May 8, 2017

Ms. Kavita Kale
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Highway
P.O. Box 30221
Lansing, MI  48909

RE:   MPSC Case No. U-18392 – In the matter of the application of CONSUMERS ENERGY COMPANY for Approval of Amendment 2 of the Power Purchase Agreement with T.E.S. Filer City Station Limited Partnership.

Dear Ms. Kale:

Included in this electronic file for the above-captioned case are Consumers Energy Company’s Application, Testimony, and Exhibits of Company witness David F. Ronk, Jr.  This is a paperless filing and is therefore being filed only in a PDF format.

Sincerely,

Robert W. Beach

[Signature]

Digital Signatures:

Robert W. Beach
Date: 2017.05.08
15:07:43 -04'00'

Robert W. Beach
APPLICATION

Consumers Energy Company ("Consumers Energy" or the "Company") requests the Michigan Public Service Commission ("MPSC" or the "Commission") to grant approval, pursuant to MCL 460.6(j)(13) and all other applicable law, of an amendment to the Company’s Power Purchase Agreement ("PPA") with T.E.S. Filer City Station Limited Partnership (the "Partnership"). In support of this request, Consumers Energy states as follows:

1. Consumers Energy is, among other things, engaged as a public utility in the business of generating, purchasing, distributing, and selling electric energy to approximately 1.8 million retail customers in the State of Michigan. The retail electric system of Consumers Energy is operated as a single utility system, within which uniform rates are charged.

2. Consumers Energy’s retail electric business is subject to the jurisdiction of the Commission pursuant to certain provisions of 1939 Public Act ("PA") 3, as amended by various acts, including 1982 PA 304 ("Act 304"), 2000 PA 141, and 2016 PA 341, MCL 460.1 et seq.; 1909 PA 106, as amended, MCL 460.551 et seq.; 1909 PA 300, as amended, MCL 462.2 et seq.; and 2008 PA 286, MCL 460.4a et seq.

3. On July 31, 1986, Consumers Energy and Tondu Energy Systems, Inc. entered into a long-term PPA to purchase all electric capacity and energy output from a cogeneration plant to be located in or near Filer City, Michigan ("Filer City Plant"). Pursuant to the terms of
the PPA, the Filer City Plant was: (i) expected to be fueled with coal, waste wood, and paper sludge; (ii) expected to be equipped with a generator with a nameplate rating not to exceed 60,000 kilowatts; and (iii) expected to be capable of extracting up to 280,000 lbs per hour of 600 psi process steam. The PPA was approved by the Commission in its February 19, 1987 Order in MPSC Case No. U-8562. Subsequent to the Commission’s approval, the PPA was amended on April 30, 1987 (“Amendment No. 1”) to adopt capacity payment rates which conformed to limitations established by the Commission in its February 19, 1987 Order. The PPA, as amended by Amendment No. 1, has an initial term that will conclude on June 16, 2025 and allows for subsequent one-year terms thereafter unless either the Company or the Partnership issues a notice of its election to terminate the agreement.


5. On May 4, 2017, Consumers Energy and the Partnership have executed a second amendment to the PPA (“Amendment No. 2”). Amendment No. 2 provides for the Filer City Plant to be converted to use natural gas as its primary fuel, instead of coal, which will economically necessitate the installation of highly efficient combustion turbine technology. The more efficient process of converting heat to electricity will produce less waste heat per watt-hour of electricity generated; however with this cogeneration plant, the steam host still requires
delivery of 50,000 lbs per hour of 600 psi process steam. To address this issue, the converted Filer City Plant will increase the amount of electric capacity and energy produced. Under Amendment No. 2, the Filer City Plant will sell its additional electric capacity and energy to the Company at a lower rate than the rate specified under the existing terms of the PPA. Amendment No. 2 also extends the initial term of the PPA to 15 years after the completed conversion of the Filer City Plant. When converted, the Filer City Plant is expected to have a net output of approximately 225 megawatts (“MW”) and 50,000 lbs per hour of 600 psi process steam.

6. Amendment No. 2 provides a substantial benefit to the Company’s customers. Under the terms of the amendment, the cost to customers is expected to be reduced over the 15-year term by approximately $45 million on a net present value basis. The customer benefits of Amendment No. 2 are further explained in the testimony of Company witness David F. Ronk, Jr. and illustrated in Exhibits A-3 (DFR-3) and A-4 (DFR-4).

7. Because Amendment No. 2 represents an amendment to an agreement between the Company and an affiliate, the Company intends to make a filing at the Federal Energy Regulatory Commission requesting a finding that the PPA, as amended by Amendment No. 2, is “a contract executed on or before March 17, 2006 or made pursuant to a state regulatory authority’s implementation of Section 210 of the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 824a-1” or otherwise authorizing sales of Contract Energy by the Partnership to the Company under Section 205 of the Federal Power Act.

8. Furthermore, Section III.C. of the MPSC’s Code of Conduct provides, in relevant part:

“If an affiliate or other entity within the corporate structure provides services, products, or property to an electric utility or
alternative electric supplier offering regulated service in Michigan, compensation for services and supplies shall be at the lower of market price or 10% over fully allocated embedded cost . . .”

The document being filed as Exhibit A-5 (DFR-5) provides a detailed calculation of the Company’s fully allocated embedded cost of capacity plus 10% of the Company’s fully allocated embedded cost of capacity, and compares that amount to be charged by the Partnership under Amendment No. 2. As shown in this Exhibit, the highest amount to be charged for capacity under Amendment No. 2 is lower than the Company’s fully allocated embedded cost of capacity plus 10%, and is lower than the market price for capacity to which the Company is otherwise exposed, therefore the capacity price of Amendment No. 2 complies with the Commission’s Code of Conduct and is proposed to be used to determine the approved contract price.

Alternatively, the Company requests that a waiver of the requirement to comply with the Code of Conduct in this instance be granted. Such a waiver would be appropriate because the amendment to the agreement between the Company and its affiliate resulted from an arms-length transaction. There was no preferential treatment to the affiliate. As discussed above, customers will clearly benefit from the contractual agreement and therefore, the potential harm which the Code of Conduct was intended to prevent is not present in this case.

9. In conjunction with this Application, Consumers Energy is filing a copy of Amendment No. 2 as Exhibit A-2 (DFR-2). Because Amendment No. 2 extends the PPA’s term for a period in excess of six months, Consumers Energy is requesting Commission approval of Amendment No. 2 to the PPA pursuant to Section 6j(13)(b) of Act 304, 1987 PA 81, and all other applicable law.

10. Consumers Energy is filing testimony and exhibits of Company witness Ronk in conjunction with this Application. The accompanying testimony and exhibits of Company
witness Ronk are an integral part of this Application, and the relief described therein is incorporated by reference in this Application as if fully set forth herein.

11. Since Amendment No. 2 is expected to provide a positive net value to customers, Consumers Energy respectfully requests the Commission to approve the relief requested in this Application on an *ex parte* basis without the time and expense of a public hearing. Furthermore, as indicated in the Commission’s March 9, 2016 Order in MPSC Case No. U-18027, a contested case is not required under Act 304 in all circumstances. See MPSC Case No. U-18027, March 9, 2016 Order, page 3.

12. Furthermore, if the Commission elects not to approve the Company’s Application on an *ex parte* basis, the Company requests the Commission to initiate a contested case proceeding in an expedited manner due to the time sensitive nature of Amendment No. 2 and the need to allow for the timely implementation of the replacement capacity plan as identified in Case No. U-18250. Therefore, the Company requests the Commission to issue an order on the relief requested herein within 90 days of the filing of this Application.

WHEREFORE, Consumers Energy Company respectfully requests the Michigan Public Service Commission to grant the following relief:

(A) Grant approval of Amendment No. 2 of Consumers Energy Company’s Power Purchase Agreement with T.E.S. Filer City Station Limited Partnership and specifically find that the Commission approves recovery by Consumers Energy Company of the payments under the amended Power Purchase Agreement, as amended by Amendment No. 2, for the kilowatt hours delivered by T.E.S. Filer City Station Limited Partnership to Consumers Energy Company after the Converted Plant Initial Delivery Date for the purposes of Section 6j(13)(b) of 1982 PA 304 1982, 1987 PA 81, and all other applicable law;
B) Determine that the relief requested herein should be granted *ex parte* without the time and expense of a public hearing;

(C) Issue a final order on the relief request herein within 90 days of the filing of this Application; and

(D) Grant Consumers Energy such other and further relief as may be lawful and appropriate.

Respectfully submitted,

CONSUMERS ENERGY COMPANY

Dated: May 8, 2017

By: ______________________________

Timothy J. Sparks, Vice President
Energy Supply Operations

Robert W. Beach (P73112)
Anne M. Uitvlugt (P71641)
Attorneys for Consumers Energy Company
One Energy Plaza
Jackson, Michigan 49201
(517) 788-1846
STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of
CONSUMERS ENERGY COMPANY
for Approval of Amendment 2 of the Power Purchase Agreement with T.E.S. Filer City Station Limited Partnership

VERIFICATION

STATE OF MICHIGAN )
COUNTY OF JACKSON ) SS

Timothy J. Sparks, being first duly sworn, deposes and says that he is Vice President, Energy Supply Operations of Consumers Energy Company; that he has executed the foregoing Application for and on behalf of Consumers Energy Company; that he has read the foregoing Application and is familiar with the contents thereof; that the facts contained therein are true, to the best of his knowledge and belief; and that he is duly authorized to execute such Application on behalf of Consumers Energy Company.

Timothy J. Sparks, Vice President
Energy Supply Operations

Digitally signed by Timothy J. Sparks
Date: 2017.05.08 15:09:46 -04'00'

Subscribed and sworn to before me this 8th day of May, 2017.

Samantha O’Rourke, Notary Public
State of Michigan, County of Jackson
My Commission Expires: 10/30/21
Acting in the County of Jackson

Digitally signed by Samantha O’Rourke
Date: 2017.05.08 15:10:06 -04'00'
STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of
CONSUMERS ENERGY COMPANY
for Approval of Amendment 2 of the Power Purchase Agreement with T.E.S. Filer City Station Limited Partnership

Case No. U-18392

DIRECT TESTIMONY

OF

DAVID F. RONK, JR.

ON BEHALF OF

CONSUMERS ENERGY COMPANY

May 2017
Q. Please state your name and business address.
A. My name is David F. Ronk, Jr. and my business address is 1945 West Parnall Road, Jackson, Michigan 49201.

Q. By whom are you employed?
A. I am employed by Consumers Energy Company (“Consumers Energy” or the “Company”) as Executive Director for Electric Transactions and Wholesale Settlements.

QUALIFICATIONS

Q. Please describe your educational background and business experience.
A. I received the degree of Bachelor of Science in Engineering with a specialty in Civil Engineering from the University of Michigan in 1975. Since 1980, I have been a Registered Professional Engineer in the state of Michigan. I have practiced engineering while employed by Consumers Energy since January 1976 with assignments associated with: (i) the construction of Campbell Unit No. 3; (ii) construction of a wood-fired generating station proposed to be constructed in the early 1980s near Hersey, Michigan; (iii) construction of the Midland Nuclear Plant; (iv) assistance to attorneys defending the Company in litigation with the Dow Chemical Company; (v) development of what ultimately became known as the Midland Cogeneration Venture Limited Partnership; (vi) design and procurement of utility motor vehicles; (vii) operation of a fleet of rail cars used to haul coal; and (viii) development of the Company’s Acid Rain Program compliance strategy and program. Since August 1997, I have been responsible for the development of strategies to manage the Company’s exposure to financial risks associated with the operation of its generating units and the purchase of capacity and energy from others to serve the demand for electricity from Consumers Energy...
customers. Between 2007 and 2012, I was responsible for the Company’s resource planning activities. Beginning in 2012, I was responsible for the Company’s electric wholesale settlements activities.

Q. Have you testified in other cases?
A. Yes. Exhibit A-1 (DFR-1) identifies the occasions in which I presented testimony before the Michigan Public Service Commission (“MPSC” or the “Commission”).

PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?
A. My testimony will address: (1) the purpose of Amendment No. 2 of the Power Purchase Agreement (“PPA”) between the Company and T.E.S. Filer City Station Limited Partnership (the “Partnership”); (2) the Company’s evaluation of the cost and benefits of Amendment No. 2; (3) the purchase of resources from an affiliate of Consumers Energy and fulfillment of the requirements of the Commission’s Code of Conduct; and (4) the Company’s plan for implementing Amendment No. 2.

Q. Are you sponsoring any exhibits?
A. Yes. I am sponsoring the following exhibits:

| Exhibit A-1 (DFR-1) | Previously Sponsored Testimony before the Michigan Public Service Commission; |
| Exhibit A-3 (DFR-3) | Comparison of Net Present Value of Customer Savings; |
| Exhibit A-4 (DFR-4) | Customer Cost and Saving by Year; and |
| Exhibit A-5 (DFR-5) | Embedded Capacity Cost Calculation and Comparison to Affiliate Offer Prices. |
Q. Were these exhibits prepared by you or under your supervision?
A. Yes, they were.

**POWER PURCHASE AGREEMENT**

Q. Does the Company currently have a PPA with the Partnership?
A. Yes. On July 31, 1986, the Company executed a PPA with Tondu Energy Systems, Inc. and agreed to purchase all electric capacity and energy output from a cogeneration plant to be located in or near Filer City, Michigan (“Filer City Plant”). The Filer City Plant was expected to be: (1) fueled with coal, waste wood, and paper sludge; (2) equipped with a generator with a nameplate rating not to exceed 60,000 kilowatts; and (3) capable of extracting up to 280,000 lbs per hour of 600 psi process steam.\(^1\) The PPA, as subsequently amended, was approved by the MPSC in its February 19, 1987 Order in MPSC Case No. U-8562. The PPA was later amended on April 30, 1987 adopting the Capacity Payment rates that conformed to the limitations established by the Commission in its February 19, 1987 Order.

On August 10, 1988, Tondu Energy Systems, Inc. assigned its interest in the Filer City Plant, and the PPA, to Western Michigan Cogeneration Limited Partnership. Tondu Energy Systems, Inc. is a General Partner of Western Michigan Cogeneration Limited Partnership. Also on August 10, 1988, Western Michigan Cogeneration Limited Partnership assigned its interest in the Filer City Plant, and the PPA, to the Partnership. Western Michigan Cogeneration Limited Partnership and CMS Generation Filer City, Inc. are General Partners of the Partnership. CMS Generation Filer City, Inc. is an affiliate of Consumers Energy.

\(^1\) The steam host’s requirements were subsequently revised to 50,000 lbs per hour. The PPA was not revised because the steam host’s requirements were not material to the agreement.
On June 17, 1990, the Filer City Plant achieved Commercial Operation. The PPA’s initial term concludes on June 16, 2025 and continues subsequent for one-year terms thereafter, unless either the Company or the Partnership issues a notice, a year in advance, electing to terminate the PPA at the expiration of the term.

**AMENDMENT NO. 2**

Q. What is Exhibit A-2 (DFR-2)?

A. Exhibit A-2 (DFR-2) is Amendment No. 2, dated May 4, 2017, of the PPA between Consumers Energy and the Partnership, dated July 31, 1986 (“Amendment No. 2”). Amendment No. 2 provides for the Filer City Plant to be converted to use natural gas as its primary fuel, instead of coal, which will economically necessitate the installation of highly efficient combustion turbine technology. The more efficient process of converting heat to electricity will produce less waste heat per watt-hour of electricity generated; however with this cogeneration plant, the steam host still requires delivery of 50,000 lbs per hour of 600 psi process steam. The Partnership plans to address this by increasing the amount of electric capacity and energy produced, and selling that additional electric capacity and energy to the Company at a rate less than the rate currently being paid under the existing terms of the PPA. Further, Amendment No. 2 provides to extend the initial term of the PPA to 15 years after the conversion is complete.

Q. Have you evaluated the cost of Amendment No. 2?

A. Yes, I have. Amendment No. 2 is expected to reduce the cost to be incurred by customers over the 15-year term, as provided in Amendment No. 2, by approximately $45 million on a net present value basis. The savings amount is approximately $100 million on a net present value basis in the period leading up to July 2025 and an
increased cost of $60 to $70 million on a net present value basis over the remaining years of the extended initial term. The significant savings in the earlier years results from the avoidance of payment of the rates of the current PPA and avoidance of the payment of amounts under Public Act 286 of 2008 (“Act 286”). Under Amendment No. 2, Article 4, Section 3 (d) is added to provide that the Partnership will forgo any claim to recover excess costs under the provisions of Act 286.

Q. Does Amendment No. 2 require the conversion of the Filer City Plant to occur on a certain date?

A. No. Amendment No. 2 provides for several conditions precedent before it becomes effective, including:

1. Approval of the PPA, as amended by Amendment No. 2, by the MPSC “for the purposes of Michigan Public Act 304 of 1982, as amended (“Act 304”), Michigan Public Act 81 of 1987, as amended, and all other applicable law;”

2. Approval of the Partnership’s application to the Federal Energy Regulatory Commission (“FERC”) for recertification of the Converted Plant as a Qualifying Facility pursuant to 18 C.F.R. 292.207(b); and

3. A finding by the FERC that the PPA, as amended by Amendment No. 2, is “a contract executed on or before March 17, 2006 or made pursuant to a state regulatory authority’s implementation of Section 210 of the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 824a-1” or otherwise authorizing sales of Contract Energy by the Partnership to the Company under Section 205 of the Federal Power Act.

Thereafter, the Converted Plant Initial Delivery Date will be the first day of June following the day all of the following conditions have been satisfied:

1. The Partnership provides proof that it has an executed Interconnection Agreement for the Converted Plant and is authorized under the terms of the Interconnection Agreement to begin parallel operation with the interconnected system;

2. The Partnership shall have transferred to the Company the Contract Capacity for the Midcontinent Independent System Operator, Inc. (“MISO”) Planning Year (“Planning Year”) beginning the following June 1st on or before three business
days prior to the Fixed Resource Adequacy Plan filing date for such Planning Year.

Additionally, if the Converted Plant Initial Delivery Date fails to occur on or before June 1, 2022, the Company has the right to terminate Amendment No. 2, and in that case the PPA continues under its existing terms except that the Partnership may satisfy the requirements of the PPA using natural gas as the plant’s primary fuel for the remainder of the current initial term and any subsequent terms of the PPA.

As a result, there are five potential dates upon which deliveries under Amendment No. 2 may begin: June 1, 2018; June 1, 2019; June 1, 2020; June 1, 2021; and June 1, 2022. Currently, June 1, 2019 appears to be the most likely date for initial deliveries to begin.

Q. Will the conversion process cause the existing plant to be removed from service for an extended time period?

A. No. The Partnership proposes to utilize the existing steam turbine, the existing generator, the existing step-up transformer, the existing process steam transfer system, and associated systems as part of the Converted Plant. Additionally, the Partnership proposes to install a combustion turbine and heat recovery steam generator, along with associated step-up transformer, control systems, fuel metering, and regulating station and other necessary equipment, adjacent to the existing plant. Once the new equipment is installed, the existing plant will take a relatively short outage to tie in the combustion turbine and heat recovery steam generator to the main steam and feedwater piping systems, control systems, and balance of plant systems.
Q. When converted what is the expected output of the Converted Plant?
A. The Partnership expects the Converted Plant to have net output of approximately 225 MW and 50,000 lbs per hour of 600 psi process steam.

**CAPACITY AND ENERGY PURCHASE**

Q. Will Consumers Energy purchase all of the electric output from the Converted Plant?
A. No. Under Amendment No. 2, the Company will purchase all of the resource adequacy capacity available from the Converted Plant but not to exceed 225 Zonal Resource Credits (“ZRCs”). Further, in the event the Converted Plant does not have at least 200 ZRCs available, the Partnership may provide substitute resource adequacy capacity so as to provide up to 200 plant and substitute ZRCs.

The Company will also evaluate the day-ahead locational marginal price calculated by MISO for the plant node and will purchase energy to be delivered from the plant (or the market) if the price to be paid for the energy is less than the day-ahead locational marginal price.

Any energy and capacity not purchased by the Company may be sold by the Partnership to others, including the MISO market.

Q. Is the Company entitled to pick and choose which hours it elects to purchase energy from the Partnership?
A. Yes, with some limitations. For each operating day, the Company is entitled to select one “Scheduled Delivery Period” of at least eight (8) hours duration and no more than twenty-four (24) hours duration which it deems to provide the maximum positive net energy value. In the event no such period exists, then the Company need not select a Scheduled Delivery Period for that operating day. If more than one such period exists,
the Company is entitled to select the single period that provides the greatest amount of net energy value.

Q. How will the energy transactions occur?

A. Prior to the Company’s election to select a Scheduled Delivery Period, the Partnership may elect to dispatch the Converted Plant in MISO’s day-ahead market. After the Day-Ahead Locational Marginal Prices have been posted, but prior to a specified time on the day prior to the operating day, the Company will notify the Partnership of its selection of a Scheduled Delivery Period for the Operating Day. Over the course of the Operating Day, the Partnership will dispatch the Converted Plant in the MISO real-time market based on the economics of the Partnership’s operation and their commitment to service the Company’s Scheduled Delivery Period. Between the time the Company provides the Scheduled Delivery Period to the Partnership and approximately six (6) days after the Operating Day, the Partnership and the Company will execute and confirm a day-ahead financial schedule with MISO regarding the Scheduled Delivery Period transaction. MISO will pay the Partnership for all deliveries that the Plant made on that operating day and charge the Partnership for amounts sold to the Company through the Financial Schedule. MISO will pay the Company for all amounts purchased by the Company through the day-ahead market financial schedule.

Q. What happens if the Converted Plant suffers a derate or an outage between the time the Scheduled Delivery Period is elected and the Operating Day occurs?

A. The transaction occurs as scheduled, except of course, the Partnership’s settlement with MISO may be affected. The Company’s ability to select a Scheduled Delivery Period is not limited by derates or forced outages and is not limited by planned outages during the
months of January, February, June, July, and August. The amount of energy that will be
scheduled in a Scheduled Delivery Period will be the MW equal to the number of ZRCs
purchased by the Company for that Planning Year times the number of hours in the
Scheduled Delivery Period.

Q. How is the energy transaction priced?
A. The price of energy is equal to the Cost of Production. The Cost of Production is equal to
a fuel component and a variable cost component. The fuel component is the product of
the gas price and the heat rate. The gas price is the midpoint of the common range for the
DTE Gas Company’s MichCon citygate location as published by Platt’s Daily Gas in the
Daily Gas Survey plus the cost to deliver gas from the MichCon citygate location to the
Converted Plant meters. The heat rate is 7.6 mmBtu/MWh. The variable cost component
is $5.00/MWh adjusted annually beginning June 1, 2018 by the percentage change in the
Consumer Price Index from the prior April to April 2017.

Q. How is the Capacity priced?
A. For each ZRC purchased, a price schedule based on an initial price applicable for the
Planning Year that the Converted Plant Initial Delivery Date occurs between 2018 and
2022 has been negotiated. Each price schedule includes an annual adjustment beginning
on the first year anniversary of one-half the percentage change in the Consumer Price
Index from the April preceding the then current Planning Year to April preceding the
Converted Plant Initial Delivery Date.
CUSTOMER SAVINGS

Q. Please explain Exhibit A-3 (DFR-3).

A. Exhibit A-3 (DFR-3) is a summary of 30 scenarios the Company has modeled using a range of gas prices and capacity prices to consider the potential savings and costs that may result from Amendment No. 2 when compared to not implementing Amendment No. 2 and allowing the PPA to continue until the end of its initial term. Assuming natural gas prices are consistent with the Company’s November 2016 forecast, and assuming that capacity value averages 50% of MISO’s Cost of New Entry, Amendment No. 2 is estimated to have a net present value savings to customers of approximately $45 million compared to the cost of not implementing Amendment No. 2. To the extent capacity value is greater than 50% of the Cost of New Entry, customer savings resulting from implementing Amendment No. 2 increases. To the extent natural gas prices are lower than the Company’s November 2016 forecast, customer savings resulting from implementing Amendment No. 2 will increase as well.

Q. Does the recently announced clearing price of the 2017 MISO Planning Resource Auction suggest that capacity values of 50% of the Cost of New Entry are too high?

A. No. The structure of the MISO Planning Resource Auction provides an indication of how well the control area has prepared for the Planning Year but does not necessarily provide an indication of the value of the capacity that has been acquired to achieve that level of preparation. The Planning Resource Auction is a good mechanism to resolve residual imbalances as the market participants move into the Planning Year. However, the Company expects prices to clear around 50% of the Cost of New Entry over a long-term period, such as the 15-year term provided in Amendment No. 2.
significant extent aversion to being exposed to capacity costs in excess of 75% of Cost of New Entry have caused supplies of generating capacity and demand response capacity to be such that low prices, such as those observed in the 2017 MISO Planning Resource Auction, resulted.

Q. Please explain Exhibit A-4 (DFR-4).

A. Exhibit A-4 (DFR-4) shows the annual detail of five of the 30 scenarios presented on Exhibit A-3 (DFR-3). A scenario assuming gas prices, as forecasted in November 2016, and capacity values equal to 50% of MISO’s Cost of New Entry indicates savings to customers of approximately $45 million on a net present value basis on Exhibit A-3 (DFR-3). On an annual basis, a curve is presented (in black ink) in Exhibit A-4 (DFR-4) showing annual savings during the years 2020 through 2024 of approximately $18 million and a cost in years 2026 through 2033 averaging about $7 million per year. This scenario represents the most likely outcome based on gas and capacity price forecasts.

Similarly, on Exhibit A-3 (DFR-3), the net present value associated with a scenario using a capacity price equal to 0% of MISO Cost of New Entry and a natural gas price that is 25% less than the natural gas price forecast the Company had available in November 2016 was presented. This scenario indicated that implementing Amendment No. 2 would increase customers’ costs by $7 million. In Exhibit A-4 (DFR-4) a curve is presented (in blue ink) showing the annual costs and savings associated with that scenario. The analysis indicates that this scenario provides approximately $15 million per year in savings over the years 2020 through 2024 and then increases costs (compared to not implementing Amendment No. 2) by approximately $20 million per year from
2026 through 2033. This scenario represents the least likely outcome based on gas and capacity price forecasts.

Q. If the Converted Plant Initial Delivery Date occurs in 2020, would the benefits of Amendment No. 2 be reduced?

A. Conceptually, a delay in the completion of the conversion of the plant reduces the amount of deliveries under the existing PPA that can be avoided and replaced with the more economic natural gas fueled deliveries. To address this issue, the Company negotiated capacity purchase price schedules that are tied to the Converted Plant Initial Delivery Date so as to preserve the benefits for customers. While the expected values of each of the scenarios for each of the capacity purchase price schedules are not identical, the expected values remain in a similar range such that those scenarios that show a benefit for customers when the Converted Plant Initial Delivery Date is in 2019 also show a benefit for customers when the Converted Plant Initial Delivery Date is in 2020, 2021, or 2022. In some scenarios that show a cost when the Converted Plant Initial Delivery Date is in 2019, the negotiated capacity price schedule shows a modest savings when the Converted Plant Initial Delivery Date is in 2020, 2021, or 2022.

AFFILIATE TRANSACTION

Q. Will the purchases to be made under Amendment No. 2 comply with the Commission’s Code of Conduct?

A. Yes. Section III. C. of the MPSC’s Code of Conduct provides that:

“If an affiliate or other entity within the corporate structure provides services, products, or property to an electric utility or alternative electric supplier offering regulated service in Michigan, compensation for services and supplies shall be at the lower of market price or 10% over fully allocated embedded cost . . .”
Exhibit A-5 (DFR-5) provides a detailed calculation of the Company’s fully allocated embedded cost of capacity plus 10% of the Company’s fully allocated embedded cost of capacity and compares that amount to be charged by the Partnership under Amendment No. 2. As shown in this Exhibit, the highest amount to be charged for capacity under Amendment No. 2 is lower than the Company’s fully allocated embedded cost of capacity plus 10%, and is lower than the market price for capacity to which the Company is otherwise exposed, therefore the capacity price of Amendment No. 2 complies with the Commission’s Code of Conduct and is proposed to be used to determine the approved contract price.

With regard to the energy price to be paid, the Company will make a determination on a daily basis of the market price to which it is exposed and will only make a purchase of energy if the cost of production over the proposed Scheduled Delivery Period is less than the Day-Ahead Locational Marginal Price over the same period, thus creating positive net energy value for customers.

Q. Was this amendment the result of a competitive solicitation?

A. No. Amendment No. 2 resulted from negotiations initiated by Western Michigan Cogeneration Limited Partnership, one of the General Partners of the Partnership. The opportunity to implement this particular modification and amendment is limited to a single entity and a competitive solicitation would not have been a meaningful exercise.

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2 The highest amount to be charged for capacity is $13,380 per ZRC-month beginning in June 2018 if the Filer City Plant achieves its Converted Plant Initial Delivery Date on June 1, 2018. Line 13 of the Exhibit multiplies that amount by 12 to provide an annual value. The amount is subject to adjustment by one half of the percentage change in the Consumer Price Index as reported by the U.S. Bureau of Labor Statistics. Assuming an annual percentage change of 2% the highest annual rate to be paid under Amendment No. 2 in 2033 is shown on line 14 of the Exhibit.
Q. Was the Partnership afforded preferential treatment as part of the Amendment No. 2 negotiation process?

A. No. The Company met with representatives of the Partnership on the same basis as it meets with other counterparties to its PPAs. It considered the modification to the PPA in light of the benefits it could provide to customers and the potential need the Company has for capacity and energy in the future. The Company and its affiliate have taken care to maintain separate responsibilities so as to allow for arms length negotiations on this matter.

Q. How does the price of Amendment No. 2 compare to the market price for a similar product?

A. The Company’s dispatch models indicate that this agreement should provide approximately 217 ZRCs per year over the 15 planning years it is in service. Additionally, at the 7.6 MMBtu/MW heat rate and with the Company’s fuel forecast, delivery cost estimate, and variable energy cost allowance the Amendment should deliver approximately 1.1 million MWh per year. While the cost of these deliveries is slightly higher than the Company’s market price estimate, this contract also eliminates approximately $113 million in above-market expense that would otherwise be incurred by customers. When we credit the offsetting obligation avoidance against the above market expense of the contract the net result is a below market contract.

REASONABLENESS OF AMENDMENT

Q. Is Amendment No. 2 reasonable and prudent?

A. Yes. Amendment No. 2 provides for the replacement of a higher cost fuel with a lower cost alternative, resulting in a more efficient use of natural resources, fewer emissions,
DAVID F. RONK, JR.
DIRECT TESTIMONY

and increased capacity for Michigan’s lower peninsula. Additionally, under Amendment No. 2, customers of Consumers Energy will incur less expense for purchased power between the time the plant is converted to use natural gas and 2025. Further, while the Company anticipates that under most scenarios customers will see increased costs between 2025 and the 15-year anniversary of the Converted Plant Initial Delivery Date, the increased costs over those years is not sufficient to completely deplete the expected savings over the earlier period. The net result over the 15-year period in which deliveries are expected to be made pursuant to Amendment No. 2 is a reduction in expense with a net present value of approximately $45 million.

Q. Does this complete your testimony?

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 Amendment 2 of the Power Purchase Agreement with T.E.S. Filer City Station Limited Partnership

Case No. U-18392

EXHIBITS

OF

DAVID F. RONK, JR.

ON BEHALF OF

CONSUMERS ENERGY COMPANY

May 2017
MICHIGAN PUBLIC SERVICE COMMISSION

CONSUMERS ENERGY COMPANY

PREVIOUSLY SPONSORED TESTIMONY BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

1. MPSC Case No. U-10710-R (direct and rebuttal), the Company’s 1995 Power Supply Cost Recovery (“PSCR”) Reconciliation case, regarding the treatment of sulfur dioxide emission allowances;

2. MPSC Case No. U-10973-R (direct), the Company’s 1996 PSCR Reconciliation case;

3. MPSC Case No. U-11180 (rebuttal), the Company’s 1997 PSCR Plan case, regarding the treatment of sulfur dioxide emission allowances and certain permit conditions;

4. MPSC Case No. U-12488 (direct and rebuttal), regarding certain terms and conditions of service for retail open access customers;

5. MPSC Case No. U-13917 (direct, supplemental, and rebuttal), the Company’s 2004 PSCR Plan case, regarding electric capacity requirements; the appropriate calculation of energy payment rates under certain qualified facility contracts, and the appropriate treatment of third party sales revenues in calculating PSCR costs;

6. MPSC Case No. U-14031 (direct, rebuttal, and supplemental rebuttal), regarding the calculation of the hold harmless amount associated with the proposed resource conservation plan;

7. MPSC Case No. U-14274 (direct and rebuttal), the Company’s 2005 PSCR Plan case, regarding electric capacity requirements and costs for 2005;

8. MPSC Case No. U-14347 (direct), regarding operating and maintenance expense and capital cost associated with electric and fuel supply for 2006 test year and power supply cost for the five year period 2005 through 2009;

9. MPSC Case No. U-13917-R (direct), the Company’s 2004 PSCR Reconciliation case, regarding power supply costs incurred in 2004;

10. MPSC Case No. U-14701 (direct, supplemental and rebuttal), the Company’s 2006 PSCR Plan case, regarding electric capacity requirements and costs for 2006;

11. MPSC Case No. U-14274-R (direct and supplemental), the Company’s 2005 PSCR Reconciliation case, regarding power supply costs incurred in 2005;

12. MPSC Case No. U-15001 (direct), the Company’s 2007 PSCR Plan case, regarding electric capacity requirements and costs for 2007;

13. MPSC Case No. U-15245 (direct and supplemental), regarding operating and maintenance expense and capital cost associated with electric and fuel supply for 2008 test year and power supply cost for the five year period 2007 through 2011;

14. MPSC Case No. U-14701-R (direct and supplemental), the Company’s 2006 PSCR Reconciliation case, regarding power supply costs incurred in 2006;

15. MPSC Case No. U-15290 (direct and supplemental), regarding the Company’s balanced energy initiative;
16. MPSC Case No. U-15415 (direct), the Company’s 2008 PSCR Plan case, regarding electric capacity requirements and costs for 2008;

17. MPSC Case No. U-15001-R (direct and supplemental), the Company’s 2007 PSCR Reconciliation case, regarding power supply costs incurred in 2007;

18. MPSC Case No. U-15645 (direct and rebuttal), regarding operating and maintenance expense and capital cost associated with electric and fuel supply for 2009 test year and power supply cost for the seven year period 2007 through 2013;

19. MPSC Case No. U-15675 (direct), regarding the Company’s 2009 PSCR Plan, regarding electric capacity requirements and costs for 2009;

20. MPSC Case No. U-15805/U-15889 (direct and rebuttal), regarding the 2009 renewable energy plan and energy optimization plan;

21. MPSC Case No. U-15415R (direct and rebuttal), the Company’s 2008 PSCR Reconciliation Case, regarding Power Supply Costs incurred in 2008;

22. MPSC Case No. U-16045 (direct and rebuttal), the Company’s 2010 PSCR Plan, regarding electric capacity requirements and costs for 2010;


24. MPSC Case No. U-15675R (direct, rebuttal, supplemental rebuttal, and second supplemental rebuttal), the Company’s 2009 PSCR Reconciliation Case, regarding Power Supply Costs incurred in 2009;

25. MPSC Case No. U-16300 (direct and rebuttal), the Company’s 2009 Renewable Cost Reconciliation Case, regarding renewable energy costs incurred in 2009;

26. MPSC Case No. U-16432 (direct and second rebuttal), the Company’s 2011 PSCR Plan, regarding electric capacity requirements and costs for 2011;

27. MPSC Case No. U-16543 (direct and rebuttal), the Company’s application for approval of a Renewable Energy Plan amendment;

28. MPSC Case No. U-16794 (direct), regarding Operating and Maintenance expense and Capital costs associated with Energy Supply Operations for the test year ended September 30, 2012;

29. MPSC Case No. U-16045R (direct and rebuttal), the Company’s 2010 PSCR Reconciliation Case, regarding Power Supply Costs incurred in 2010;

30. MPSC Case No. U-16301 (direct), the Company’s 2010 Renewable Cost Reconciliation Case, regarding renewable energy costs incurred in 2010;

31. MPSC Case No. U-16890 (direct and supplemental), the Company’s 2012 PSCR Plan, regarding electric capacity requirements and costs for 2012;

32. MPSC Case No. U-16581 (direct), the Company’s application for biennial review of its Renewable Energy Plan;

33. MPSC Case No. U-16432R (direct), the Company’s 2011 PSCR Reconciliation Case, regarding Power Supply Costs incurred in 2011;
34. MPSC Case No. U-16655 (direct), the Company’s 2011 Renewable Cost Reconciliation Case, regarding renewable energy costs incurred in 2011;

35. MPSC Case No. U-17087 (direct and rebuttal) regarding capacity planning matters associated with the test year beginning January 1, 2013;

36. MPSC Case No. U-17095 (direct and rebuttal) regarding the Company’s 2013 PSCR Plan, specifically addressing electric capacity requirements and costs for 2013;

37. MPSC Case No. U-16890R (direct), the Company’s 2012 PSCR Reconciliation Case, regarding Power Supply Costs incurred in 2012;

38. MPSC Case No. U-17301 (direct and supplemental), the Company’s 2013 Application for biennial review of the Renewable Energy Plan, regarding various changes to the Renewable Energy Plan;

39. MPSC Case No. U-17321 (direct), the Company’s 2012 Renewable Cost Reconciliation Case, regarding renewable energy costs incurred in 2012;

40. MPSC Case No. U-17429 (direct), the Company’s application for a certificate of necessity associated with the construction of a natural gas-fueled combined cycle electric generating unit located in Thetford Township, Genesee County, Michigan;

41. MPSC Case No. U-17317 (direct, supplemental, and rebuttal) regarding the Company’s 2014 PSCR Plan, specifically addressing electric capacity requirements and costs for 2014;

42. MPSC Case No. U-17496 (direct and rebuttal) regarding long-term power purchase auction procedures;

43. MPSC Case No. U-17631 (direct and rebuttal), the Company’s 2013 Renewable Cost Reconciliation Case, regarding renewable energy costs incurred in 2013;

44. MPSC Case No. U-17678 (direct and rebuttal) regarding the Company’s 2015 PSCR Plan, specifically addressing electric capacity requirements and costs for 2015;

45. MPSC Case No. U-17725 (direct and rebuttal) regarding the acquisition of long term capacity contracts for MISO Planning years 2015 through 2020;

46. MPSC Case No. U-17735 (direct and rebuttal) regarding the expenses associated with power supply issues for the test year beginning June 1, 2015, including the purchase of the Jackson Plant;

47. MPSC Case No. U-17792 (direct) regarding the Company’s 2015 Application for biennial review of the Renewable Energy Plan, regarding various changes to the Renewable Energy Plan;

48. MPSC Case No. U17918 (direct and rebuttal) regarding the Company’s 2016 PSCR Plan specifically addressing electric capacity requirements and costs for 2016;

49. MPSC Case No. U-17990 (direct and rebuttal) regarding the expenses associated with power supply issues for the test year beginning September 1, 2016;

50. MPSC Case No. U-18142 (corrected direct and second supplemental) regarding the Company’s 2016 PSCR Plan, specifically addressing electric capacity requirements and costs for 2016;

51. MPSC Case No. U-18194 (direct) regarding the acquisition of long term capacity contracts for MISO Planning year 2017;

52. MPSC Case No. U-18250 (direct) regarding the acquisition of long term capacity contracts for MISO
Planning Year 2018, the capacity asset purchase solicitation to be effective beginning in Planning Year 2019, the proposed amendment of the T.E.S. Filer City Station PPA, and certain spent fuel disposal trust fund issues associated with the Palisades PPA Termination Agreement;

53. MPSC Case No. U-17918-R (direct), the Company’s 2016 PSCR Reconciliation Case, regarding Power Supply Costs incurred in 2016; and

54. MPSC Case No. U-18239 (direct), regarding the State Reliability Mechanism, the Company’s plans for meeting potential increased demand, and the treatment of customers returning from Retail Open Access.

55. MPSC Case No. U-17981 (direct), regarding the Company’s negotiation of Power Purchase Agreements with several suppliers.

56. MPSC Case No. U-18382 (direct), regarding the Company’s application for approval of certain long term power supply contracts resulting from the April 5, 2017 Reverse Capacity Auction.
AMENDMENT NO. 2 TO  
POWER PURCHASE AGREEMENT  
BETWEEN  
CONSUMERS ENERGY COMPANY  
AND  
T.E.S. FILER CITY STATION LIMITED PARTNERSHIP  

THIS AMENDMENT NO. 2, made and entered into as of the 4th day of May 2017, is between Consumers Energy Company, f/k/a Consumers Power Company, a Michigan corporation, herein called “Consumers,” and T.E.S. Filer City Station Limited Partnership, a Michigan limited partnership, herein called “Seller.” Consumers and Seller are herein sometimes referred to individually as “Party” and collectively as “Parties” where appropriate.  

WITNESSETH:  

WHEREAS, on July 31, 1986, Consumers and Tondu Energy Systems, Inc. entered into a power purchase agreement, as amended by Amendment No. 1, dated April 30, 1987 (the “Agreement”), for the purposes of establishing the terms and conditions under which Consumers will purchase from Seller electric energy output which Seller has available from its Tondu Energy Systems Filer City Station Plant; and  

WHEREAS, the Parties entered into a Facilities Agreement dated June 12, 1988 (as may be amended, the “FA”); and  

WHEREAS, Consumers consented to an assignment of the Agreement and FA from Tondu Energy Systems, Inc. to Western Michigan Cogeneration Limited Partnership ("WMC") and a reassignment of the Agreement and FA from WMC to Seller pursuant to a Consent and Agreement dated August 18, 1988; and  

WHEREAS, the Seller desires to convert the Tondu Energy Systems Filer City Station Plant’s fuel from coal to natural gas and thereby reduce the Plant’s environmental emissions, increase the electric capacity and energy made available to Consumers through the optimization of its equipment configuration, increase the Plant’s thermal efficiency, reduce the price of electricity to Consumers, and continue to provide low-cost cogenerated process steam to its steam host; and
WHEREAS, to accomplish such conversion and realize the associated benefits, the Parties desire to further amend the Agreement as hereinafter provided in this Amendment No. 2;

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein set forth, the Parties hereto agree as follows:

**Article 1.**

The following are conditions precedent to the effectiveness of this Amendment No. 2:

a. A final order issued by the Michigan Public Service Commission ("MPSC") approving the Agreement as amended by Amendment No. 2, for the purposes of Michigan Public Act 304 of 1982, as amended ("Act 304"), Michigan Public Act 81 of 1987, as amended, and all other applicable law. Such final order shall in all other material respects be reasonably satisfactory to Consumers, and, unless this provision is waived by Consumers, shall no longer be subject to being overturned or modified on appeal. This Amendment No. 2 shall also be voidable by Seller, in its sole discretion, if the MPSC requires any material change hereto.

b. Seller shall obtain a final order from the Federal Energy Regulatory Commission ("FERC") approving the recertification of the Converted Plant as a Qualifying Facility ("QF"), pursuant to 18 C.F.R. § 292.207(b). Such final order shall in all other material respects be reasonably satisfactory to Consumers, and unless this provision is waived by Consumers, shall no longer be subject to being overturned or modified on appeal.

c. Consumers and Seller shall obtain a final order from FERC either (a) finding that this Agreement as amended by Amendment No 2 is “a contract executed on or before March 17, 2006 or made pursuant to a state regulatory authority’s implementation of section 210 the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 824a-1,” such that sales of Contract Energy made pursuant to this Agreement are exempt from Sections 205 and 206 of the Federal Power Act or (b) otherwise authorizing sales of Contract Energy from Seller to Consumers under...
Section 205 of the Federal Power Act. Such final order shall in all other material respects be reasonably satisfactory to Consumers, and unless this provision is waived by Consumers, shall no longer be subject to being overturned or modified on appeal; and

Within ten business days after the completion of all three of the forgoing conditions precedent, Consumers shall issue a letter ("CP Completion Letter") acknowledging such, and Amendment No. 2 shall become effective as of the date of the CP Completion Letter. Consumers shall inform Seller upon completion of each of the above conditions precedent.

In the event these conditions precedent are not completed prior to March 31, 2021 then this Amendment No. 2 shall be rendered void ab initio.

Article 2.

Section 1 of the Agreement, Definitions, shall be amended as follows:

The following language shall be inserted before the definition of Plant:

“As used in this Agreement, the terms below shall have the following meanings unless specifically stated otherwise in this Agreement. Any terms with initial capitalization not defined below or otherwise in this Agreement are as defined in the MISO Rules.”

To the end of the definition of Plant add:

“On and after the Converted Plant Initial Delivery Date, “Plant” shall mean “Converted Plant.”

To the end of the definition of Contract Capacity add:

“On and after the Converted Plant Initial Delivery Date, “Contract Capacity” shall mean the sum of the Plant RAC and any Substitute RAC for the applicable Planning Year, not to exceed 225 Zonal Resource Credits.”

To the end of the definition of Commercial Operation Date add:
"The Parties acknowledge that the Commercial Operation Date occurred on June 17, 1990."

To the end of the definition of Commercial Energy add:

"Commercial Energy definition is deleted as of the Converted Plant Initial Delivery Date."

To the end of the definition of Billing Month add:

"On and after the Converted Plant Initial Delivery Date, “Billing Month” means a calendar month in which the Contract Capacity is deemed delivered and/or Contract Energy is delivered."

At the end of Section 1. of the Agreement add the following:

“Capacity Purchase Price” – Means: (i) if the Converted Plant Initial Delivery Date occurs on June 1, 2018, the price of $13,380/ZRC-Month escalated annually beginning June 1, 2019 by one-half of the percentage change in CPI from April preceding the current Planning Year compared to CPI for April 2018; or (ii) if the Converted Plant Initial Delivery Date occurs on June 1, 2019, the price of $12,681 ZRC-Month escalated annually beginning June 1, 2020 by one-half of the percentage change in CPI from April preceding the current Planning Year compared to CPI for April 2019; or (iii) if the Converted Plant Initial Delivery Date occurs on June 1, 2020, the price of $12,281/ZRC-Month escalated annually beginning June 1, 2021 by one-half of the percentage change in CPI from April preceding the current Planning Year compared to CPI for April 2020; or (iv) if the Converted Plant Initial Delivery Date occurs on June 1, 2021, the price of $11,631/ZRC-Month escalated annually beginning June 1, 2022 by one-half of the percentage change in CPI from April preceding the current Planning Year compared to CPI for April 2021; or (v) if the Converted Plant Initial Delivery Date occurs on June 1, 2022, the price of $10,931/ZRC-Month escalated annually beginning June 1, 2023 by one-half of the percentage change in CPI from April preceding the current Planning Year compared to CPI for April 2022.
"Contract Energy" – Means the amount of hourly electric energy equal to Contract Capacity for each hour included in a Scheduled Delivery Period in MISO’s day-ahead energy market and delivered by Seller to Consumers.

"Converted Plant" - shall mean the natural gas-fueled, cogeneration electric generating facility known as the "Tondu Energy Systems Filer City Station Plant" located in Filer Township, Manistee County, Michigan which shall include, but not be limited to: generating equipment, including auxiliary and back-up; transformers; electric delivery facilities; fuel handling equipment; administrative structures; and such other necessary and related facilities, equipment and structures associated with the generation of electricity and steam.

"Converted Plant Initial Delivery Date" - Shall have the meaning defined in Section 3 (b) of the Agreement.

"Cost of Production" or "COP" – Means the hourly sum of: (1) the product of Gas Price and Heat Rate, and (2) $5/MWh escalated annually beginning June 1, 2018 by the percentage change in CPI from April preceding the current Planning Year compared to April 2017, expressed in $/MWh.

"CPNode" – Means the CONS.FILERCITY node or successor generation commercial pricing node as established with MISO for the Converted Plant located at 138 kV or higher voltage if available at the Converted Plant substation (or corrected to 138 kV or higher voltage if available at the Converted Plant substation).

"CPI" – Means the year-to-year change in the U.S. Bureau of Labor Statistics' Consumers Price Index for All Urban Consumers, all items, U. S. city average (Series ID CUUR0000SA0) in the United States, not seasonally adjusted, (Base Year: 1982-1984) for the month of April.

"Delivery Day" – Means the day of energy delivery from Seller to Consumers.

"Effective Date" – Means the date Amendment No. 2 to the Agreement becomes effective as described in Article 1 therein.

"Gas Price" – Means the price (in $/MMBtu and rounded to the nearest tenth of a cent) applicable to each hour of each calendar day equal to the "Midpoint" of the "Common Range" for DTE Gas Company’s MichCon city-gate location as published by Platts’ Gas Daily in the Daily Price Survey (or its successor or substitute publication as mutually agreed to by the Parties) for gas flow that begins that same calendar day plus the cost to deliver gas from the MichCon city-gate location to the Converted Plant meter(s).
Seller shall provide monthly transportation statements setting forth the cost to deliver gas from the MichCon city-gate location to the Converted Plant meter(s). In the event that Platts (or any successor) does not publish a Gas Price for gas flow that begins on a calendar day, then the Gas Price for such a calendar day shall be the Gas Price in effect for the nearest previous calendar day.

"Heat Rate" – Means 7.6 MMBtu/MWh.

"Interconnection Agreement" – Means the agreement between Seller and the applicable electric transmission system owner and/or operator, which describes the terms and conditions regarding the connection of the Converted Plant to such electric transmission system owner and/or operator. For the purposes of this Agreement, Consumers is not an applicable electric transmission system owner and/or operator.

"LMP" – Means the Locational Marginal Price calculated by MISO at the Converted Plant’s CPNode.

"Market Disruption Event" – Means, with respect to the Gas Price as published by Platts (or any successor), any of the following events: (a) the failure of Platts to announce or publish information necessary for determining the Gas Price at the MichCon city-gate; (b) the failure of trading to commence or the permanent discontinuation or material suspension of trading of natural gas at the MichCon city-gate; (c) the temporary or permanent discontinuance or unavailability of the information necessary for determining the Gas Price at the MichCon city-gate; (d) the temporary or permanent closing of any exchange that supplies information to determine the Gas Price at the MichCon city-gate; or (e) a material change in the formula for or the method of determining the Midpoint price of natural gas at the MichCon city-gate. Notwithstanding the foregoing, a Market Disruption Event shall only apply to those calendar days that the Parties expect Gas Price information to be published.

"MISO" – Means Midcontinent Independent System Operator, Inc. including any successor thereto and subdivisions thereof.

"MISO Rules" – Means the Open Access Transmission, Energy and Operating Reserve Markets Tariff, including all schedules or attachments thereto, of MISO, as amended from time to time, including any successor tariff or rate schedule approved by the Federal Energy Regulatory Commission, together with any applicable MISO Business Practice Manual as amended from time to time.

"Plant RAC" – the Zonal Resource Credits, or subsequent measurement of RAC by MISO, awarded to the Converted Plant each Planning Year.
“Replacement Price” – Means the price at which Consumers, acting in a commercially reasonable manner, purchases replacement Zone 7 RAC for RAC not delivered by Seller, as provided in accordance with Section 10(d)(i), plus costs reasonably incurred by Consumers in purchasing such replacement RAC acting in a commercially reasonable manner.

“Resource Adequacy Capacity” or “RAC” – Capacity that Consumers can claim for the applicable Billing Month to meet Consumers’ capacity, installed reserve, resource adequacy or other similar requirements as established by (a) any regulatory agency and/or (b) any electric power reliability organization (e.g., MISO, the North American Electric Reliability Corporation), that has jurisdiction over Consumers. As of the Effective Date, RAC is expressed in Zonal Resource Credits or ZRCs.

“Scheduled Delivery Period” – means for each calendar day, beginning with the Converted Plant Initial Delivery Date and ending with the Termination Date, the period, if any, not less than 8 consecutive hours or more than 24 hours deemed by Consumers to provide maximum positive net energy value by subtracting the sum of the hourly COP from the sum of the hourly Day-Ahead LMP for all hours of the Scheduled Delivery Period. Each Scheduled Delivery Period shall be determined by Consumers and communicated electronically to Seller by 5pm EPT of each day before the Delivery Day. Each Scheduled Delivery Period shall not be for more than one calendar day.

“Substitute RAC” – means MISO Zone 7 RAC procured by Seller and delivered to Consumers in accordance with Section 3.

Article 3.

Section 2 of the Agreement, Effective Date and Term, is amended by inserting the following at the end thereof:

“Notwithstanding the foregoing, beginning on the Converted Plant Initial Delivery Date, the term shall be extended to a date that is fifteen (15) Planning Years after the Converted Plant Initial Delivery Date.”

Article 4.

Section 3 of the Agreement, Energy To Be Delivered by Seller to Consumers, is amended by inserting the following at the end thereof:

“On and after the Converted Plant Initial Delivery Date, the above three paragraphs shall no longer be applicable.

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(a) Converted Plant

Subject to the terms and conditions of this Agreement, beginning with the Converted Plant Initial Delivery Date and continuing until the termination of this Agreement, Seller agrees to sell and supply to Consumers, and Consumers agrees to accept and purchase from Seller, all Plant RAC and Substitute RAC that Seller delivers to Consumers under this Agreement up to Contract Capacity. Compensation for such Contract Capacity shall be paid in accordance with Subsection 10(d), Converted Plant Compensation. Any Plant RAC in excess of Contract Capacity shall remain the property of the Seller and may be sold to any third party of Seller’s choice.

Seller shall accomplish delivery of Contract Capacity hereunder by submitting the appropriate transactions in the Module E Capacity Tracking tool ("MECT") to electronically assign such capacity to Consumers. Consumers shall accomplish receipt of Contract Capacity by confirming the appropriate transaction(s) submitted by Seller in the MECT. Seller and Consumers shall accomplish delivery and receipt of Contract Capacity by submitting and confirming the appropriate transaction(s) in the MECT three (3) Business Days prior to the annual Fixed Resource Adequacy Plan filing date for Load Serving Entities. The submitting and confirming of the appropriate transactions in the MECT shall be conducted by the Parties in accordance with the requirements of the MISO Rules and other applicable rules adopted by the MISO regarding the MECT. Failure by Consumers to receive Contract Capacity after Seller’s delivery of such Contract Capacity has been completed shall not excuse Consumers’ obligation to pay for such Contract Capacity.

Subject to the terms and conditions of this Agreement, beginning on the Converted Plant Initial Delivery Date and continuing until the termination of this Agreement, Seller agrees to sell and deliver to Consumers, and Consumers agrees to purchase and accept from Seller, Contract Energy. Seller shall accomplish delivery of Contract Energy hereunder by submitting the appropriate transactions in the MISO Portal to electronically assign Contract Energy to Consumers. Consumers shall confirm the appropriate transaction(s) submitted by Seller in the MISO Portal. Seller and Consumers shall accomplish delivery and receipt of Contract Energy by submitting and confirming the appropriate transaction(s) in the MISO Portal prior to the Settlement close of each operating date. The submitting and confirming of the appropriate transactions in the MISO Portal shall be conducted by the Parties in accordance with the requirements of the MISO Rules and other applicable rules adopted by the MISO regarding the MISO Portal. Compensation for such Contract Energy shall be paid in accordance with Subsection 10(d), Converted Plant Compensation.
Compensation. Any electric energy output in excess of Contract Energy shall remain the property of Seller and may be sold to any third party of Seller’s choice.

In the event of a Forced Outage of the Converted Plant, Seller shall provide for replacement energy for all Scheduled Delivery Periods of Contract Energy pursuant to Section 10(d)(ii) hereof. There shall be no Scheduled Delivery Periods of Contract Energy during any Planned Outages of the Converted Plant in the months of March through May, and September through December.

Seller, or its agent, shall act as the Market Participant with MISO for the Plant, and accomplish delivery of Contract Energy to Consumers through Financial Schedules settled in MISO’s day-ahead energy market.

(b) Converted Plant Initial Delivery Date

The “Converted Plant Initial Delivery Date” will be the first day of June following the day all of the following conditions precedent have been satisfied:

(i) Seller shall have provided proof to Consumers that it has an executed Interconnection Agreement for the Converted Plant and that it has been authorized under the terms of such agreement to begin parallel operation.

(ii) Seller shall have transferred to Consumers through the MECT the Contract Capacity for the Planning Year beginning the following June 1st on or before three (3) business days prior to the Fixed Resource Adequacy Plan filing date for Load Serving Entities for such Planning Year.

If the Converted Plant Initial Delivery Date fails to occur on or before June 1, 2022, Consumers shall have the right to terminate Amendment No. 2 to the Agreement upon written notice to Seller prior to such date, in which case the Parties shall revert to the Agreement as it existed prior to the Effective Date; provided, that Consumers hereby agrees that the Plant may be fueled by natural gas.

(c) Market Disruption Event

If a Market Disruption Event has occurred and is continuing for one or more days, the Gas Price for each such day shall be determined pursuant to the Gas Price specified for the first day thereafter on which no Market Disruption Event exists; provided, however, if the Gas Price is not so determined within three (3) Business Days after the first day on which the Market Disruption Event occurred or existed, then the Parties shall negotiate in good faith to agree on a Gas Price (or a method for determining a Gas Price), and if the Parties have not so agreed on or before the twelfth (12th) Business Day following the first day on which the Market Disruption Event occurred or
existed, then the Gas Price shall be determined by each Party obtaining in good faith two dealer quotes obtained from leading dealers in the relevant market that are not an affiliate and averaging the four quotes.

(d) Michigan Public Act 286 of 2008

On and after the Converted Plant Initial Delivery Date Consumers shall no longer be liable to make payments to Seller in accordance with section 6a of Michigan Public Act 286 of 2008, MCL 460.6a (7)-(9), except that Consumers shall remain obligated to make such payments for power delivered prior to the Converted Plant Initial Delivery Date to the extent required by law.

(e) Changes In Law

If at any time after the execution of Amendment No. 2 to the Agreement there is a change in applicable law or regulation, including but not limited to laws or regulations of the State of Michigan, the Federal Energy Regulatory Commission or MISO, or in the event MISO ceases or modifies its operations or rules, such that any such changes in law or regulation or MISO modifications have a material effect on this Agreement or either Party’s obligations under this Agreement, then the Parties shall further amend this Agreement or enter into other agreements reasonably necessary to preserve and maintain the business agreement between the Parties described in this Agreement as of the Effective Date of this Agreement and the material terms and provisions of such relationship contemplated in this Agreement."

Article 5.

Section 5 of the Agreement, Point of Delivery, is amended by adding the following sentence at the end thereof: “Upon full execution of the Interconnection Agreement, the point of delivery which Seller shall sell and deliver hereunder shall be the CPNode as designated in the Interconnection Agreement.”

Article 6.

Section 8 of the Agreement, Facilities, is amended by adding the following sentence at the end thereof: “Upon full execution of the Interconnection Agreement the Facilities Agreement between the Parties dated June 12, 1988 (as may be amended) shall be terminated effective as of the effective date of the Interconnection Agreement.”

Article 7.
Section 10 of the Agreement, Compensation for Commercial Energy, is amended by inserting the following at the end thereof:

“(d) Converted Plant Compensation

Except for compensation for capacity and energy supplied by Seller to Consumers during the months prior to the Converted Plant Initial Delivery Date, on and after the Converted Plant Initial Delivery Date Subsections 10(a), 10(b) and 10(c) above shall no longer be applicable and all compensation under this Agreement shall be in accordance with this Subsection 10(d).

(i) Capacity Payment

Commencing with the month in which the Converted Plant Initial Delivery Date occurs, and continuing for the term of this Agreement, Consumers shall pay Seller the Capacity Purchase Price on Contract Capacity delivered by Seller. Such payments shall be made on a monthly basis.

Subject to the terms and conditions of this Agreement, for any Planning Year, beginning with the first full Planning Year after the Converted Plant Initial Delivery Date occurs, in which Seller fails to deliver at least 200 Zonal Resource Credits, or a successor RAC measurement determined by MISO, to Consumers, Seller shall pay Consumers the positive difference, if any, obtained by subtracting the Capacity Purchase Price from the Replacement Price and multiplying such positive difference, if any, by the portion of the 200 Zonal Resource Credits, or a successor RAC measurement determined by MISO, which Seller failed to deliver.

(ii) Energy Payment

Commencing with the month in which the Converted Plant Initial Delivery Date occurs and continuing for the term of this Agreement, Consumers shall pay Seller for each hour within a Scheduled Delivery Period, the product of the COP and the Contract Energy delivered by Seller to Consumers (whether or not received by Consumers) during each Billing Month thereafter. Such payments shall be made on a monthly basis.

Subject to the terms and conditions of this Agreement, in the event that Seller fails to deliver Contract Energy to Consumers during any Billing Month beginning with the Billing Month in which the Converted Plant Initial Delivery Date occurs, then Seller shall pay Consumers the positive difference, if any, obtained by subtracting the COP from the day-ahead LMP for the Converted Plant's CPNode and multiplying such positive difference, if any, by the Contract Energy for each hour which Seller failed to deliver."
Article 8.
Section 11 of the Agreement, Administrative Charge, is amended by inserting the following at the end thereof:

"Beginning with the month in which the Converted Plant Initial Delivery Date occurs, this Section 11 shall no longer be applicable."

Article 9.
Section 12 of the Agreement, Early Termination, is amended by inserting the following at the end thereof:

"On and after the Converted Plant Initial Delivery Date, the above two paragraphs shall no longer be applicable.

(a) Failure to Deliver
If, after three (3) Planning Years following the Planning Year ending immediately preceding the Converted Plant Initial Delivery Date and after each succeeding Planning Year thereafter, that the prior three-year average of the Plant RAC delivered to Consumers is 125 Zonal Resource Credits, or a successor RAC measurement determined by MISO, or less, then Consumers shall have the right to terminate this Agreement.

Article 10.
Section 13 of the Agreement, Annual Inspection, is amended by inserting the following at the end thereof:

"On and after the Converted Plant Initial Delivery Date, the above three paragraphs shall no longer be applicable.

(a) Audits
Seller shall maintain records of all day-ahead offers made to MISO for a period not less than three (3) years and shall make such records available to Consumers during normal business hours upon 2 weeks prior notice. Upon request Seller shall provide copies of such records to Consumers."

Article 11.
Section 15 of the Agreement, Billing, is amended (1) in the first sentence by replacing the phrase “for electric energy furnished by Seller hereunder during the Billing Month” with the phrase “or Seller pursuant to Section 10, Compensation for Commercial...
Energy (2) in the third sentence by inserting the phrase "or Consumers" after the word "Seller" and the phrase "or Seller" before the word "within" and (3) at the end of Section 15 by replacing the phrase "prime rate established by the National Bank of Detroit at the close of business on the date the amount becomes past due, plus one percent" with the phrase "lesser of (i) the per annum rate of interest equal to the prime lending rate as may be from time to time published in The Wall Street Journal under Money Rates on such day (or if not published on such day on the most recent preceding day on which published), plus two (2%) percent or (ii) the maximum rate permitted by applicable law."

**Article 12.**

This Amendment No. 2 may be executed and delivered in counterparts, including by a facsimile or an electronic transmission thereof, each of which shall be deemed an original. Any document generated by the Parties with respect to this Amendment No. 2, including this Amendment No. 2, may be imaged and stored electronically and introduced as evidence in any proceeding as if original business records. Neither Party will object to the admissibility of such images as evidence in any proceeding on account of having been stored electronically.

**Article 13.**

Except as hereinabove amended, all the terms and conditions of the Agreement shall remain in full force and effect.
Article 14.

The Agreement as amended by this Amendment No. 2 shall inure to the benefit of and be binding upon the successors and assigns of the respective parties.

CONSUMERS ENERGY COMPANY

By: Patricia K. Poppe
Name: Patricia K. Poppe
Title: President and Chief Executive Officer

T.E.S. FILER CITY STATION LIMITED PARTNERSHIP

By: Western Michigan Cogeneration Limited Partnership, General Partner

By: TONDU CORPORATION, General Partner

By: ____________________________
Name: ____________________________
Title: ____________________________

By: CMS GENERATION FILER CITY, Inc., General Partner

By: ____________________________
Name: ____________________________
Title: ____________________________

Review and Approvals

Contracts: 4/25/2017

Risk: 4/3/17

Legal: 4/25/17
Article 14.
The Agreement as amended by this Amendment No. 2 shall inure to the benefit of and be binding upon the successors and assigns of the respective parties.

CONSUMERS ENERGY COMPANY

By: ____________________________
Name: Patricia K. Poppe
Title: President and Chief Executive Officer

T.E.S. FILER CITY STATION LIMITED PARTNERSHIP

By: Western Michigan Cogeneration Limited Partnership, General Partner

By: TONDU CORPORATION, General Partner

By: ____________________________
Name: B.J. Londry
Title: President

By: CMS GENERATION FILER CITY, Inc., General Partner

By: ____________________________
Name: ____________________________
Title: Richard R. Mukhtar President & CEO
**T.E.S. FILER CITY STATION POWER PURCHASE AGREEMENT AMENDMENT NO. 2**

**COMPARISON OF NET PRESENT VALUE OF CUSTOMER SAVINGS**

<table>
<thead>
<tr>
<th>Capacity Price</th>
<th>Gas Price</th>
<th>-25%</th>
<th>BAU</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% MISO CONE</td>
<td></td>
<td>$7</td>
<td>$32</td>
<td>$38</td>
<td>$40</td>
<td>$41</td>
<td>$43</td>
</tr>
<tr>
<td>25% MISO CONE</td>
<td></td>
<td>($32)</td>
<td>($6)</td>
<td>($1)</td>
<td>$2</td>
<td>$3</td>
<td>$4</td>
</tr>
<tr>
<td>50% MISO CONE</td>
<td></td>
<td>($71)</td>
<td>($45)</td>
<td>($40)</td>
<td>($37)</td>
<td>($36)</td>
<td>($34)</td>
</tr>
<tr>
<td>75% MISO CONE</td>
<td></td>
<td>($110)</td>
<td>($84)</td>
<td>($79)</td>
<td>($76)</td>
<td>($75)</td>
<td>($73)</td>
</tr>
<tr>
<td>100% MISO CONE</td>
<td></td>
<td>($148)</td>
<td>($122)</td>
<td>($117)</td>
<td>($115)</td>
<td>($113)</td>
<td>($112)</td>
</tr>
</tbody>
</table>

7.65% Discount Rate
Discounted to January 1, 2017
T.E.S FILER CITY STATION POWER PURCHASE AGREEMENT AMENDMENT NO. 2
CUSTOMER COST AND SAVING BY YEAR

- 0% CONE and -25% Gas Price
- 0% CONE and 100% Gas Price
- 50% CONE and BAU Gas Price
- 100% CONE and -25% Gas Price
- 100% CONE and 100% Gas Price

CONVERTED PLANT INITIAL DELIVERY DATE - JUNE 1, 2019
### Consumers Energy

#### Embedded Capacity Cost Calculation and Comparison to Affiliate Offer Prices

**U-17990 - $/Peak kW Sales**

<table>
<thead>
<tr>
<th>Line</th>
<th>Description</th>
<th>($000)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total Capacity*</td>
<td>2,013,815</td>
<td>COSS Model, Production tab, Line 221</td>
</tr>
<tr>
<td>2</td>
<td>Less: Transmission Expense</td>
<td>(426,355)</td>
<td>COSS Model, Production tab, Line 190</td>
</tr>
<tr>
<td>3</td>
<td>Less: Critical Peak Summer Purchased Power</td>
<td>(35,123)</td>
<td>COSS Model, Production tab, Line 1111</td>
</tr>
<tr>
<td>4</td>
<td>Adjusted Capacity</td>
<td>1,552,337</td>
<td>Sum Lines 1 - 3</td>
</tr>
<tr>
<td>5</td>
<td>Bundled Test Year Max Demand - MW @ System Output</td>
<td>7,758</td>
<td>EM Breuring</td>
</tr>
<tr>
<td>6</td>
<td>Test Year Projected Sales - GWH</td>
<td>33,911</td>
<td>Exhibit A-10 (EMB-3); Page 2, Line 14, Column (e)</td>
</tr>
<tr>
<td>7</td>
<td>Test Year Projected System Output - GWH</td>
<td>36,192</td>
<td>Exhibit A-10 (EMB-3); Page 2, Line 14, Column (h)</td>
</tr>
<tr>
<td>8</td>
<td>Sales Conversion Factor</td>
<td>0.937</td>
<td>Lines 6/Line 7</td>
</tr>
<tr>
<td>9</td>
<td>Bundled Test Year Max Demand - MW @ Sales</td>
<td>7,269</td>
<td>Line 5 * Line 8</td>
</tr>
<tr>
<td>10</td>
<td>Consumers Embedded Capacity: $/Peak kW Sales</td>
<td>214</td>
<td>Line 4 / Line 9</td>
</tr>
<tr>
<td>11</td>
<td>Consumers Embedded Capacity: $/MW-Year</td>
<td>213,554</td>
<td>Line 10 * 1,000</td>
</tr>
<tr>
<td>12</td>
<td>Consumers Embedded Capacity + 10%: $/MW-Year</td>
<td>234,910</td>
<td>Line 11 * 1.1</td>
</tr>
<tr>
<td>13</td>
<td>T.E.S. Filer City Station Limited Partnership: $/MW-Year</td>
<td>160,560</td>
<td>Exhibit A-2 (DFR-2), page 4, June 1, 2018 rate x 12</td>
</tr>
<tr>
<td>14</td>
<td>T.E.S. Filer City Station Limited Partnership: $/MW-Year</td>
<td>184,560</td>
<td>Exhibit A-2 (DFR-2), page 4, June 1, 2018 rate x 12 adjusted by 1% for 14 years</td>
</tr>
</tbody>
</table>

*Includes Generation Investment return and related costs, Purchased Capacity, Transmission and Critical Peak Summer Purchased Power; Excludes Renewable Generation Related Costs