4 & 5

16 • J.C. Weadock 7 & 8

17 • J.R. Whiting 1-3

18 The Company intends to file these requests with Midwest ISO in early 2012.

19 **Random Outage Rate (“ROR”) Projections**

20 Q. How are the random outage rate projections for the fossil, hydro and peaker units in this
21 case developed?

22 A. The ROR projections in this case are developed using a five-year average (2006-2010)
23 and are modified to reflect current operating conditions. This is shown in my

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1 Exhibit A-34 (DBK-7). Significant exceptions to the five-year average are described
2 below.

3 Campbell 2

4 The 2012 ROR is projected to be 3.39% higher than the five-year average. Random
5 outage rates typically increase prior to scheduled maintenance, which in this case is
6 spring 2013.

7 Karn 1

8 The 2012 ROR is projected to be 20.46% lower than the five-year average. In 2008 and
9 into 2009, we experienced a turbine failure due to a cracked rotor that has now been
10 repaired.

11 Weadock 7

12 The 2012 ROR is projected to be 9.88% lower than the five-year average. We expect the
13 ROR to decrease due in part to the 2007 boiler feed pump repairs that were made. Also,
14 in 2009, we completed the removal of coal slag and in 2006 performed a generator
15 overhaul.

16 Whiting 2

17 The 2012 ROR is projected to be 3.52% higher than the five-year average. Random
18 outage rates typically increase prior to scheduled maintenance, which in this case is fall
19 of 2012.

20 Availability

21 Q. Do you provide projections for availability of the generating units?

22 A. Yes. The 2012 projected availability for each of the generating units is also shown in
23 column b of Exhibit A-34 (DBK-7).

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1 Q. Do you have an availability projection for the five-year, 2012 – 2016 forecast period?

2 A. Yes. The Company is projecting the overall availability of all the generating units will
3 average about 85% over the five-year forecast period.

4 **NOx Allowances**

5 Q. Please describe how the Company proposes to recover NOx allowance expenses.

6 A. The Company requested and received approval in MPSC Case No. U-13917 to recover
7 NOx allowance expenses as PSCR expenses. I recommend the same treatment for the
8 recovery of NOx emission expense in 2012.

9 Q. Do you have an exhibit related to NOx emission allowance expense?

10 A. Yes. Exhibit A-35 (DBK-8).

11 Q. Please describe Exhibit A-35 (DBK-8).

12 A. Exhibit A-35 (DBK-8) is the Company's projection of NOx emission allowance expense
13 for the PSCR Plan year 2012 and the remainder of the five-year forecast years, 2013
14 through 2016. The exhibit presents an annual tabulation of the allowance inventory,
15 forecasted emissions and a summary of the allowances surrendered to the U.S.
16 Environmental Protection Agency ("EPA") for compliance under the Clean Air Interstate
17 Rule ("CAIR").

18 Q. Please provide background on the status of CAIR.

19 A. In March 2005, the EPA adopted CAIR, which required additional coal-fired electric
20 generating plant emission controls for nitrogen oxides and sulfur dioxide. CAIR was
21 appealed to the U.S. Court of Appeals for the District of Columbia and on July 11, 2008,
22 the Court issued its decision, vacating CAIR and the CAIR federal implementation plan
23 in their entirety. The decision remanded CAIR back to the EPA to form a new rule. In

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1 December 2008, the Court revised its earlier decision and remanded the rule back to EPA
2 for redrafting but left the existing rule in place. On July 7, 2011, the EPA replaced CAIR
3 with CSAPR.

4 Q. Please provide more information on CSAPR.

5 A. CSAPR requires Michigan, and 27 other states, to reduce emissions of nitrogen oxides
6 and sulfur dioxide through a phased-in approach. Phase I was to be effective
7 January 1, 2012 and Phase II is to be effective January 1, 2014. However, on
8 December 30, 2011, the United States Court of Appeals for the D.C. Circuit issued a stay
9 on CSAPR.

10 Q. How does the court issued stay affect recovery of NOx allowances and expenses?

11 A. For now, the method of calculation will remain the same as in previous years. However,
12 because the Company has implemented a number of operational changes to meet the
13 emissions standards required by CSAPR, we have updated Exhibit A-35 (DBK-8) to
14 reflect those changes.

15 Q. What operational changes did the Company make?

16 A. Company witness Brian D. Gallaway and David F. Ronk identify these changes in their
17 Supplemental Testimony.

18 Q. How has Consumers Energy calculated the cost of the allowances set forth on Exhibit
19 A-35 (DBK-8)?

20 A. Consumers Energy has calculated the “average cost” of each of the NOx allowances
21 inventory in accordance with 18 CFR 101, Uniform System of Accounts for Public
22 Utilities and Licensees Subject to the Provisions of The Federal Power Act. Using the
23 “average cost” methodology, allowances allocated to the Company by the EPA at zero
24 cost are averaged with the cost of allowances that were exchanged and purchased.

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1 Banked allowances from the previous year are carried forward into the current inventory
2 at the average cost of the previous year's inventory account. Forecasted purchases are
3 based on a forecasted allowance market price. Allowances are expensed at the average
4 cost of the inventory account, regardless of the actual cost of the individual allowance.

5 Q. Are these NOx emission allowance expenses reflected elsewhere in this filing?

6 A. Yes, they are reflected in the overall PSCR factor calculated by company witness Laura
7 M. Collins.

8 **SO₂ Allowances**

9 Q. Does Consumers Energy expect to incur any expenses or revenues in 2012 related to the
10 SO₂ allowance program?

11 A. No, but we do expect to incur expenses related to SO₂ in the future.

12 **Urea Expenses**

13 Q. Are there additional PSCR expenses for which you are seeking recovery in 2012?

14 A. Yes, Exhibit A-36 (DBK-9) identifies the projected urea expenses thru 2016.

15 Q. Please describe Exhibit A-36 (DBK-9).

16 A. In 2012, Consumers Energy projects spending \$5.54 million for urea. In 2013,
17 Consumers Energy expects to spend \$4.25 million for urea. In 2014 through 2016,
18 expenses are expected to be \$4.99, \$4.51 & \$5.06 million, respectively.

19 Q. Why do projected urea expenses fluctuate in the next five years?

20 A. Urea expenses are projected to fluctuate because Consumers Energy is replacing the
21 existing Karn 1 & 2 Urea Based Ammonia System ("UBAS") with aqueous ammonia –
22 which is discussed later in my testimony. Also, J.H. Campbell 2 will begin using urea in
23 2013.

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1 Q. Please explain why urea expenses have increased in the supplemental filing?

2 A. Urea expenses identified in the supplemental filing reflect current market prices as
3 Consumers contract for pelletized urea expired in 2011.

4 Q. What is urea, and what does Consumers Energy use it for?

5 A. Urea is a solid chemical that is converted into ammonia. The ammonia reacts with NOx
6 in the SCR and reduces the amount of NOx emissions and the need to purchase NOx
7 allowances.

8 Q. Has the Commission previously approved the inclusion of urea in the Company's PSCR?

9 A. Yes. The Company requested and received approval to recover urea expenses as a PSCR
10 expense in MPSC Case No. U-15415. I recommend the same treatment in 2012.

11 **Aqueous Ammonia Expenses**

12 Q. Are there additional PSCR expenses for which you are seeking recovery in 2012?

13 A. Yes, Exhibit A-37 (DBK-5) identifies the projected aqueous ammonia expenses thru
14 2016.

15 Q. Please describe Exhibit A-14 (DBK-10).

16 A. In 2012, Consumers Energy projects spending \$505,000 for aqueous ammonia at Karn 1
17 & 2. In 2013, Consumers Energy expects to spend \$2.22 million for aqueous ammonia.
18 In 2014 through 2016, expenses are expected to be \$1.97, \$2.53 & \$2.47 million,
19 respectively.

20 Q. Please explain why aqueous ammonia expenses have decreased in the supplemental
21 filing?

22 A. Aqueous ammonia expenses have decreased as a result of changes in unit availability and
23 aqueous ammonia costs.

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1 Q. How will aqueous ammonia be used?

2 A. As mentioned earlier in my testimony, the Company is replacing the UBAS at Karn 1 &
3 2 with aqueous ammonia. This new system was designed to be more reliable and
4 effective at reducing NOx emissions.

5 Q. Has the Commission previously approved the inclusion of aqueous ammonia in the
6 Company's PSCR?

7 A. No. Consumers Energy is seeking the Commission's approval to include aqueous
8 ammonia in this and all future PSCR plan cases.

9 Q. Does this conclude your testimony?

10 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

EXHIBITS

OF

DAVID B. KEHOE

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

MICHIGAN PUBLIC SERVICE COMMISSION

CONSUMERS ENERGY COMPANY

Case No: U-16890

Exhibit: A-33 (DBK-6)

Witness: DBKehoe

Date: February 2012

Page: Page 1 of 1

MAJOR OUTAGES IN THE 2012 PSCR PLAN

Line	Unit	Days in 2011	Start Date	Stop Date
	(a)	(b)	(d)	(d)
1	Ludington 1	66	01/03/12	03/09/12
2	Ludington 5	35	03/19/12	04/23/12
3	JH Campbell 3	30	03/31/12	04/30/12
4	DE Karn 3	46	04/14/12	05/30/12
5	JR Whiting 2	55	09/08/12	11/02/12
6	Ludington 6	56	09/10/12	11/05/12

2012 PSCR Random Outage Rate Projections

<u>Line</u>	<u>Plant</u> (a)	<u>Availability</u> (b)	<u>Periodic</u> <u>Factor</u> (c)	<u>2012</u> <u>Projected</u> <u>ROR</u> (d)	<u>Actual</u> <u>ROR</u> <u>2006-2010</u> (e)
1	Campbell 1	91.92%	0.04%	8.04%	8.64%
2	Campbell 2	90.15%	1.40%	8.57%	5.18%
3	Campbell 3	82.24%	8.99%	9.64%	4.68%
4	Cobb 4	83.85%	2.47%	14.03%	13.36%
5	Cobb 5	84.19%	7.23%	9.25%	9.75%
6	Karn 1	85.28%	8.69%	6.60%	27.06%
7	Karn 2	86.14%	7.63%	6.74%	11.60%
8	Karn 3	81.43%	12.57%	6.87%	7.17%
9	Karn 4	89.25%	3.01%	7.98%	7.58%
10	Weadock 7	84.55%	8.50%	7.60%	17.48%
11	Weadock 8	84.21%	9.77%	6.67%	11.96%
12	Whiting 1	90.80%	2.20%	7.15%	10.56%
13	Whiting 2	74.78%	16.06%	10.91%	7.39%
14	Whiting 3	86.62%	5.61%	8.23%	7.42%
15	Ludington 1	77.19%	21.32%	1.90%	1.34%
16	Ludington 2	91.40%	6.83%	1.90%	3.83%
17	Ludington 3	94.12%	4.06%	1.90%	3.97%
18	Ludington 4	94.81%	3.36%	1.90%	1.28%
19	Ludington 5	85.54%	12.80%	1.90%	1.27%
20	Ludington 6	81.64%	16.78%	1.90%	5.77%
21	CTs ¹	44.41%	47.75%	15.00%	11.41%
22	Hydros	95.30%	3.04%	1.70%	1.85%
23	Zeeland CC	90.09%	5.66%	4.50%	3.05% ²
24	Zeeland 1A	95.73%	1.82%	2.50%	2.56% ²
25	Zeeland 1B	95.78%	1.77%	2.50%	1.75% ²

¹Does not include the Zeeland CTs.

²2008-2010 ROR

2012-2016 NO_x ALLOWANCE BUDGET

Line No.	2012 Ozone Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
1	Beginning Bank from 2011	458	\$1.08	\$495.35
2	2012 Inventory	7,429	\$0.00	\$0.00
3	Forecasted Purchases	0	\$23.71	\$0.00
4	Total	7,887	\$0.06	\$495.35
5	Forecasted Emissions	6,450		
6	Banked Allowances Surrendered	-458	\$0.06	\$28.77
7	2012 Inventory Surrendered	-5,992	\$0.06	\$376.32
8	Forecasted Purchases Surrendered	0	\$0.06	\$0.00
9	Ending Balance	1,437	\$0.06	
10	Total Expense			\$405.09

Line No.	2012 Annual Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
11	Beginning Bank from 2011	2,109	\$0.00	\$0.00
12	Projected Allocation from the EPA	16,300	\$0.00	\$0.00
13	Forecasted Purchases	0	\$238.80	\$0.00
14	Total	18,409	\$0.00	\$0.00
15	Forecasted Emissions	15,674		
16	Banked Allowances Surrendered	-2,109	\$0.00	\$0.00
17	2012 Inventory Surrendered	-13,565	\$0.00	\$0.00
18	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
19	Ending Balance	2,735	\$0.00	
20	Total Annual Season Expense			\$0.00

20	Total Ozone Season Expense			\$405.09
21	Total Annual Season Expense		+	\$0.00
22	Total Expense for 2012			\$405.09

2012-2016 NOX ALLOWANCE BUDGET

Line No.	2013 Ozone Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
23	Beginning Bank from 2012	1,437	\$0.06	\$90.27
24	2013 Inventory	7,429	\$0.00	\$0.00
25	Forecasted Purchases	0	\$15.48	\$0.00
26	Total	8,866	\$0.01	\$90.27
27	Forecasted Emissions	5,443		
28	Banked Allowances Surrendered	-1,437	\$0.01	\$14.63
29	2013 Inventory Surrendered	-4,006	\$0.01	\$40.79
30	Forecasted Purchases Surrendered	0	\$0.01	\$0.00
31	Ending Balance	3,423	\$0.01	
32	Total Ozone Season Expense			\$55.42
Line No.	2013 Annual Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
33	Beginning Bank from 2012	2,735	\$0.00	\$0.00
34	Projected Allocation from the EPA	16,300	\$0.00	\$0.00
35	Forecasted Purchases	0	\$139.74	\$0.00
36	Total	19,035	\$0.00	\$0.00
37	Forecasted Emissions	13,166		
38	Banked Allowances Surrendered	-2,735	\$0.00	\$0.00
39	2013 Inventory Surrendered	-10,431	\$0.00	\$0.00
40	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
41	Ending Balance	5,869	\$0.00	
42	Total Annual Season Expense			\$0.00
43	Total Ozone Season Expense			\$55.42
44	Total Annual Season Expense			\$0.00
45	Total Expense for 2013			\$55.42

2012-2016 NOX ALLOWANCE BUDGET

Line No.	2014 Ozone Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
46	Beginning Bank from 2013	3,423	\$0.01	\$32.61
47	Projected Allocation from the EPA	7,429	\$0.00	\$0.00
48	Forecasted Purchases	0	\$593.11	\$0.00
49	Total	10,852	\$0.00	\$32.61
50	Forecasted Emissions	5,471		
51	Banked Allowances Surrendered	-3,423	\$0.00	\$10.29
52	2014 Inventory Surrendered	-2,048	\$0.00	\$6.15
53	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
54	Ending Balance	5,381	\$0.00	
55	Total Ozone Season Expense			\$16.44
Line No.	2014 Annual Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
56	Beginning Bank from 2013	5,869	\$0.00	\$0.00
57	Projected Allocation from the EPA	16,300	\$0.00	\$0.00
58	Forecasted Purchases	0	\$332.14	\$0.00
59	Total	22,169	\$0.00	\$0.00
60	Forecasted Emissions	12,774		
61	Banked Allowances Surrendered	-5,869	\$0.00	\$0.00
62	2013 Inventory Surrendered	-6,905	\$0.00	\$0.00
63	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
64	Ending Balance	9,395	\$0.00	
65	Total Annual Season Expense			\$0.00
66	Total Ozone Season Expense			\$16.44
67	Total Annual Season Expense			\$0.00
68	Total Expense for 2013			\$16.44

2012-2016 NOX ALLOWANCE BUDGET

Line No.	2015 Ozone Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
69	Beginning Bank from 2014	0	\$0.00	\$0.00
70	Projected Allocation from the EPA	5,935	\$0.00	\$0.00
71	Forecasted Purchases	0	\$664.28	\$0.00
72	Total	5,935	\$0.00	\$0.00
73	Forecasted Emissions	2,421		
74	Banked Allowances Surrendered	0	\$0.00	\$0.00
75	2015 Inventory Surrendered	-2,421	\$0.00	\$0.00
76	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
77	Ending Balance	3,514	\$0.00	
78	Total Ozone Season Expense			\$0.00

Line No.	2015 Annual Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
79	Beginning Bank from 2014	0	\$0.00	\$0.00
80	Projected Allocation from the EPA	16,556	\$0.00	\$0.00
81	Forecasted Purchases	0	\$372.00	\$0.00
82	Total	16,556	\$0.00	\$0.00
83	Forecasted Emissions	5,332		
84	Banked Allowances Surrendered	0	\$0.00	\$0.00
85	2015 Inventory Surrendered	-5,332	\$0.00	\$0.00
86	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
87	Ending Balance	11,224	\$0.00	
88	Total Annual Season Expense			\$0.00
89	Total Ozone Season Expense			\$0.00
90	Total Annual Season Expense			\$0.00
91	Total Expense for 2015			\$0.00

2012-2016 NOX ALLOWANCE BUDGET

Line No.	2016 Ozone Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
92	CAIR Replacement Rule	3,514	\$0.00	\$0.00
93	Projected Allocation from the EPA	5,935	\$0.00	\$0.00
94	Forecasted Purchases	0	\$678.25	\$0.00
95	Total	9,449	\$0.00	\$0.00
96	Forecasted Emissions	2,496		
97	Banked Allowances Surrendered	-2,496	\$0.00	\$0.00
98	2016 Inventory Surrendered	0	\$0.00	\$0.00
99	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
100	Ending Balance	6,953	\$0.00	
101	Total Ozone Season Expense			\$0.00

Line No.	2016 Annual Season	Allowances	Average Cost \$/Allowance	Inventory \$
	(a)	(b)	(c)	(d)
102	CAIR Replacement Rule	11,224	\$0.00	\$0.00
103	Projected Allocation from the EPA	16,556	\$0.00	\$0.00
104	Forecasted Purchases	0	\$379.82	\$0.00
105	Total	27,780	\$0.00	\$0.00
106	Forecasted Emissions	5,541		
107	Banked Allowances Surrendered	-5,541	\$0.00	\$0.00
108	2016 Inventory Surrendered	0	\$0.00	\$0.00
109	Forecasted Purchases Surrendered	0	\$0.00	\$0.00
110	Ending Balance	22,239	\$0.00	
111	Total Annual Season Expense			\$0.00
112	Total Ozone Season Expense			\$0.00
113	Total Annual Season Expense			\$0.00
114	Total Expense for 2016			\$0.00

2012-2016 Urea Expense
(1,000's)

Line No.	Unit (a)	<u>2012</u> (b)	<u>2013</u> (c)	<u>2014</u> (d)	<u>2015</u> (e)	<u>2016</u> (f)
1	Karn 1	\$1,524	\$0	\$0	\$0	\$0
2	Karn 2	\$1,152	\$0	\$0	\$0	\$0
3	Campbell 2	\$0	\$1,247	\$1,643	\$1,687	\$1,478
4	Campbell 3	\$2,861	\$3,005	\$3,351	\$2,818	\$3,582
5	TTL	\$5,537	\$4,252	\$4,993	\$4,505	\$5,060

2012-2016 Aqueous Ammonia Expense
(1,000's)

Line No.	<u>Unit</u> (a)	<u>2012</u> (b)	<u>2013</u> (c)	<u>2014</u> (d)	<u>2015</u> (e)	<u>2016</u> (f)
1	Karn 1	\$359	\$1,197	\$1,129	\$1,413	\$1,363
2	Karn 2	\$146	\$1,025	\$842	\$1,121	\$1,104
3	TTL	\$505	\$2,222	\$1,971	\$2,534	\$2,467

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SUPPLEMENTAL DIRECT TESTIMONY

OF

RICHARD J. POLENA

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

RICHARD J. POLENA
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. Richard J. Polena, 1945 West Parnall Road, Jackson, Michigan.

3 Q. By whom are you employed?

4 A. Consumers Energy.

5 Q. Have you previously testified in this case.

6 A. Yes.

7 Q. What is the purpose of your supplemental direct testimony in this proceeding, Mr. Polena?

8 A. The purpose of my supplemental direct testimony in this case is to update the forecasted
9 costs of fuel and purchased and net interchange power needed to fulfill the Company's
10 system requirements. These costs are shown on a monthly basis for 2012 and on a yearly
11 basis for 2012 through 2016.

12 Q. Are you sponsoring any updated exhibits?

13 A. Yes, I am sponsoring Exhibits A-38 (RJP-1R) and A-39 (RJP-2R), all of which were
14 prepared by me.

15 Q. What changes have been incorporated into this supplemental filing?

16 A. The major changes that have occurred since the original filing in September, 2011 are: a
17 decrease in the projected cost of natural gas and a corresponding decrease in the projected
18 cost of power purchased from MISO; incorporation of an assumption that the Company's
19 coal fueled plants will utilize 100% western coal; a decision to mothball seven of the
20 Consumers Energy coal units (Cobb 4 and 5, Weadock 7 and 8, and Whiting 1, 2, and 3)
21 beginning on April 1, 2015; **a decision to mothball Thetford Units 3, 4, 8, and 9;**
22 **Gaylord Units 1, 2, 3 and 4; Campbell Unit A; Morrow Units A and B; and the**

RICHARD J. POLENA
SUPPLEMENTAL DIRECT TESTIMONY

1 **Straights combustion turbines beginning on March 1, 2012;** and an updated load
2 forecast.

3 Q. What are the Company's updated forecasts of 2012 costs of fuel and purchased and net
4 interchange power to fulfill system requirements?

5 A. This forecast is shown in Exhibit A-38 (RJP-1R), Pages 1-3.

6 Q. Who provided you with the updated projection of system loads and system generation
7 requirements?

8 A. The data was provided to me by company witness Mr. Warriner, and his testimony and
9 exhibits in this supplemental filing set forth and explain the relevant assumptions and
10 calculations.

11 Q. What was the source of your updated input information for fuel costs?

12 A. Updated coal, oil and natural gas costs were provided by company witness Mr. Gallaway.

13 Q. Who provided any updated input information for the Consumers Energy generating
14 units?

15 A. That information was provided by company witness Mr. Kehoe.

16 Q. Are there any major updates to Consumers Energy's owned units for this supplemental
17 filing?

18 A. Yes. The addition of 150 MW of nameplate wind capacity at the Cross Winds Energy
19 Park was assumed to be in-service beginning on December 31, 2014 in the original filing.
20 The in-service date for this wind capacity has been moved to December 31, 2015.

21 Q. Are there any changes in the existing sources of purchased power for this supplemental
22 filing?

RICHARD J. POLENA
SUPPLEMENTAL DIRECT TESTIMONY

1 A. Yes, the Hope Renewable Energy – Hubbardston contract, shown on line 8 of Exhibit
2 A-17 (RJP-3) was terminated on November 8, 2011.

3 Q. Are there other changes to your original testimony filed in this case?

4 A. Yes. The credits resulting from the Reduced Dispatch Agreements (RDAs) described in
5 my original testimony on page 8, line 22 through page 9, line 8 have changed. The
6 updated hold harmless amount is \$610,000 and the updated customer benefit (offset to
7 PSCR) is \$295,000. These amounts are included as credits in lines 24 and 40 on Exhibit
8 A-38 (RJP-1R) and Exhibit A-39 (RJP-2R).

9 Q. What other changes to your original testimony have been made.

10 A. On Exhibits A-39 (RJP-2R), lines 27, 36 and 37 detail the purchase of seasonal
11 dispatchable capacity and energy. These lines were all zero in the original filing since
12 there was adequate reserve margin in all the years in original PSCR plan case. Since the
13 decision was made to mothball the seven Consumers Energy coal units mentioned above,
14 it is necessary to purchase summer capacity to meet reserve margin requirements in years
15 2015 and 2016. This is explained in Mr. Ronk’s testimony. In this supplemental filing,
16 line 37 now reflects the purchase of summer capacity from the MISO capacity market.

17 Q. Does this conclude your supplemental direct testimony?

18 A. Yes.

STATE OF MICHIGAN

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CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
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Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

EXHIBITS

OF

RICHARD J. POLENA

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

CONSUMERS ENERGY COMPANY

YEAR	(a)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2012	
		SUMMARY BY SOURCE													
1	ENERGY (MWH)														
2	COAL STEAM	1,397,224	1,368,727	1,356,769	934,861	1,437,117	1,351,439	1,477,089	1,447,812	1,233,470	1,306,280	1,329,098	1,486,938	16,126,823	
3	GAS & OIL	372,816	361,543	380,418	363,393	208,208	339,957	341,251	385,807	301,872	231,750	270,928	207,050	3,764,992	
4	NUCLEAR PPA	586,510	547,473	583,827	115,531	196,789	548,246	563,492	562,049	546,849	577,973	565,123	584,630	5,978,482	
5	STATION POWER	7,438	6,674	8,667	13,785	7,044	6,127	5,208	5,134	7,503	9,366	7,755	7,080	91,782	
6	CE OWNED RENEWABLES	35,131	32,890	42,992	47,181	42,117	35,198	27,513	24,134	22,784	27,984	57,172	62,825	457,922	
7	PEAKERS	0	0	0	0	0	6,402	52,147	54,141	0	0	0	0	112,690	
8	PUMPED STORAGE	49,658	61,531	57,107	57,675	54,948	81,845	122,655	127,966	73,173	32,858	60,773	49,220	829,408	
9	TOTAL GENERATED	2,448,778	2,378,839	2,429,780	1,532,426	1,946,223	2,369,213	2,589,356	2,607,042	2,185,651	2,186,211	2,290,848	2,397,743	27,362,109	
10	LESS: PUMPING	-71,045	-76,730	-83,265	-87,046	-65,207	-120,579	-173,048	-173,227	-111,674	-37,340	-86,687	-81,862	-1,167,709	
11	TOTAL GENERATED	2,377,733	2,302,110	2,346,515	1,445,380	1,881,016	2,248,634	2,416,307	2,433,815	2,073,976	2,148,871	2,204,161	2,315,881	26,194,400	
12	PURCHASED (NUGs)	776,715	744,105	741,152	663,579	731,800	679,243	849,500	795,004	589,721	398,138	299,494	319,819	7,588,269	
13	NET INTERCHANGE	-48,426	-84,642	-109,326	630,548	254,997	260,026	197,248	227,528	286,487	393,098	494,968	609,207	3,111,713	
13	TOTAL SYSTEM REQ	3,106,022	2,961,574	2,978,340	2,739,508	2,867,813	3,187,903	3,463,055	3,456,347	2,950,184	2,940,106	2,998,623	3,244,907	36,894,382	
EXPENSES (\$*1000)															
14	COAL STEAM	43,171	42,323	42,347	29,759	44,340	41,486	45,446	44,643	37,787	39,602	40,311	45,058	496,273	
15	GAS & OIL	11,523	10,926	11,522	10,954	6,813	11,818	12,916	15,370	11,132	7,878	9,569	7,826	128,247	
16	NUCLEAR PPA	30,106	24,528	25,212	4,972	8,769	28,959	32,590	33,106	28,212	25,210	24,317	25,407	291,389	
17	STATION POWER	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	CE OWNED RENEWABLES	0	0	0	0	0	0	0	0	0	0	1,766	1,952	3,718	
19	PEAKERS	42	42	59	42	42	306	2,192	2,288	42	42	42	42	5,181	
20	PUMPED STORAGE	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	TOTAL GENERATED	84,843	77,818	79,141	45,728	59,963	82,569	83,145	95,407	77,173	72,732	76,005	80,285	924,809	
22	LESS: PUMPING	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	TOTAL GENERATED	84,843	77,818	79,141	45,728	59,963	82,569	83,145	95,407	77,173	72,732	76,005	80,285	924,809	
24	PURCHASED (NUGs)	57,950	54,529	55,663	51,314	56,147	54,605	62,923	61,091	51,478	45,846	41,366	43,434	636,347	
25	NET INTERCHANGE	-2,714	-4,052	-5,761	18,652	5,579	5,020	5,552	764	5,431	12,897	15,747	19,960	72,077	
26	TOTAL SYSTEM COST	140,079	128,296	129,043	115,694	121,690	142,194	156,621	157,262	134,082	131,475	133,118	143,679	1,633,233	

MICHIGAN PUBLIC SERVICE COMMISSION

CASE NO.: U-16890
 EXHIBIT: A-38 (RJP-1R)
 WITNESS: R.J. POLENA
 DATE: FEBRUARY, 2012
 PAGE: 2 OF 3

CONSUMERS ENERGY COMPANY

YEAR	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	
	PURCHASED AND INTERCHANGE POWER REPORT															
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2012			
RECEIVED (MWH)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)			
27 SUMMER OPTIONS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 MARKET ON PEAK	34,354	17,651	9,751	189,296	66,169	163,733	83,416	126,543	136,453	225,238	222,303	271,559	1,556,465			
29 MARKET OFF PEAK	118,938	117,253	187,715	479,693	348,508	273,693	369,952	375,633	312,098	234,834	296,643	347,568	3,462,518			
30 PURCHASED (MWHs)	776,715	744,105	741,152	663,579	731,800	679,243	849,500	795,004	589,721	398,138	299,494	319,819	7,588,269			
31 TOTAL RECEIVED	930,007	879,010	938,618	1,332,568	1,146,476	1,116,669	1,312,867	1,297,180	1,038,271	858,210	818,441	938,936	12,607,253			
DELIVERED (MWH)																
32 EXTERNAL SALES	201,718	219,546	306,792	38,441	158,434	154,096	217,096	204,630	147,700	66,974	23,978	9,910	1,749,317			
33 MISO RAC	0	0	0	0	1,245	23,303	49,023	70,019	14,364	0	0	0	157,954			
34 TOTAL DELIVERED	201,718	219,546	306,792	38,441	159,679	177,400	266,120	274,649	162,064	66,974	23,978	9,910	1,907,271			
35 NET (MWH)	728,289	659,464	631,826	1,294,127	986,797	939,269	1,046,748	1,022,531	876,208	791,235	794,462	929,026	10,699,982			

MICHIGAN PUBLIC SERVICE COMMISSION

CASE NO.: U-16890
 EXHIBIT: A-38 (R,IP-1R)
 WITNESS: R.J.POLENA
 DATE: FEBRUARY, 2012
 PAGE: 3 OF 3

CONSUMERS ENERGY COMPANY

YEAR	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	
	PURCHASED AND INTERCHANGE POWER REPORT															
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC				
	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)				
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	1,678	1,022	315	6,941	2,380	6,853	4,891	6,257	5,792	9,151	9,007	10,779	9,007	10,779	65,066	
39	3,146	3,232	4,955	13,095	9,080	6,158	9,102	9,030	6,795	6,168	7,579	9,523	6,168	7,579	87,864	
40	35,748	33,753	34,152	31,821	34,713	33,224	40,754	38,984	30,433	23,978	20,112	21,289	20,112	21,289	378,961	
41	21,176	19,873	20,674	18,700	20,631	20,502	21,284	21,239	20,275	21,042	20,451	21,292	21,042	20,451	247,238	
42	1,026	903	837	793	803	780	885	869	770	826	803	853	826	803	10,148	
43	62,775	58,783	60,933	71,350	67,607	67,616	76,917	76,378	64,065	61,165	57,952	63,736	61,165	57,952	789,277	
CREDIT (\$*1000)																
44	7,539	8,305	11,030	1,385	5,753	6,162	10,341	9,701	5,581	2,422	839	342	2,422	839	69,400	
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	0	0	0	-1	128	1,829	3,099	4,822	1,575	0	0	0	0	0	11,453	
47	7,539	8,305	11,030	1,384	5,881	7,991	13,441	14,523	7,156	2,422	839	342	2,422	839	80,853	
48	55,236	50,477	49,902	69,966	61,726	59,625	63,476	61,855	56,909	58,743	57,113	63,394	58,743	57,113	708,424	

CONSUMERS ENERGY COMPANY

YEAR	(a)	(b)	(c)	SUMMARY BY SOURCE		
				2013	2014	2015
				(d)	(e)	(f)
						(g)
	ENERGY (MWH)					
1	COAL STEAM	16,126,823	16,167,947	16,450,126	13,395,859	12,622,003
2	GAS & OIL	3,764,992	1,967,198	1,693,452	3,508,060	3,956,546
3	NUCLEAR PPA	5,978,492	5,932,360	6,778,835	6,163,752	6,178,041
4	STATION POWER	91,782	100,288	93,892	89,235	82,459
5	CE OWNED RENEWABLES	457,922	672,497	672,568	673,603	1,211,963
6	PEAKERS	112,690	88,873	42,991	128,588	165,035
7	PUMPED STORAGE	829,408	993,311	1,004,688	905,880	991,026
8	TOTAL GENERATED	27,362,109	25,922,474	26,736,551	24,864,978	25,207,072
9	LESS: PUMPING	-1,167,709	-1,388,231	-1,386,810	-1,228,776	-1,320,003
10	TOTAL GENERATED	26,194,400	24,534,243	25,349,740	23,636,202	23,887,069
11	PURCHASED (NUGs)	7,588,269	5,629,854	4,920,711	7,041,261	9,400,193
12	NET INTERCHANGE	3,111,713	7,198,087	7,889,082	7,991,489	6,024,352
13	TOTAL SYSTEM REQ	36,894,382	37,362,183	38,159,534	38,668,952	39,311,614
	EXPENSES (\$*1000)					
14	COAL STEAM	496,273	513,702	556,325	459,311	437,449
15	GAS & OIL	128,247	83,306	81,640	163,003	186,491
16	NUCLEAR PPA	291,389	294,804	338,601	317,309	327,248
17	STATION POWER	0	0	0	0	0
18	CE OWNED RENEWABLES	3,718	20,485	21,279	22,660	53,836
19	PEAKERS	5,181	4,977	2,934	8,011	10,384
20	PUMPED STORAGE	0	0	0	0	0
21	TOTAL GENERATED	924,809	917,274	1,000,779	970,294	1,015,408
22	LESS: PUMPING	0	0	0	0	0
23	TOTAL GENERATED	924,809	917,274	1,000,779	970,294	1,015,408
24	PURCHASED (NUGs)	636,347	595,103	580,267	695,045	822,012
25	NET INTERCHANGE	72,077	218,222	266,594	431,006	365,367
26	TOTAL SYSTEM COST	1,633,233	1,730,599	1,847,640	2,096,345	2,202,787

CONSUMERS ENERGY COMPANY		PURCHASED AND INTERCHANGE POWER REPORT				
YEAR	(a)	(b)	2013	2014	2015	2016
	EXPENSE (\$*1000)		(d)	(e)	(f)	(g)
36	SUMMER OPTION ENERGY	0	0	0	0	0
37	SUMMER OPTION CAPACITY	0	0	0	89,633	98,427
38	MARKET ON PEAK ENERGY	65,066	143,337	171,968	216,190	164,779
39	MARKET OFF PEAK ENERGY	87,864	126,494	131,127	164,123	155,880
40	PURCHASED (NUGs) ENERGY	378,961	337,243	322,707	438,198	570,167
41	PURCHASED (NUGs) CAPACITY	247,238	246,813	246,810	246,811	242,681
42	CASE NO. U-16048 COST RECOVERY	10,148	11,047	10,750	10,035	9,164
43	TOTAL EXPENSE	789,277	864,933	883,362	1,164,991	1,241,098
CREDIT (\$*1000)						
44	EXTERNAL SALE ENERGY	69,400	42,908	26,733	25,550	40,483
45	EXTERNAL SALE CAPACITY	0	0	0	0	0
46	MISO RAC	11,453	8,700	9,769	13,390	13,236
47	TOTAL CREDIT	80,853	51,608	36,501	38,940	53,719
48	NET EXPENSE	708,424	813,325	846,860	1,126,051	1,187,379

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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Factors for the Year 2012)

Case No. U-16890

SUPPLEMENTAL DIRECT TESTIMONY

OF

DAVID F. RONK, JR.

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

DAVID F. RONK, JR.
SUPPLEMENTAL DIRECT TESTIMONY

1 Q. Why is it necessary to restate the projected summer peak planning resource credits,
2 demand and margins?

3 A. Since the September 2011 filing in this proceeding, there has been significant changes to
4 the demand forecast as shown in Mr. Warriner's testimony and to the resources that are
5 expected to be available and/or acquired by Consumers Energy to achieve the required
6 capacity planning reserve margin¹.

7 Q. What were the significant changes to the Company's resources?

8 A. On December 2, 2011, the Company announced the cancellation of a proposed clean coal
9 plant project and the suspension of operation² of Cobb Units 4 and 5; Weadock Units 7
10 and 8; and Whiting Units 1, 2 and 3, effective in early 2015³. For purposes of this
11 presentation the Company assumes the suspension of operation will occur on April 1,
12 2015. Also, in my direct testimony, I stated that the Company had assumed that Thetford
13 Units 3, 4, 8, and 9; Gaylord Units 1, 2, 3 and 4; Campbell Unit A; Morrow Units A and
14 B; and Straits combustion turbines would remain in service through at least 2016⁴. For
15 purposes of this presentation the Company now assumes that it will remove Thetford
16 Units 3, 4, 8, and 9; Gaylord Units 1, 2, 3 and 4; Campbell Unit A; Morrow Units A and
17 B; and Straits combustion turbines from service, effective March 1, 2012 and will retire

¹ The required planning reserve margin applicable for the 12- month period beginning June 1, 2012 is 3.79%. Previously, the Company assumed that the required planning reserve margin would be 3.81%.

² MISO refers to an action to suspend operation of an available generating unit for periods in excess of 2 months as placing the unit in "Extended Reserve Shutdown." Within the electric utility industry, reference to suspending operation of an available generating unit for an extended time period, similar to the treatment of preparing clothes for long term storage with protection from damage or deterioration, is sometimes called placing the unit in "mothballs" or "mothballing" the unit.

³ The Company's original announcement called for suspending service effective January 1, 2015. Subsequently the Company believes that the suspension of service may be delayed until April 1, 2015.

⁴ Ronk Direct Testimony, page 14, line 23.

DAVID F. RONK, JR.
SUPPLEMENTAL DIRECT TESTIMONY

1 Thetford Units 3, 4, 8, and 9; Gaylord Units 1, 2, 3 and 4; Campbell Unit A; Morrow
2 Units A and B; and Straits combustion turbines effective March 1, 2015. The Company
3 has also updated its load forecast which is detailed in Mr. Warriner's supplemental
4 testimony.

5 Q. Are there other changes?

6 A. Yes. The Company previously planned for the construction of the Cross Winds Energy
7 Park with nameplate capacity of approximately 150 MW that was scheduled to begin
8 operation in late 2014. Consistent with the Company's October 14, 2011 application in
9 MPSC Case No. U-16581, the Company now anticipates the 150 MW Cross Winds
10 Energy Park will commence commercial operation on December 31, 2015⁵.

11 Q. What is the new reserve margin in Exhibit A-40 (DFR-1R)?

12 A. The Company now expects have 5,628 of Planning Resource Credits ("PRCs") from its
13 owned units during the peak load period (Consumers Energy is a summer-peaking
14 system) as shown on Line 5, Column (a) of Exhibit A-40 (DFR-1R). The Company also
15 expects to be credited with 2,404 PRCs from generators providing capacity and energy to
16 the Company under long term power purchase agreements. This update, along with
17 revised forecast of peak demand expected to be served with PRCs as shown on Line 31,
18 Column (a) of Exhibit A-40 (DFR-1R), provide an updated reserve margin of 6.36% as
19 shown on Line 33, Column (a) of Exhibit A-40 (DFR-1R).

⁵ MPSC Case No. U-16581 Application, page 3.

DAVID F. RONK, JR.
SUPPLEMENTAL DIRECT TESTIMONY

1 **RESOURCES REMAINING TO BE PURCHASED FOR 2012**

2 Q. Does Consumers need to acquire additional capacity for summer 2012?

3 A. No. However, due to the cessation of service of Weadock Units 7 and 8; Whiting Units
4 1, 2, and 3; and Cobb Units 4 and 5, effective April 1, 2015, the Company will need to
5 purchase from others or otherwise acquire approximately 850 MW in 2012 and 900 MW
6 in 2016 in order to meet the planning reserve margin requirement of 3.79% that is
7 effective for the 12 month period beginning June 1, 2012.⁶

8 Q. Does this complete your supplemental direct testimony?

9 A. Yes, it does.

⁶The required planning reserve margin may be different for subsequent periods.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

EXHIBIT

OF

DAVID F. RONK, JR.

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

MICHIGAN PUBLIC SERVICE COMMISSION

CONSUMERS ENERGY COMPANY

Case No.: U-16890
 Witness: DFRonk Jr.
 Exhibit: A-40 (DFR-1R)
 Date: February 2012
 Page: 1 of 1

CONSUMERS ENERGY COMPANY
 SUMMER PEAK PROJECTED PLANNING RESOURCE CREDITS, DEMAND, AND MARGINS

Line	Description	(a) 2012	(b) 2013	(c) 2014	(d) 2015	(e) 2016
1	PRCs for Owned Capacity					
2	Net Demonstrated Capability less EFORd	5745.3	5628.2	5643.2	5659.9	4797.9
3	PRCs for Projected Unit Upgrades/Re-ratings/Additions	-0.9	15.0	16.7	21.0	-1.9
4	PRCs for Projected Retirements/remove/return from/to service	-116.2			-883.0	47.5
5	PRCs for Total Owned Capacity	5628	5643	5660	4798	4844
6	PRCs for Transactions: (Annual Contracted Amounts)					
7	PRCs for Projected Summer Capacity Purchases	0.0	0.0	0.0	850.0	900.0
10	PRCs for Projected Self Generation/Load Shift	0.0	0.0	0.0	0.0	0.0
11	PRCs for Purchases Subtotal	0.0	0.0	0.0	850.0	900.0
12	PRCs for Non-Utility Generation Projects (NUGs)					
13	PRCs for MCV Contract Capacity	1186.0	1186.0	1186.0	1186.0	1186.0
14	PRCs for Palisades PPA	761.7	761.7	761.7	761.7	761.7
15	PRCs for Other NUGs	422.0	421.0	421.0	421.0	403.0
16	PRCs for PA 295 Wind NUGs	18.3	40.6	40.6	40.6	40.6
17	PRCs for PA 295 Landfill Gas NUGs	14.2	14.2	14.2	14.2	14.2
18	PRCs for PA 295 Anaerobic Digestion NUGs	1.6	3.9	3.9	3.9	2.3
19	PRCs for PA 295 Existing Solar NUGs	0.0	0.0	0.5	0.5	0.5
20	PRCs for PA 295 New EARP Solar NUGs	0.0	0.0	0.4	0.6	0.6
21	PRCs for PA 295 Hydro NUGs	0.3	0.3	0.3	0.3	0.3
22	PRCs for NUGs Subtotal	2404.1	2427.7	2428.6	2428.8	2409.2
23	PRCs for Total Capacity	8032.3	8070.9	8088.5	8076.7	8152.7
24	Peak Demand Forecast (Absent Energy Efficiency & Direct Load Control)	8356.0	8451.0	8665.0	8820.0	8953.0
25	Demand expected to be offset by Energy Efficiency	-57.0	-117.0	-177.0	-238.0	-283.0
26	Smart Grid-Dynamic Peak Pricing	0.0	0.0	0.0	-23.0	-43.0
27	Demand expected to be offset by Direct Load Control/Demand response (AC Cycling)	0.0	-4.0	-12.0	-21.0	-32.0
28	Resulting Peak Demand Forecast*	8299.0	8330.0	8476.0	8538.0	8595.0
29	Demand expected to be served by Retail Open Access Suppliers	-588.0	-590.0	-592.0	-592.0	-588.0
30	Demand from Interruptible Customers	-159.0	-159.0	-159.0	-159.0	-159.0
31	Demand to be served with PRC Capacity (coincident)	7552.0	7581.0	7725.0	7787.0	7848.0
32	Margin -- MW	480	490	364	290	305
33	Margin Reserve -- %	6.36%	6.46%	4.71%	3.72%	3.88%

*See Exhibit A-22 (LDW-3), page 1, line 13

STATE OF MICHIGAN

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for Approval of a Power Supply Cost)
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Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

SECOND DIRECT TESTIMONY

OF

LINCOLN D. WARRINER

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. My name is Lincoln D. Warriner, and my business address is One Energy Plaza, Jackson,
3 Michigan.

4 Q. By whom are you employed?

5 A. Consumers Energy Company (hereinafter, "the Company").

6 Q. What is your position with the Company?

7 A. I am a Senior Business Support Consultant - Lead in the Rates and Business Support
8 Department.

9 Q. Please describe your educational background.

10 A. I received a Bachelor of Science Degree in Business Administration, major in
11 Accounting, from Central Michigan University in 1987. In 1994, I received a Master of
12 Science in Administration Degree from Central Michigan University.

13 Q. What is your business experience?

14 A. I began working for the Company in June 1987 as a region accountant at the Grand
15 Rapids Service Center. While there, I performed various reviews of internal accounting
16 control procedures and workflow processes. In 1989, I transferred to a similar position at
17 the Lansing Service Center. In 1991, I took a position as a Management Systems and
18 Planning Analyst in the Southern Region Administration and Planning Department. My
19 primary responsibility in this position was to provide analytical support to region
20 management on issues concerning operating, maintenance, and construction budgets and
21 other performance measurements. In February 1994, I took a position as an
22 Administrative Supervisor responsible for the supervision of several administrative
23 functions including region accounts payable, miscellaneous accounts receivable, cash

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 receipts and disbursements, payroll, records center, and mail room operations. In
2 February 1995, I transferred to the Electric SBU Planning Department, which since has
3 been consolidated within the Rates and Business Support Department. In this
4 department, I have been responsible for coordinating the development of financial plans,
5 budgets, analysis, and forecasts for the Electric SBU. Since 1997, my responsibilities
6 have included the electric deliveries forecast, and completing various financial and
7 economic studies for the Electric business unit. During 2007 I accepted additional
8 supervisory responsibility for the Company's gas deliveries forecasts and electric revenue
9 forecasts.

10 Q. Have you testified in other cases before the Michigan Public Service Commission?

11 A. Yes. I have recently provided testimony in the following cases:

- 12 a. U-16191 – January 2010 electric rate case. I presented adjustments to
13 2008 historical actual sales and revenues for the purpose of developing the
14 projected test year sales and revenue. I also presented the Company's
15 forecast of electric deliveries, generation requirements, and peak demand
16 for the years 2009-2013.
- 17 b. U-16412 – September 2010 energy optimization plan amendment. I
18 explained the historical and forecasted sales and revenue data that the
19 Company used in developing its amended Energy Optimization Plan.
- 20 c. U-16418 – August 2010 gas rate case. I adopted the testimony of Linda J.
21 Clark regarding the Company's forecast of gas deliveries and provided
22 rebuttal testimony concerning adjustments to the Company's forecast that
23 were proposed by interveners in that case.

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SECOND DIRECT TESTIMONY

1 d. U-16432 – September 2010 power supply cost recovery plan case. I
2 presented the Company’s official forecasts of electric deliveries,
3 generation requirements, and peak demand forecasts for 2011-2015.

4 e. U-16543 – February 2011 renewable energy plan amendment. I explained
5 the historical and forecasted sales and revenue data that the Company used
6 in developing its amended renewable energy plan.

7 f. U-16794 - June 2011 electric rate case. I presented adjustments to 2010
8 historical actual sales and revenues for the purpose of developing the
9 projected test year sales and revenue. I also presented the Company’s
10 forecast of electric deliveries, generation requirements, and peak demand
11 for the years 2011-2015.

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

13 A. My purpose is to present Consumers Energy’s amended and restated official forecasts of
14 electric deliveries, generation requirements, and peak demand for the years 2012 - 2016.

15 Q. What is your relationship to the development of the electric deliveries, generation
16 requirements, and peak demand forecasts?

17 A. I am responsible for the overall development of the electric deliveries, generation
18 requirements, and peak demand forecasts. My responsibilities include coordination of
19 the collection of needed information from internal and external sources, and development
20 of forecast models and forecast data. I am also responsible for refining and updating the
21 methods used to develop the forecast when appropriate.

22 This forecast includes projections of load to be supplied by alternate energy
23 suppliers as well as load to be supplied by Consumers Energy. Because load supplied by

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 alternate energy suppliers is included, this forecast is referred to as a forecast of total
2 electric deliveries. Retail open access deliveries and full service sales are subsets of total
3 electric deliveries presented in this forecast.

4 The forecasts presented also include adjustments to the forecast to reflect the
5 planned impact of the Company's Energy Optimization Plan, as well as peak demand
6 reductions expected from planned direct load management and dynamic peak pricing
7 programs.

8 Also, as in the past, these forecasts include jurisdictional and non-jurisdictional
9 sales.

10 Q. Are you sponsoring any exhibits?

11 A. Yes. I am sponsoring Exhibits A-41 (LDW-6) through A-45 (LDW-10).

12 Q. Were these exhibits prepared by you or under your direction and supervision?

13 A. Yes.

14 Q. Please describe Exhibits A-41 (LDW-6) and A-42 (LDW-7).

15 A. Page 1 of Exhibit A-41 (LDW-6) identifies the monthly calendar forecast of the
16 Company's electric deliveries by customer class for the year 2012. Page 2 identifies the
17 retail open access portion of the monthly calendar forecast and Page 3 identifies the full
18 service portion of the monthly calendar forecast. Page 1 of Exhibit A-42 (LDW-7) shows
19 the annual cycle-billed forecast of the Company's electric deliveries by customer class
20 for the years 2012 through 2016. Pages 2 and 3 subdivide the cycle-billed forecast into
21 retail open access and full service components respectively.

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 Q. What is the difference between calendar deliveries and cycle-billed deliveries?

2 A. The difference is due to timing. Cycle-billed sales reflect usage based on when meters
3 are read and usage is billed. Calendar sales reflect usage during a specific calendar
4 month or year. Due to the nature of the Company's meter reading schedule, Cycle-billed
5 sales lag Calendar month sales. The difference between Cycle-billed sales and Calendar
6 sales for any time period is known as unbilled sales. Projected unbilled sales are forecast
7 at a total system level considering indicators of the differences between the billing cycle
8 duration and the number of calendar days in a specific time period, as well as differences
9 in indicators of calendar month and billing month heating degree days and cooling degree
10 days. Unbilled sales projections are then allocated to each class using proportional ratios
11 developed from the cycle-billed sales forecast. As I mentioned, the numbers shown on
12 A-41 (LDW-6) are calendar sales and the numbers shown on A-42 (LDW-7) are
13 cycle-billed.

14 Q. Please describe generally how these projections of cycle-billed deliveries were made.

15 A. The forecast reflects a separate projection for each customer class and, where appropriate,
16 analyzes certain classes in more detail. Projection techniques vary from category to
17 category based upon the availability of information, the accuracy required in the forecast,
18 and the need to determine the influence of specific input assumptions for each category.

19 Forecast methodology was the combined result of regression (statistical) models,
20 customer input, and professional judgment. The forecast was based primarily on
21 regression analysis. Independent variables in the regression analysis include economic
22 variables that are obtained from a separate economic forecast, weather variables, and
23 trend variables. In addition, the impacts of future factors, or "forward-looking" items

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1 (such as expected customer use changes due to the Company's Energy Optimization
2 Plan, and the expected introduction of Plug-In Hybrid Electric Vehicles) not fully present
3 in past data, are applied as adjustments to the forecast when appropriate.

4 Q. How has the Company's Energy Optimization Plan been reflected in the electric
5 deliveries forecast?

6 A. Adjustments for energy efficiency were calculated at a customer class level for the
7 Residential, Commercial, and Industrial classes. Cumulative annual impacts for
8 residential Energy Optimization programs were applied directly to the residential usage
9 forecast. Cumulative annual impacts for Energy Optimization programs targeted to
10 business customers were split between the Commercial class forecast and the Industrial
11 class forecast in proportion to usage volumes for each class. Adjustments to monthly
12 sales are in proportion to forecasted monthly sales volumes.

13 Q. How are the anticipated usage impacts associated with plug-in hybrid electric vehicles
14 reflected in the electric deliveries forecast?

15 A. The adjustment made to the forecast for plug-in hybrid vehicles (PHEV) considers
16 various independent estimates of plug-in hybrid electric vehicle saturation over a long
17 range time horizon. This analysis starts with an estimate of the U.S. PHEV stock, from
18 which an estimate of electric vehicles served in the Consumers Energy service area was
19 derived. The electric use forecast considers a mix of different electric range vehicles and
20 estimates of utilization for each type of vehicle. The forecast aligns with President
21 Obama's energy policy goal of having 1 million plug-in hybrid electric vehicles in
22 service by 2015.

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1 Q. Please describe how the cycle-billed forecast of residential deliveries was developed.

2 A. The Residential class forecasts were developed from forecasts of customer growth and
3 average use per customer.

4 1. Customer statistics were analyzed using a regression model to estimate changes in
5 residential customers based on projected changes in household indicators for the
6 state of Michigan. These Michigan level indicators were further refined to
7 represent the historical and projected trends for the geographic area of Michigan
8 served by Consumers Energy.

9 2. Average use forecast were developed from regression models that quantify the
10 influence of billing cycle duration, weather conditions and seasonal factors on the
11 average monthly usage of the residential class. Economic factors such as the
12 average household size, average household income, and electricity price trends
13 are also included. For purposes of this forecast, future weather conditions are
14 assumed to be equal to a 15-year average of historical weather conditions from
15 1996 to 2010.

16 3. The forecast of monthly average use was then multiplied by the forecast of
17 monthly residential customers to project the total residential deliveries. The result
18 of this calculation was then adjusted for the anticipated reductions associated with
19 Energy Optimization programs and appliance and lighting efficiency
20 improvements. Additional loads for plug-in hybrid vehicles are also considered in
21 the forecast.

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1 Q. How was the Commercial Class forecast developed?

2 A. The Commercial forecast was developed using regression analysis that quantifies the
3 influence of weather conditions, economic conditions, and seasonal factors on monthly
4 commercial class usage. Economic conditions are quantified by electric service area
5 indicators of service sector employment. For purposes of this forecast, future weather
6 conditions are assumed to be equal to a 15-year average of historical weather conditions
7 from 1996 to 2010. Adjustments to the forecast for Energy Optimization programs were
8 also factored into the Commercial class usage forecast.

9 Q. How was the Industrial Class forecast developed?

10 A. The industrial class forecasts were developed from forecasts of GM/Delphi/Nexteer
11 customer usage and other industrial customer usage.

12 1. The GM/Delphi/Nexteer usage forecast was developed using regression analysis that
13 quantifies the influence of Michigan Transportation Equipment employment and
14 seasonal factors on monthly usage of GM/Delphi/Nexteer accounts.

15 2. The Industrial Other usage forecast was analyzed in two subsets of customer usage.
16 The largest subset utilizes regression analysis to quantify the influence of electric
17 service area manufacturing employment trends, combined with increasing trends in
18 manufacturing productivity on the monthly usage of industrial customers other than
19 General Motors, Delphi, Nexteer, and a large producer of polycrystalline silicon. The
20 Industrial Other forecast also includes anticipated industrial class Energy
21 Optimization program reductions. The second subset of the Industrial Other forecast
22 includes a large producer of semiconductor and solar energy components, which is
23 included in the Industrial Other category, but is analyzed individually based on

LINCOLN D. WARRINER
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1 expected monthly maximum billing demands, billing days, hours per day, and load
2 factor considerations. The results of this approach were reconciled with customer
3 developed usage projections provided to the Company. The forecast of rate E-1
4 economic development sales is derived from this semiconductor and solar energy
5 component producer forecast.

6 Q. Please describe how other classes of sales were forecasted.

7 A. Wholesale usage was estimated based on the 2011 power supply cost recovery
8 application of Alpena Power Company in MPSC Case number U-16420.

9 Streetlighting usage was forecast using the July 2011 light inventory levels for
10 various types of lighting fixtures. Energy consumption is estimated by multiplying the
11 number of each type of fixture by its associated wattage and the number of operating
12 hours in each billing month.

13 Interdepartmental usage was forecast using actual monthly usage results for the
14 twelve month time period ending August, 2011.

15 Q. What growth rates are reflected in the forecast shown on Page 1 of Exhibit A-42
16 (LDW-7)?

17 A. The compound average annual growth rates are shown on Page 1 of Exhibit A-42
18 (LDW-7). The starting point for the forecasted growth rate is 2012. The growth rates
19 shown on the exhibit, however, are not used to forecast sales. Growth rates are calculated
20 after the forecast has been developed.

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SECOND DIRECT TESTIMONY

1 Q. Please comment generally upon the growth patterns shown on Page 1 of Exhibit A-42
2 (LDW-7).

3 A. Overall, the projected average growth of 1.5% annually for the period 2012-2016 is a
4 modest increase from the 0.0% annual average historical change that has been
5 experienced from 2002-2012. The projected growth for the forecast period is different
6 than historical changes in growth for a variety of reasons.

7 Residential sales are projected to remain flat from 2012-2016, compared to the
8 average 0.1% yearly rate of decline from 2002-2012. The reasons for this projected trend
9 include slow household growth in our service area, the planned energy savings resulting
10 from the Company's Energy Optimization plan, and national end-use efficiency
11 standards.

12 Commercial sales for the forecast period are projected to grow at an average rate
13 of 0.4% per year, up modestly from the flat growth during 2002-2012. The slow growth
14 rate in the commercial sales class reflects both the economic expectations for Michigan
15 and Energy Optimization energy savings. Industrial sales are projected to grow at an
16 average 3.9% per year from 2012-2016, which represents an improvement from the
17 historical industrial sales growth average of 0.3% per year from 2002-2012 due to several
18 factors. The economic outlook used in this forecast indicates that Michigan
19 manufacturing employment is expected to show growth after the severe decline
20 experienced in 2009. Productivity gains will result in increased manufacturing output,
21 causing electric demand to grow. This growth is offset in part by Energy Optimization
22 usage reductions. The industrial deliveries outlook also reflects continued growth in

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 market demand for polycrystalline silicon, which has resulted in production capacity
2 expansions within our service area.

3 Q. Please explain how the forecast of electric deliveries is split between retail open access
4 deliveries and full service sales.

5 A. The Company's level of ROA load is currently capped at 10% of prior year
6 weather-normalized retail deliveries. Customers currently active in retail open access
7 enrolled during 2009, so actual usage for ROA customers for the twelve month period
8 ending August 2011 was used as an estimate of future use. Full service sales are
9 calculated by subtracting the ROA deliveries from the total deliveries forecasted. The
10 2012 monthly calendar forecast of ROA deliveries is shown on Page 2 of Exhibit A-41
11 (LDW-6). The full service calendar forecast for 2012 is shown on Page 3 of Exhibit
12 A-42 (LDW-7). The forecast of annual cycle-billed ROA deliveries is shown on Page 2
13 of Exhibit A-42 (LDW-7). Page 3 of Exhibit A-42 (LDW-7) shows the annual
14 projections of full service cycle-billed sales.

15 Q. Please describe Exhibit A-43 (LDW-8).

16 A. Exhibit A-43 (LDW-8) shows projected peak demands for the years 2012-2016. Page 1
17 of this exhibit shows the peak demand forecast that is consistent with the forecasts of
18 total electric deliveries. Page 2 identifies the reduction from the total deliveries peak
19 associated with the forecast of retail open access deliveries. Page 3 is the remaining full
20 service peak demand to be served by Consumers Energy.

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SECOND DIRECT TESTIMONY

1 Q. Please describe generally how the projections of monthly peak demand shown on Exhibit
2 A-43 (LDW-8) were developed.

3 A. The monthly peak forecast was developed as part of a monthly regression analysis that
4 quantifies the influence of base loads, cooling loads, and heating loads. The monthly
5 peak forecast was developed utilizing regression models that quantify the influence of
6 overall changes in energy usage, household growth, and high and low daily temperatures
7 on the day of the system peak. For purposes of this forecast, future weather conditions
8 are assumed to be equal to a 15-year average of historical peak day weather conditions
9 from 1996 to 2010. A rank and average method was used to estimate peak day weather
10 conditions for each month.

11 The Company forecasts chronological hourly demands using MetrixLT load
12 modeling software, which is available from ITRON. MetrixLT is a specialized tool for
13 developing medium and long range load shapes that are consistent with monthly sales
14 and peak forecasts. Separate load shapes were developed to predict hourly estimates of
15 total load before energy efficiency adjustments, retail open access load, Energy
16 Optimization adjustments, direct load control program adjustments, and dynamic peak
17 pricing program adjustments. The full service load shape is then calculated outside the
18 MetrixLT model by subtracting the hourly values for Energy Optimization, direct load
19 control, dynamic peak pricing programs, and ROA load from the hourly total load values.

20 Q. Please describe how the summer peak demand forecast is adjusted to incorporate the
21 effect of Energy Optimization programs.

22 A. The peak demand adjustments for Energy Optimization are derived from the Company's
23 Energy Optimization plan.

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 Q. Are any other adjustments included in the summer peak demand forecast?

2 A. Yes, there are two programs under development that are expected to reduce load at peak
3 demand times.

4 The first program, direct load management was initially incorporated into the
5 Company's May 1, 2007 Balanced Energy Initiative filing in Case Number U-15290. In
6 that case, the Company presented load control as an adjustment to the generation
7 resources required to meet the forecasted peak demand. In this plan case forecast, an
8 updated estimate of load control impacts are recognized as part of the Company's peak
9 demand forecast, starting in 2013.

10 The other program under development is the Company's dynamic peak pricing
11 program. This program is being developed as a component of the Company's Smart Grid
12 project. The forecast includes adjustments for demand response starting in 2015.

13 Q. Please explain how the projections on Exhibit A-44 (LDW-9) and Exhibit A-45
14 (LDW-10) were developed for system efficiency, generation requirements, and load
15 factors.

16 A. System efficiency is projected to remain constant at 92.76%. In other words, the level of
17 line loss is projected to be 7.24% of generation requirements. This estimate was based on
18 the 12-month average system efficiency for the period ending April 2007. Generation
19 requirements are equal to calendar sales divided by system efficiency. Annual load
20 factors are developed by using the following equation: Annual load factor based on the
21 summer peak equals annual generation requirements divided by the product of hours per
22 year multiplied by summer peak demand. Hours in a regular year are 8,760 and hours in
23 a leap year are 8,784.

LINCOLN D. WARRINER
SECOND DIRECT TESTIMONY

1 Q. Does this complete your direct testimony?

2 A. Yes.

STATE OF MICHIGAN

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Case No. U-16890

EXHIBITS

OF

LINCOLN D. WARRINER

ON BEHALF OF

CONSUMERS ENERGY COMPANY

February, 2012

FORECAST OF TOTAL ELECTRIC DELIVERIES
 (CALENDAR MONTH - MWh)

Year: 2012	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line	Residential	Commercial	Industrial	Sireet Lighting	Interdepart-mental	Wholesale	Total	
1	January	1,280,688	968,257	902,893	16,922	3,779	26,785	3,199,324
2	February	994,793	918,853	1,080,058	16,531	3,927	21,517	3,035,679
3	March	1,052,804	945,352	1,046,368	15,832	3,489	27,151	3,090,995
4	April	860,951	881,423	1,076,023	13,349	2,667	24,667	2,859,079
5	May	867,268	984,058	1,105,547	11,642	3,856	25,313	2,997,685
6	June	988,123	1,085,524	1,165,827	10,448	3,498	27,172	3,280,592
7	July	1,260,694	1,140,976	1,097,456	11,566	3,866	28,563	3,543,120
8	August	1,256,996	1,129,768	1,124,596	13,352	4,077	29,285	3,558,073
9	September	948,655	1,013,144	1,067,514	14,916	3,761	28,913	3,076,903
10	October	857,517	994,279	1,178,893	17,074	3,881	28,566	3,080,210
11	November	1,003,080	963,411	1,097,588	18,551	3,516	27,923	3,114,069
12	December	1,212,159	1,002,609	1,048,899	20,334	4,075	30,415	3,318,492
13	Total	12,583,728	12,027,653	12,991,663	180,517	44,393	326,268	38,154,222

14 Formulas:
 15 Line 13 = Line 1 + Line 2 + Line 3 + Line 4 + Line 5 + Line 6 + Line 7 + Line 8 + Line 9 + Line 10 + Line 11 + Line 12
 16 Column (h) = Column (b) + Column (c) + Column (d) + Column (e) + Column (f) + Column (g)
 17 Exhibit A-41 (LDW-6) Page 1 = Exhibit A-41 (LDW-6) Page 2 + Exhibit A-41 (LDW-6) Page 3

FORECAST OF RETAIL OPEN ACCESS DELIVERIES
 (CALENDAR MONTH - MWh)

Year: 2012	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line	Residential	Commercial	Industrial	Sireet Lighting	Interdepart-mental	Wholesale	Total	
1 January	0	90,407	221,286	0	0	0	311,693	
2 February	0	80,992	202,626	0	0	0	283,619	
3 March	0	89,254	225,109	0	0	0	314,362	
4 April	0	83,418	220,674	0	0	0	304,092	
5 May	0	91,984	240,620	0	0	0	332,604	
6 June	0	93,476	254,937	0	0	0	348,412	
7 July	0	101,050	254,576	0	0	0	355,626	
8 August	0	105,491	271,180	0	0	0	376,671	
9 September	0	96,202	239,214	0	0	0	335,416	
10 October	0	94,404	253,670	0	0	0	348,074	
11 November	0	87,134	231,539	0	0	0	318,673	
12 December	0	87,221	214,790	0	0	0	302,010	
13 Total	0	1,101,033	2,830,220	0	0	0	3,931,253	

14 Formulas:

15 Line 13 = Line 1 + Line 2 + Line 3 + Line 4 + Line 5 + Line 6 + Line 7 + Line 8 + Line 9 + Line 10 + Line 11 + Line 12

16 Column (h) = Column (b) + Column (c) + Column (d) + Column (e) + Column (f) + Column (g)

FORECAST OF FULL SERVICE DELIVERIES
 (CALENDAR MONTH - MWh)

Year: 2012	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line	Residential	Commercial	Industrial	Sireet Lighting	Interdepart-mental	Wholesale	Total	
1 January	1,280,688	877,849	681,607	16,922	3,779	26,785	2,887,631	
2 February	994,793	837,861	877,432	16,531	3,927	21,517	2,752,061	
3 March	1,052,804	856,098	821,259	15,832	3,489	21,151	2,776,632	
4 April	860,951	798,005	855,349	13,349	2,667	24,667	2,554,987	
5 May	867,268	892,075	864,927	11,642	3,856	25,313	2,665,081	
6 June	988,123	992,048	910,890	10,448	3,498	27,172	2,932,180	
7 July	1,260,694	1,039,925	842,880	11,566	3,866	28,563	3,187,494	
8 August	1,256,996	1,024,277	853,416	13,352	4,077	29,285	3,181,402	
9 September	948,655	916,942	828,301	14,916	3,761	28,913	2,741,487	
10 October	857,517	899,876	925,223	17,074	3,881	28,566	2,732,136	
11 November	1,003,080	876,276	866,050	18,551	3,516	27,923	2,795,396	
12 December	1,212,159	915,388	834,110	20,334	4,075	30,415	3,016,481	
13 Total	12,583,728	10,926,620	10,161,443	180,517	44,393	326,268	34,222,969	

14 Formulas:

15 Line 13 = Line 1 + Line 2 + Line 3 + Line 4 + Line 5 + Line 6 + Line 7 + Line 8 + Line 9 + Line 10 + Line 11 + Line 12

16 Column (h) = (Total Generation Requirements - ROA Generation Requirements) x System Efficiency

FORECAST OF TOTAL ELECTRIC DELIVERIES
 (CYCLE BILLED - GWh)

Line	(a)	(b) 2012	(c) 2013	(d) 2014	(e) 2015	(f) 2016
1	Residential	12,543	12,458	12,404	12,438	12,552
2	Residential	12,536	12,443	12,380	12,406	12,513
3	PHEV	7	16	24	32	39
4	Commercial	11,991	12,041	12,034	12,043	12,183
5	Industrial	12,948	13,622	14,336	14,763	15,103
6	GM/Delphi/Nexfeer	866	947	1,021	1,039	999
7	E-1 Economic Development	2,351	2,600	2,656	2,719	2,719
8	Industrial Other	9,731	10,075	10,658	11,005	11,385
9	Street Lighting	183	183	184	184	185
10	Interdepartmental	44	44	44	44	44
11	Wholesale	<u>326</u>	<u>328</u>	<u>330</u>	<u>331</u>	<u>333</u>
12	Total	38,035	38,676	39,332	39,804	40,400

Annual Average Growth Rate (AAR) in Percent

	1992 - 2012F	2002 - 2012F	2012F - 2016F
13 Residential	1.3%	-0.1%	0.0%
14 Commercial	1.6%	0.0%	0.4%
15 Industrial	0.9%	0.3%	3.9%
16 Total	1.1%	0.0%	1.5%

17 Formulas:

18 Line 12 = Line 1 + Line 4 + Line 5 + Line 9 + Line 10 + Line 11

19 Line 1 = Line 2 + Line 3

20 Line 5 = Line 6 + Line 7

FORECAST OF RETAIL OPEN ACCESS DELIVERIES

Line	(a)	(CYCLE BILLED - GWh)					
		(b) 2011	(c) 2012	(d) 2013	(e) 2014	(f) 2015	
1	Residential	0	0	0	0	0	0
2	Residential Domestic	0	0	0	0	0	0
3	PHEV	0	0	0	0	0	0
4	Commercial	1,101	1,101	1,101	1,101	1,101	1,101
5	Industrial	2,830	2,830	2,830	2,830	2,830	2,830
6	General Motors & Delphi	0	0	0	0	0	0
7	E-1 Economic Development	0	0	0	0	0	0
8	Industrial Other	2,830	2,830	2,830	2,830	2,830	2,830
9	Street Lighting	0	0	0	0	0	0
10	Interdepartmental	0	0	0	0	0	0
11	Wholesale	0	0	0	0	0	0
12	Total	3,931	3,931	3,931	3,931	3,931	3,931

13 Formulas:

14 Line 12 = Line 1 + Line 4 + Line 5 + Line 9 + Line 10+ Line 11

15 Line 1 = Line 2 + Line 3

16 Line 5 = Line 6 + Line 7+ Line 8

FORECAST OF FULL SERVICE DELIVERIES

Line	(a)	(CYCLE BILLED - GWh)				
		(b) 2011	(c) 2012	(d) 2013	(e) 2014	(f) 2015
1	Residential	12,543	12,458	12,404	12,438	12,552
2	Residential Domestic	12,536	12,443	12,380	12,406	12,513
3	PHEV	7	16	24	32	39
4	Commercial	10,890	10,940	10,933	10,942	11,082
5	Industrial	10,118	10,792	11,506	11,933	12,273
6	General Motors & Delphi	866	947	1,021	1,039	999
7	E-1 Economic Development	2,351	2,600	2,656	2,719	2,719
8	Industrial Other	6,901	7,245	7,828	8,175	8,555
9	Street Lighting	183	183	184	184	185
10	Interdepartmental	44	44	44	44	44
11	Wholesale	<u>326</u>	<u>328</u>	<u>330</u>	<u>331</u>	<u>333</u>
12	Total	34,103	34,745	35,400	35,873	36,469

Formulas:

- 13 Line 12 = Line 1 + Line 4 + Line 5 + Line 9 + Line 10 + Line 11
- 14 Line 1 = Line 2 + Line 3
- 15 Line 5 = Line 6 + Line 7 + Line 8
- 16 Exhibit A-42 (LDW-7) Page 3 = Exhibit A-42 (LDW-7) Page 2, except for Line 12

MONTHLY PEAK DEMAND FORECAST						
<u>Line</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>	<u>(e)</u>	<u>(f)</u>
1	January	2012 5,987	2013 6,016	2014 6,171	2015 6,278	2016 6,369
2	February	5,803	5,832	5,984	6,079	6,179
3	March	5,615	5,651	5,807	5,900	5,995
4	April	5,295	5,312	5,465	5,560	5,645
5	May	6,182	6,207	6,348	6,428	6,553
6	June	7,449	7,478	7,625	7,718	7,814
7	July	8,008	8,042	8,190	8,282	8,375
8	August	8,299	8,330	8,476	8,538	8,595
9	September	6,909	6,937	7,084	7,175	7,267
10	October	5,826	5,866	6,023	6,120	6,208
11	November	5,830	5,864	6,018	6,113	6,202
12	December	6,175	6,212	6,369	6,468	6,561
<u>Summer Peak (MW)</u>						
13		2012 8,299	2013 8,330	2014 8,476	2015 8,538	2016 8,595
<u>Winter Peak (MW)</u>						
14		2012 6,175	2013 6,212	2014 6,369	2015 6,468	2016 6,561

MONTHLY REDUCTION IN PEAK LOAD ASSOCIATED WITH RETAIL OPEN ACCESS

<u>Line</u>	<u>(a)</u>	<u>(b)</u> <u>2012</u>	<u>(c)</u> <u>2013</u>	<u>(d)</u> <u>2014</u>	<u>(e)</u> <u>2015</u>	<u>(f)</u> <u>2016</u>	
1	January	481	477	477	480	484	
2	February	455	478	478	478	455	
3	March	484	490	490	485	479	
4	April	498	475	475	475	480	
5	May	526	526	529	551	551	
6	June	570	573	571	568	568	
7	July	562	560	560	560	564	
8	August	588	590	592	592	588	
9	September	553	551	548	548	548	
10	October	540	540	540	544	550	
11	November	507	511	516	512	507	
12	December	470	467	460	463	466	
			<u>Summer Peak Reduction (MW)</u>				
13		<u>2012</u> 588	<u>2013</u> 590	<u>2014</u> 592	<u>2015</u> 592	<u>2016</u> 588	
			<u>Winter Peak Reduction (MW)</u>				
14		<u>2012</u> 470	<u>2013</u> 467	<u>2014</u> 460	<u>2015</u> 463	<u>2016</u> 466	

MONTHLY PEAK LOAD TO BE SERVED BY CONSUMERS ENERGY

(a) Line	(b) 2012	(c) 2013	(d) 2014	(e) 2015	(f) 2016
1 January	5,506	5,539	5,694	5,798	5,885
2 February	5,348	5,354	5,506	5,601	5,724
3 March	5,131	5,161	5,317	5,415	5,516
4 April	4,797	4,837	4,990	5,085	5,165
5 May	5,656	5,681	5,819	5,877	6,002
6 June	6,879	6,905	7,054	7,150	7,246
7 July	7,446	7,482	7,630	7,722	7,811
8 August	7,711	7,740	7,884	7,946	8,007
9 September	6,356	6,386	6,536	6,627	6,719
10 October	5,286	5,326	5,483	5,576	5,658
11 November	5,323	5,353	5,502	5,601	5,695
12 December	5,705	5,745	5,909	6,005	6,095
	<u>Summer Full Service Peak (MW)</u>				
13	2012 7,711	2013 7,740	2014 7,884	2015 7,946	2016 8,007
	<u>Winter Full Service Peak (MW)</u>				
14	2012 5,705	2013 5,745	2014 5,909	2015 6,005	2016 6,095

MONTHLY GENERATION REQUIREMENTS
 Based on Total System Deliveries (MWh)

<u>Line</u>	(a)	(b)	(c)	(d)	(e)	(f)
		<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1	January	3,442,039	3,486,993	3,563,105	3,616,243	3,674,664
2	February	3,267,359	3,187,729	3,265,469	3,318,965	3,466,835
3	March	3,317,233	3,332,535	3,399,760	3,450,875	3,474,834
4	April	3,067,309	3,099,172	3,179,088	3,224,525	3,269,892
5	May	3,226,385	3,280,674	3,334,916	3,378,407	3,422,445
6	June	3,563,500	3,616,795	3,683,894	3,729,037	3,775,064
7	July	3,846,450	3,907,691	3,974,046	4,011,763	4,058,679
8	August	3,862,413	3,919,206	3,989,235	4,028,023	4,076,325
9	September	3,311,820	3,373,364	3,444,413	3,485,190	3,532,255
10	October	3,315,368	3,374,897	3,438,078	3,470,689	3,514,269
11	November	3,342,124	3,374,885	3,458,180	3,491,172	3,535,315
12	December	3,570,483	3,646,353	3,667,392	3,701,927	3,749,075
13	Total	41,132,483	41,600,294	42,397,576	42,906,816	43,549,652

MONTHLY REDUCTION IN GENERATION REQUIREMENTS ASSOCIATED WITH RETAIL OPEN ACCESS

Based on Retail Open Access Deliveries (MWh)

<u>Line</u>	(a)	(b)	(c)	(d)	(e)	(f)
		<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1	January	336,018	335,903	335,903	335,935	335,986
2	February	305,784	305,736	305,736	305,736	305,784
3	March	338,895	338,924	338,924	338,920	338,911
4	April	327,800	327,872	327,872	327,872	327,778
5	May	358,568	358,568	358,606	358,579	358,631
6	June	375,596	375,610	375,564	375,566	375,566
7	July	383,391	383,357	383,357	383,357	383,425
8	August	406,065	406,059	406,072	406,072	406,065
9	September	361,635	361,573	361,630	361,630	361,630
10	October	375,262	375,262	375,262	375,090	375,199
11	November	343,514	343,602	343,565	343,556	343,514
12	December	325,587	325,635	325,544	325,544	325,544
13	Total	4,238,115	4,238,101	4,238,035	4,237,857	4,238,033

MONTHLY GENERATION REQUIREMENTS TO BE SUPPLIED BY CONSUMERS ENERGY

Based on Full Service Deliveries (MWh)

<u>Line</u>	(a)	(b)	(c)	(d)	(e)	(f)
		<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1	January	3,106,021	3,151,090	3,227,202	3,280,308	3,338,678
2	February	2,961,575	2,881,993	2,959,733	3,013,229	3,161,051
3	March	2,978,338	2,993,611	3,060,836	3,111,955	3,135,923
4	April	2,739,509	2,771,300	2,851,216	2,896,653	2,942,114
5	May	2,867,817	2,922,106	2,976,310	3,019,828	3,063,814
6	June	3,187,904	3,241,185	3,308,330	3,353,471	3,399,498
7	July	3,463,059	3,524,334	3,590,689	3,628,406	3,675,254
8	August	3,456,348	3,513,147	3,583,163	3,621,951	3,670,260
9	September	2,950,185	3,011,791	3,082,783	3,123,560	3,170,625
10	October	2,940,106	2,999,635	3,062,816	3,095,599	3,139,070
11	November	2,998,610	3,031,283	3,114,615	3,147,616	3,191,801
12	December	3,244,896	3,320,718	3,341,848	3,376,383	3,423,531
13	Total	36,894,368	37,362,193	38,159,541	38,668,959	39,311,619

MISCELLANEOUS FORECASTS

<u>Line</u>	(a)	(b)	(c)	(d)	(e)	(f)
		<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1	Calendar Sales (GWh Deliveries)	38,154	38,588	39,328	39,800	40,397
2	System Efficiency (%)	92.76%	92.76%	92.76%	92.76%	92.76%
3	Generation Requirements (GWh)	41,132	41,600	42,398	42,907	43,550
4	Summer Peak (MW)	8,299	8,330	8,476	8,538	8,595
5	Annual Load Factor based on the Summer Peak (%)	56.4%	57.0%	57.1%	57.4%	57.7%

6 Note: The forecasts on this exhibit reflect the forecast of total electric deliveries before any adjustment for retail open access.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for Approval of a Power Supply Cost)
Recovery Plan and for Authorization of)
Monthly Power Supply Cost Recovery)
Factors for the Year 2012)

Case No. U-16890

PROOF OF SERVICE

STATE OF MICHIGAN)
) SS
COUNTY OF JACKSON)

Judy A. Jones, being first duly sworn, deposes and says that she is employed in the Legal Department of Consumers Energy Company; that on February 20, 2012, she served an electronic copy of the Supplemental Direct Testimony/Second Direct Testimony and Exhibits of Consumers Energy witnesses Richard T. Blumenstock, Shawn D. Burgdorf, Laura M. Collins, Brian D. Gallaway, David B. Kehoe, Richard J. Polena, David F. Ronk, Jr., and Lincoln D. Warriner, upon the persons listed in Attachment 1 hereto, at the e-mail addresses listed therein.

Judy A. Jones

Subscribed and sworn to before me this 20th day of February, 2012.

Sharon K. Davis, Notary Public
State of Michigan, County of Jackson
My Commission Expires: 07/28/16
Acting in the County of Jackson

ATTACHMENT 1 TO CASE NO. U-16890

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ATTACHMENT 1 TO CASE NO. U-16890

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