

## STATE OF MICHIGAN

## BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application  
OF CONSUMERS ENERGY COMPANY for  
authority to increase its rates  
for the generation and distribution  
of electricity, and for other  
relief.

Case No. U-17735

Volume No. 6

PUBLIC RECORD

## CROSS-EXAMINATION

Proceedings held in the above-entitled  
matter before Mark E. Cummins, Administrative Law Judge  
with MAHS, at the Michigan Public Service Commission,  
7109 West Saginaw, Lake Michigan Room, Lansing, Michigan,  
on Thursday, June 11, 2015, at 9:05 a.m.

APPEARANCES:

BRET A. TOTORAITIS, ESQ.  
KELLY M. HALL, ESQ.  
ANNE M. UITVLUGT, ESQ.  
ROBERT BEACH, ESQ.  
Consumers Energy Company  
One Energy Plaza, Room EP11-223  
Jackson, Michigan 49201

On behalf of Consumers Energy Company

CHRISTOPHER M. BZDOK, ESQ.  
Olson Bzdok & Howard, PC  
420 East Front Street  
Traverse City, Michigan 49686

On behalf of Michigan Environmental Council,  
National Resources Defense Council, and  
Citizens Against Rate Excess

(Continued)

Metro Court Reporters, Inc. 248.426.9530

1 APPEARANCES Continued:

2 DON L. KESKEY, ESQ.  
3 Public Law Resource Center, PLLC  
4 333 Albert Avenue, Suite 425  
5 East Lansing, Michigan 48823

6 On behalf of Michelle Rison and the  
7 Residential Customer Group

8 JOHN JANISZEWSKI,  
9 Assistant Attorney General  
10 525 W. Ottawa Street, 7th floor  
11 P.O. Box 30755  
12 Lansing, Michigan 48909

13 On behalf of Attorney General Bill Schuette

14 LAUREN DONOFRIO,  
15 AMIT T. SINGH,  
16 BRYAN A. BRANDENBURG,  
17 GRAHAM FILLER,  
18 Michigan Department of Attorney General  
19 7109 West Saginaw, Floor 3  
20 Lansing, Michigan 48917

21 On behalf of Michigan Public Service  
22 Commission Staff

23 - - -

24 REPORTED BY: Marie T. Schroeder, CSR-2183  
25 Lori Anne Penn, CSR-1315

I N D E X

2	<u>WITNESS:</u>	<u>PAGE</u>
3	DANIEL L. HARRY	
4	Direct Examination by Mr. Beach	634
	Cross-Examination by Mr. Janiszewski	662
5	Cross-Examination by Mr. Keskey	669
6	DAVID B. KEHOE	
7	Direct Examination by Mr. Beach	674
	Cross-Examination by Mr. Keskey	738
8	Cross-Examination by Mr. Janiszewski	739
	Cross-Examination by Mr. Bzdok	752
9	HUBERT W. MILLER, III	
10	Direct Examination by Ms. Uitvlugt	758
11	Cross-Examination by Mr. Janiszewski	781
	Cross-Examination by Mr. Bzdok	788
12	Cross-Examination by Mr. Keskey	791
13	MICHAEL J. WILLIAMS	
14	Direct Examination by Ms. Uitvlugt	803
	Cross-Examination by Mr. Keskey	816
15	CHRISTOPHER J. VARVATOS	
16	Direct Examination by Ms. Uitvlugt	830
17	Cross-Examination by Mr. Janiszewski	883
	Cross-Examination by Mr. Keskey	
18	R. MICHAEL STUART	
19	Direct Examination by Ms. Hall	907
20	LINCOLN D. WARRINER	
21	Direct Examination by Ms. Hall	926
22	Cross-Examination by Mr. Bzdok	984
	Cross-Examination by Mr. Janiszewski	990
23	Cross-Examination by Ms. Donofrio	1005
24		
25		

E X H I B I T S

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>MRKD</u>	<u>OFRD</u>	<u>RECD</u>
3	A-10 (Miller) HWM-1 through HWM-4	--	761	801
4	A-29 (Harry) DLH-1	--	636	673
5	A-30 (Harry) DLH-2	--	636	673
6	A-31 (Harry) DLH-3	--	636	673
7	A-32 (Harry) DLH-4	--	636	673
8	A-33 (Harry) DLH-5	--	636	673
9	A-44 (Kehoe) DBK-1	--	677	737
10	A-45 (Kehoe) DBK-2	--	677	737
11	A-46 (Kehoe) DBK-3	--	677	737
12	A-47 (Kehoe) DBK-4	--	677	737
13	A-48 (Kehoe) DBK-5	--	677	737
14	A-69 (Varvatos) CJV-1	--	833	906
15	A-70 (Varvatos) CJV-2	--	833	906
16	A-71 (Varvatos) CJV-3	--	833	906
17	A-72 (Varvatos) CJV-4	--	833	906
18	A-73 (Varvatos) CJV-5	--	833	906
19	A-74 (Warriner) LDW-1	--	929	--
20	A-75 (Warriner) LDW-2	--	929	--
21	A-76 (Warriner) LDW-3	--	929	--
22	A-96 (Kehoe) DBK-6	--	677	737
23	A-97 (Kehoe) DBK-7	--	677	737
24	A-98 (Kehoe) DBK-8	--	677	737
25	A-99 (Kehoe) DBK-9	--	677	737

Metro Court Reporters, Inc. 248.426.9530

E X H I B I T S

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>MRKD</u>	<u>OFRD</u>	<u>RECD</u>
3	A-100 (Kehoe) DBK-10	--	677	737
4	A-101 (Kehoe) DBK-11	--	677	737
5	A-102 (Kehoe) DBK-12	--	677	737
6	A-103 (Kehoe) DBK-13	--	677	737
7	A-104 (Kehoe) DBK-14	--	677	737
8	A-105 (Kehoe) DBK-15	--	677	737
9	A-106 (Kehoe) DBK-16	--	677	737
10	A-107 (Kehoe) DBK-17	--	677	737
11	A-108 (Kehoe) DBK-18	--	677	737
12	A-109 (Miller) HWM-6	--	761	801
13	A-110 (Miller) HWM-7	--	761	801
14	A-111 (Miller) HWM-8	--	761	801
15	A-118 (Varvatos) CJV-6	--	833	906
16	A-119 (Varvatos) CJV-7	--	833	906
17	A-120 (Varvatos) CJV-8	--	833	906
18	A-121 (Warriner) LDW-4	--	929	--
19	A-122 (Warriner) LDW-5	--	929	--
20	A-123 (Warriner) LDW-6	--	929	--
21	A-124 (Warriner) LDW-7	--	929	--
22	MEC-38 Discovery Response 17735-MEC-DE-551 Question 18(a-b-c)	984	990	--
23				
24	MEC-39 Discovery Response 17735-MEC-CE-61 Question 12(a-b-c)	925	925	925

25

E X H I B I T S

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>MRKD</u>	<u>OFRD</u>	<u>RECD</u>
MEC-40	Discovery Response 17735-MEC-CE-62 Question 13(a-b-c)	925	925	925
MEC-41	Discovery Response 17735-MEC-CE-63 Question 14(a-b-c)	925	925	925
MEC-42	Discovery Response 17735-MEC-CE-64 Question 15	925	925	925
MEC-43	Discovery Response 17735-MEC-CE-65 Question 16	925	925	925
AG-25	Excerpt of Hubert W. Miller, III, Rebuttal Testimony in U-17735	783	787	802
S-12	CONFIDENTIAL	1005	1012	1012
S-13	CONFIDENTIAL	1005	1012	1012

1                   Lansing, Michigan

2                   Thursday, June 11, 2015

3                   At 9:05 a.m.

4                   - - -

5                   (Hearing resumed following adjournment of Thursday,  
6                   June 10, 2015.)

7                   JUDGE CUMMINS: Let's go on the record.

8                   This is a continuation of the proceedings in Case No.  
9                   U-17735. I'm Mark Cummins, the administrative law judge  
10                  assigned to this matter.

11                  Could I have the appearances of counsel,  
12                  beginning with the Applicant, please.

13                  MS. HALL: Good morning, your Honor.  
14                  Kelly Hall, Robert Beach, Bret Totoraitis, and Anne  
15                  Uitvlugt for Consumers Energy Company.

16                  MR. BRANDENBURG: Good morning, your.  
17                  Honor Bryan Brandenburg, Amit Singh, Lauren Donofrio, and  
18                  Graham Filler on behalf of the Michigan Public Service  
19                  Commission Staff.

20                  JUDGE CUMMINS: Thank you.

21                  MR. BZDOK: Good morning, Judge Cummins.  
22                  Christopher Bzdok on behalf of the Michigan Environmental  
23                  Council, the Natural Resources Defense Council, and on a  
24                  limited basis, the Citizens Against Rate Excess.

25                  JUDGE CUMMINS: Thank you. Mr. Keskey.

                  Metro Court Reporters, Inc.   248.426.9530

1 MR. KESKEY: Good morning, your Honor.  
2 Don Keskey appearing on behalf of Michelle Rison and the  
3 Residential Customer Group.

4 JUDGE CUMMINS: Thank you very much.

5 Based on agreement of the parties through  
6 some discussions we had yesterday, the first order of  
7 business today is going to be addressing several  
8 outstanding motions. The first concerns MEC's request  
9 for entry of a proposed protective order. The second  
10 matter actually involves two overlapping motions, these  
11 are the motions to strike portions of the testimony  
12 previously submitted by Geoff Crandall, these motions  
13 come from Consumers and from the Staff. Those will be  
14 addressed together for obvious reasons. The third issue  
15 is Consumers' motion to strike all of the testimony and  
16 the accompanying exhibit of one of MEC's witnesses, that  
17 being John Athas.

18 With 45 or so witnesses left I think in  
19 this case by last count, I'd like to get through these  
20 matters as expeditiously as possible. As always, rest  
21 assured I've read all of your written arguments several  
22 times, and I'm only interested in hearing anything new  
23 that you've come up with or if there's a response you  
24 haven't had an opportunity to submit, that's really all  
25 we need today. Obviously there's no need to reinvent the

1 wheel.

2 With that being said, the first issue  
3 before us is MEC's request for the protective order.  
4 There are competing protective orders, I should mention;  
5 one submitted by the MEC and one submitted by the utility  
6 company. This was a matter we dealt with and I ruled  
7 upon on May 5 of this year, I believe, and I've reviewed  
8 the arguments that were made at that time, as well as the  
9 transcript.

10 Mr. Bzdok, is there anything you'd like  
11 to add to your motion?

12 MR. BZDOK: Just very briefly. So as I  
13 understand it, and I think you have just outlined, we are  
14 not here to reargue the merits of some provision -- of  
15 whether to include some provision in the protective order  
16 that addresses MEC and NRDC's concerns as reflected in  
17 our earlier pleadings and in that motion hearing, we are  
18 simply here to settle language for an order based upon  
19 what is an accurate reflection of your ruling.

20 JUDGE CUMMINS: Right. And that  
21 corresponds with my thinking. And really what it comes  
22 down to, from my review, is simply a matter of how do we  
23 word most appropriately paragraph 12 of either of the two  
24 proposed protective orders.

25 MR. BZDOK: I absolutely agree with that.

1 Now, I go to the transcript at page 66, which you've  
2 indicated you reviewed and I don't know if you have in  
3 front of you today --

4 JUDGE CUMMINS: I don't. I looked at it  
5 this morning again.

6 MR. BZDOK: Would you like a copy?

7 JUDGE CUMMINS: No. I've already made my  
8 own notes, Mr. Bzdok.

9 MR. BZDOK: O.K. Our language in  
10 paragraph 12, the sentence that's really at issue I think  
11 is: If the protected material is relevant or reasonably  
12 calculated to lead to admissible evidence in another  
13 Commission proceeding, then it may be used in such a  
14 proceeding subject to the issuance of a new protective  
15 order in that proceeding, and then there is a limitation  
16 on that with reference to cases that occur after this  
17 proceeding in the order that we've proposed. The terms  
18 of this paragraph shall apply until the latter of (i) the  
19 resolution of Consumers Energy Company's next general  
20 electric case conducted after this one or, (ii) the  
21 resolution of any and all PSCR or PSCR reconciliation  
22 cases that may be filed before resolution of the next  
23 general rate case.

24 So there's an allowance and then there's  
25 a limitation, and that allowance and limitation we

1 believe is consistent with the intent that you expressed  
2 on page 66 when you said, with regard to the second  
3 paragraph, and I think you were looking at the block  
4 quote from the DTE order that was in our pleading, when  
5 you said:

6 Without making a prospective ruling as to the  
7 admissibility as to whether it's relevant and as to  
8 whether it might lead to relevant evidence, I still think  
9 that it should be allowed for those folks to keep hold of  
10 that and use it in future cases, however, I would limit  
11 that to general rate cases, PSCR plan cases, PSCR  
12 reconciliation cases, and as far as putting a discrete  
13 end point on it, I would say that would seem to be  
14 reasonable up through the completion of a certificate of  
15 necessity case, et cetera, et cetera.

16 So you've -- you made an allowance and  
17 you made a limitation. Consumers objects to our  
18 including that allowance in the language of paragraph 12,  
19 that language that "if the material's relevant", so you  
20 didn't make a ruling that whether it's relevant or not,  
21 you said --

22 JUDGE CUMMINS: I think I, specifically I  
23 left that as an open issue for those cases, the  
24 resolution in those cases.

25 MR. BZDOK: Correct. And you said, if  
Metro Court Reporters, Inc. 248.426.9530

1 it's relevant, they can keep hold of it and use it. And  
2 so our language says we can retain it, that's the first  
3 sentence; and the second says, if it's relevant, we can  
4 use it. I think that's all we're fighting about here,  
5 and I don't think we disagree about the limitations you  
6 put on it, and those limitations are included in our  
7 paragraph 12.

8 JUDGE CUMMINS: And I believe  
9 Mr. Totoraitis was arguing at that point, or had  
10 expressed a question that also appears in the transcript  
11 clarifying exactly that, --

12 MR. BZDOK: Yes.

13 JUDGE CUMMINS: -- what cases would be  
14 involved and what timeframe.

15 MR. BZDOK: Yes. So that's, I think  
16 that's all we're really fighting about is we interpret  
17 your ruling on page 66 to say if it's relevant -- you  
18 know, they don't want us to be able to retain it, you've  
19 ruled we can retain it, and now we're just fighting about  
20 if it's relevant, we can use it; and they're saying,  
21 well, you don't need to say that, but any tribunal speaks  
22 through its orders. So if we have an order that says one  
23 thing and then we're going back to try to interpret a  
24 transcript perhaps with you or perhaps with, more likely  
25 with another ALJ in some future case, you've got to speak

1 clearly through the orders, and so that's all we're  
2 trying do here is speak clearly. We can retain it; if  
3 it's relevant, we can use it; no decision has been made  
4 whether it's relevant, but there are certain limitations,  
5 there's an end point to all that that's based on future  
6 cases. And that's what we've tried to do, that's our  
7 intent. We're not here to re-litigate the underlying  
8 ruling, and that's what we've put in front of you.

9 JUDGE CUMMINS: Thank you, Mr. Bzdok.

10 Ms. Hall, Mr. Beach, who's going to be  
11 arguing this?

12 MS. HALL: I will. Your Honor, the  
13 Company has objection to the second sentence of paragraph  
14 12 of MEC and the NRDC's proposed protective order. That  
15 sentence is absolutely unnecessary to effectuate your  
16 ruling that you issued on May 5, 2015. It's also  
17 superfluous. It states a standard of use for a future  
18 proceeding that contains no factual circumstances which  
19 may or may not exist in some future undefined proceeding.  
20 Evidentiary as well as discoverability in a future  
21 proceeding necessarily depends on the facts and the  
22 issues being litigated in that undefined future  
23 proceeding.

24 This sentence is simply unnecessary, it  
25 states a standard of use for materials in a future

1 proceeding which can not be changed. Those standards are  
2 established in the Michigan Rules of Evidence and the  
3 Commission's Rules of Practice and Procedure. Whatever  
4 is stated in this order doesn't change the legal  
5 standards that have to govern in a future proceeding.

6 In addition, the sentence applies an  
7 incorrect evidentiary standard because in order to be  
8 admitted into evidence in some future proceeding that we  
9 don't even know what the issues will be, the standard is  
10 not whether the information could lead to admissible  
11 evidence to be used in that proceeding.

12 In order to avoid all this unnecessary  
13 confusion, the Company believes that this sentence should  
14 be stricken from the order, and our proposed protective  
15 order which was attached to our response does that. And  
16 even though the Company respectfully disagrees with your  
17 ruling, we believe the protective order that we have  
18 submitted accurately reflects the intent of your ruling  
19 as stated in the transcript from May 5, 2015.

20 JUDGE CUMMINS: Thank you, Ms. Hall.

21 MR. BZDOK: May I clarify one point?

22 JUDGE CUMMINS: Certainly, Mr. Bzdok.

23 MR. BZDOK: So if we have confidential  
24 materials and we're using them in a proceeding, there's  
25 two ways in which we may be using them. One way in which

1 we may be using them is we may be sending discovery to  
2 the Company and saying, based on confidential response X  
3 from this earlier case, you know, have you updated that  
4 or ask you questions about that, that's one form of use.  
5 So a discovery use is a reasonably calculated to lead to  
6 admissible evidence standard. Obviously if it's not  
7 admissible evidence, it can't be put into evidence, and  
8 that's the second way it can be used is to put into  
9 evidence, so we're just trying to cover all the bases  
10 here.

11 JUDGE CUMMINS: Very well.

12 Do any of the other parties want to weigh  
13 in on this? Mr. Keskey, Mr. Brandenburg?

14 MR. KESKEY: No, your Honor.

15 MR. BRANDENBURG: No, your Honor.

16 JUDGE CUMMINS: Very well. From a review  
17 of the transcript of the May 5 hearing and my statements  
18 at that, as well as the competing proposed orders with  
19 and without that second paragraph, that second sentence  
20 in paragraph 12 of MEC's proposed protective order, I do  
21 find that MEC's version is more in keeping with my ruling  
22 and it should be adopted for use in this case.

23 Specifically paragraph 12, as Mr. Bzdok pointed out,  
24 seems to best comport with my statements on pages 66  
25 through 68 of the third volume of transcript in this

1 case.

2 As an aside, while going through these  
3 again, the arguments again, Consumers had argued at one  
4 point in its response that MEC's proposal may conflict  
5 with a previously established confidentiality agreement.  
6 I just wanted to advise you that, because I needed help  
7 to structure that -- for one, I didn't sign on it, it was  
8 something just done between the parties -- that there is  
9 nothing for me to do with that, but the parties are able  
10 obviously to have available to them their rights and  
11 remedies with regard to what is said in the  
12 confidentiality agreement as well. I know there are  
13 different applications for that in the protective order,  
14 but I just wanted to be clear on that point.

15 As a result, I will sign the protective  
16 order and date it today. If the parties need copies of  
17 it immediately, I can have them made; if you want to wait  
18 until it comes up on the electronic system, we can do  
19 that, too. Which would the parties prefer?

20 MR. BZDOK: I think that's entirely at  
21 the discretion of Consumers Energy. I may have a couple  
22 of questions for Mr. Kehoe that relate to a confidential  
23 discovery response; he's aware of what response, they're  
24 aware of what response. So it may simply be a matter of  
25 whether they want anyone signing a nondisclosure

1 certificate. But I'm entirely at the discretion of  
2 Consumers on that.

3 JUDGE CUMMINS: What I will do is I'll  
4 take time at a break point, because Mr. Kehoe is going to  
5 be our second witness today is my understanding presented  
6 by the Company, what I will do is sign it manually, make  
7 copies for the folks in attendance today, and along with  
8 that will be the statement -- or the signature page on  
9 the back as well for anyone receiving information. And  
10 that will serve the purposes of everyone here today.

11 MS. HALL: Thank you, your Honor.

12 JUDGE CUMMINS: And I will either scan in  
13 that document, which I guess probably would be the best  
14 way to go, but it will be eventually on the electronic  
15 docket as well.

16 MR. BZDOK: I have sealed copies of  
17 unredacted material from Mr. Koehler for you, Judge, and  
18 for the court reporter to transmit to the Commission, and  
19 we will e-mail the same to any other parties who sign the  
20 NDA. Consumers already has it and has had it for a  
21 while.

22 JUDGE CUMMINS: O.K. Very well. I will  
23 sign that, and like I said, at break I will make enough  
24 copies for counsel in attendance today so we have that to  
25 work from if need be. That being the first issue.

1           The second one is the overlapping motions  
2 by Consumers and the Staff to strike discrete portions of  
3 Mr. Crandall's direct testimony. Consumers has seven  
4 areas that it would like stricken from the testimony, the  
5 Staff cites three areas, and each of those three areas  
6 correspond identically with some of the seven areas that  
7 Consumers had proposed. The areas that are in  
8 correspondence with each other are listed as Sections A,  
9 D, and F of Consumers' motion. What I'd like to do, I  
10 guess, is to argue these -- or address these in two  
11 different portions, but I think the arguments can be  
12 presented at the same time with all of these.

13           Because yours is more expansive, why  
14 don't we begin with the Utility's arguments, we'll go to  
15 the Staff, and then open it up after that.

16           MS. HALL: Thank you, your Honor. You  
17 correctly note that the Company has sought to strike  
18 seven portions of RCG Witness Crandall's testimony.  
19 Those seven items of testimony can be categorized by  
20 subject matter in four categories, and that's how I'm  
21 going to present the argument.

22           Items A, B, D, and F of the Company's  
23 motion to strike as identified on page 1 of that motion  
24 to strike are unqualified legal opinion, and they also  
25 constitute inadmissible hearsay. Mr. Crandall admits

1 that he's not a lawyer, he goes on to offer a legal  
2 opinion about his interpretation of what the Fourth  
3 Amendment of the United States Constitution requires with  
4 respect to AMI Smart Meters and informs the reader that  
5 his counsel advised him of this legal interpretation.  
6 That should be stricken on two grounds: Mr. Crandall's  
7 not a lawyer, he's not qualified to offer that opinion,  
8 his recitation of what his attorney may or may not have  
9 told him is hearsay, we are not -- we don't have the  
10 opportunity to cross-examine his attorney; and in  
11 addition, it is just unnecessary testimony because these  
12 legal interpretations and arguments may be presented in  
13 brief, as your Honor recognized in your ruling on the  
14 motion in limine.

15           The second substantive category of  
16 testimony relates to Item No. C identified in the  
17 Company's motion to strike, and that contains testimony  
18 in which Mr. Crandall opines on an alleged health and  
19 safety risk associated with AMI. The Company submits  
20 that this should be excluded based upon your earlier  
21 ruling on the Company's motion in limine which you made  
22 at pages 91 through 92 of the transcript in this  
23 proceeding in which you held that testimony and other  
24 evidence relating to purported health and safety concerns  
25 associated with AMI should not be included in the record

1 in this proceeding.

2 The third category of testimony set forth  
3 in Item E of the Company's motion to strike on page 1  
4 includes Mr. Crandall's proffered testimony regarding  
5 "reports of shutoffs". This constitutes inadmissible  
6 hearsay. Mr. Crandall did not provide the reports he  
7 alleges, he does not identify the alleged reporters, the  
8 individuals who may or may not have made these reports.  
9 The Company is unable to cross-examine either the alleged  
10 reports or the reporters, and the Company submits that  
11 this testimony constitutes multiple levels of hearsay.

12 In the RCG's response to the Company's  
13 motion to strike on this issue, it contends that your  
14 Honor should not exclude this hearsay evidence based upon  
15 its contention that the Company may cross-examine  
16 Mr. Crandall about these reports. This does not -- that  
17 argument in no way, shape or form cures the inherent  
18 unreliability of this hearsay testimony, and that is  
19 exactly why the hearsay rule exists, so that the  
20 cross-examiner may cross-examine the party who made the  
21 statement, not a third party who quotes a statement. So  
22 the Company asks that you reject that argument made in  
23 the RCG's response.

24 The fourth and final category of  
25 testimony which should be stricken is set forth in Item G

1 on page 1 of the motion to strike, and the testimony  
2 identified in that item sets forth Mr. Crandall's  
3 opinions about data privacy and use of the data collected  
4 through AMI meters. The Company submits that this also  
5 should be excluded based upon your earlier ruling on the  
6 motion in limine in which you correctly held that issues  
7 relating to data privacy associated with AMI meters  
8 should not be addressed in this proceeding.

9 For those reasons and the reasons set  
10 forth in the motion to strike, the Company respectfully  
11 requests you to strike those identified portions of  
12 Mr. Crandall's offered testimony.

13 JUDGE CUMMINS: Thank you, Ms. Hall.

14 Who's going to be presenting on Staff's  
15 behalf? O.K. Please proceed.

16 MR. FILLER: Staff, obviously we stand on  
17 our brief, and so just two main focuses. An expert can  
18 testify on the things he's an expert in, but it's  
19 inappropriate to use that testimony as some kind of  
20 vehicle to get his lawyer's legal statements into  
21 evidence. As Consumers pointed out, that can be saved  
22 for briefs.

23 And then the second point is that  
24 witnesses can not just testify on random statements and  
25 then claim it's O.K. and claim they're noticing the

1 Commission; it would leave something open for a witness  
2 to say whatever they wanted to say.

3 Other than that, your Honor, that's all,  
4 and we ask that the portions pointed out in our brief be  
5 struck.

6 JUDGE CUMMINS: Thank you, Mr. Filler.

7 Mr. Keskey.

8 MR. KESKEY: Yes. With respect to the  
9 four points made by the Company and the Staff, first of  
10 all, with respect to the reference to notifying the  
11 parties of the issue, of a legal issue, but also with the  
12 condition that obviously the witness himself is saying  
13 he's not being presented as an expert legal authority,  
14 this -- this has been done in many, many, many rate cases  
15 where the utility have presented witnesses who either  
16 have testified regarding legal matters or they've  
17 outright said that their counsel has advised them that  
18 X, Y, and Z, and I presented three examples in our  
19 response, but there are many more. So taking that model,  
20 this simply used the same approach, and I guess if it's  
21 O.K. for the utilities to do that repeatedly, then it  
22 should be O.K. for an intervenor to do so.

23 The fact that it can be put in brief is  
24 true, and it will be, but that does not mean that there's  
25 any harm or prejudice to any party, or any reason to

1 strike the reference, because it actually provides early  
2 notice to the parties of the issue. If they wish to  
3 respond to any factual bases for the legal issue that may  
4 arise, they are given an early opportunity to do so.

5 As far as the hearsay argument, the  
6 Commission Rules expressly provide that the Commission is  
7 not bound absolutely by the hearsay rule, it has its own  
8 rule that it can accept information that reasonable  
9 people would accept and that the Commission itself has  
10 the expertise to decide these matters in this kind of  
11 administrative/legislative type proceeding.

12 With respect to the reference of the  
13 witness indicating one of the advantages of an opt-in  
14 approach, one that would provide advanced clear notice to  
15 each customer and advanced written consent of each  
16 individual customer before they have a Smart Meter  
17 installed on their home, he's not testifying about the  
18 health issues, safety issues, or risks, he is simply  
19 saying that one of the advantages of the, what we call an  
20 opt-in tariff rather than an opt-out tariff is that it  
21 automatically provides the customer the opportunity to  
22 not have a Smart Meter if that customer in his own  
23 private information believes that he has a health issue,  
24 safety issue, or privacy issue. That's all it's saying.  
25 And that is a good thing to point out. It's true. And

1 that's one way to address these concerns, by at least  
2 empowering the customer to make that decision. The  
3 Company doesn't know everything about each customer or  
4 what kind of situation they're in. And quite simply,  
5 that's all it says. It's not even addressing risks of  
6 health or safety, it is simply saying that a different  
7 tariff approach would be superior to the one that is  
8 currently in place because of that factor or that point.

9           With respect to the third argument about  
10 reports of shutoffs, the Company says, well, he hasn't  
11 put reports into testimony. Well, the Company could have  
12 asked for that in discovery, and they did not. The  
13 Commission, I believe, is receiving customer complaints,  
14 formal complaints, informal complaints about this.  
15 Certainly the Commission would make the, perhaps the  
16 Administrative Law Judge, and we would ask for this,  
17 should take judicial notice of reports, informal and  
18 formal complaints about utility shutoffs over the Smart  
19 Meter issue. And so that testimony simply does not harm  
20 or prejudice anyone.

21           As far as the hearsay argument, again,  
22 the MPSC rules don't strictly adhere to a hearsay  
23 situation, and the Commission can simply be alerted to  
24 that point and compare it to what it knows in its  
25 experience.

1                   With respect to the fourth area about  
2                   Mr. Crandall's pointing out that there are concerns about  
3                   data collection and ownership and transfers, this is  
4                   certainly a well-known point. There is a concern by  
5                   customers about data collection. The granular type data  
6                   collection on a second-by-second basis, transferring it  
7                   wirelessly to some other party, the utility, where then  
8                   it, as in many data collection situations, the data can  
9                   be subject to transfer, sale, obtaining by other parties,  
10                  and this involves data regarding a customer's home, which  
11                  is the last bastion of privacy where there's a strong  
12                  policy by the federal courts to preserve the expectation  
13                  of privacy. And so the witness is simply pointing this  
14                  out, that, again, he's addressing it in terms of the  
15                  tariff options, that a better option exists, and that is  
16                  to have what we would call an opt-in approach rather than  
17                  an opt-out approach, which, again, automatically  
18                  addresses the privacy concern because a customer, if he  
19                  consents to a Smart Meter, is automatically consenting  
20                  and waiving his concerns about data collection. That's  
21                  all it's saying.

22                         In these ways several of these points  
23                         brought by the witness are addressing the tariff, are  
24                         addressing the tariff language, are addressing a balance  
25                         between the rights of the utility and the rights of the

1 customers, much in the sense that the Michigan Supreme  
2 Court mentioned in City of Detroit vs. MPSC, a 1944 case,  
3 which has been cited many times thereafter. There's a  
4 balance between the customer and the utility, it's not  
5 one where the utility just simply overrides any respect  
6 for the customer's rights or the customer's own concerns.

7 So, your Honor, because the  
8 Administrative Law Judge and the Commission are fully  
9 capable of deciding what weight to be given to these  
10 points, these succinct points made by the witness, the  
11 idea of an outright striking of the testimony is  
12 draconian and unnecessary.

13 JUDGE CUMMINS: Thank you, Mr. Keskey.

14 MR. KESKEY: Thank you.

15 JUDGE CUMMINS: Mr. Bzdok, do you have a  
16 position on this?

17 MR. BZDOK: No.

18 JUDGE CUMMINS: Is there a need for  
19 response?

20 MS. HALL: I just have a very brief  
21 response. If you look at the items on pages 6 and 13 of  
22 Mr. Crandall's testimony relating to the challenged  
23 portions which relate to health and safety risk as well  
24 as data privacy concerns, these portions of testimony are  
25 affirmatively stating the witness's factual assertions

1 regarding those alleged risks and concerns, it's not just  
2 citing concerns that a customer may have relating to a  
3 tariff and, therefore, these should be excluded based  
4 upon your May 5 ruling on the motion in limine. Thank  
5 you.

6 JUDGE CUMMINS: Mr. Filler, did you have  
7 anything you need to add?

8 MR. FILLER: No, Judge.

9 JUDGE CUMMINS: Very well. For the sake  
10 of clarity, I think it's best that I separate the various  
11 requests into the three parts, taking the seven and  
12 making three out of them, despite the suggestion that we  
13 do it in four, I think two of them do overlap enough.

14 The first group concerns the three areas  
15 that were described in the Staff's motion, as well as a  
16 fourth area, which was Section B of Consumers' motion.  
17 These are the areas with regard to the statements that  
18 begin with something like I was advised by my attorney or  
19 my understanding from discussions with my attorney was.  
20 I agree with the Staff and the Company with regard to  
21 these sections, that it's both hearsay and it's, more  
22 importantly, it's inappropriate legal opinion. As such,  
23 I think Sections A, B, D, and F that were outlined in the  
24 first, on the first page of Consumers' motion should be  
25 stricken as requested.

1                   Turning to the second area, this I would  
2 place Section C and G into, and these are the areas that  
3 I feel -- well, the request -- or the gist of it is that  
4 they're beyond the scope of this proceeding and offered  
5 in violation of the previously issued motion -- or  
6 previously decided motion in limine arguments. In this  
7 regard, it should be noted that, at the initial  
8 prehearing conference in this case back on January 14,  
9 and after ruling against the Company's request that  
10 Mr. Keskey's clients not be allowed to intervene in this  
11 matter, I did specifically advise at that time that we  
12 would not be getting into AMI-related health, safety, and  
13 data privacy issues. I know that that was the concern  
14 expressed by the Company at that time, but as I indicated  
15 there, my feeling is there's no testimony, so we don't  
16 know what they're going to be raising at that point.  
17 This can be found in, the discussion I think is on pages  
18 20 to 30 or 31 of the first transcript.

19                   More importantly, though, in denying in  
20 part and granting in part Consumers' motion in limine at  
21 the May 5 motion hearing, I specifically ruled that we  
22 were precluding "any and all testimony and arguments  
23 concerning health, safety and data privacy issues."  
24 That's, as indicated by the Company, found at pages 91  
25 and 92 of Volume 3 of the transcript in this matter.

1                   Finally, I think that ruling corresponds,  
2                   and today's ruling would correspond with the Commission's  
3                   orders in Cases Nos. U-17000, which was the generic  
4                   discussion of the AMI issues, U-17102 and U-15645.

5                   In light of this, I'm going to strike  
6                   the -- I'm going to grant that the request of Consumers  
7                   to strike these two sections, these being Sections C and  
8                   G, as it reads in their motion.

9                   That leaves us with one issue, that's the  
10                  simple hearsay issue concerning the reports Mr. Crandall  
11                  avers to having received from customers. This is Section  
12                  E of the motion filed by Consumers. In that regard, I do  
13                  agree, despite Mr. Keskey's protestations, that this is  
14                  inadmissible hearsay, and I'm going to allow that to be  
15                  stricken, too.

16                  I guess the clearest way to do this is to  
17                  simply say that I have granted the Staff's motion in full  
18                  and I have likewise granted Consumers' motion in full  
19                  with regard to the testimony offered by Mr. Crandall in  
20                  this matter.

21                  Mr. Keskey, obviously before we receive  
22                  Mr. Crandall's testimony, I would like you to either,  
23                  whichever is easier for you, whether it's easier to  
24                  revise the testimony to remove those portions or just  
25                  simply to redact it before we bind his testimony in,



1 having to revise it if you could line it out just as  
2 easily.

3 MR. KESKEY: That's correct. And I would  
4 suggest that we bind in at the time that you're ready to  
5 receive the intervenor testimony.

6 JUDGE CUMMINS: That sounds fine with me.  
7 Thank you.

8 The last issue to address this morning  
9 concerns Consumers' motion to strike the testimony and  
10 exhibit of John Athas in its entirety, or in their  
11 entirety I guess. Again, I've read the motion and I've  
12 read MEC's response to that, and this does appear to be  
13 fairly clear-cut.

14 Does the Company have anything they would  
15 like to add today?

16 MS. HALL: Your Honor, the Company  
17 appreciates your diligence in reading the briefs, I won't  
18 restate the arguments made there. But essentially the  
19 gist is that this testimony offered by Mr. Athas offers  
20 no facts or opinions in addition to those offered by the  
21 other witness, one of the other witnesses for MEC and  
22 NRDC, Mr. Koehler. It's irrelevant that he agrees with  
23 another witness for the same party, it's unduly  
24 prejudicial and cumulative.

25 And just in response to the response that  
Metro Court Reporters, Inc. 248.426.9530

1 was filed by the MEC and the NRDC with respect to  
2 Consumers Energy's witnesses' citing testimony of other  
3 Company witnesses, the Company submits that in each case  
4 the Company cross-references other testimony, but each  
5 witness for the Company offers independent and relevant  
6 evidence to issues which are being litigated in this  
7 case. None of the Company's witnesses merely state this  
8 should be adopted because I agree with what Mr. X said.

9 And therefore, the Company requests you  
10 to strike Mr. Athas's testimony and exhibit in its  
11 entirety because it is unduly prejudicial and would set  
12 poor precedent. This is not -- the Rules of Evidence  
13 don't allow for witnesses to come on the stand, profess  
14 to be experts, and then just say, I agree with what  
15 expert B said, also, so I should adopt his findings.  
16 Thank you.

17 JUDGE CUMMINS: Thank you. Ms. Hall.

18 Mr. Bzdok, any response?

19 MR. BZDOK: Very briefly, Judge. As I  
20 mentioned in the brief, I think that the, Mr. Athas's  
21 testimony is not quite structured the way that Consumers  
22 characterized it in their motion and again today. He  
23 does review evidence by Mr. Koehler, and then he offers  
24 his own opinion in a concise manner in a sentence or two  
25 as to why he agrees with it. So there's more to it than

1 the simple statement of agreement.

2 I've read that it was prejudicial, I've  
3 heard that it was prejudicial, I haven't -- we've  
4 challenged the Company to come up with why is it  
5 prejudicial. Mr. Ronk responded to both of them in his  
6 rebuttal, the Company is crossing Mr. Koehler but has  
7 waived Mr. Athas irrespective of the outcome of this  
8 motion, so it seems like they have an adequate  
9 opportunity to respond.

10 You know, cumulative is not the standard,  
11 that was the reason to cite Consumers' testimony,  
12 cumulative is not an evidentiary standard; it's unduly  
13 cumulative to a point that its value is outweighed by the  
14 prejudice that results. And again, there's been no  
15 prejudice identified.

16 You, just I mean cards on the table,  
17 they're going to come after Mr. Koehler because he's  
18 young and Mr. Athas is not young, he's been around for a  
19 long time, and so we thought it was appropriate to  
20 provide the perspective from both of these witnesses on  
21 these issues and to include Mr. Athas's own perspective.  
22 It was not necessary for him to, you know, go into some  
23 great, you know -- if he had filed 30 pages of testimony,  
24 then maybe it would have been cumulative, but he  
25 concisely explains what he reviewed and why he agrees,

1 and it doesn't meet any standard for striking. They  
2 don't like it, but that's not a standard for striking it.

3 JUDGE CUMMINS: Thank you, Mr. Bzdok.

4 Mr. Keskey, Mr. Filler, does Staff and --

5 MR. KESKEY: We have no position.

6 JUDGE CUMMINS: Mr. Filler?

7 MR. FILLER: None.

8 JUDGE CUMMINS: Any response?

9 MS. HALL: Very briefly. Mr. Bzdok is  
10 correct that the Company waived cross of Mr. Athas, and  
11 that's because he didn't offer anything in addition to  
12 what Mr. Koehler offered, so there's no reason to cross  
13 him because there's nothing there.

14 And secondly, it's particularly revealing  
15 to hear counsel for MEC and the NRDC indicate that the  
16 reason Mr. Athas filed testimony was to somehow bolster  
17 the credibility of Mr. Koehler. That -- the fact of  
18 matter is that his agreement with Mr. Koehler is  
19 irrelevant to the issues being litigated in this case.  
20 He's offered no evidence which is relevant to any issue  
21 that the finder of fact will rule on in this proceeding;  
22 and therefore, it should be stricken in its entirety.

23 MR. BZDOK: Judge, that was a  
24 mischaracterization of my statement. We didn't try to  
25 bolster his credibility, we tried to offer a perspective

1 on the issues from two different witnesses who were at  
2 two different points in their careers. That's what we  
3 did.

4 JUDGE CUMMINS: While I do have concerns  
5 while reading Mr. Athas's testimony, because it tends to  
6 strike as being almost an executive summary of what  
7 Mr. Koehler's more detailed testimony and exhibits  
8 contain, I do agree in large part with the arguments set  
9 forth in Mr. Bzdok's response. I don't see the potential  
10 for undue prejudice to Consumers or that there's going to  
11 be a significant delay in accepting of this testimony.  
12 Granted, I would much prefer this not be structured in  
13 this fashion again.

14 I do, however, have two areas I think  
15 just to clean things up that I feel should be stricken,  
16 and these are on page 2, the question and answer, line 16  
17 through 18, as well as on page 5, this would be lines 18  
18 through 21. I think those should be taken out. I will  
19 not require that the remainder be stricken, though.

20 So my ruling is I'm going to grant the  
21 motion in part and deny it in part, and ask for striking  
22 of lines 16 through 18 on page 2 of Mr. Athas's  
23 testimony, and lines 18 through 21 on page 5.

24 And again, as with Mr. Keskey, if you  
25 could make those deletions before we have intervenor

1 testimony bound into the record, that would be most  
2 helpful, Mr. Bzdok.

3 MR. BZDOK: Thank you. I'm just --  
4 before you close the record on this point, I just want to  
5 make sure that I'm understanding for myself exactly what  
6 you want stricken, so if I can just review it for a  
7 second.

8 JUDGE CUMMINS: Sure.

9 MR. BZDOK: O.K. I got it.

10 JUDGE CUMMINS: Anything further before  
11 we proceed with witnesses in this matter? That being the  
12 case, have the exhibits been marked for at least the  
13 first witness, that's Mr. Harry?

14 THE REPORTER: Yes.

15 JUDGE CUMMINS: Very well. You may call  
16 your first witness.

17 MR. BEACH: Your Honor, the next witness  
18 the Company would like to call is Company Witness Harry,  
19 however, I have been informed that only the Attorney  
20 General has cross. I was recently just scanning my  
21 e-mail, and it appears that Mr. Janiszewski e-mailed all  
22 the parties and indicated he would be appearing here at  
23 9:30. He has just arrived.

24 JUDGE CUMMINS: Very well. Why don't we  
25 take a ten-minute break, allow Mr. Janiszewski to set up,  
Metro Court Reporters, Inc. 248.426.9530

1 and we can all refresh ourselves, come back and hit the  
2 ground running then. So we'll return here at five of.  
3 Actually, why don't we make it 10:00 o'clock. We'll  
4 start right at 10:00.

5 (At 9:50 a.m., there was a 15-minute recess.)

6 JUDGE CUMMINS: Let's go back on the  
7 record. Please call your next witness.

8 MR. BEACH: Thank you, your Honor. The  
9 Company will call Company Witness Harry to the stand.

10 - - -

11 D A N I E L L. H A R R Y

12 was called as a witness on behalf of Consumers Energy  
13 Company and, having been duly sworn to testify the truth,  
14 was examined and testified as follows:

15 DIRECT EXAMINATION

16 BY MR. BEACH:

17 Q Good morning, Mr. Harry. Could you please state your  
18 full name and business address for the record?

19 A Daniel L. Harry, One Energy Plaza, Jackson, Michigan.

20 Q Could you please -- by whom are you employed?

21 A Consumers Energy.

22 Q What role do you perform for the Company?

23 A Director of Accounting Processing Control.

24 Q Thank you. Mr. Harry, in this proceeding did you cause  
25 to be prefiled a document entitled the Direct Testimony

Metro Court Reporters, Inc. 248.426.9530

1 of Daniel L. Harry on Behalf of Consumers Energy Company,  
2 which consists of a cover page and 18 pages of question  
3 and answer testimony?

4 A Yes.

5 Q Did you also cause to be filed a document entitled the  
6 Rebuttal Testimony of Daniel L. Harry on Behalf of  
7 Consumers Energy Company, which consists of a cover page  
8 and four pages of question and answer testimony?

9 A Yes.

10 Q Do you have any changes to either of those documents at  
11 this time?

12 A I do.

13 Q Could you please explain that change?

14 A On page 16 of my direct testimony, on line 14, I'd like  
15 to replace the word "monthly" with "annual".

16 Q Do you have any further changes?

17 A I do not.

18 Q If I were to ask you the same questions today under oath,  
19 would your answers remain the same?

20 A Yes.

21 Q Is that the testimony, with that change that you've  
22 previously mentioned, that you're adopting as your own  
23 today?

24 A I am.

25 Q Mr. Harry, are you also sponsoring any exhibits

1 associated with your direct or rebuttal testimony?

2 A Yes.

3 Q I will read through a list of your exhibits, and please  
4 correct me if I've stated anything incorrect. Mr. Harry,  
5 you are sponsoring -- is it correct that you're  
6 sponsoring Exhibit A-29 (DLH-1), A-30 (DLH-2), A-31  
7 (DLH-3), A-32 (DLH-4), and A-33 (DLH-5), and those are  
8 all sponsored through your direct testimony?

9 A Yes.

10 Q Do you have any further exhibits?

11 A I do not.

12 Q Do you have any corrections or changes to those exhibits?

13 A No.

14 Q Were these exhibits prepared by you or under your  
15 direction?

16 A Yes.

17 Q And are these the exhibits that you're adopting as your  
18 own with your testimony today?

19 A Yes.

20 MR. BEACH: At this time, your Honor, the  
21 Company would move to bind in the direct and rebuttal  
22 testimony of Daniel L. Harry, as corrected on the witness  
23 stand today, and at the conclusion of cross, moves for  
24 the admission of his exhibits. With that, I tender the  
25 witness for cross-examination.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

JUDGE CUMMINS: Thank you, Mr. Beach.

Is there any objection to the binding in the direct and rebuttal testimony of Mr. Harry? Hearing none, that testimony will be bound into the record.

(Testimony bound in.)

- - -

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**

**OF**

**DANIEL L. HARRY**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

December 2014

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. Daniel L. Harry, One Energy Plaza, Jackson, Michigan 49201.

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

4 A. I am the Director of Accounting Process and Control for Consumers Energy Company  
5 (“Consumers Energy” or the “Company”).

6 Q. How long have you been employed by Consumers Energy?

7 A. I have been employed by Consumers Energy since 1999.

8 Q. Please state your educational background.

9 A. I graduated from Central Michigan University with a Bachelor of Science Business  
10 Administration degree with a major in accounting.

11 Q. What other professional designations do you hold?

12 A. I am a Certified Public Accountant registered in Michigan.

13 Q. What are your responsibilities in your current position?

14 A. As Director of Accounting Process and Control, I am responsible for the ongoing  
15 financial analysis of utility operations with a focus on accounting process and control.

16 Q. Please describe your prior work experience.

17 A. I have held my current position since 2014. From 2008 to 2014, I was the Director of  
18 Business Support – Rates for Consumers Energy, responsible for the development of the  
19 Gas Utility strategic plans, budgets, outlooks and forecasts, as well as the ongoing  
20 financial analysis of Gas Utility operations. In that capacity, I was also responsible for  
21 the development of the electric and gas deliveries and revenue forecasts. From 2003 to  
22 2008, I was the Director of Accounting Research for Consumers Energy, responsible for  
23 implementation of new accounting standards and for determining the appropriate

DANIEL L. HARRY  
DIRECT TESTIMONY

1 accounting for major transactions. From 2001 to 2003, I was a Senior Accountant  
2 responsible for electric revenue and power cost accounting. From 1999 to 2001, I was a  
3 General Accountant responsible for external reporting, accounting research, and  
4 subsidiary accounting.

5 Q. Have you previously testified before the Michigan Public Service Commission (“MPSC”  
6 or the “Commission”)?

7 A. Yes, in MPSC Case Nos. U-15986, U-16418, U-16855, and U-17643, the Company’s  
8 four most recent gas general rate cases.

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

10 A. My testimony is in three parts. The purpose of my testimony is to identify and support:

11 Part 1) Test year operation and maintenance (“O&M”) expense for Corporate  
12 Services including expenses related to uncollectibles, injuries and  
13 damages, and accounts receivable sales cost;

14 Part 2) book depreciation expense and classics remaining book value; and

15 Part 3) the accounting approvals for the Revenue Adjustment Mechanism and  
16 the Saginaw Service Center (“SSC”) Acquisition Adjustment.

17 Q. Are you sponsoring any exhibits in this proceeding?

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

19 Exhibit A-29 (DLH-1) Summary of Projected Electric & Common O&M  
20 Expenses for the Years 2013 through the 12 Months  
21 Ended May 31, 2016

22 Exhibit A-30 (DLH-2) Electric Corporate Services Expense for the Years  
23 2013 through the 12 Months Ended May 31, 2016

24 Exhibit A-31 (DLH-3) SNL Datasource ranking of Consumers Energy  
25 Electric A&G Costs for 2013

26 Exhibit A-32 (DLH-4) Electric Uncollectible Accounts Expense Projection  
27 for the 12 Months Ended May 31, 2016

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Exhibit A-33 (DLH-5) Electric Injuries & Damages Expense for the Years  
2 2009 through the 12 Months Ended May 31, 2016

3 Q. Were these exhibits prepared by you or at your direction?

4 A. Yes.

5 Q. Please describe Exhibit A-29 (DLH-1) – Summary of Projected Electric & Common  
6 O&M Expenses for the Years 2013-12 Months Ended May 31, 2016.

7 A. Exhibit A-29 (DLH-1) is an exhibit that summarizes the Company's total  
8 2013 - 12 Months Ended May 31, 2016 electric O&M for Corporate Services expense,  
9 uncollectible expense, injuries and damages expense, and accounts receivable sale costs.  
10 On this exhibit, column (a) provides the O&M expense category; column (b) provides the  
11 2013 actual O&M; column (c) provides the projected 2014 O&M; column (d) provides  
12 the projected 2015 O&M; column (e) provides the 12 Months Ended May 31, 2016  
13 projected test year O&M; and column (f) provides the source reference. Each of these  
14 expense categories is addressed in detail below.

15 **PART 1 – ELECTRIC O&M EXPENSE**

16 **Corporate Services**

17 Q. Please identify what areas are included within the summary of Corporate Services O&M  
18 category as shown on line 1 of Exhibit A-29 (DLH-1).

19 A. Corporate Services are those areas common to the administrative functions of a regulated  
20 corporation. These areas are: Human Resources and Administrative Services, Internal  
21 Control and Compliance, Legal, Corporate Risk Management, Corporate Secretary,  
22 Governmental/Public Affairs and Corporate Compliance, Controller's Area, Rates and  
23 Regulation/Regulatory Affairs, Strategy and Research, Strategic Innovation, Corporate

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Tax, Financial Planning and Treasury, General Activities costs, and Administrative and  
2 Other costs.

3 Q. Please provide a brief overview of the various areas within the Corporate Services area.

4 A. A description of each area is as follows:

- 5 • **Human Resources and Administrative Services** – This area provides  
6 services for approximately 7,800 employees and human resource offices at  
7 17 field locations. This area provides for the development of workforce  
8 strategies including recruiting, hiring, training and development, and  
9 succession planning. This area includes labor relations, which provides for all  
10 interaction with the unionized workforce. Also included is compliance  
11 assurance, which provides for all legal and regulatory programs including  
12 Equal Employment Opportunity, Americans with Disabilities Act, and Family  
13 and Medical Leave Act. Safety and health issues, compensation and benefits  
14 administration, corporate employee travel, and security administration are also  
15 provided by this area.
- 16 • **Internal Control and Compliance** – This area provides the traditional  
17 internal audit functions (appraisal of business unit effectiveness and financial  
18 controls) and the internal control functions for the Company.
- 19 • **Legal** – This area provides advice and counsel to the Company in the areas of  
20 regulatory services at the State and Federal levels, litigation (both State and  
21 Federal), claims, credit and collection, corporate, environmental, contracts,  
22 labor, workers compensation, and property.
- 23 • **Corporate Risk Management** – This area provides services for corporate  
24 insurance programs, surety bonds, and review of commodity and credit risks  
25 associated with natural gas, electric fuel, and power purchases. Gas and  
26 electric insurance programs include the premiums for property and casualty  
27 insurance paid to cover the Company. Major insurance coverage includes:
  - 28 ○ All risk property damage
  - 29 ○ Directors and Officers liability insurance
  - 30 ○ Public liability insurance
  - 31 ○ Workers' compensation insurance
  - 32 ○ Fiduciary liability insurance
  - 33 ○ Fidelity insurance

DANIEL L. HARRY  
DIRECT TESTIMONY

- 1 • **Corporate Secretary** – This area provides the management of the Company  
2 records in electronic, paper, and microfilm form; imaging services, corporate  
3 library services, keeper of all minutes and records related to Board of  
4 Directors and shareholder meetings, incorporations and dissolutions, and  
5 shareholder transfer agent and registrar services.
- 6 • **Governmental/Public Affairs and Corporate Compliance** – This area  
7 provides all aspects of Company internal and external communications:  
8 public media relations and inquiries, corporate news releases, employee and  
9 executive communications, trade association dues and memberships,  
10 regulatory commission expense, charitable contributions, and foundations and  
11 community programs. This area is also responsible for overseeing corporate  
12 compliance, including code of conduct matters, regulatory oversight, and  
13 reviews of compliance programs and processes.
- 14 • **Controller’s Area** – This area provides the preparation and control of the  
15 Company accounting records including financial statements reports and the  
16 administration of accounting systems. This includes budgeting and  
17 management reporting, general ledger, accounts payable, payroll, fixed assets  
18 and customer billing, and payment processing. In addition, financial and  
19 regulatory reporting and investor relations are included in the Controller’s  
20 area.
- 21 • **Rates and Regulation/Regulatory Affairs** – This area provides the  
22 preparation of utility strategic plans, budgets and forecasts, determination and  
23 management of tariffs, management of regulatory filings, and management of  
24 the interface between the Company and the regulatory staffs.
- 25 • **Strategy and Research** – This area is responsible for the development of the  
26 utility’s long-term strategies and goals and ensuring the goals are monitored,  
27 communicated, and attained. In addition, this area researches energy industry  
28 developments and best practices to enhance customer service and customer  
29 value.
- 30 • **Strategic Innovation** – This area is responsible for building the utility’s  
31 innovation capability and delivering breakthrough innovation, including  
32 customer-focused growth opportunities and competitive differentiators that  
33 drive customer value.
- 34 • **Corporate Tax** – This area provides all aspects of the Company compliance  
35 with Federal, State, and Local income, sales and use, property tax, franchise  
36 and excise taxes, book accounting for taxes, tax planning of transactions, tax  
37 research and the analysis of tax legislation and regulations, and the  
38 management and negotiation of tax audits and tax litigation.
- 39 • **Financial Planning and Treasury** – This area provides financial and  
40 strategic planning, specialized financial studies and analyses, as well as rate

DANIEL L. HARRY  
DIRECT TESTIMONY

1 case, regulatory, rating agency, and investor support. Treasury includes all  
2 aspects of the Company financing and cash management, negotiation of the  
3 Company credit facilities, treasury operations including wire transactions,  
4 check processing, maintenance of bank accounts, and borrowing and  
5 investing.

- 6 • **General Activities** – These costs are an aggregation of expense and credits  
7 that are not attributable to any one department but are incurred on behalf of  
8 the Company as a whole. Examples include: Corporate Services labor and  
9 expenses, capitalized credits to O&M, billing credits for administrative and  
10 general (“A&G”) labor, expenses and outside services as part of a full-cost  
11 loading adder, Senior Management time and expenses, and Board of Director  
12 costs.

- 13 • **Administrative and Other** – These costs are Edison Electric Institute dues,  
14 environmental minimum liability accruals, and intervener funding for the  
15 power supply cost recovery cases.

16 Q. Please explain how the summary of adjusted Corporate Services O&M expense shown on  
17 line 1 of Exhibit A-29 (DLH-1) was calculated.

18 A. Corporate Services expense was calculated as shown in Exhibit A-30 (DLH-2). Lines 1  
19 and 2 of Exhibit A-30 (DLH-2) are combined to arrive at total Corporate Services on  
20 line 3. The computation of total adjusted Corporate Services on line 12 is the result of  
21 taking total Corporate Services on line 3, plus total normalizations on line 7, minus total  
22 disallowances on line 11 of Exhibit A-30 (DLH-2).

23 Q. Please explain how the Corporate Services’ O&M expenses shown on line 1 of Exhibit  
24 A-30 (DLH-2) were calculated for each year.

25 A. The 2013 O&M expenses were taken from the Company records. The O&M for 2014  
26 through the 12 months ended May 31, 2016 is based on projections.

27 Q. What are the projected O&M expenses for 2014 through the 12 months ended May 31,  
28 2016 based upon?

29 A. Each Corporate Services department used 2013 actual year’s ongoing expenses and  
30 applied inflation factors for labor and non-labor while seeking to limit overall Corporate

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Services O&M increases to the rate of inflation. Specific line item increases or decreases  
2 are included as appropriate. These items are explained in more detail later in this  
3 testimony.

4 Q. What is included in the escalation factors used in determining test year expense?

5 A. Escalation factors applied to labor include the results of competitive market surveys and  
6 inflation. Non-labor escalation includes the effects of inflation.

7 Q. What inflation factors were used to develop the 12 months ended May 31, 2016 test year  
8 O&M costs?

9 A. The Company used the Consumers Price Index of 2.0% for 2014, 1.5% for 2015, and  
10 1.4% for 2016.

11 Q. What source did you use for the inflation factors?

12 A. The source for the inflation factors was the July 2014 edition of Global Insight.

13 Q. In addition to increases related to inflation, what are the specific line item changes  
14 included to arrive at the test year O&M expense projection?

15 A. Total Corporate Services expenses are normalized for significant increases or decreases  
16 related to unusual and/or one-time costs. These normalizations are found on lines 4  
17 through 6 on Exhibit A-30 (DLH-2). First, the Company did not receive a Nuclear  
18 Electric Insurance Limited (“NEIL”) refund in 2013. The actual NEIL refund for year  
19 2014 of \$2,177,000 was normalized out of ongoing Corporate Services O&M. Due to the  
20 volatility in investment markets and uncertainty around the impact of future claims, we  
21 are not assuming a NEIL refund in the test year. Second, the utility experienced  
22 above-normal storm related service restoration activity in 2013. As a result,  
23 above-normal insurance premiums were experienced in 2014 and were normalized out of

DANIEL L. HARRY  
DIRECT TESTIMONY

1 ongoing O&M. Lastly, the Company incurred employee separation costs in 2013 and  
2 2014 related to both voluntary and involuntary employee separations. Separation costs  
3 for the electric business were removed as a one-time expense. The impact of these  
4 separations were spread across all organizations within the Company, helped to hold  
5 O&M cost increases to at or below the rate of inflation, and were fully included in  
6 developing the projection for 2014 through the test year.

7 Q. Are there any specific drivers of the difference between the normalized 2013 historical  
8 year Corporate Services O&M and the 12 months ended May 31, 2016 test year  
9 amounts?

10 A. Yes. Consumers Energy is projecting \$3 million higher insurance premiums in the test  
11 year over 2013. The higher insurance premiums are associated with liability insurance  
12 due to higher industry mutual insurer loss experience levels and lower investment returns.  
13 Property insurance premiums are also increasing due to higher asset levels including the  
14 Company's investment in new technology at its generation plants to meet clean air  
15 standards and its investment in new gas-fired and wind generation. Transmission and  
16 distribution insurance costs are also increasing due, in part, to loss experience related to  
17 significant storms. Excluding this increase, total test year adjusted Corporate Services  
18 expense is flat with the 2013 historical year.

19 Q. Are the costs associated with Employee Incentive Compensation Program ("EICP")  
20 included in the total adjusted Corporate Service amounts on line 12 of Exhibit A-30  
21 (DLH-2)?

22 A. No. Further details regarding EICP expenses are covered under the direct testimony of  
23 Company witness Amy M. Conrad.

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. What is included in total disallowances found on line 11 of Exhibit A-30 (DLH-2)?

2 A. Line 11 represents a total of various items that have been previously disallowed by the  
3 Commission. These items consist of corporate communications costs, lobbying costs,  
4 and donation payments.

5 Q. Are the test year Corporate Services' O&M expenses reasonable?

6 A. Yes. The test year O&M expenses for Corporate Services are based on the 2013 levels  
7 with the adjustments discussed above. These are the necessary levels to continue  
8 providing reliable service to customers. The reasonableness of the O&M expense levels  
9 is supported by the fact that SNL Datasource ranked the Consumers Energy's 2013  
10 Electric A&G costs (A&G costs excluding pension and benefits) the fourth lowest out of  
11 66 companies on a cost-per-customer basis for electric companies with more than  
12 500,000 customers. Please refer to Exhibit A-31 (DLH-3) for a description of these  
13 calculations.

14 Q. What is SNL Datasource?

15 A. The SNL Datasource is maintained by SNL Financial LC. SNL Datasource provides  
16 financial and operating data for electric utility companies.

17 Q. How are Corporate Services expenses allocated between the Company's electric and gas  
18 businesses?

19 A. Allocations are developed based upon the type of cost. For example, billing costs are  
20 allocated based on customer counts for the electric and gas business. Employee benefits  
21 are allocated based on either employee counts or labor. General costs are allocated on the  
22 Three Factor Allocation Method. Other costs are direct charged for identified activities,  
23 allocated based on capital and O&M spending levels or special studies.

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. What is the Three Factor Allocation Method?

2 A. The Three Factor Allocation Method uses the average of operating revenue, labor,  
3 property, plant, and investments to allocate costs between electric and gas.

4 **Uncollectible Expense**

5 Q. What is included in Consumers Energy's uncollectible expense for the electric business?

6 A. Uncollectible expense is made up of two components. The first component is the  
7 write-off of utility accounts receivables which are deemed uncollectible. The second  
8 component reflects changes during the period in the uncollectible reserve account. The  
9 balance in the uncollectible reserve represents the estimate of existing receivables that  
10 will not be collected in the future and is recorded as an offset to the carrying value of  
11 accounts receivable. A change in the reserve account increases or decreases uncollectible  
12 expense. Together, the two components represent the estimate of the current period  
13 impact on the Company's income from utility receivables that will not be collected.

14 Q. How did the Company determine uncollectible accounts expense for the test year?

15 A. The Company estimates the uncollectible accounts expense for the test year at  
16 \$30.799 million. As shown on Exhibit A-32 (DLH-4). First, the Company begins with  
17 total uncollectible accounts expense found in column (b) of Exhibit A-32 (DLH-4) and  
18 subtracts amounts associated with uncollectible tracker expense and PeopleCare to arrive  
19 at net uncollectible accounts expense. The amounts associated with the uncollectible  
20 tracker include the adjustments to uncollectible expense in 2011 and 2012 related to the  
21 Uncollectibles Expense Tracking Mechanism ("UETM"). The UETM was adopted by  
22 the Commission in the November 2, 2009 Order in Case No. U-15645 and subsequently  
23 terminated as of November 30, 2010 in Case No. U-16191. These amounts were

DANIEL L. HARRY  
DIRECT TESTIMONY

1 recovered through the UETM and should not be used in determining the net uncollectible  
2 expense for the historical years. The amounts related to PeopleCare are excluded because  
3 those amounts are considered a donation. The test year uncollectible accounts expense is  
4 based on a three-year average Bad Debt Loss Ratio (“BDLR”) of net uncollectible  
5 accounts expense to electric service revenue for the years 2011-2013 as shown on Exhibit  
6 A-32 (DLH-4). This ratio is applied to test year electric service revenue plus surcharge  
7 revenue to arrive at test year uncollectible accounts expense on line 7 of Exhibit A-32  
8 (DLH-4).

9 Q. Does this method provide a reasonable estimate of uncollectible expense?

10 A. Yes. Test year electric uncollectible accounts expense is largely impacted by the  
11 economy as well as fuel and purchased power cost prices. These factors tend to fluctuate  
12 over time as reflected in uncollectible accounts expense over the 2011-2013 timeframe as  
13 shown in column (e) of Exhibit A-32 (DLH-4), (\$32.2, \$23.2, and \$32.6 million,  
14 respectively). The averaging of past expenses to determine a projected expense amount  
15 can be appropriate in instances when the expense for previous years are relatively  
16 consistent or go both up and down, creating some likelihood that the future period’s  
17 activity will be similar to the average of the past periods. Therefore, using a three-year  
18 average BDLR approach in this case provides a reasonable estimate of future  
19 uncollectible accounts expense.

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. Does the estimate of uncollectible accounts expense consider changing fuel and power  
2 costs and their impact on customer bills and the corresponding impact on uncollectible  
3 accounts expense?

4 A. Yes. By using test year revenues times the three-year average BDLR, the latest fuel and  
5 power cost projections are taken into account.

6 **Electric Injuries and Damages Expense**

7 Q. Please describe Exhibit A-33 (DLH-5) – Electric Injuries & Damages Expense for the  
8 Years 2009 through the 12 Months Ended May 31, 2016.

9 A. Exhibit A-33 (DLH-5) is an exhibit that summarizes the Company's total 2009-2013  
10 actual electric injuries and damages expense and projected injuries and damages expense  
11 for 2014-2015 and the 12 months ended May 31, 2016.

12 Q. Please describe the costs related to injuries and damages.

13 A. Electric injuries and damages include liabilities that arise in the normal course of  
14 Company business for various types of items such as compensation for damaged trees  
15 and crops, restoration of driveways, lawns, and fences, and accidents and lawsuits (up to  
16 a \$500,000 insurance deductible per occurrence). Further, workers' compensation costs  
17 are included in injuries and damages.

18 Q. What expense level is the Company proposing to recover in this case as part of the test  
19 year?

20 A. The Company is proposing that a total of \$4.653 million be included for the test year as  
21 shown on Line 4, column (i) of Exhibit A-33 (DLH-5).

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. How was this amount determined?

2 A. Injuries and damages expense in account 925 is comprised of three components: electric  
3 injuries and damages, internal legal costs, and workers compensation costs. Please refer  
4 to Exhibit A-33 (DLH-5) – Electric Injuries & Damages Expense for the Years 2009  
5 through the 12 Months Ended May 31, 2016. Line 1 reflects the electric property and  
6 liability damages. Line 2 represents the amount of internal legal costs that are charged to  
7 injuries and damages. Line 3 represents the level of workers’ compensation costs for  
8 each year. The test year amounts for each of the three components of total injuries and  
9 damages expense is based on a 5-year average of actual expense for the years 2009  
10 through 2013.

11 **Account Receivable Sales Cost**

12 Q. What are the accounts receivable sale costs as shown on Line 4 of Exhibit A-29  
13 (DLH-1)?

14 A. Accounts receivable sale costs include the discount and fees incurred during the sale of  
15 accounts receivable transactions. The test year amount of \$714,000 as shown on Line 4,  
16 column (d) of Exhibit A-29 (DLH-1) was provided by Company witness Andrew J.  
17 Denato in his testimony.

18 **PART 2 – BOOK DEPRECIATION**

19 **Depreciation Expense**

20 Q. What is the Company’s proposal as it relates to depreciation expense?

21 A. The Company is proposing that depreciation expense be based on the current depreciation  
22 expense levels approved by the Commission. However, if a final order in the pending  
23 Company Electric & Common Plant Depreciation case, Case No. U-17653, has been

DANIEL L. HARRY  
DIRECT TESTIMONY

1 issued before a final order is issued in this proceeding, the Company proposes to utilize  
2 the depreciation rates approved in Case No. U-17653.

3 **Classics Remaining Book Value**

4 Q. Is there any remaining book value related to the generation plant assets known as the  
5 Classics (Cobb 1-5, Weadock 7&8 and Whiting 1-3) that was not securitized in Case No.  
6 U-17473, Financing Order Approving the Securitization of Qualified Costs?

7 A. Yes. The securitized amount was based on the net book value of the Classics at June 30,  
8 2014. Subsequent to the securitization financing transaction, unsecuritized plant balances  
9 totaling \$1.7 million related to the securitized generation plants remain on Consumers  
10 Energy's books.

11 Q. How will Consumers Energy recover the unsecuritized Classics plant balance?

12 A. The Company will retire the Classics plant balance from Plant in Service when the plants  
13 are no longer in service.

14 Q. What is the requested accounting for the future retirements of the remaining plant balance  
15 related to the Classics?

16 A. Consumers Energy is requesting the use of standard retirement accounting that will  
17 remove the historical plant cost accumulated subsequent to securitization from the Plant  
18 in Service account and charge the depreciation reserve account. The result is that the  
19 unrecovered portion of the plants will remain in the steam plant reserve and be allocated  
20 over the remaining lives of the surviving steam plants.

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. Is the Company's accounting treatment the correct treatment according to the Uniform  
2 System of Accounts ("USofA")?

3 A. Yes. The Federal Energy Regulatory Commission ("FERC") Uniform System of  
4 Accounts, Electric Plant Instructions ("EPI"), #10 Additions and Retirements of Electric  
5 Plant, B(2), describes when depreciable plant is retired from service, the book cost is  
6 charged to the accumulated provision for depreciation.

7 **PART 3 – ACCOUNTING APPROVALS**

8 **Revenue Adjustment Mechanism Accounting**

9 Q. Does the implementation of a Revenue Adjustment Mechanism, discussed in Company  
10 witness Laura M. Collins' testimony, require any specific accounting approvals?

11 A. Yes. The Revenue Adjustment Mechanism would result in deferred debits or credits until  
12 any under-recovery or over-recovery is fully collected or refunded. The Company  
13 requests approval to recognize regulatory assets or liabilities as needed to record these  
14 deferred amounts.

15 Q. Would any outstanding regulatory asset or liability associated with a Revenue  
16 Adjustment Mechanism accrue interest?

17 A. Yes. Any outstanding regulatory asset or liability associated with these mechanisms  
18 would accrue interest at the Company's short-term borrowing rate.

DANIEL L. HARRY  
DIRECT TESTIMONY

**Saginaw Service Center Acquisition Adjustment Accounting**

1  
2 Q. What is Consumers Energy's proposal as it relates to the recovery of SSC costs which  
3 have been recorded in Consumers Energy's general ledger Account 114, *Electric Plant*  
4 *Acquisition Adjustment*?

5 A. The total amount of the SSC Account 114 adjustment is \$1,954,017. The Company  
6 requests the SSC Account 114 amortization expense be recorded in Account 406,  
7 *Amortization of Electric Plant Acquisition Adjustments*, for the purpose of providing for  
8 the extinguishment of the amount in Account 114. The Company also requests a 15-year  
9 amortization life. The recovery of \$1,954,017 of SSC Account 114 costs as amortization  
10 expense should be applied to all jurisdictional customers' base rates.

11 Q. What has been the accounting for the SSC costs recorded in Consumers Energy's  
12 financial statements, and why has Consumers Energy recorded an Account 114  
13 Adjustment?

14 A. The SSC costs have been accounted for as an operating lease; the ~~monthly~~ <sup>annual</sup> lease payment  
15 of \$84,742 commencement date was January 27, 1959. The SSC was purchased from the  
16 Lessor by the Company on June 5, 2013; the lease termination date was May 31, 2019.  
17 The purchase price and associated acquisition costs was \$2,015,764. These costs were  
18 charged to Account 102, *Electric Plant Purchased or Sold*. Consumers Energy recorded  
19 a SSC Account 114 adjustment related to the amount of purchase cost in February 2014  
20 as required by FERC Docket No. AC13-176-000.

21 Q. When was the SSC considered to be first devoted to utility service?

22 A. The SSC was first devoted to utility service on January 27, 1959, the operating lease  
23 commencement date. Therefore, the SSC should be recorded in Consumers Energy's

DANIEL L. HARRY  
DIRECT TESTIMONY

1 general ledger at the lessor's original cost as required by EPI 2, EPI 5, and the text of  
2 Account 102 of the USofA. EPI 2, *Electric Plant to be recorded at Cost*, states:

3 "A. All amounts included in the accounts for electric  
4 plant acquired as an operating unit or system, except as otherwise  
5 provided in the texts of the intangible plant accounts, shall be  
6 stated at the cost incurred by the person who first devoted the  
7 property to utility service."

8 EPI 5, *Electric Plant Purchased or Sold*, states:

9 "A. When electric plant constituting an operating unit or  
10 system is acquired by purchase, merger, consolidation, liquidation,  
11 or otherwise, after the effective date of this system of accounts, the  
12 costs of acquisition, including expenses incidental thereto properly  
13 includible in electric plant, shall be charged to account 102,  
14 Electric Plant Purchased or Sold.

15 B. The accounting for the acquisition shall then be  
16 completed as follows:

17 (1) The original costs of plant, estimated  
18 if not known, shall be credited to account 102,  
19 Electric Plant Purchased or Sold, and concurrently  
20 charged to the appropriate electric plant in service  
21 accounts and to account 104, Electric Plant Leased  
22 to Others, account 105, Electric Plant Held for  
23 Future Use, and account 107 Construction Work in  
24 Progress-Electric, as appropriate.

25 (2) The depreciation and amortization  
26 applicable to the original cost of the properties  
27 purchased shall be charged to account 102, Electric  
28 Plant Purchased or Sold, and concurrently credited  
29 to the appropriate account for accumulated  
30 provision for depreciation or amortization.

31 (3) The cost to the utility of any property  
32 includible in account 121, Nonutility Property, shall  
33 be transferred thereto.

34 (4) The amount remaining in account  
35 102, Electric Plant Purchased or Sold, shall then be  
36 closed to account 114, Electric Plant Acquisition  
37 Adjustment."

DANIEL L. HARRY  
DIRECT TESTIMONY

1 Q. How is the amount of the SSC Account 114 adjustment determined?

2 A. The amount of the SSC Account 114 adjustment is determined as follows:

3 Purchase and acquisition costs	\$2,015,764
4 Lessor's original cost	<u>3,500,000</u>
5 Plant adjustment	(1,484,236)
6 Estimated accumulated depreciation	<u>3,438,253</u>
7 Account 114 adjustment	<u>\$1,954,017</u>

8 Q. What is the annual amortization of the SSC Account 114, and why is the Company  
9 requesting a 15-year amortization life?

10 A. The SSC Account 114 annual amortization is \$130,268 (\$1,954,017/15 years). The  
11 15-year life represents SSC's remaining book life.

12 Q. What approval is the Company seeking from the Commission with respect to the SSC?

13 A. The Company requests the Commission approve the following: (i) approve an  
14 amortization period of 15 years and (ii) approve the recording of amortization expense in  
15 Account 406.

16 Q. Does this conclude your testimony?

17 A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**

**OF**

**DANIEL L. HARRY**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

May 2015

DANIEL L. HARRY  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. Daniel L. Harry. One Energy Plaza, Jackson, Michigan.

3 Q. Are you the same Daniel L. Harry that offered direct testimony in this case?

4 A. Yes.

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

6 A. The purpose of my testimony is to rebut the Michigan Public Service Commission  
7 (“MPSC” or the “Commission”) Staff’s (“Staff”) and the Attorney General’s positions as  
8 they relate to their 12 months ended May 31, 2016 test-year projection of uncollectible  
9 expense. In addition, I will rebut the Staff’s position as it relates to their adjustment of  
10 insurance expense and injuries and damages expense.

11 **Uncollectible Expense**

12 Q. What is the Staff’s position with respect to Consumers Energy Company’s (“Consumers  
13 Energy” or the “Company”) test-year uncollectible expense?

14 A. Staff witness Robert F. Nichols II projects test-year uncollectible expense at  
15 \$23.9 million, a \$6.9 million reduction to the Company’s test-year uncollectible expense  
16 projection.

17 Q. Do you believe that the Staff’s projection represents a more reasonable estimate of  
18 uncollectible accounts expense than the Company’s filed projection?

19 A. No. The Staff’s recommendation for uncollectible accounts expense appears to be based  
20 budget data supplied by the Company as part of a Staff audit request. Staff fails to  
21 provide any economic, revenue, or customer assumptions or a calculation methodology to  
22 validate the reasonableness of the projection. As a result, it should be rejected.

DANIEL L. HARRY  
REBUTTAL TESTIMONY

1 Q. How did the Company determine the uncollectible expense included in the test year?

2 A. The Company estimates the uncollectible accounts expense for the test year at \$30.8 million.  
3 The test-year uncollectible accounts expense is based on a three-year average Bad Debt Loss  
4 Ratio (“BDLR”) of uncollectible accounts expense to electric service revenue for the years  
5 2011 through 2013. This ratio is applied to the test-year electric service revenue plus Energy  
6 Optimization surcharge revenue to arrive at test-year uncollectible accounts expense.

7 Q. Does this method provide a reasonable estimate of uncollectible expense?

8 A. Yes. Test-year electric uncollectible accounts expense is largely impacted by the economy as  
9 well as fuel and purchased power cost prices. These factors tend to fluctuate over time as  
10 reflected in uncollectible accounts expense over the 2011 through 2013 timeframe as shown  
11 in the trend of energy uncollectible accounts expense for those years (\$32.2, \$23.2, and  
12 \$32.6 million, respectively). The averaging of past expenses to determine a projected  
13 expense amount can be appropriate in instances when the expense for previous years are  
14 relatively consistent or go both up and down, creating some likelihood that the future  
15 period’s activity will be similar to the average of the past periods. Therefore, using a  
16 three-year average BDLR approach in this case provides a reasonable estimate of future  
17 uncollectible accounts expense.

18 Q. What is the Attorney General’s position with respect to the Company’s test-year  
19 uncollectible expense?

20 A. Attorney General witness Sebastian Coppola is projecting \$25.3 million for the test-year  
21 uncollectible accounts expense projection. This amount represents a \$5.5 million reduction  
22 to the Company’s projection.

DANIEL L. HARRY  
REBUTTAL TESTIMONY

1 Q. Do you believe the Attorney General's projection represents a more reasonable estimate  
2 of test-year uncollectible accounts expense than the Company's filed projection?

3 A. No. Mr. Coppola based his projection on a five-year average of the ratio of net  
4 charge-offs to revenue for the period 2010 through 2014. A five-year average approach  
5 does not improve the estimate of uncollectible expense over the Company's three-year  
6 average approach. By using a five-year average approach, the Attorney General witness'  
7 calculation dilutes the recent trend of higher uncollectible expense by incorporating a  
8 lower 2010 historical year resulting in a lower ratio of net charge-offs to revenue and a  
9 lower projection of uncollectible accounts expense. The Company's projection at  
10 \$30.8 million is more reflective of the Company's recent uncollectible expense  
11 experience over the 2012 through 2014 timeframe as shown in the trend of uncollectible  
12 accounts expense for those years (\$23.2, \$32.6, and \$32.4 million, respectively). As a  
13 result, Mr. Coppola's projection should be rejected.

14 **Corporate O&M – Insurance Expense and Injuries and Damages Expense**

15 Q. Do you agree with Staff witness Nichols' assertion that the Company's projection of  
16 test-year Corporate Service O&M related to insurance expense should be reduced by  
17 \$2.5 million?

18 A. No.

19 Q. Please explain why Mr. Nichols' recommendation regarding the Company's insurance  
20 costs is unreasonable.

21 A. Mr. Nichols' insurance cost recommendation assumes a significant amount of insurance  
22 refunds and/or credits will be received annually for the foreseeable future. The receipt of  
23 insurance refunds and/or credits is very sporadic due to the volatility of investment

DANIEL L. HARRY  
REBUTTAL TESTIMONY

1 markets and future claims experience. As a result, the timing and amount of future  
2 refunds or credits cannot be relied on to occur with any certainty. The Company  
3 believes, based on the history of these refund and/or credits, that they should be treated as  
4 non-recurring items and normalized out of on-going expenses. Based on this,  
5 Mr. Nichols' recommended reduction should be rejected.

6 Q. Do you agree with Staff witness Nichols' projection of test-year Corporate Service O&M  
7 related to injuries and damages expense?

8 A. No.

9 Q. Please explain why Mr. Nichols' recommendation regarding the Company's injuries and  
10 damages expense is unreasonable.

11 A. Mr. Nichols' projection is based on budget data provided by the Company and supports  
12 an increase of test-year injuries and damages expense of \$684 thousand over the amount  
13 requested in this rate case. The Company's projection in this case is shown in Exhibit  
14 A-33 (DLH-5) and is based on a five-year average of the historical years 2009 through  
15 2013. A five-year averaging approach provides a reasonable estimate for this expense  
16 due to the potential variability of expense levels in this expense category. Injuries and  
17 damages expense levels are largely determined by the number and magnitude of claims  
18 experienced in any given year. As a result, a historical averaging approach to develop a  
19 projection provides a more reasonable and supportable estimate of future injuries and  
20 damages expense than the Staff's approach.

21 Q. Does this complete your rebuttal testimony?

22 A. Yes.

1 JUDGE CUMMINS: Any questions of this  
2 witness?

3 MR. JANISZEWSKI: Brief cross, your  
4 Honor.

5 JUDGE CUMMINS: Certainly, Mr.  
6 Janiszewski, you have the floor.

7 MR. JANISZEWSKI: Thank you.

8 CROSS-EXAMINATION

9 BY MR. JANISZEWSKI:

10 Q Good morning, Mr. Harry.

11 A Good morning.

12 Q Your job title is the Director of Accounting and Process  
13 Control, and in that capacity, you are responsible for  
14 overseeing the Company's uncollectible gas accounts  
15 expense; is that correct?

16 A For this rate case, yes.

17 Q How many years have you been involved in calculating the  
18 uncollectible expense?

19 A I calculate the uncollectible expense strictly for the  
20 rate case presentation purposes, and I have been involved  
21 in a number of gas rate cases and this electric rate case  
22 over the course of probably five to six years.

23 Q So you've been working in that capacity since at least  
24 2010; would that be a correct statement?

25 A Yes.

1 Q Can you please turn to page 1 of your rebuttal testimony.  
2 My focus is on lines 12 through 22 of page 1 of your  
3 rebuttal testimony where you are addressing Staff's  
4 position with respect to the Company's test year  
5 uncollectible expense. Staff witness Robert Nichols  
6 projects test year uncollectible expense at 23.9 million,  
7 which is a 6.9 million reduction to the Company's test  
8 year uncollectible expense projection. Is that a correct  
9 summary of your review of the Staff's position?

10 A Yes.

11 Q The next question on this page asks for whether you  
12 believe the Staff's projection represents a more  
13 reasonable estimate of uncollectible accounts expense  
14 than the Company's filed projection, which you disagree  
15 with; is that correct?

16 A That's correct.

17 Q And you opine that the Staff's recommendation for  
18 uncollectible accounts expense appears to be based on  
19 budget data supplied by the Company as part of a Staff  
20 audit request, and that Staff failed to provide economic  
21 revenue or customer assumptions or a calculation  
22 methodology to validate the reasonableness of their  
23 projections. Is that correct?

24 A Yes.

25 Q Your conclusion from this part of your rebuttal testimony

1 is that the uncollectible expense that the Company  
2 estimated in its internal budget for the test year should  
3 be used; is that correct?

4 A No. My conclusion is the Company's budget numbers should  
5 not be used for this rate case.

6 Q O.K. That clarifies that. Were you -- did you develop  
7 the uncollectible budget, or were you involved in  
8 developing it?

9 A I was not.

10 Q Did you have any capacity overseeing the development of  
11 that?

12 A No.

13 Q Do you know how the uncollectible budget was calculated?

14 A I only have a general knowledge of the Company's process  
15 to calculate the budget for uncollectibles, and that  
16 general knowledge just relates to why it was lower.

17 Q Could you please extrapolate on your general knowledge of  
18 this subject?

19 A Yes. It's my understanding that the Company's budget  
20 approach included a number of aggressive targets and  
21 assumptions that if they were successful, they could  
22 result in a lower uncollectibles expense.

23 Q Do you happen to know what assumptions and underlying  
24 data were used to develop the original uncollectible  
25 budget?

1 A I do not.

2 Q O.K. To your knowledge -- can you summarize how the  
3 original calculation differs from the calculation method  
4 you performed arriving at the estimate for the  
5 uncollectible expense in this specific rate case?

6 A Yes. The approach I took in this rate case used a  
7 three-year average bad debt loss ratio of revenues to bad  
8 debt expense, uncollectibles expense, and to come up with  
9 an average bad debt lose ratio applied to test year  
10 revenues, and that calculation provided a projection for  
11 uncollectible expense. As I mentioned, I was not  
12 involved in the development of the Company's budget  
13 uncollectibles expense projection, so I can't really  
14 comment on that.

15 Q Is your budget estimate in this specific rate case based  
16 on more recent forecasts for the test year?

17 MR. BEACH: I'm going to object.  
18 Misstates the witness testimony. Mr. Harry has not  
19 presented a budget estimate in his testimony.

20 JUDGE CUMMINS: Mr. Janiszewski, do you  
21 want to rephrase that?

22 MR. JANISZEWSKI: What I was -- O.K.

23 Q (By Mr. Janiszewski): What I'm exploring here is the  
24 estimate for the uncollectible expense. Is that based on  
25 more recent forecasts for -- applied to the test year?

1 A More recent than the Company's budget or --

2 Q More recent than -- I'm still exploring and comparing the  
3 Company's uncollectible budget for internal purposes and  
4 your specific analysis for this rate case.

5 A My approach utilized the three most recent historical  
6 years when the case was prepared, which was '11 through  
7 2013, 2011 through 2013. The Company's budget, again, I  
8 can not comment on what -- how recent the data was they  
9 used to prepare that.

10 Q So am I correct to assume that your estimate is based on  
11 information from 2013 [sic] to 2013; is that correct?

12 A 2011 through 2013, that's correct.

13 Q Doesn't it make sense for the Commission to use more  
14 recent information in developing the uncollectible  
15 expense in this rate case?

16 A Well, I believe -- at the time I prepared it, I used the  
17 most recent information available. Through the passage  
18 of time, another year of final uncollectible expenses is  
19 available, but I don't have the opportunity to update my  
20 exhibits for that.

21 Q What is the time lag generally from the time a bill is  
22 issued to a customer and when that is written off if not  
23 paid, if you know?

24 A Roughly six months.

25 Q Could you please turn to page 2 of your rebuttal

1 testimony. Specifically looking at lines 8 through 9, is  
2 it your opinion that the economy in Michigan is better or  
3 worse now than it was five years ago?

4 A It's my opinion the economy in Michigan has improved over  
5 the last five years; however, I think we still have a  
6 large population of vulnerable customers that struggle to  
7 pay their bill.

8 Q Is the level of employment in the State of Michigan a  
9 significant factor as to how much uncollectible accounts  
10 rise or fall?

11 A I don't know if there's a direct relationship.

12 Q To your knowledge, is the unemployment rate higher or  
13 lower now than it was five years ago?

14 A I believe it's lower.

15 Q To your knowledge, are gas prices higher or lower now  
16 than they were one year ago?

17 A It's my opinion that gas prices have fallen recently,  
18 although I can not verify that without knowing what it  
19 was one year ago.

20 Q Moving down page 2 of your rebuttal testimony,  
21 specifically lines 9 through 12, you state, "These  
22 factors tend to fluctuate over time as reflected in  
23 uncollectible accounts expense over the 2011 through 2013  
24 timeframe as shown in the trend of energy uncollectible  
25 accounts expense for those years, (\$32.2 [million], \$23.2

1 [million], and \$32.6 million, respectively.)

2 Is that a correct characterization of the  
3 testimony?

4 A Yes.

5 Q Do you agree that given the year-to-year fluctuations, it  
6 would make more sense to look at the uncollectible costs  
7 over a longer period of time than a shorter period of  
8 time?

9 A No. I believe that the most recent years reflect the  
10 best example of the trend in uncollectibles expense, and  
11 that by adding additional years doesn't necessarily give  
12 you a better estimate of future uncollectibles expense.

13 Q Could you please turn to page 3 of your rebuttal  
14 testimony. Specifically lines 6 through 9 you address a  
15 portion of rebutting the Attorney General's witness in  
16 this matter stating, "By using a five-year average  
17 approach, the Attorney General witness' calculation  
18 dilutes the recent trend of higher uncollectible expense  
19 by incorporating a lower 2010 historical year resulting  
20 in a lower ratio of net charge-offs to revenue and a  
21 lower projection of uncollectible accounts expense."

22 Do you have an opinion on what is causing  
23 the recent trend of higher uncollectible accounts  
24 expense?

25 A I do not.

1 Q Could it be the higher gas bills experienced during the  
2 extreme cold winter of 2014?

3 A I don't know.

4 Q Would the extreme cold winter of 2014 generally have any  
5 effect on uncollectible accounts expense?

6 A It's possible, because customer bills would be higher,  
7 but I couldn't make that definitive statement.

8 Q Have you been involved in estimating the cost savings of  
9 lower uncollectible accounts as a result of implementing  
10 AMI or Smart Meters?

11 A No.

12 Q Why haven't you been involved in this area?

13 A It's outside my area of expertise.

14 Q Is there a specific witness that you would defer to on  
15 this matter?

16 A Lincoln Warriner.

17 MR. JANISZEWSKI: I have no further  
18 questions, your Honor.

19 JUDGE CUMMINS: Thank you,  
20 Mr. Janiszewski.

21 Do any of the other parties have  
22 questions of this witness? Mr. Keskey, please proceed.

23 CROSS-EXAMINATION

24 BY MR. KESKEY:

25 Q Good morning, Mr. Harry.

1 A Good morning.

2 Q When you indicate that you are the Director of Accounting  
3 Process and Control, do you get involved in cost of  
4 service studies?

5 A I do not.

6 Q When you use the phrase Accounting Process and Control,  
7 you provided a sentence on what that entails, but is  
8 there any more specifics that you could provide?

9 A I'm involved with financial analysis with a focus on  
10 process and control improvements.

11 Q Does that involve the accuracy of the accounting data and  
12 collection and the processing of it through to the final  
13 statements of the Company?

14 A It can.

15 Q Now, on page 2 of your testimony you indicate that you  
16 are presenting testimony concerning test year operation  
17 and maintenance expense for corporate services. Is that  
18 a subset of overall operation and maintenance expense?

19 A It is.

20 Q And you're not -- you're testifying only to that subset  
21 and not to other areas of O&M expense?

22 A Yes.

23 Q Does any expense included in your O&M expense  
24 presentation relate to AMI, the AMI program, or Smart  
25 Meters?

1 A No.

2 Q So you don't have any specific driver or allocation  
3 formula for AMI with respect to the O&M that you're  
4 presenting?

5 A I do not.

6 Q Do you work with Mr. Ross in terms of his cost of service  
7 study at all?

8 A No.

9 Q Now, you also talked about depreciation. On page 13 you  
10 reference Case U-17653, and that would be the most  
11 current depreciation case; would that be correct?

12 A That's correct.

13 Q Were you involved in that, any part of that case?

14 A I was not.

15 Q Did you do any background work for that case?

16 A I did not.

17 Q On page 15 of your direct testimony you mention the  
18 Uniform System of Accounts issued by the Federal Energy  
19 Regulatory Commission regarding depreciable plant when  
20 it's retired. Would that be applicable to the  
21 undepreciated balance remaining relative to existing  
22 analog meters that have been or are being replaced?

23 A I don't know.

24 Q Are you aware as to whether or not there is remaining  
25 undepreciated depreciation associated with meters that

1 are being replaced?

2 A No, I'm not.

3 Q Do you know of any reason why any remaining balance  
4 associated with existing meters that have been or are  
5 being replaced with Smart Meters, as to why the booked  
6 cost would be handled relative to that kind of  
7 investment, why it would be treated any differently than  
8 what you described here relative to the FERC regulations  
9 on page 15 of your testimony?

10 A No, I don't.

11 Q Have you been involved in any respect with overseeing how  
12 AMI or Smart Meter investment or cost or depreciation or  
13 other elements of the cost of service is being handled?

14 A No.

15 Q Are you aware of any way in which that AMI investment  
16 cost depreciation or other elements of the cost of  
17 service are being segregated or handled or analyzed  
18 relative to Consumers Energy?

19 A No.

20 Q Would you know of what person or witness in this case  
21 would be familiar with that?

22 A Lincoln Warriner.

23 MR. KESKEY: I have no other questions,  
24 your Honor.

25 JUDGE CUMMINS: Thank you, Mr. Keskey.

1                   Any other cross-examination for this  
2 witness? Any redirect, Mr. Beach?

3                   MR. BEACH: One second, your Honor.

4                   No redirect, your Honor.

5                   JUDGE CUMMINS: Very well. Thank you,  
6 Mr. Beach.

7                   We have five exhibits to deal with at  
8 this point, these are Exhibits A-29 through A-33. Is  
9 there any objection to the receipt of these five  
10 exhibits? Hearing none, those exhibits are received into  
11 evidence.

12                   Mr. Harry, you may step down.

13                   (The witness was excused.)

14                   - - -

15                   JUDGE CUMMINS: Before we start with the  
16 next witness, why don't we take a quick break in place  
17 here. I think we should do just for a few minutes.  
18 Let's go off the record.

19                   (At 10:32 a.m., there was a brief in-place recess.)

20                   - - -

21                   JUDGE CUMMINS: Please call your next  
22 witness.

23                   MR. BEACH: Your Honor, the Company calls  
24 Witness David Kehoe to the stand.

25                   - - -

D A V I D     B .     K E H O E

was called as a witness on behalf of Consumers Energy Company and, having been duly sworn to testify the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BEACH:

Q     Good morning, Mr. Kehoe.    Could you please state your full name and business address for the record?

A     Sure.    My full name is David B. Kehoe.    Business address is 1945 West Parnall Road, Jackson, Michigan.

Q     By whom are you employed?

A     Consumers Energy.

Q     In what capacity are you employed with Consumers Energy?

A     I'm Director of Staff for the electric generation part of the Company.

Q     Mr. Kehoe, did you cause to be prepared in this proceeding a document entitled the Direct Testimony of David B. Kehoe on behalf of Consumers Energy Company, which consists of a cover page and 37 pages of question-and-answer testimony?

A     I did.

Q     Did you also cause to be filed or prefiled a document entitled the Rebuttal Testimony of David B. Kehoe on behalf of Consumers Energy Company, which consists of a cover page and 22 pages of question-and-answer testimony?

1 A Yes.

2 Q Do you have any corrections to either of those documents?

3 A I do. There is a correction in the direct testimony on  
4 page 24, line 9. Where I reference Campbell 2, the  
5 correct reference is Campbell 1.

6 Q Do you have any further changes?

7 A No.

8 Q With that change if I were to ask you the same questions  
9 today under oath, would your answers remain the same?

10 A Yes.

11 Q Is that the testimony you're adopting today as your own?

12 A Yes.

13 Q Are you also sponsoring exhibits with your direct and  
14 rebuttal testimony?

15 A Yes, I am.

16 Q Mr. Kehoe, I'm going to read off your exhibits, and  
17 please correct me if I state anything incorrectly.

18 Mr. Kehoe, is correct that you're sponsoring with your  
19 direct testimony Company Exhibit A-44 DBK-1, A-45 DBK-2,  
20 A-46 DBK-3, A-47 DBK-4, A-48 DBK-5; with your rebuttal  
21 testimony, A-96 DBK-6, A-97 DBK-7, A-98 DBK-8, A-99  
22 DBK-9, A-100 DBK-10, A-101 DBK-11, A-102 DBK-12, A-103  
23 DBK-13, A-104 DBK-14, A-105 DBK-15, A-106 DBK-16, A-107  
24 DBK-17, and finally A-108 DBK-18?

25 A That is correct.

1 Q Do you have any corrections or additions to those  
2 proposed exhibits?

3 A No.

4 Q Are those the exhibits you're adopting as your own today?

5 A Yes.

6 Q Were these exhibits prepared by you or under your  
7 direction?

8 A Yes, they were.

9 MR. BEACH: At this time, your Honor, the  
10 Company moves to bind in the direct and rebuttal  
11 testimony of David B. Kehoe as corrected on the stand, at  
12 the conclusion of cross-examination moves for the  
13 admission of his exhibits. With that, I tender the  
14 witness for cross-examination.

15 JUDGE CUMMINS: Thank you, Mr. Beach.  
16 Any objection to binding in the direct and rebuttal  
17 testimony of Mr. Kehoe? Hearing none, that testimony is  
18 bound into the record.

19 (Testimony bound in.)  
20  
21  
22  
23  
24  
25

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**

**OF**

**DAVID B. KEHOE**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

December 2014

DAVID B. KEHOE  
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, Energy Resources Business Services (“ERBS”).

6 Q. Please describe your educational background.

7 A. I received a Bachelor of Science in Chemistry degree in December 1977 from the  
8 University of Michigan. In May of 1982, I received a Masters degree in Business  
9 Administration 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 American Society for Testing and Materials

DAVID B. KEHOE  
DIRECT TESTIMONY

1 (“ASTM”) Committee on Corrosion and Deposits from Combustion Gasses, and ASTM  
2 D-5 Committee.

3 In 1989, I left the position of Senior Engineer at Detroit Edison and went to  
4 CQ Inc., a subsidiary of the Electric Power Research Institute. While at CQ Inc., I held  
5 the position of Project Manager and consulted with utilities, coal companies, and  
6 engineering firms on fuel selection and fuel impacts. Additionally, I served on the  
7 Department of Energy’s coal research project peer review panel.

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

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. What are your responsibilities as Director of Staff, ERBS?

2 A. As Director of Staff, ERBS, I am responsible for strategic planning for the electric  
3 generation business of Consumers Energy. This function includes regulatory oversight as  
4 well as financial planning and budgeting.

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

7 A. Yes. I sponsored testimony in the following cases: Case Nos. U-13917 and U-13917-R  
8 [2004 Power Supply Cost Recovery (“PSCR”) Plan and Reconciliation cases]; Case Nos.  
9 U-14274 and U-14274-R (2005 PSCR Plan and Reconciliation cases); Case Nos.  
10 U-14701 and U-14701-R (2006 PSCR Plan and Reconciliation cases); Case No. U-14347  
11 (2006 Electric Rate case); Case Nos. U-15001 and U-15001-R (2007 PSCR Plan and  
12 Reconciliation cases); Case Nos. U-15415 and U-15415-R (2008 PSCR Plan and  
13 Reconciliation cases); Case No. U-15245 (2008 Electric Rate case); Case Nos. U-15675  
14 and U-15675-R (2009 PSCR Plan and Reconciliation case); Case No. U-15645  
15 (2009 Electric Rate case); Case No. U-16113 (2009 Show Cause Order); Case No.  
16 U-16054 (2009 Depreciation Practices for Electric and Common Utility Plant); Case No.  
17 U-16055 (2009 Depreciation Practices for Ludington Pumped Storage Plant); Case Nos.  
18 U-16045 and U-16045-R (2010 PSCR Plan and Reconciliation cases); Case No. U-16191  
19 (2010 Electric Rate case); Case Nos. U-16432 and U-16432-R (2011 PSCR Plan and  
20 Reconciliation cases); Case No. U-16536 (2011 Depreciation Practices for Lake Winds  
21 Energy Park); Case No. U-16794 (2011 Electric Rate case); Case Nos. U-16890 and  
22 U-16890-R (2012 PSCR Plan and Reconciliation cases); Case No. U-17087  
23 (2013 Electric Rate case); Case Nos. U-17095 and U-17095-R (2013 PSCR Plan and

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Reconciliation cases); Case No. U-17317 (2014 PSCR Plan case); Case No. U-17453  
2 (2013 Accounting Practices for certain Electric and Common Utility Plant); Case No.  
3 U-17473 (2013 Financing Order Approving the Securitization of Qualified Costs);  
4 Case No. U-17624 (2014 Recovery of Deferred Major Maintenance Expenses); Case No.  
5 U-17653 (2014 Depreciation Practices for Electric and Common Utility Plant); and Case  
6 No. U-17678 (2015 PSCR Plan case).

7 Q. What is the purpose of your testimony?

8 A. The purpose of my testimony is to identify and support Fossil and Hydro Generation  
9 (“Fossil/Hydro Generation”) Department’s: 1) description of Consumers Energy’s  
10 generation assets; 2) periodic outage plans and Random Outage Rate (“ROR”)  
11 projections for the twelve-month period beginning June 1, 2015 through May 31, 2016;  
12 3) O&M and fuel handling expenses for the years 2013 through 12 Months Ended  
13 May 31, 2016; 4) capital expenditures that have been made, and will be made, at the  
14 Company’s generating plants to comply with the Clean Air Act (“CAA”); and 5) other  
15 capital expenditures that are required at the Company’s generating plants for 2014-2018.

16 Q. Are you sponsoring exhibits with your testimony?

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

- 18 • Exhibit A-44 (DBK-1) Major Outages, Fossil Generation and Ludington
- 19 • Exhibit A-45 (DBK-2) Generating Unit Availability Projections
- 20 • Exhibit A-46 (DBK-3) 2013-12 Months Ended May 31, 2016 Fossil/Hydro  
21 Generation Operation & Maintenance Expenses
- 22 • Exhibit A-47 (DBK-4) 2013-2018 Fossil/Hydro Generation Capital  
23 Expenditures
- 24 • Exhibit A-48 (DBK-5) 2013 Non-Fuel O&M / MWh

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Were these exhibits prepared by you or under your direction?

2 A. Yes.

3 **FOSSIL/HYDRO GENERATION ASSETS**

4 Q. Please provide an overview of the Company's generation assets.

5 A. As of August 1, 2014, the Company's total owned Fossil and Hydro net demonstrated  
6 summer operating capability was 6,024 MW, comprised of the following units:

7 **Coal Fired:**

8	JH Campbell 1&2	611 MW	West Olive, MI
9	JH Campbell 3	751 MW (owned share)	West Olive, MI
10	DE Karn 1&2	510 MW	Essexville, MI
11	BC Cobb 4&5	307 MW	Muskegon, MI
12	JR Whiting 1-3	317 MW	Erie, MI
13	JC Weadock 7&8	309 MW	Essexville, MI

14 **Oil or Gas fired:**

15	DE Karn 3&4	1204 MW	Essexville, MI
16	Zeeland CC	520 MW	Zeeland, MI
17	Combustion Turbines	442 MW	Various Locations

18 **Hydroelectric:**

19	Ludington 1-6	955 MW (owned share)	Ludington, MI
20	River Hydros	77 MW	Various Locations

21 **Wind:**

22	Lake Winds	21 MW	Ludington, MI
----	------------	-------	---------------

23 Q. What does "owned share" mean when used with respect to JH Campbell 3?

24 A. The Company owns 93% of that facility. Other entities own the remaining 7%. Thus the  
25 751 MW capacity reported is 93% of the unit size, reflecting the Company's share of  
26 ownership.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. What does “owned share” mean when used with respect to Ludington 1-6?

2 A. The Company owns 51% of that facility. Detroit Edison owns the remaining 49%. Thus  
3 the 955 MW capacity reported is 51% of the total Ludington Plant, reflecting the  
4 Company’s share of ownership.

5 **PERIODIC OUTAGE PLANS AND RANDOM OUTAGE RATE PROJECTIONS**

6 Q. Please identify all the major outages (28 days or more in duration) that are scheduled  
7 during the Test Year – June 1, 2015 through May 31, 2016.

8 A. Exhibit A-44 (DBK-1) lists the major outages (28 days or more in duration) that affect  
9 the Company’s generation. Company witness David F. Ronk incorporates these outages  
10 in his testimony on the dispatch of the Company’s generating plants in this case.

11 Q. Please describe Exhibit A-45 (DBK-2).

12 A. Exhibit A-45 (DBK-2) identifies Generating Unit Availability Projections for Consumers  
13 Energy’s Test Year. Column (a) identifies Consumers Energy’s generating units or  
14 category of units. Column (b) identifies the Availability of the unit or category of unit.  
15 Column (c) identifies the Periodic Factor of the unit or category of unit. Column (d)  
16 identifies the ROR of the unit or category of unit. Column (e) identifies the 5-year ROR  
17 of the unit or category of unit.

18 Q. Please define Availability.

19 A. Availability is a measure of the percent of time a unit will be available to generate  
20 electricity.

21 Q. Please define Periodic Factor.

22 A. Periodic Factor is a measure of the percent of lost availability that results from planned  
23 outages (and extensions) and planned derates (and extensions).

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please define ROR.

2 A. ROR is a measure of the percent of MW not produced because of forced or unplanned  
3 outages.

4 Q. What affects (increases or decreases) ROR?

5 A. The frequency and/or length of a forced or unplanned outage affects ROR. Reducing the  
6 frequency and length of forced or unplanned outages improves ROR. Increasing the  
7 frequency and length of forced or unplanned outages degrades ROR. In theory, a robust  
8 maintenance plan improves both unit performance and ROR. Conversely, less  
9 maintenance degrades both unit performance and ROR.

10 Q. How are the ROR projections for the fossil, hydro, and peaker units in this case  
11 developed?

12 A. The ROR projections for this case were developed from the five-year (2009 through  
13 2013) average and then adjusted to reflect current operating conditions. These values are  
14 shown in my Exhibit A-45 (DBK-2), column (e).

15 **FOSSIL/HYDRO GENERATION'S O&M EXPENSE**

16 Q. Is Consumers Energy effectively managed its maintenance costs?

17 A. Yes. In 2013 and prior years, Consumers Energy's cost to generate electricity (Non-Fuel  
18 O&M / MWh) was ranked in the top twenty-five percent (First Quartile, lowest cost) in  
19 the nation. Reduced utilization of coal-fired power plants and increased generation from  
20 gas-fired power plants has challenged our efforts to keep costs low. Consumers Energy  
21 recognizes these challenges and continues to make decisions that are in our customers'  
22 best interest and keep the Company competitive in the market.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please describe Exhibit A-46 (DBK-3).

2 A. Exhibit A-46 (DBK-3) identifies the 2013-12 Months Ended May 31, 2016 Fossil/Hydro  
3 Generation O&M expenses. Specifically:

- 4 • Column (a) identifies each O&M expense category.
- 5 • Column (b) identifies the Actual 2013 Fossil/Hydro Generation O&M expense as  
6 \$163,380,000.
- 7 • Column (c) identifies the Projected 2014 Fossil/Hydro Generation O&M expense  
8 as \$164,709,000.
- 9 • Column (d) identifies the Projected 2015 Fossil/Hydro Generation O&M expense  
10 as \$159,211,000.
- 11 • Column (e) identifies the Projected 12-Months Ended May 31, 2016 Fossil/Hydro  
12 Generation O&M expense as \$176,827,000.

13 Q. In the Commission's November 4, 2010 Order in Rate Case U-16191 (page 8), the  
14 Commission expressed concern over the level of commitment the Company has to the  
15 spending plans outlined in its testimony. In order to demonstrate that commitment, the  
16 Commission suggested that, "...Consumers could file proposals and plans that have been  
17 provided to upper management or the Board of Directors for approval..." Did upper  
18 management or the Board of Directors ("Board") approve the generation O&M expenses  
19 identified in Exhibit A-46 (DBK-3)?

20 A. Yes, upper management approved the O&M expenses identified in Exhibit A-46  
21 (DBK-3).

22 Q. Please explain how the 2013 Actual O&M expenses were calculated.

23 A. The 2013 Actual O&M expenses were taken from Consumers Energy's internal  
24 accounting records.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please explain how the 2014, 2015, and 12 Months Ended May 31, 2016 (Projected) Test  
2 Year O&M expenses were calculated.

3 A. Base O&M for the years 2013 through the 12 months ending May 31, 2016 shown on  
4 line 1 of Exhibit A-46 (DBK-3) (columns b and e) demonstrate average annual decreases  
5 of 9.1%. The Company also calculates the coefficient of determination ( $r^2$ ) to be 96.7%,  
6 which reflects the predictable nature of these costs.

7 Lines 3 through 5 identify Adjusted O&M expenses which are new or projected to  
8 change from past years' expense levels. These include items that are required by law for  
9 the safety of our employees and the reliability of service to our customers. They are  
10 lines: 3) Environmental Operations; 4) Jackson gas plant ("Jackson Plant"); and 5) Major  
11 Maintenance.

12 Q. How was the average annual decrease of 9.1% calculated?

13 A. The average annual decrease was calculated by dividing 2013's Actual Base O&M  
14 \$141,118 [see Exhibit A-46 (DBK-3), line 1, column (b)] by the Test Year's projected  
15 Base O&M \$110,947 [see Exhibit A-46 (DBK-3), line 1, column (e)]. Subtracting one  
16 from the quotient identifies the total percentage decrease (27.2%) between 2013 and the  
17 Test Year – 12 Months Ended May 31, 2016. Dividing the total percentage decrease  
18 (27.2%) by three (the periods of time between 2013 and the Test Year) gives the average  
19 annual decrease.

20 Q. How was the coefficient of determination ( $r^2$ ) calculated?

21 A. The coefficient of determination was calculated using a Microsoft Excel linear regression  
22 model.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Why was a linear regression model used to forecast Base O&M expenses?

2 A. Several different forecasting methods have been considered over the years, however, the  
3 linear regression model was chosen because it was found to be the most accurate method  
4 of calculating the predictable nature of the projected Base O&M amount.

5 Q. Why are Base O&M expenses decreasing?

6 A. In December 2011, Consumers Energy announced Cobb units 4&5, Weadock units 7&8,  
7 and Whiting units 1-3 would be mothballed as a result of new Environmental Protection  
8 Agency (“EPA”) emission standards. Since that time, the Company committed to retire  
9 and demolish these units. As explained later in my testimony, Base O&M costs are  
10 determined by a generating unit’s operating history and are broken into two categories –  
11 labor and non-labor. Since the December 2011 announcement, the Company has reduced  
12 both labor and non-labor spending at the Cobb, Weadock, and Whiting sites.

13 Q. Can you explain each of the expenses listed on lines 3 through 5 of Exhibit A-46  
14 (DBK-3)?

15 A. Yes. These expenses identify emerging or changing costs and consist of:

16 • **Environmental Operations:** As Federal and State emissions standards require  
17 cleaner air, Consumers Energy is installing Air Quality Control Systems  
18 (“AQCS”) to comply with these regulations. As the number of AQCS devices  
19 increase, so do the costs to operate and maintain these critical pieces of  
20 equipment. This expense is included on line 3 and is comprised of Material and  
21 Labor.

22 • **Jackson Plant:** In January 2014, Consumers Energy announced plans to  
23 purchase the 540 MW DPC Juniper gas-fired power plant in Jackson, MI. The  
24 purchase of this facility is projected to occur in December 2015 and is intended to  
25 partially replace the generating capacity that will be lost when the Company’s  
26 seven oldest coal-fired power plants retire. Company witness Ronk provides  
27 further details of this purchase in his testimony. This expense is included on  
28 line 4 and is comprised of Labor, Material, and LTSA obligations.

29 • **Major Maintenance:** To maintain and improve the performance of our  
30 generating fleet, Consumers Energy attempts to do major maintenance on a

DAVID B. KEHOE  
DIRECT TESTIMONY

1 routine basis. However, as described later in my testimony, there are many  
2 variables which affect when major maintenance is completed. This expense is  
3 included on line 5 and is comprised of Material and Contract Labor.

4 Q. How does Consumers Energy determine the level of Fossil/Hydro Generation O&M  
5 spending?

6 A. Consumers Energy tracks the history and future maintenance needs of each unit.  
7 Personnel at each plant provide ERBS with information on maintenance for each site or  
8 specific unit. Based on that information, ERBS weighs the estimated benefit to the  
9 customer for each project. Using this combination of information, a preliminary plan is  
10 prepared and reviewed to ensure high-priority issues are addressed and adequate  
11 resources and funding is available. After all appropriate levels of management have  
12 reviewed and approved the maintenance plan, a schedule is created. The overall  
13 objective is the safe, reliable, cost-effective generation of electricity.

14 Q. Please explain how the Company weighs the estimated benefit to the customer.

15 A. The Company uses Internal Rate of Return (“IRR”) and Present Value Ratio (“PVR”) as  
16 a means to evaluate and weigh the hundreds of projects within Generation. IRRs and  
17 PVRs are calculated using standard Excel formulas. This complex financial model was  
18 developed in-house and allows the Company to calculate and measure the numerous  
19 changes that result when improvements (both O&M and Capital) are made to a regulated  
20 power plant. Only after the model has calculated the numerous changes that result from  
21 the proposed improvements can the projects IRR and PVR be calculated.

22 Q. Does the Company calculate IRRs or PVRs for all projects?

23 A. The Company calculates IRRs or PVRs for base and economic projects. Projects  
24 required for regulatory compliance, or similar type projects, are not subject to reviews.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Can you provide an example of a project that was evaluated and how the IRR or PVR  
2 was calculated?

3 A. Yes. As explained later in my testimony, Consumers Energy has scheduled outages in  
4 2014 and 2015 to overhaul and upgrade Karn units 1 and 2. One of the many projects  
5 that were evaluated was the replacement of the low pressure (“LP”) rotors. Karn’s  
6 engineering staff calculated the efficiency improvements that would be achieved by  
7 replacing the rotors. These improvements were entered into the model, which in-turn  
8 calculated increased generating outputs (in proportion to the level of efficiencies that  
9 were entered) and also reduced future O&M, fuel, and replacement power costs  
10 accordingly. The IRR calculation worked out to be 56%, qualifying the LP rotor project  
11 to be included in the overhaul and upgrade.

12 Q. Please explain O&M spending.

13 A. The O&M spending has two primary components – “Base” and “Major Maintenance.”

14 Q. Please discuss Base O&M costs.

15 A. Base O&M costs are determined by a generating unit’s operating history and are broken  
16 into two categories – labor and non-labor. Labor is the primary component and has a  
17 predictable, stable rate of increase. Because most of the Company’s units have been in  
18 service for over 40 years, we have an excellent basis to make accurate forecasts.  
19 Non-labor expenses also increase at a predictable rate and include items required to  
20 operate the plants. These items include, but are not limited to: 1) fuel (diesel and  
21 gasoline) for equipment and vehicles; 2) material; 3) tools; 4) cleaning supplies;  
22 5) facilities; 6) security; and 7) road and grounds maintenance.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please identify how the Test Year (12 months ended May 31, 2016) Major Maintenance  
2 will be distributed among the Fossil/Hydro Generation units.

3 A. The Company projects that it will incur \$38.7 million in Major Maintenance during the  
4 Test Year, as identified by Exhibit A-46 (DBK-3), column (e), line 5. This amount will  
5 be distributed as follows: \$0.6 million – Cobb; \$19.3 million – Campbell; \$0.1 million –  
6 Whiting; \$9.4 million – Karn; \$0.2 million – Weadock; \$5.9 million – Ludington Pumped  
7 Storage/Hydros; and \$3.1 million – Zeeland.

8 Q. Why is Consumers Energy spending \$38.7 million in Major Maintenance during the Test  
9 Year?

10 A. After Consumers Energy's seven oldest coal-fired power plants retire in April 2016, the  
11 Company will continue to operate five base-load coal plants. A significant portion of the  
12 major maintenance will be spent on improving the reliability of our remaining coal fleet.  
13 To ensure the reliability of these remaining units, and to protect customers from high-spot  
14 market prices, the Company is investing in the reliability of the remaining base-load coal  
15 plants.

16 Q. Based on the above distribution, Consumers Energy projects spending \$0.9 million in  
17 major maintenance on the Cobb, Weadock, and Whiting units. Are these expenses  
18 reasonable and prudent?

19 A. Yes. The projected major maintenance expenses at these sites are reasonable and prudent  
20 because they are required for safety, reliability, and regulatory/environmental  
21 compliance. These expenses also maintain the performance of the generating units until  
22 retirement, reducing the need for additional replacement power and fuel. Furthermore,

DAVID B. KEHOE  
DIRECT TESTIMONY

1 the Cobb, Weadock, and Whiting units will continue to produce competitively-priced  
2 energy through April 2016, when these units are scheduled to be retired.

3 Q. Has Consumers Energy reduced the planned investment at the Cobb, Weadock, and  
4 Whiting units?

5 A. Yes. After the December 2011 decision to mothball Cobb, Weadock, and Whiting, the  
6 Company limited spending on these units. A comparison between the Company's 2011  
7 incurred major maintenance expense at these units and the incurred major maintenance  
8 expense at these units subsequent to the decision to mothball the units, illustrates this  
9 limitation. In 2011, the Company incurred \$13.3 million in major maintenance expense  
10 at the Cobb, Weadock, and Whiting units. However, between June 1, 2012 and May 15,  
11 2013 the Company incurred \$4.5 million in major maintenance expense at the Cobb,  
12 Whiting, and Weadock units – see Case No. U-17624, Exhibit: A-1 (DBK-1).

13 Q. How much did Consumers Energy spend on major maintenance (specifically at the Cobb,  
14 Whiting, and Weadock sites) in 2013?

15 A. The Company incurred \$2.9 million in major maintenance expenses at the Cobb,  
16 Whiting, and Weadock sites in 2013.

17 Q. Did Consumers Energy evaluate the major maintenance projects that were completed at  
18 the Cobb, Whiting, and Weadock units?

19 A. Yes. The Company's Business Planning process was used to evaluate economic-based  
20 major maintenance projects that were completed at the Cobb, Whiting, and Weadock  
21 units.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Are major maintenance expenses relatively consistent from year to year?

2 A. No. Although the Company attempts to plan for controlled and consistent levels of major  
3 maintenance, factors such as new environmental or regulatory mandates, unforeseen  
4 equipment failure, emerging industry initiatives, unit dispatch, expected power prices,  
5 unit performance, and simple timing variations can impact the cost and scheduling of  
6 major maintenance. Because major maintenance outages occur relatively infrequently,  
7 for an individual unit, it is very possible to have significant year-by-year variations in the  
8 number, duration, and magnitude of the required major maintenance work.

9 Q. Is it possible that changes to the Company's forecast major maintenance plan could  
10 occur?

11 A. Yes. It is possible that the Company's forecasted major maintenance plan could change.  
12 Equipment condition can change such that the timing of maintenance activities may need  
13 to be accelerated or delayed. The Company often develops major maintenance forecasts  
14 months, sometimes more than a year, in advance. The Company attempts to make the  
15 best decision in balancing the cost and risks associated with the operation of the  
16 equipment and attempts to minimize the cost to the customer. Such factors as weather,  
17 equipment and labor availability, and electrical system stability considerations can effect  
18 the actual timing of an outage.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. In Case No. U-17087, Consumers Energy projected the 2013 Test Year major  
2 maintenance to be \$17.2 million – see Exhibit A-46 (DBK-3). Did Consumers Energy  
3 achieve its 2013 major maintenance budget of \$17.2 million?

4 A. No. As identified in Exhibit A-46 (DBK-3), line 5 column (a), the Company incurred  
5 major maintenance expenses of \$19.9 million in 2013 – \$2.7 million more than  
6 forecasted.

7 Q. Do major maintenance costs vary by individual generating unit(s)?

8 A. Yes. As the Company's generating units vary in age, size, type, and design, so do the  
9 costs to maintain these units. As an example, major maintenance of Campbell 3  
10 (751 MW) would be considerably larger in scope and cost than major maintenance of  
11 Campbell 1 (260 MW) which is located on the same site.

12 Q. Is it common for a company to have different sizes, types, and designs of generating units  
13 in its generation portfolio?

14 A. Yes. Consumers Energy is not unique in that its fleet contains units of different size,  
15 type, and design. A significant difference between the generating fleet of Consumers  
16 Energy and other utilities is that Consumers Energy has a greater number of older plants.

17 Q. What are the categories of major maintenance?

18 A. Major maintenance is broken into two categories – outage and non-outage.

19 Q. Please describe what is included in the outage maintenance O&M costs.

20 A. Outage maintenance O&M costs are those associated with major overhauls and require  
21 that the generating unit be removed from service for boiler and/or turbine inspections and  
22 maintenance. These outages are typically scheduled on a periodic basis and are required

DAVID B. KEHOE  
DIRECT TESTIMONY

1 by law, insurance providers, and/or industry standards to ensure operational safety and  
2 reliability.

3 Q. Please describe the work completed in a boiler inspection.

4 A. Boiler inspections assess the fire (outside) and steam (inside) side of boiler tubing for  
5 weaknesses that will result in water/steam leaks. After the boiler has been properly  
6 opened, ventilated and cleaned scaffolding is constructed inside the boiler to provide  
7 access to the boiler tubes. Inspections are completed using a number of different  
8 methods – visual, non-destructive, and destructive. Visual and non-destructive testing are  
9 the most common methods of inspection. Non-destructive testing incorporates the use of  
10 ultrasonic, x-ray, magnetic particle, or like technologies to measure pipe wall thickness.  
11 Boiler tubes that are in poor condition or exceed minimum wall thickness are repaired or  
12 replaced. After all repairs are complete, boiler tubes are pressure tested. Each boiler is  
13 inspected on a specific time schedule – 1, 2, or 3 years maximum interval. Internal  
14 components with known problems are inspected more frequently. External inspections  
15 are performed daily by Operations and annually by State Inspectors.

16 Q. Please describe the work completed in a turbine inspection.

17 A. Turbine inspections consist of disassembling, inspecting, and cleaning the different  
18 components of the turbine. During the inspection, worn or damaged parts are repaired or  
19 replaced to specific tolerances. Because of the extreme conditions under which these  
20 units operate, the demand for uninterrupted power and dangers associated with operating  
21 these large pieces of equipment, industry standards recommend that inspections be  
22 completed every seven years.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please identify the maintenance outages scheduled during the Test Year.

2 A. Consumers Energy has scheduled a turbine inspection/overhaul for Karn 1 and  
3 Campbell 3 during the Test Year.

4 Q. Please define non-outage maintenance.

5 A. Non-outage maintenance O&M costs typically do not require the generating unit be  
6 removed from service, however, they are still critical to the operation of the unit.

7 Q. Please identify the major non-outage maintenance that will be done during the Test Year.

8 A. The following non-outage maintenance is scheduled for the Test Year:

9 • General Office expenses include the purchase of equipment and Economic  
10 Based Reliability modeling.

11 • The Ludington Pumped Storage facility will perform reservoir remediation, fish  
12 net repairs, and installation and removal of the fish barrier net. The River  
13 Hydros will incur costs related to obligations that were specified in the Federal  
14 Energy Regulatory Commission (“FERC”) approved license, maintenance, and  
15 repair of penstocks, dam inspections, concrete repairs, and zebra mussel  
16 cleaning.

17 • Zeeland and Jackson expenses include inspections and repairs associated with  
18 the General Electric Company (“GE”) LTSA.

19 Q. What are some of the major factors that impact the O&M cost of generating electricity?

20 A. As discussed earlier in my testimony, regulatory requirements such as the CAA are  
21 having a significant impact on O&M expenditures.

22 Q. Does the age of the Company’s generating units affect operating expenses?

23 A. Yes. Consumers Energy has the oldest regulated electric generating fleet of any electric  
24 utility in the United States. As a result, our units require more frequent inspections and  
25 routine maintenance than most other fleets. Because our units are older, if they do not  
26 receive the necessary maintenance they are more likely to fail, which increases the ROR,  
27 which can lead to prolonged unplanned outages.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Can Consumers Energy demonstrate that it is effectively managing its maintenance  
2 costs?

3 A. Yes. Despite operating the oldest regulated generating fleet in the nation, Consumers  
4 Energy's cost to generate electricity (Non-Fuel O&M / MWh) was ranked in the first  
5 quartile (lowest cost) in the nation. This data was obtained from the FERC Form 1  
6 filings and compiled by SNL Financial. The data includes all coal-fired plants for the  
7 year 2013. Exhibit A-48 (DBK-5) provides a summary of this study.

8 Q. Would you please briefly explain Exhibit A-48 (DBK-5)?

9 A. Yes. Columns (b) and (c) identify the Company's coal-fired generating units.  
10 Column (d) identifies the approximate generating capacity of each unit. Column (e)  
11 identifies Consumers Energy's 2013 Non-Fuel O&M/MWh by site.

12 Columns (f) through (j) identify quartiles that were established for this study, and  
13 lines 1-7, 8-11 and 12 identify the different groupings that were established for this study:  
14 1 MW – 250 MW; 251 MW – 500 MW; and 501 MW – 1,000 MW, respectively.

15 The data found in lines 1 through 12, columns (f) through (j), was obtained from  
16 SNL Financial and represents the 2013 Non-Fuel O&M/MWh.

17 Line 13, column (e) represents Consumers Energy's Weighted 2013 Non-Fuel  
18 O&M/MWh. Line 13, column (f) through (j) represents the Weighted 2013 Non-Fuel  
19 O&M/MWh, by quartile, of the units that were used in this study.

20 Line 13, column (e) identifies Consumers Energy's 2013 Non-Fuel O&M/MWh  
21 to be \$6.80. Because the Company's 2013 Non-Fuel O&M/MWh is less than the second  
22 quartile's expense of \$6.88 [see line 13, column (i)], the Company's 2013 Non-Fuel  
23 O&M/MWh falls in the first quartile (lowest cost) in the nation.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Do you expect that the Company will be able to maintain this performance?

2 A. Yes. As explained earlier in my testimony, various factors (such as new environmental  
3 or regulatory mandates, unforeseen equipment failure, emerging industry initiative, unit  
4 dispatch, expected power prices, unit performance, and timing variations) can impact the  
5 cost and scheduling of major maintenance. Therefore, there will inevitably be variations  
6 in each year that will affect how Consumers Energy's performance in these types of  
7 surveys compares to that of other utilities. Nevertheless, I expect the Company to be able  
8 to consistently achieve high relative performance.

9 Q. Please explain why the projected Test Year O&M expenses proposed in Exhibit A-46  
10 (DBK-3) are reasonable?

11 A. As described earlier in my testimony, O&M spending has two primary components –  
12 “Base” and “Major Maintenance.” Because Base O&M costs are determined by a  
13 generating unit's operating history, and because these costs are relatively stable from year  
14 to year, accurate forecasting is achievable. Realizing Base Projected expenditures have  
15 decreased at an average annual rate of 9.1%, which reflects a coefficient of determination  
16 ( $r^2$ ) of 96.7% We believe these costs to be accurate and reasonable.

17 Because Major Maintenance expenditures are determined by tracking both the  
18 historical and future maintenance needs for each site and unit, and because we also  
19 consider operational safety, unit reliability, and maximum customer value, we believe  
20 these costs to be necessary and reasonable.

DAVID B. KEHOE  
DIRECT TESTIMONY

**FOSSIL/HYDRO GENERATION'S CAPITAL EXPENDITURES**

1  
2 Q. What are the major drivers in determining capital expenditures at the generating plants?

3 A. The major drivers are the CAA and plant reliability. Consumers Energy's strategy for  
4 complying with the CAA and related emissions regulations are addressed in the  
5 testimony of Company witness Linda M. Hilbert.

6 Q. Please describe Exhibit A-47 (DBK-4), 2013-2018 Fossil/Hydro Generation Capital  
7 Expenditures"

8 A. This exhibit presents the capital expenditures for Fossil/Hydro Generation, 2013 through  
9 2018. The expenditures are grouped by: Lab Services, generating plants,  
10 Administrative/ERBS/Equipment Services Departments ("ESD")/Environmental Services  
11 ("ENV")/Energy Supply Operations ("ESO"), Air Quality ("CARI/CSAPR/MATS/MMR"),  
12 Resource Conservation and Recovery Act ("RCRA"), 316b, Steam Electric Effluent  
13 Guidelines ("SEEG"), and Other Environmental.

14 Specifically:

- 15 • **Lab Services – PE 04 – \$258,000**, includes capital expenditures related to the  
16 purchase of laboratory test equipment for the Laboratory Service group.
- 17 • **Administrative / ERBS / ESD / ENV / ESO – PE 17 – \$(3.6) million**, includes  
18 capital expenditures for reliability funding, the coal pile bull dozer improvement  
19 plan, a new 138 kV spare transformer, and capital expenditures related to  
20 computer upgrades.
- 21 • **CAIR/CSAPR/MATS/MMR – PE 24 – \$39.0 million**, includes capital  
22 expenditures related to compliance with the Clean Air Interstate Rule ("CAIR")  
23 of March 2005 (which is for the attainment of National Ambient Air quality  
24 standards) and compliance with existing State and Federal rules for Mercury –  
25 Michigan Mercury Rule ("MMR") and Mercury Air Toxics Standards ("MATS").  
26 Company witness Hilbert provides additional details in her direct testimony.
- 27 • **RCRA – PE 24 – \$796,000**, includes capital expenditures for compliance with  
28 the EPA's solid waste disposal act which mitigate potential risks associated with  
29 the disposal of coal combustion residuals ("CCR"). Company witness Hilbert  
30 provides additional details in her direct testimony.

DAVID B. KEHOE  
DIRECT TESTIMONY

- 1           • **316b – PE 24 – \$149,000**, includes capital expenditures related to the cost of  
2 capital projects at fossil generating units mandated by Section 316(b) of the Clean  
3 Water Act, which requires that the location, design, construction, and capacity of  
4 cooling water intake structures reflect the best technology available for  
5 minimizing adverse environmental impact. This account includes the  
6 expenditures necessary to minimize the adverse impact of drawing fish into the  
7 plant’s cooling system. Company witness Hilbert provides additional details in  
8 her direct testimony.
- 9           • **SEEG – PE 24 – \$5.5 million**, includes capital expenditures related to  
10 compliance with the EPA’s June 7, 2013 published limitation guidelines. A final  
11 rule is anticipated to be published separately from the CCR rule via the RCRA by  
12 September 30, 2015, based on an extension through consent decree (Defenders of  
13 Wildlife v. EPA). Company witness Hilbert provides additional details in her  
14 direct testimony.
- 15           • **Other Environmental – PE 62 – \$13.7 million**, includes capital expenditures  
16 related to compliance with many of the EPA’s regulatory requirements and  
17 includes costs such as: Pulse Jet Fabric Filter (“PJFF”) bag replacements, catalyst  
18 management, continuous emissions monitoring system, burner replacements, and  
19 the like.

20 Q.     What level of capital spending does the Company propose for the Commission to  
21 incorporate into rates in this case?

22 A.     The Company’s rate relief request in this case reflects capital spending on projects for its  
23 generating plants of \$425.3 million for 2013 (actual), \$462.9 million in 2014 (projected),  
24 \$524.2 million in 2015 (projected), \$266.4 million in 2016 (projected), \$205.5 million  
25 in 2017 (projected), and \$310.9 in 2018 (projected).

26 Q.     Did upper management approve the capital expenditures identified in Exhibit A-47  
27 (DBK-4)?

28 A.     Yes, upper management approved the capital expenditures identified in Exhibit A-47  
29 (DBK-4).

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Is it possible that the Company could experience changes to its scheduled outages and  
2 forecast capital expenses in the future?

3 A. Yes. The Company often forecasts future actions and expenses based on information that  
4 is available then – many months before the work is completed. To provide some  
5 perspective to this statement, the outage schedule used in this case was approved in  
6 July 2014. A quick review of the outage schedule in this case identifies eight scheduled  
7 outages that begin in January 2015 (five months after the schedule was created) and run  
8 through May 30, 2016 – 22 months later. It should also be noted that during each of  
9 these eight scheduled outages, Consumers Energy has scheduled a number of tasks to be  
10 performed. Because of the long lead times, the number of outages scheduled during the  
11 Test Year, and the fact that several different tasks will be performed during each outage,  
12 it is inevitable that some scheduled outages and forecast capital expenses will change.  
13 However, it should be noted that the Company has a history of prudent capital  
14 investments in its generating facilities which have been consistently supported by the  
15 Commission.

16 Q. Are there other reasons why changes occur? Please explain your response.

17 A. Yes. There are other reasons why changes occur. Some of the reasons are: contractor  
18 availability, parts availability, changes in emissions regulations, design changes, outage  
19 scope changes, changes in unit condition, changes in staffing, spot market prices, and  
20 budgets.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Can you provide a recent example of when circumstances changed and it was prudent to  
2 deviate from what was planned or budgeted?

3 A. Yes. In September 2012, Consumers Energy filed an electric general rate case in  
4 Case No. U-17087. Four months later (in January 2013), the Company reduced capital  
5 expenditures by \$104.7 million.

6 Q. How were these capital reductions achieved?

7 A. These reductions were achieved by: 1) splitting the 2014 Karn Unit 1 outage into two  
8 separate outages; 2) postponing the 2015 Campbell 3 Spray Dry Absorber (“SDA”)  
9 outage to 2016; 3) changing our plans related to Campbell <sup>1</sup>/<sub>2</sub> by cancelling the SDA  
10 projected and electing to proceed instead with Dry Sorbent Injection (“DSI”) as the  
11 control approach; and 4) changes in our judgment on the timing of requirements to be  
12 imposed pursuant to the RCRA.

13 Q. Was the decision to reduce capital expenditures prudent?

14 A. Yes. By simply delaying some capital investments and choosing a different technology  
15 (one that reduced capital investment yet will achieve the required emission levels), the  
16 Company was able to lower customer rates during that period.

17 Q. Please summarize the significant generating plant capital expenditures in 2013, 2014,  
18 2015, 2016, 2017, and 2018 included in Exhibit A-47 (DBK-4).

19 A. Page 1, line 2 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for  
20 Campbell units 1 and 2, exclusive of air quality and other environmental expenditures. In  
21 2013 through 2016, Campbell units 1 and 2 will invest in AQCS – DSI, PJFF, and  
22 completion of the Selective Catalytic Reduction (“SCR”) unit at Campbell 2. These  
23 environmental quality related expenditures are discussed in more detail in Ms. Hilbert’s

DAVID B. KEHOE  
DIRECT TESTIMONY

1 testimony. In 2015 through 2018, Campbell units 1 and 2 will invest in the re-alignment  
2 of the 4160 volt switchgear and replacement of the respective transformers. In 2017,  
3 Campbell Unit 1 will invest in replacing the primary air heater, refurbishing the spare  
4 high pressure (“HP”) and LP rotors, maintenance of the turbine reheat stop valve and  
5 boiler work. In 2018, investments in Campbell Unit 1’s boiler will continue in the form  
6 of: turbine control system maintenance, LP heater, and replacement of the external drain  
7 cooler. Also in 2018, investments will be made in Campbell Unit 2’s primary air heater  
8 (replacement) and boiler maintenance.

9 Q. What capital expenditures are being made at Campbell 3?

10 A. Page 1, line 3 of Exhibit A-47 (DBK-4) identifies the total expenditures for Campbell 3.  
11 In 2013 and 2014, Unit 3 installed the next layer of SCR catalyst and additional AQCS –  
12 SDA, Activated Carbon Injection (“ACI”), and PJFF. Also in 2013, 2014, and 2015, the  
13 Company is investing in facilities needed for compliance with the RCRA, Clean Water  
14 Act section 316b, and SEEG. Ms. Hilbert provides more details regarding these  
15 expenditures. In 2014, Campbell 3 incurred costs for the closure of Phase V ash storage  
16 cell. From 2014 to 2016, Campbell 3 will incur costs for a generator rewind which is  
17 scheduled to occur in 2016. In 2015 and 2016, costs will be incurred for the replacement  
18 of the primary air heater rotor. In 2015 through 2018, costs will be incurred for turbine  
19 drain redesign and modifications. In 2017, costs will be incurred for replacement of the  
20 LP rotor. Also in 2018, costs will be incurred for boiler maintenance.

21 Q. Please identify the capital expenditures that are planned for Karn Unit 1.

22 A. Page 1, line 4 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for Karn  
23 Unit 1. In 2013, investments in SDA and ACI were made, as discussed by Ms. Hilbert.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 In 2014 and 2015, the Company has scheduled an overhaul and upgrade at Karn 1 – see  
2 below for details. In 2017, costs will be incurred for gas ignitors and on-line coal flow  
3 measurement. Also in 2018, costs will be incurred for burner tilts, boiler tube  
4 repairs/replacement, distributed control system (“DCS”) upgrades, and replacement of  
5 the HP turbine and inner cylinder.

6 Q. Please identify the capital expenditures that are planned for Karn Unit 2.

7 A. Page 1, line 4 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for Karn  
8 Unit 2. In 2013, new throttle and governor valves were installed, new LP rotors and  
9 cylinders were installed, and investments in SDA and ACI were made. In 2014, the  
10 Company overhauled and upgraded at Karn 2 – see below for details. In 2017, costs will  
11 be incurred for replacement of the primary superheat lower bank, DCS upgrades, and gas  
12 ignitors. Also in 2018, costs will be incurred for replacement of the HP rotor and inner  
13 cylinder.

14 Q. Please identify any common capital investments made at Karn units 1-2.

15 A. In 2013 through 2014, common capital investments begin for RCRA and SEEG  
16 compliance. Additional 2014 common capital investments at Karn units 1-2 included  
17 capping the fly ash landfill and DCS updates. In 2015, costs will be incurred for  
18 condenser vacuum pump replacements. In 2016 and 2017, costs will be incurred for the  
19 reverse osmosis system. In 2017, costs will be incurred for inlet channel dredging. Also  
20 in 2016 through 2018, costs will be incurred for an on-line coal analyzer.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please briefly explain the work that will be completed during the Karn units 1-2 overhaul  
2 and upgrade.

3 A. The overhaul and upgrade focuses primarily on the turbine and boiler – rotors, blading,  
4 throttle and governor valves, re-heat stop valves, and boiler tubing.

5 Q. Please explain why this overhaul and upgrade is necessary.

6 A. First and foremost, this overhaul is necessary for the continued safe operation of these  
7 units. In June of 2008, vibration monitoring equipment on Karn 1A indicated a  
8 significant change in the vibration characteristics of the turbine rotor. The unit was  
9 removed from service and after extensive testing, a large crack was found. The rotor was  
10 repaired and returned to service (see, Case No. U-15415-R), however, its condition  
11 continues to deteriorate.

12 Q. Is there a reason the rotor continues to deteriorate?

13 A. Yes, the Karn rotors are original equipment and are experiencing metal fatigue.

14 Q. When were Karn units 1 and 2 put in operation?

15 A. The units were put into operation in 1959 and 1961, respectively.

16 Q. Will all rotors be replaced?

17 A. No. Only the LP rotors and blading will be replaced at this time.

18 Q. Why is Consumers Energy replacing the LP rotors and not the intermediate pressure  
19 (“IP”) and HP rotors?

20 A. As mentioned earlier, the condition of the LP rotors continues to deteriorate. The  
21 condition of the IP and HP rotors are not deteriorating as rapidly as the LP rotors.  
22 However, the IP and HP rotors are over 50 years old and will have to be replaced at some  
23 point in the future.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Will the overhaul and upgrade improve the efficiency of Karn 1 and 2?

2 A. Yes, the overhaul and upgrade will improve the efficiency of Karn 1 and 2. However,  
3 that improvement will not result in additional generating capacity because of the AQCS.

4 Q. Please explain how AQCS affects generating capacity.

5 A. AQCS requires significant amounts of power which is supplied by the generating units  
6 they serve. Because these power requirements are so large, there is a noticeable  
7 reduction in net capacity of the generator(s).

8 Q. After the overhaul and upgrade and the AQCS become operational, will the net  
9 generating capacity of Karn 1 and 2 remain the same?

10 A. Yes, the net generating capacity of Karn 1 and 2 will remain the same after the AQCS  
11 become operational and the overhaul and upgrade is complete.

12 Q. Are there other reasons this overhaul and upgrade are necessary?

13 A. Yes. The overhaul and upgrade will ensure maximum operating availability in 2015 and  
14 beyond. This is significant because 2016 is when new environmental regulations will  
15 require the retirement of Cobb, Weadock, and Whiting – removing 947 MWs of  
16 generating capacity. Other generating units in the region will be taken out of service as a  
17 result of these regulations. When this occurs, the number of available generating units  
18 will be reduced and the price of electricity is expected to increase. To ensure Consumers  
19 Energy's customers have adequate supplies of dependable electricity in 2015, and to  
20 protect our customers from higher market prices that are expected, the Company  
21 scheduled these overhauls and upgrades in 2014 and 2015.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Will these overhauls and upgrades improve the units' ROR?

2 A. Yes. Consumers Energy projects the Test Year ROR to be 13.33% and 9.03% for Karn 1  
3 and 2, respectively – see Exhibit A-45 (DBK-2), column (d), lines 6 and 7.

4 Q. What is the current ROR for Karn 1 and 2?

5 A. The current five-year (2009 through 2013) Actual ROR for Karn 1 and 2 can be found in  
6 Exhibit A-45 (DBK-2), column (e), lines 6 and 7 – 22.17% and 13.13%, respectively.

7 Q. How long will the Karn Unit 1 overhaul and upgrade take?

8 A. The Company is projecting the overhaul and upgrade to take 90 days – see Exhibit A-44  
9 (DBK-1), column (b), line 3.

10 Q. Please identify the capital expenditures that will be made at Karn 3 and 4.

11 A. Page 1, line 5 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for Karn  
12 3 and 4. In 2015 through 2017, Karn 3 and 4 will incur costs for a turbine control  
13 upgrade, breeching replacement, LP and HP blade replacements, gas detection, an  
14 overhaul of the ID fan turning gear, and replacement of the turbine shaft lift oil pump. In  
15 2018, Karn 3 and 4 will incur costs for replacement of the rectifier/voltage regulator,  
16 DCS controls update, auxiliary boiler tube, and header tube replacements.

17 Q. Please identify the capital expenditures that will be made at Zeeland.

18 A. Page 1, line 6 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for  
19 Zeeland. In 2014 through 2018, Zeeland's capital expenditures cover the LTSA with  
20 cooling tower work, milestone outage work, and the hot reheat bypass work. Also in  
21 2014, Zeeland incurred costs for replacement of the auxiliary boiler and base outage  
22 repairs.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Please identify the capital expenditures that will be made for the Jackson Plant.

2 A. Page 1, line 7 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for the  
3 Company's newest gas plant. In January 2014, Consumers Energy announced an  
4 agreement had been reached with an independent third party to purchase the 540 MW  
5 combined cycle natural gas plant located in Jackson, MI. The Company will incur  
6 expenses in 2014 and 2015 for monitoring operations and preparing for the Company's  
7 projected December 2015 purchase. In 2016 through 2018, Jackson will incur expenses  
8 for the LTSA with GE. Company witness Ronk provides further insight into the  
9 purchase of the Jackson Plant.

10 Q. Was the purchase of the Jackson Plant a prudent decision?

11 A. Yes. The Jackson Plant is an existing facility with a proven track record of being  
12 efficient, flexible, and available when called upon to operate. Also, the purchase of the  
13 Jackson Plant will allow Consumers Energy to continue to lower emissions and capitalize  
14 on today's lower natural gas prices while providing customers with immediate value. As  
15 noted above, the purchase of this plant partially replaces the generating capacity that will  
16 be lost when the Company's seven oldest coal-fired power plants retire.

17 Q. Please describe the design features that allow the Jackson Plant to be efficient, flexible,  
18 and available.

19 A. The Jackson Plant was designed to take advantage of rapid-changing load and market  
20 conditions. Unlike a traditional combined cycle plant with two large frame combustion  
21 turbines and one steam turbine, the Jackson Plant has six smaller GE LM6000 turbines, a  
22 GE 7EA turbine and two steam turbines. All seven turbines have their own heat recovery  
23 steam generators ("HRSG") with supplemental duct firing – steam from the HRSG's

DAVID B. KEHOE  
DIRECT TESTIMONY

1 supply steam to the two steam turbines. The LM6000s and 7EA turbine designs are  
2 among the most common in the power industry and have a long-proven track record.  
3 Also, the LM6000s have inlet cooling and water injection to raise their efficiency towards  
4 the top in their class. Finally, the Jackson Plant's availability has routinely been above  
5 98%.

6 Q. What makes the Jackson Plant so flexible and reliable?

7 A. As in the prior response, the Jackson Plant is a "seven-on-two" combined cycle plant.  
8 The smaller turbines and HRSGs allow start-up and warm-up times to be approximately  
9 half of a traditional combined cycle plant. This allows quicker response to changing load  
10 conditions along with much lower fuel consumption during start-ups.

11 The Jackson Plant can also reach near-design output during maintenance or  
12 failure of any one of the seven combustion turbines or steam turbines. In comparison, if a  
13 traditional combined cycle plant loses one of its two combustion turbines, the output is  
14 reduced by 50%, and if the steam turbine fails, the plant must be taken off-line. Also,  
15 outages for the smaller combustion turbines are routinely shorter than the larger frame  
16 turbines. If necessary, the Jackson Plant has a spare LM6000 turbine on-site, this would  
17 allow the Company to maintain generation efficiency if an operating turbine fails.

18 Q. Does the Jackson Plant offer additional flexibility?

19 A. Yes. The six LM6000s have a much lower minimum load point than traditional ("2x1")  
20 combined cycle plants – two combustion turbines and one steam turbine. Traditional 2x1  
21 plants have a minimum load point of 50% of its rated output – so a 540 MW plant would  
22 have a minimum load point of approximately 270 MWs. In contrast, the Jackson Plant  
23 has a minimum load point of 150 MWs. Finally, the Jackson Plant can change load at

DAVID B. KEHOE  
DIRECT TESTIMONY

1 rates of 30 MWs per minute compared to 10 MWs per minute for a traditional combined  
2 cycle plant(s).

3 Q. Please identify the capital expenditures that will be made for the proposed Thetford gas  
4 plant (“Thetford Plant”).

5 A. Page 1, line 8 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for the  
6 deferred Thetford Combined Cycle gas plant and the addition of a simple cycle  
7 combustion turbine. In 2013 and 2014, expenses were incurred for the owners engineer,  
8 site testing and land acquisition of the deferred Thetford Plant. In 2018, Thetford will  
9 incur expenditures for the development of a new simple cycle unit. This new unit is  
10 intended to meet the needs of the Company’s projected capacity shortfall with  
11 Midcontinent Independent System Operator. Company witness Ronk provides further  
12 insight into this addition.

13 Q. Please identify the capital expenditures that were made at and are planned for the  
14 Company’s combustion turbines (“CTs”).

15 A. Page 1, line 9 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for the  
16 Company’s CT fleet. In 2013 through 2018, the CTs will incur minor expenses for  
17 valves, instruments, tools, and batteries. These expenses will be limited to the following  
18 sites – Thetford, Gaylord, and Straits.

19 Q. Please identify the capital expenditures that were made at and are planned for Weadock  
20 units 7-8.

21 A. Page 1, line 10 of Exhibit A-47 (DBK-4) identifies the total capital expenditures for  
22 Weadock units 7-8. In 2014, Weadock incurred costs for asbestos removal, ash pond

DAVID B. KEHOE  
DIRECT TESTIMONY

1 work, and ash hauling road work were performed for RCRA. In 2014 and 2015,  
2 Weadock will incur costs for the purchase of needed valves and tools.

3 Q. Please identify the capital expenditures that were made at and are planned for Cobb  
4 units 4-5.

5 A. Page 1, line 11 of Exhibit A-47 (DBK-4) shows the total capital expenditures for Cobb  
6 units 4-5. In 2014 through 2016, Cobb incurred costs for asbestos removal, ash pond  
7 work and the purchase of needed valves and tools.

8 Q. Please identify the capital expenditures that were made at and are planned for Whiting  
9 units 1-3.

10 A. Page 1, line 12 of Exhibit A-47 (DBK-4) shows the total capital expenditures for Whiting  
11 units 1-3. In 2014, three ash ponds will be capped, asbestos removed from the plant, and  
12 RCRA work performed. Also in 2014 through 2015, Whiting will incur costs for the  
13 purchase of needed valves and tools.

14 Q. Earlier in your testimony, you stated the Company will retire the Cobb, Weadock and  
15 Whiting plants in April 2016. Is the Company being mindful of the projected capital  
16 expenditures being made at these units?

17 A. Yes. Consumers Energy has limited expenditures (capital and O&M) to works that are  
18 required for safety, regulatory compliance, and/or the discontinued operation of these  
19 sites.

20 Q. Please identify the capital expenditures that will be made at and are planned for the River  
21 Hydro units.

22 A. Page 1, line 13 of Exhibit A-47 (DBK-4) identifies the total River Hydro capital  
23 expenditures. In 2012 through 2017, the Company will increase its annual capital

DAVID B. KEHOE  
DIRECT TESTIMONY

1 expenditures at many of the hydro sites to comply with changing FERC regulations.  
2 These multiple-year projects will improve the safety of the Alcona, Loud, and Mio  
3 emergency spillway structures. Improvements will also be made to the Foote tail-water,  
4 core wall, and emergency spillway, and a relief well will be installed at Hardy. The  
5 Company will begin updating the hydro monitoring system and replace Webber's 116  
6 and 166 breakers. In 2014, the voltage regulators at Alcona, Mio, and Loud will be  
7 replaced, the X16 breakers at Tippy will be replaced, and funding for a new hydro  
8 monitoring system will be incurred. In 2015 through 2017, Mio will incur costs for  
9 trash-rack improvements. In 2016 and 2017, Rogers will incur costs for spill-gate heaters  
10 and in 2017 Rogers will incur costs for rewinding the exciters of units 2, 3, and 4. In  
11 2018, Croton will incur costs for an upgraded runner for unit 1, and Tippy will incur costs  
12 for road work and a new runner for Webber unit 2.

13 Q. Please identify the capital expenditures that will be made at and are planned for  
14 Ludington – Michigan's largest renewable energy source.

15 A. Page 1, line 14 of Exhibit A-47 (DBK-4) shows the total capital expenditures for  
16 Ludington. In 2011 through 2019, Consumers Energy will invest in a major overhaul and  
17 upgrade of the Ludington Pumped Storage Plant. The first unit upgrade will begin in  
18 2013 and be completed in 2014. One additional unit will be upgraded each year, with the  
19 final unit being completed in 2019 (Ludington has six generating/pumping units). When  
20 complete, Ludington's total capacity will increase 300 MW (50 MW per unit), and future  
21 overhauls will be scheduled every 30 years instead of every 20 years.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. Why is this work necessary?

2 A. This will be only the second overhaul at Ludington since production began in 1973.  
3 Also, Ludington's operating license expires in 2019. Because the operating condition of  
4 the plant is an important factor in FERC's relicensing decision, it is better to have the  
5 plant in good condition before the license expires, as opposed to after the relicensing  
6 process is complete.

7 Q. Please briefly explain the relicensing process.

8 A. Licenses are issued by FERC. Relicensing is a lengthy and involved process which  
9 includes consulting with stakeholders, identifying environmental issues through scoping,  
10 and preparing environmental documents such as Environmental Assessments or  
11 Environmental Impact Statements (relicensing projects account for the majority of the  
12 proposals evaluated by FERC). The relicensing process begins at least five years before  
13 a license expires with the licensee filing a notice of intent.

14 Q. Please briefly explain the work that will be completed during the overhaul and upgrade.

15 A. All major components of the generating/pumping units have been redesigned and will be  
16 replaced – water turbine (aka – runner), wicket gates, generator, and stator. This new  
17 equipment will be manufactured using materials intended to lengthen operating life,  
18 reduce operating costs, and improve operating efficiencies.

19 Q. Are there other improvements that will take place?

20 A. Yes. Changes are being made to the existing facilities and new structures are being  
21 constructed. Changes to the existing facilities include replacement of the old gantry  
22 crane with two new gantry cranes and new instrumentation for operating and monitoring

DAVID B. KEHOE  
DIRECT TESTIMONY

1 the six generating/pumping units. Also, two on-site machine shops were constructed to  
2 support the tooling and machining requirements of the project.

3 Q. What is the total cost of the Ludington Project?

4 A. Ludington's overhaul and upgrade is estimated to cost \$800 million dollars. Consumers  
5 Energy is responsible for 51 percent of this cost.

6 Q. How much is the overhaul portion of the Ludington Project?

7 A. The overhaul portion of the Ludington project is estimated to be \$600 million dollars.

8 Q. If the upgrade portion of the Ludington project is estimated to be \$200 million dollars,  
9 and there will be an additional 300 MWs of generating capacity, what is the installed cost  
10 of this additional capacity?

11 A. The installed cost of Ludington's additional capacity will be \$666/ kW.

12 Q. If Ludington were upgraded in the future, would the cost be the same or less than  
13 \$200 million?

14 A. The upgrade would likely be more than \$200 million due to escalating costs and the  
15 significant amount of work that would be required to disassemble/reassemble the units.

16 Q. Please explain why the Ludington upgrade was scheduled during the 20-year  
17 maintenance outage?

18 A. The decision to upgrade Ludington during the 20-year maintenance cycle was made  
19 because the units would already be disassembled for maintenance. Once the units had  
20 been disassembled, upgrades could be achieved by simply replacing old parts/equipment  
21 with new parts/equipment that incorporate the latest in designs and materials.

DAVID B. KEHOE  
DIRECT TESTIMONY

1 Q. If the upgrade portion of the Ludington project were not completed during this  
2 maintenance outage, when is the next maintenance outage?

3 A. If the upgrade portion of the Ludington project were not completed during this  
4 maintenance outage, the next maintenance outage would have been scheduled in 20 years  
5 – approximately 2034.

6 Q. Please describe the benefits to the Company's customers from the capital expenditures  
7 shown on Exhibit A-47 (DBK-4).

8 A. A large percentage of these capital expenditures result in significantly cleaner air. Other  
9 capital expenditures will improve plant reliability which will shield the customers from  
10 the high-priced spot power market. Several capital projects will improve unit efficiency,  
11 also resulting in reduced emissions and fuel cost savings. Still other capital expenditures  
12 will bring the Company into compliance with new regulations intended to improve the  
13 safety of our hydro generating plants. Company witness Ronk provides additional  
14 benefits to the Company's customers from the projected capital expenditures shown on  
15 Exhibit A-47 (DBK-4).

16 Q. Are the Company's capital expenditures in power generation reasonable and prudent?

17 A. Yes. Many of the capital expenditures in fossil generation were related to environmental  
18 regulations compliance and thus not discretionary. Company witness Hilbert provides  
19 additional support in her testimony.

20 Q. Does this conclude your testimony?

21 A. Yes, it does.

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the Matter of the application of )  
CONSUMERS ENERGY COMPANY )  
for authority to increase its rates for )  
the generation and distribution of )  
electricity and for other relief. )  
\_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**  
**OF**  
**DAVID B. KEHOE**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

May 2015

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. David B. Kehoe, 1945 West Parnall Road, Jackson, Michigan 49201.

3 Q. Are you the same David B. Kehoe who submitted direct testimony in this case?

4 A. Yes.

5 Q. Are you sponsoring exhibits with you rebuttal testimony?

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

7           • Exhibit A-96 (DBK-6)                   17735-ST-CE-31

8           • Exhibit A-97 (DBK-7)                   WP-DBK-7

9           • Exhibit A-98 (DBK-8)                   WP-DBK-8

10          • Exhibit A-99 (DBK-9)                   17735-ST-CE-98

11          • Exhibit A-100 (DBK-10)                  17735-ST-CE-43

12          • Exhibit A-101 (DBK-11)               WP-DBK-15

13          • Exhibit A-102 (DBK-12)               WP-DBK-9

14          • Exhibit A-103 (DBK-13)               WP-DBK-10

15          • Exhibit A-104 (DBK-14)               WP-DBK-11

16          • Exhibit A-105 (DBK-15)               WP-DBK-12

17          • Exhibit A-106 (DBK-16)               WP-DBK-13

18          • Exhibit A-107 (DBK-17)               WP-DBK-14

19          • Exhibit A-108 (DBK-18)               17735-ST-CE-38

20 Q. What is the purpose of your testimony?

21 A. The purpose of my testimony is to: 1) rebut the direct testimony of Nicholas M. Evans  
22 on behalf of the Michigan Public Service Commission (“MPSC” or the “Commission”)  
23 Staff (“Staff”) and explain why his recommendation to remove all projected air quality

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 contingency expenditures should be rejected; 2) rebut the direct testimony of Staff  
2 witness Robert F. Nichols II and explain why his recommended budget adjustment  
3 should be rejected; 3) address the direct testimony of Sebastian Coppola on behalf of the  
4 Michigan Attorney General and explain why his recommendation to reduce test year  
5 O&M by \$12.9 million and capital by \$40.6 million should be rejected; and 4) address  
6 the direct testimony of Dan F. Koehler on behalf of the Michigan Environmental Council  
7 and Natural Resources Defense Council (“MEC/NRDC”) and his suggestion that  
8 Consumers Energy Company (“Consumers Energy” or the “Company”) failed to provide  
9 sufficient information to support its capital expenditures beyond the test year and  
10 therefore should be rejected.

11 **Rebuttal of Mr. Evans’ Testimony**

12 Q. At page 5 of his direct testimony, Mr. Evans discusses Air Quality Capital Expenditures.  
13 Beginning on line 21, Mr. Evans proposes, “...removing all projected contingency  
14 expenditures.” Mr. Evans continues, “These contingency expenditures amount to  
15 \$26,804,000 during 2015 and \$10,674,000 during the first five months of 2016.” Does  
16 Mr. Evans identify why Staff makes this recommendation?

17 A. Yes. At page 6, beginning on line 4, Mr. Evans states, “Staff believes it is inappropriate  
18 for the Company to earn depreciation and return on projected contingency expenditures  
19 for three reasons: 1) contingency expenditures may not be incurred at all; 2) if some  
20 expenditures are ultimately incurred, the final amount could be anything from \$1 to the  
21 amount projected (or even more); while the final amount expended is inherently unknown  
22 at the beginning of the test year – as is the case with any cost category – the fact that a  
23 projection of contingency expenditures is really a range of possible spending, and not a

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 target, creates a much higher degree of uncertainty regarding future expenditures than is  
2 found with projected expenditures in other cost categories; and 3) allowing contingency  
3 expenditures into rate base may dampen incentives for cost control.”

4 Q. Is the use of contingency expenditures a common practice?

5 A. Yes. The use of contingency expenditures is a common and accepted Project  
6 Management practice.

7 Q. What is Project Management?

8 A. As defined by the Project Management Institute (“PMI”), “Project management is the  
9 application of knowledge, skills, tools, and techniques to project activities to meet the  
10 project requirements.” Formed in 1969, PMI is an organization which publishes the  
11 Project Management Body of Knowledge (“PMBOK<sup>®</sup> Guide”) which is a recognized  
12 standard for the project management professional.

13 Q. What does the PMBOK<sup>®</sup> Guide say about contingency costs?

14 A. Section 7.1.2.6 of the PMBOK<sup>®</sup> Guide states, “Cost estimates may include contingency  
15 reserves (sometimes called contingency allowances) to account for cost uncertainty.”

16 Q. Are Consumers Energy employees certified in Project Management?

17 A. Yes. As of January 2015, over 100 Consumers Energy employees that have Project  
18 Management responsibilities earned their Project Management Professional (“PMP”)  
19 certification.

20 Q. On a percentage basis, how much of the Air Quality Capital Expenditures are  
21 contingencies?

22 A. Contingency expenditures account for 15% of the Air Quality Capital Expenditures.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. How was the above percentage calculated?

2 A. Company witness Linda M. Hilbert provided a detailed breakdown of Air Quality  
3 Compliance costs in response to discovery request 17735-ST-CE-31 – see Exhibit A-96  
4 (DBK-6).

5 Q. Please provide a brief overview of how Consumers Energy calculated the 15%  
6 contingency amount using Exhibit A-96 (DBK-6).

7 A. Exhibit A-96 (DBK-6) identifies 2015 contingency expenditures to be \$26,804,000 and  
8 the first five months of 2016 to be \$10,674,000. Added together, contingency  
9 expenditures total \$37,478,000. Exhibit A-96 (DBK-6) also identifies 2015 air quality  
10 projected capital expenditures to be \$205,790,000 and the first five months of 2016 to be  
11 \$39,022,000. Added together, air quality projected capital expenditures total  
12 \$244,812,000. The above percentage was calculated by dividing the total air quality  
13 contingency expenditures (\$37,478,000) by the total air quality projected capital  
14 expenditures (\$244,812,000).

15 Q. Are 15% contingencies reasonable?

16 A. Yes. However, Consumers Energy recognizes that contingency dollars are based on  
17 future events that could escalate costs during the construction of various projects. By  
18 their forward-looking nature, it is possible that contingency dollars represent more costs  
19 than are required. It is also possible that actual costs could exceed the contingency  
20 projections. Consumers Energy also recognizes that individual project contingency  
21 dollars, when combined, may represent more contingency dollars than are ultimately  
22 required.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. What action has Consumers Energy taken to address this issue?

2 A. The Company has created a line item in each year's budget and/or long-term financial  
3 plan called the "Blackbox."

4 Q. What is the Blackbox and what is included in that number?

5 A. The Blackbox is the difference between the estimated cost of the projects the business has  
6 requested during the identified time, and the amount of funding authorized by senior  
7 management. The Blackbox also recognizes that individual project contingency dollars,  
8 when combined, may represent more contingency dollars than are required.

9 Q. What amount is in the Company's Blackbox for 2015 and 2016 related to Fossil & Hydro  
10 Generation project contingency dollars?

11 A. 2015's Blackbox identifies (\$31,170,000) and 2016's Blackbox identifies (\$12,027,000).  
12 These amounts are identified in the following workpapers: WP-DBK-7 (line 18, column  
13 (f)) and WP-DBK-8 (line 18, column (f)) – see Exhibits: A-97 (DBK-7) and A-98  
14 (DBK-8).

15 Q. Why are the amounts in the Blackbox identified as credits?

16 A. The credits reflect an off-set to the contingency expenses found in the budget, the  
17 long-term financial plan, and the Company's capital request, for Fossil & Hydro  
18 Generation, in this case.

19 Q. Is Staff aware of the Blackbox?

20 A. Yes. Staff asked the Company to explain what the Blackbox is and what is included in its  
21 number in discovery request 17735-ST-CE-98. I have provided the Company's response  
22 to that request as Exhibit A-99 (DBK-9).

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Please explain how the Company, specifically the Fossil & Hydro Generation  
2 Department, manages the Blackbox to mitigate the uncertainty that Mr. Evans discusses  
3 at page 6, line 3 of his direct testimony.

4 A. The Fossil & Hydro Generation Department regularly reviews and evaluates all projects  
5 and their contingencies. Contingencies that are determined to have a high degree of  
6 probability or risk are left in the project estimate, while contingencies that are found to  
7 have a lower probability or risk are credited to the Blackbox.

8 Q. Should the Commission adopt Mr. Evans' recommendation to remove air quality  
9 contingencies?

10 A. No. If the Commission were to adopt Staff's recommendation to remove contingency  
11 expenditures, those expenditures would be removed twice – resulting in a significant  
12 under-funding for these critical and costly pieces of equipment. Furthermore, the  
13 Company's Fossil & Hydro Generation Department regularly reviews and evaluates all  
14 projects and their contingencies, crediting lower probability contingency expenses to the  
15 Blackbox, thus addressing Staff's mischaracterization of whether contingency dollars will  
16 be incurred.

17 **Rebuttal of Mr. Robert Nichols' Testimony**

18 Q. At page 6, line 10 of his direct testimony, Mr. Nichols recommends a, "...decrease of  
19 \$58,709,000 from the Company's originally filed adjusted other O&M expense of  
20 \$646,872,000." Does Mr. Nichols identify how the proposed decrease would be applied  
21 to the different areas?

22 A. Yes. Mr. Nichols' Exhibit: S-3, Schedule: C5 provides that detail.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. What is the impact to the Company's projected O&M expense for the Fossil & Hydro  
2 Generation?

3 A. Line 1, column (e) of Exhibit: S-3, Schedule: C5 identifies a \$15,741,000 reduction.

4 Q. Does Mr. Nichols identify why Staff recommends this decrease?

5 A. Yes. At page 13 of his direct testimony, line 10, Mr. Nichols states, "Staff finds it  
6 unreasonable to include O&M expense in rates at levels higher than those built into the  
7 most recent January 2015 Budget as provided to its Board of Directors."

8 Q. Are the Company's 2015 proposed expenses, related to Fossil & Hydro Generation  
9 O&M, greater than those approved by the Board of Directors?

10 A. No. The Company projected 2015 expenses, related to Fossil & Hydro Generation  
11 O&M, to be \$159,211,000 and the Board of Directors approved \$159,913,000 – or  
12 \$702,000 more than was proposed by the Company for Fossil & Hydro Generation O&M  
13 in this case.

14 Q. Are the Company's 2016 proposed expenses, related to Fossil & Hydro Generation  
15 O&M, greater than those presented to the Board of Directors?

16 A. No. The Company's projected 2016 expenses, related to Fossil & Hydro Generation  
17 O&M, to be \$160,447,000 and the amount presented to the Board of Directors was  
18 \$162,728,000 – or \$2,281,000 more than was proposed by the Company for Fossil &  
19 Hydro Generation O&M in this case.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Even if the Company's Fossil and Hydro O&M projections exceeded the budget amounts  
2 referenced by Mr. Nichols, is it appropriate to adjust the Company's projections in this  
3 case on the basis that they may be different than the budget amounts?

4 A. No. The budget referenced by Mr. Nichols is based on assumptions that do not  
5 necessarily utilize the comprehensive cost projection process that the Company  
6 undertakes in preparation for electric rate case proceedings. The Company's O&M cost  
7 projections in this case are the costs required for the Company to continue to be able to  
8 provide safe, reliable, and efficient electric generation.

9 Q. If Staff is proposing adjustments that are based on information presented in the January  
10 2015 Data Book, and the 2015 Data Book identifies an additional \$3 million related to  
11 Fossil & Hydro Generation O&M expenses, how did Staff calculate its \$15,741,000  
12 reduction?

13 A. At page 16 of his direct testimony, line 12, Mr. Nichols states, "For the projected split  
14 test year ending May 31, 2016, Staff calculates adjusted other O&M expense by  
15 including 7/12 of the 2015 and 5/12 of the 2016 amounts supported by the budget book,  
16 which is \$588.2 million (Exhibit S-11.9, line 22, column d)."

17 Q. Does the Company support Staff's 7/12 and 5/12 methodology?

18 A. No. Staff's 7/12 and 5/12 methodology does not allow full recovery of costs that will be  
19 incurred during the test year.

20 Q. Does Mr. Nichols identify other reasons why Staff is recommending this proposed budget  
21 adjustment?

22 A. Yes. At page 13 of his direct testimony, line 13, Mr. Nichols states, "While the Company  
23 may continue to support expense amounts included in the case, they have provided no

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 evidence that the Company needs the additional amounts they have included in the case  
2 (\$58.7 million over and above the amount supported by the January 2015 Budget) to  
3 provide safe and reliable service to their electric customers (Exhibit S-3, Sch. C5, line 21,  
4 col. d + col. e).”

5 Q. Realizing the January 2015 Data Book identified an additional \$3 million in O&M  
6 expenses for Fossil & Hydro Generation, is Mr. Nichols’ above statement correct?

7 A. No. The Company submitted Fossil & Hydro Generation O&M projections (in this  
8 proceeding) that were less than what the Board of Directors reviewed and approved in  
9 January 2015.

10 Q. Did the Company provide sufficient evidence to support its projected Fossil & Hydro  
11 Generation O&M requested in this case?

12 A. Yes. The Company submitted the 2015 budget and 2016 long-term financial plan that  
13 was: 1) supported by accurate estimates; 2) vetted with Internal Rate of Return (“IRR”)  
14 and Present Value Ratio (“PVR”) analyses; and 3) approved by senior management and  
15 ultimately by the Board of Directors.

16 Q. Did Mr. Nichols challenge any of the proposed Fossil & Hydro Generation O&M  
17 expenses, projects, or project estimates that were presented by the Company in this case?

18 A. No.

19 Q. Has the Company consistently spent the Fossil & Hydro Generation O&M that it has  
20 previously requested?

21 A. Yes. In Case No. U-17087 (filed September 2012), the Company projected 2013 Fossil  
22 & Hydro Generation O&M expenses to be \$164,263,000 and incurred \$163,380,000 in  
23 Fossil & Hydro Generation O&M Expenses. In Case No. U-16794 (June 2011), the

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Company projected 2011 Fossil & Hydro Generation O&M expenses to be \$168,543,000  
2 and incurred \$182,142,000 in Fossil & Hydro Generation O&M expenses.

3 Q. Should the Commission adopt Staff's recommendation to reduce Fossil & Hydro  
4 Generation Total O&M by \$15,741,000?

5 A. No. For the reasons stated above, Staff's recommendation should be rejected.

6 **Rebuttal of Mr. Coppola's Testimony**

7 Q. At page 23, line 5 of his direct testimony, Mr. Coppola recommends, "In total, for the  
8 Fossil & Hydro Generation group, I recommend that the Commission disallow  
9 \$12.9 million from the Company's proposed O&M expense level." Does Mr. Coppola  
10 identify how this proposed disallowance is to be distributed?

11 A. Yes. Mr. Coppola recommends reductions of \$7.9 million in Environmental Operations  
12 and \$5 million for the Jackson Plant.

13 **Environmental Operations**

14 Q. At page 22, line 13 of his direct testimony, Mr. Coppola recommends, "...that  
15 \$7.9 million (\$18.5 -10.6 million) be removed from the Environmental Operations O&M  
16 expense level forecasted by the Company for the future test year." Does Mr. Coppola  
17 identify how he calculated this recommended disallowance?

18 A. Yes. At page 22, line 4 of his direct testimony, Mr. Coppola states, "...new emission  
19 control projects currently under construction for the Karn and Campbell plants are not  
20 scheduled to go into service until April 1, 2016 and June 1, 2016." Mr. Coppola  
21 continues on line 6, "Therefore, operation of these newly installed emission systems  
22 won't begin until near the end of the future test period and potentially after the end of the  
23 period. As such, I have calculated a revised forecast for Environmental Operations

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 expense by taking only five months of the increase in operating costs between the  
2 forecasted level of 2016 of \$18,507,000 and base level of \$5,026,343 incurred in 2014,  
3 and adding to this amount the 2014 expense base level. The result is a more reasonable  
4 and appropriate forecast of \$10,643,283.”

5 Q. Are Mr. Coppola’s above in-service dates (for the “new emission control projects”)  
6 correct?

7 A. No. Karn began operating the above referenced emission controls in June 2014.

8 Q. Why did Karn begin operating the referenced controls in June 2014?

9 A. Karn began operating the referenced controls in June 2014 to ensure compliance with the  
10 Mercury Air Toxics Standard (“MATS”) which required compliance on April 16, 2015.

11 Q. When will Campbell begin operating the referenced controls?

12 A. Campbell will begin operating the referenced controls in February 2016 to ensure the site  
13 will be compliant on April 16, 2016.

14 Q. Why is Campbell’s compliance date April 16, 2016 – one year after the required MATS  
15 compliance date of April 16, 2015?

16 A. Campbell was granted a one-year extension because their new emission control  
17 equipment would not be operational by the April 16, 2015 compliance date.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. At page 21, line 17 of his direct testimony, Mr. Coppola states, “After reviewing the  
2 underlying workpaper supporting this forecasted amount, it appears that the Company  
3 used the expense projected for the full year of 2016 instead of pro-rating a portion of  
4 2015 and 2016 expenses to calculate the applicable amount for the June 2015 to May  
5 2016 test year.” Please explain why Consumers Energy is requesting recovery of a full  
6 year of Environmental Operations expenditures.

7 A. The Company projected the full year of 2016 to allow full recovery of the Environmental  
8 Operations revenue requirement. If the revenue requirement were based on pro-rating a  
9 portion of 2015 and 2016 expenses (as suggested by Mr. Coppola), the Company would  
10 collect one month of full revenue for emission control equipment that will be operating  
11 well beyond the May 2016 test year date. All emission control equipment will become  
12 operational during the test year in this case, and customers will receive the full benefit of  
13 this equipment when it becomes operational. Therefore, the rates established in this case  
14 should allow for full cost recovery.

15 Q. Should the Commission adopt Mr. Coppola’s recommendation to remove \$7.9 million  
16 from the Environmental Operations O&M?

17 A. No. Mr. Coppola incorrectly identified when the Company’s new emission control  
18 equipment began operation – or will begin operation for regulatory compliance.  
19 Mr. Coppola also failed to identify the correct compliance dates. Finally, Mr. Coppola is  
20 suggesting a recovery methodology which would not allow full recovery of the  
21 Environmental Operations revenue requirement – despite the fact that customers will  
22 receive the full benefit of this equipment.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1                   **Jackson Plant**

2   Q.    At page 22, line 17 of his direct testimony, Mr. Coppola states, “According to the  
3           Company’s response to a data request, the Company expects to close on the purchase  
4           transaction and take possession of the plant in January 2016.” Mr. Coppola continues on  
5           page 23, line 1, “This results in the Company incurring O&M expenses for at most only 5  
6           months in the projected test year, not 12 months as included in rate case filing.  
7           Therefore, only \$3.6 million of expense should be included in the projected test year and  
8           the remaining \$5 million should be removed.” Please explain why Mr. Coppola’s  
9           recommendation should be rejected.

10   A.   Consistent with my explanation of Environmental Operations expenses above, the  
11           Company projected the full year of 2016 to allow full recovery of the Jackson Plant’s  
12           revenue requirement. If the revenue requirement were based on the date of purchase to  
13           the test year date (January 1, 2016 – May 31, 2016), the Company would collect five  
14           months of full revenue for a plant that will be running for well beyond the May 2016 test  
15           year date. The plant will be purchased and become operational during the test year in this  
16           case, and customers will receive the full benefit of the facility beginning on day one of  
17           commercial operation. Therefore, the rates established in this case should be allowed for  
18           full cost recovery.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1                   **Capital**

2 Q.     At page 51, line 10, Mr. Coppola recommends, "...that the Company's forecasted capital  
3           expenditures should be reduced by \$40.6 million." Does Mr. Coppola identify how this  
4           proposed disallowance is to be distributed?

5 A.     Yes. Mr. Coppola recommends reductions of \$5 million for Karn 3&4, \$8 million for  
6           Campbell 3, \$4.8 million for the Jackson Plant, \$18 million for air quality, and  
7           \$4.8 million for Other Environmental.

8                   **Karn 3&4**

9 Q.     At page 49, line 3 of his direct testimony, Mr. Coppola identifies, "The support  
10          workpaper (WP-DBK-7) to this forecast has an unspecified amount of \$5 million along  
11          with a list of specific expenditures plan for 2015." Mr. Coppola continues at line 6,  
12          "Because no specific work or equipment purchase is associated with this amount, it is  
13          uncertain whether or not the amount will be spent during 2015." Did Consumers Energy  
14          include this \$5 million in the 2013-2018 Fossil & Hydro Generation Capital  
15          Expenditures, Exhibit: A-47 (DBK-4)?

16 A.     Yes. The \$5 million was included in the 2013-2018 Fossil & Hydro Generation Capital  
17          Expenditures, Exhibit: A-47 (DBK-4).

18 Q.     Is there specific work or equipment associated with this amount?

19 A.     Yes. The \$5 million will be incurred as follows: \$652K – Rectifier/Voltage Regulator –  
20          unit 3; \$1.336 million – DCS Controls Update 1-4; \$700K – K4 L-1 Blade Replacement;  
21          \$1.535 million – DCS Controls Update; and \$777K – Replace HP Turbine 1<sup>st</sup> Stage  
22          Blading.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Should the Commission adopt Mr. Coppola's recommendation?

2 A. No. As evidenced by the above information, the Company did include the \$5 million in  
3 the 2013-2018 Fossil & Hydro Generation Capital Expenditures, Exhibit: A-47 (DBK-4)  
4 and supported this proposed expenditure, so therefore the Commission should reject  
5 Mr. Coppola's recommendation.

**Campbell 3**

6  
7 Q. At page 49, line 20 of his direct testimony, Mr. Coppola states, "...I recommend removal  
8 of \$8 million from the expenditures forecasted by the Company." Does Mr. Coppola  
9 identify how he arrived at this amount?

10 A. Yes. At page 49, line 13 of his direct testimony, Mr. Coppola states, "I have recalculated  
11 the amount applicable to the first 5 months of 2016 at \$10.3 million by assuming a  
12 straight line allocation of total expenditures for 2016. This lowers capital expenditures  
13 by \$1.7 million for the period."

14 Q. Did Mr. Coppola identify why he thought it appropriate to recalculate this amount?

15 A. Yes. At page 49, line 10 of his direct testimony, Mr. Coppola states, "The Company has  
16 projected expenditures of \$23.9 million for the first 5 months of 2016. These  
17 expenditures appear to have been shifted to the first half of 2016." He continues on line  
18 12, "The Company's workpapers for prior years (WP-DBK-1, 2 and 3) show that  
19 expenditures for this plant typically occur more in the second half of the year."

20 Q. Is there a reason why the Company projected expenditures of \$23.9 million for the first  
21 five months of 2016?

22 A. Yes. Campbell 3 has scheduled a 79-day outage to begin on March 12, 2016. See  
23 Exhibit: A-44 (DBK-1). It is good practice to schedule maintenance work during the

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 scheduled outages. In this instance, Campbell maintenance has been scheduled during an  
2 outage for the installation of environmental equipment. Consolidating maintenance  
3 activities with scheduled outages, where possible, avoids unnecessary disruptions in  
4 generation or generation derates. Mr. Coppola's recommendation suggests that the  
5 Company should space its maintenance activities out throughout the entire year.  
6 However, this approach is unreasonable as it would increase Power Supply Cost  
7 Recovery ("PSCR") costs by creating more outages and instances where the Company's  
8 generation would be unavailable or derated.

9 Q. Did Mr. Coppola challenge any expenses that will be incurred or work that is scheduled  
10 to be completed during the Campbell 3 outage?

11 A. No.

12 Q. At page 49, line 16 of his direct testimony, Mr. Coppola states, "In addition, the  
13 Company workpaper (WP-DBK-8) detailing capital expenditures for 2016 include  
14 \$15 million of unspecified expenditures." Mr. Coppola continues on line 18, "Again, it is  
15 uncertain whether or not those expenditures will actually occur. I recommend that  
16 \$6.3 million, which is the portion applicable to the first 5 months of 2016 should be  
17 excluded." Does Mr. Coppola identify where this \$15 million unspecified expenditure is  
18 found?

19 A. No.

20 Q. Does WP-DBK-8 identify an unspecified \$15 million expenditure that is specific to  
21 Campbell 3?

22 A. No. There is, however, a \$15 million expenditure for Karn 3&4 in WP-DBK-8 on  
23 line 890.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Did Consumers Energy include this \$15 million in the 2013-2018 Fossil & Hydro  
2 Generation Capital Expenditures, Exhibit: A-47 (DBK-4)?

3 A. Yes.

4 Q. Is there specific work or equipment associated with this amount?

5 A. Yes. The \$15 million will be incurred as follows: \$1.543 million – Rectifier/Voltage  
6 Regulator – unit 3; \$2.841 million – DCS Controls Update 1-4; \$2.947 million – K4 L-1  
7 Blade Replacement; \$3.284 million – DCS Controls Update; \$135K – K4 Replace  
8 Turbine Shaft Lift Oil Pump, and \$4.250 million – Replace HP Turbine 1<sup>st</sup> Stage Blading.

9 Q. Should the Commission adopt Mr. Coppola’s recommendation to remove \$8 million from  
10 JH Campbell 3?

11 A. No. Mr. Coppola’s recommendation ignores the budgetary requirements for the  
12 Campbell 3 outage (scheduled to begin on March 12, 2016) and there was no \$15 million  
13 unspecified expenditure associated with Campbell 3.

14 **Jackson Plant**

15 Q. At page 50, line 1 of his direct testimony, Mr. Coppola states, “The Company has  
16 projected capital expenditures of \$4.8 million for the first 5 months of 2016.” He  
17 continues at line 3, “It is surprising that the Company would need to spend \$4.8 million  
18 in capital improvements within the first 5 months of taking ownership of the plant.” Is  
19 Consumers Energy intending to spend \$4.8 million in capital improvements on the  
20 Jackson Plant?

21 A. No. As identified at page 30, line 7 of my direct testimony, in 2016 through 2018, the  
22 Jackson Plant will incur expenses for the Long-Term Service Agreement (“LTSA”)  
23 obligation with General Electric (“GE”). Also, my response to discovery request

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 17735-ST-CE-38 (see Exhibit A-108 (DBK-18), identifies the use of an LTSA is  
2 common practice, ensures maintenance is performed at specific milestones, and parts are  
3 available for the life of the agreement.

4 Q. Does Mr. Coppola elaborate on why it would be surprising that a plant that has operated  
5 for ten years would require some capital investment?

6 A. No.

7 Q. How much capital, beyond the \$155 million, will be necessary to bring the Jackson Plant  
8 into acceptable operation condition?

9 A. As identified in my response to Discovery Request 17735-ST-CE-43 (see Exhibit A-100  
10 (DBK-10), the design and material condition of the Jackson Plant are currently  
11 acceptable for continued operation.

12 Q. Should the Commission adopt Mr. Coppola's recommendation to remove \$4.8 million  
13 from the Jackson Plant?

14 A. No. The \$4.8 million is not for capital improvements, as suggested by Mr. Coppola, it is  
15 for the Jackson Plant's LTSA obligations with GE, and therefore, Mr. Coppola's  
16 recommendation should not be adopted.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1                   **AirQuality**

2 Q.     At page 50, line 9 of his direct testimony, Mr. Coppola states, “After reviewing the detail  
3           expenditures planned in this area for 2015 and 2016, I discovered that the Company has  
4           included large contingency amounts for many of the emission control programs to be  
5           built during 2015 and 2016.” At page 51, line 1, Mr. Coppola recommends, “...that the  
6           Company’s forecasted capital expenditures should be reduced by \$18 million in this  
7           area.” Do you agree with Mr. Coppola’s recommendation?

8 A.     No. As discussed in my response to Staff witness Evans, Consumers Energy has off-set  
9           contingency costs using the Blackbox.

10 Q.    Should the Commission adopt Mr. Coppola’s recommendation?

11 A.    No. As noted above, if the Commission were to adopt Mr. Coppola’s recommendation to  
12        remove \$18 million, contingency expenses would be removed twice – resulting in a  
13        significant under funding for these critical pieces of equipment.

14                   **Other Environmental**

15 Q.    At page 51, line 8 of his direct testimony, Mr. Coppola recommends lowering, “...capital  
16        expenditures by \$4.8 million for the period.” Did Mr. Coppola identify why he makes  
17        this recommendation?

18 A.    Yes. At page 51, line 3 of his direct testimony, Mr. Coppola states, “The Company has  
19        projected expenditures of \$13.7 million for the first 5 months of 2016. These  
20        expenditures appear to have been shifted to the first half of 2016. The Company’s  
21        workpapers of prior year expenditures show that expenditures in this area typically occur  
22        evenly through the year. I have recalculated the amount applicable to the first 5 months

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 of 2016 at \$8.9 million by assuming a straight line allocation of total expenditures for  
2 2016.”

3 Q. Is Mr. Coppola’s suggestion that Other Environmental expenditures occur evenly through  
4 the year correct?

5 A. No. A significant portion of the Other Environmental spending is for one-time projects  
6 such as the design and construction of an ash cell and new catalyst management for the  
7 Campbell site, which do not occur evenly through the year – please see Exhibit A-101  
8 (DBK-11) – WP-DBK-15.

9 Q. Should the Commission adopt Mr. Coppola’s recommendation to reduce Other  
10 Environmental capital expenditures by \$4.8 million?

11 A. No. Realizing Other Environmental capital expenditures are not incurred evenly through  
12 the year, Mr. Coppola’s recommendation to apply a straight-line allocation should be  
13 rejected.

14 **Rebuttal of Mr. Koehler’s Testimony**

15 Q. At page 3, lines 7 of his direct testimony, Mr. Koehler states, “The Company has failed to  
16 provide sufficient information to support the fossil generation capital expenditures it  
17 projects beyond the test year.” Did the Company support its Fossil & Hydro Generation  
18 capital expenditures beyond the test year?

19 A. Yes. The Company summarized the significant Fossil & Hydro Generation plant capital  
20 expenditures that were included in Exhibit A-47 (DBK-4). We also provided the  
21 long-term financial plans, which include detailed cost projections and project numbers -  
22 see Exhibit A-98 (DBK-8), Exhibits A-101 – A-107 (DBK-11 through 17)-WP-DBK-8  
23 through 15.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Also at page 3, line 9 of his direct testimony, Mr. Koehler states, “The Company  
2 proposes adding into rates 2018 spending on the development of the Thetford Gas Plant  
3 despite failing to show that the project would be the lowest cost option to customers.” Is  
4 the proposed 2018 budget for Thetford intended for the construction of a new plant or  
5 generating unit?

6 A. No. The amount requested for Thetford in 2018 is \$10 million – which is not enough for  
7 the construction of a new plant or generating unit.

8 Q. What is the Company’s plan to invest this \$10 million?

9 A. The Company intends to use the requested amount for permit, design, and engineering  
10 requirements.

11 Q. Did the Company incur similar expenses in its Thetford Certificate of Necessity (“CON”)  
12 filing – Case No. U-17429?

13 A. Yes. The Company intends to utilize as much of the work product from the Thetford  
14 CON filing as possible. However, the Company’s latest plan for Thetford is different  
15 than was submitted in Case No. U-17429.

**Jackson Fuel Supply**

17 Q. At page 3, line 15 of his direct testimony, Mr. Koehler states, “...I also note the  
18 Company’s lack of a stated fuel supply plan as of yet for the proposed Jackson Plant  
19 purchase, and suggest caution with regard to the affiliate transaction that will be  
20 necessary to deliver fuel to the plant.” Should Mr. Koehler’s note of caution be taken  
21 under consideration in this case?

22 A. No. Consumers Energy does not yet own the Jackson Plant - the sale of the Jackson Plant  
23 is expected to close in January 2016 following a Commission order in this proceeding.

DAVID B. KEHOE  
REBUTTAL TESTIMONY

1 Q. Does Mr. Koehler identify additional concerns regarding the Jackson Plant?

2 A. Yes. At page 36, line 21 of his direct testimony, Mr. Koehler states, “In a related vein,  
3 the Commission should clarify that any approval of incorporating capital or operating  
4 costs for the Jackson Plant does not constitute pre-approval of any future fuel supply  
5 management or transportation costs or agreements, and that any such costs or agreements  
6 will be subject to reasonableness and prudence review when the Company introduces  
7 evidence sufficient to vet them.”

8 Q. Is this the appropriate forum to discuss fuel supply? If not, what is the appropriate  
9 forum?

10 A. No. Fuel supply concerns are more properly considered in PSCR cases. Each year, the  
11 Company files a PSCR Plan case on the last business day of September – this is the  
12 appropriate forum to identify and discuss the Company’s projected fuel and related costs.

13 Q. Does this conclude your testimony?

14 A. Yes, it does.

1 JUDGE CUMMINS: Any cross-examination for  
2 this witness?

3 MR. BZDOK: Yes, there is.

4 MR. JANISZEWSKI: Yes.

5 JUDGE CUMMINS: Who would like to begin?

6 MR. BZDOK: Don, do you want to go first?

7 MR. KESKEY: I can.

8 JUDGE CUMMINS: Mr. Keskey, why don't you  
9 go ahead and cross-examine first.

10 CROSS-EXAMINATION

11 BY MR. KESKEY:

12 Q Good morning, Mr. Kehoe.

13 A Good morning.

14 Q Does any part of your testimony and exhibits have  
15 anything to do with AMI program or smart meters in any  
16 way?

17 A No.

18 Q Have you been involved in that issue at all?

19 A No.

20 Q On page 4 of your testimony you indicate that you  
21 sponsored testimony in U-17653 which is the 2014  
22 depreciation practices for electric and common utility  
23 plant; is that correct?

24 A That is correct.

25 Q And is that the current case which is pending a

Metro Court Reporters, Inc. 248.426.9530

1 Commission order?

2 A I don't know where that case stands.

3 Q Was there a settlement in that case?

4 A There was a settlement in that case.

5 Q Did that case include any expense or depreciation related  
6 to meters that have been or are being replaced with smart  
7 meters?

8 A I don't know the answer to that. That would not have  
9 been part of my testimony in that case.

10 Q So aside from your own testimony in that case, are you  
11 aware as to how meters replaced with smart meters were  
12 handled in that case or are being handled by the Company?

13 A No.

14 MR. KESKEY: I have no other questions  
15 your Honor.

16 JUDGE CUMMINS: Thank you, Mr. Keskey.  
17 Mr. Bzdok, Mr. Janiszewski, you expressed interest in  
18 crossing.

19 MR. JANISZEWSKI: Yes, your Honor.

20 JUDGE CUMMINS: Please proceed.

21 MR. JANISZEWSKI: Thank you.

22 CROSS-EXAMINATION

23 BY MR. JANISZEWSKI:

24 Q Good morning, Mr. Kehoe.

25 A Good morning.

1 Q Could you please confirm your position and  
2 responsibilities with the Company?

3 A I'm Director of Staff for the electric generation part of  
4 the Company.

5 Q Could you please turn to page 11 of your rebuttal  
6 testimony?

7 A Yes.

8 Q Specifically lines 8 through 10, you're answering a  
9 question regarding why did Karn begin operating the  
10 referenced controls in June 2010 [sic]. That's  
11 referencing emission controls that you discuss.

12 You answer, "Karn began operating the  
13 referenced controls in June 2010 [sic] to ensure  
14 compliance with the Mercury Air Toxics Standard (MATS)  
15 which required compliance on April 16, 2015." Is that  
16 correct?

17 A Did you say 2010?

18 Q I may have. We're talking about 2014. And then the  
19 compliance date is, the original compliance date is  
20 April 16, 2015?

21 A That is correct.

22 Q Did the Company hire and train employees before June 2010  
23 in response to the MATS standard?

24 A The Company hired and trained employees on an on-going  
25 basis. There wasn't a specific employment or specific

1 training that directly addressed MATS.

2 Q So the Company never started specifically training  
3 employees in response to MATS in any given timeframe?

4 A Could you restate the question, please.

5 Q So the Company didn't specifically begin training or  
6 hiring employees in response to MATS in a specific  
7 timeframe?

8 A I'm not sure I understand what you mean by in a specific  
9 timeframe.

10 Q Well, you said that -- I'm paraphrasing your testimony,  
11 but you said there was no specific hiring initiative and  
12 that training is an on-going process at the Company,  
13 which certainly makes sense to me. But I'm wondering if  
14 there was a specific timeframe which is -- I'm trying to  
15 give you some leeway here, whether it be a number of  
16 months or a specific year, when the Company began  
17 training or hiring specifically in response to the MATS  
18 standard.

19 A You know, the Company began installing pollution control  
20 devices which would be useful for compliance with MATS  
21 sometime around 2004. For example, we installed  
22 selective catalytic reduction devices at our Karn station  
23 in that timeframe. Although not specifically for MATS  
24 because clearly MATS was unknown at the time, those  
25 devices assist in compliance with MATS.

1 Q Did the Company incur other operating costs before  
2 June 2010 to begin operating the MATS and emission  
3 equipment in June of 2014?

4 A Again there are -- there were actions taken by the  
5 Company to comply with environment standards in general.  
6 Some of those actions assist in the compliance with MATS.

7 Q Could you further describe such actions in terms of  
8 whether they -- and whether they resulted in the Company  
9 incurring operating costs before June 2014?

10 A I'm sorry. Can you restate the question, please.

11 Q You were describing the Company taking actions and I  
12 wanted you to further describe such actions and whether  
13 those actions caused the Company to incur operating costs  
14 before June of 2014.

15 A Yes. We would have incurred operating costs prior to  
16 June of 2014 for the operation of devices that we had  
17 installed prior to then. I would include in that things  
18 like the selective catalytic reduction devices at Karn  
19 and Campbell, which would have been installed prior to --  
20 I think your reference point was 2010; is that correct?

21 Q No. 2010 was -- I'm sorry, that was a misstatement  
22 earlier in my questioning. June 2014 was --

23 A Well, yes. We would have incurred operating expenses  
24 prior to June of 2014 for the devices that we had  
25 installed prior to that.

1 Q Were such operating expenses incurred in -- I'll restate  
2 this question.

3 Are operating expenses incurred in 2014  
4 regarding matter emission equipment generally  
5 representative of the costs the Company will incur in the  
6 same areas in 2015, to your knowledge?

7 A No. Remember that MATS involves multiple devices for  
8 compliance. Some of those devices were installed prior  
9 to 2014, some of them were -- are to be installed even  
10 yet. And so I would say that for the devices that we had  
11 installed prior to 2014, we would have incurred operating  
12 expenses for those devices. The devices that we are  
13 installing after 2014 we will incur those, we will incur  
14 operating expenses for these devices as they come into  
15 service.

16 Q Do you have knowledge as to whether such expenses will be  
17 lower in 2015 as compared to 2014?

18 A I believe I outlined those expenses as part of my  
19 testimony. In fact, there's an exhibit, I'll have to get  
20 to it.

21 Yes. My Exhibit DNK-3, Exhibit A-46,  
22 shows a line, line 3 on the exhibit shows environment  
23 operation expenses by year.

24 Q In this exhibit you are projecting higher expenses in  
25 2015 than 2014; is that correct?

1 A That is correct.

2 Q Do you have information today whether the 2014 projection  
3 of environment operations was relatively accurate to that  
4 amount?

5 A I don't.

6 Q Turning back to page 11 of your rebuttal testimony, on  
7 lines 12 through 13 you state that Campbell will begin  
8 operating the referenced controls in February 2016 to  
9 ensure the site will be compliant on April 16, 2016. Is  
10 that correct?

11 A That is correct. Although strictly speaking, if you look  
12 at the schedule of outages, which is attached as an  
13 exhibit, you'll note that one of those units actually is  
14 in an outage as of April 16 of 2016. So because of the  
15 fact that it's down, it will by definition be compliant.  
16 But when it comes back out of the outage, the control  
17 system will be in place for it to be compliant.

18 Q Thank you for the clarification.

19                   Could you confirm that the Campbell  
20 emission controls equipment will begin operations two  
21 months before it is required to be compliant; however,  
22 the Karn equipment began operations about ten months  
23 before the compliance date. Is that a correct  
24 characterization?

25 A Linda Hilbert is a better witness to ask the details on  
Metro Court Reporters, Inc. 248.426.9530

1 the exact compliance dates. But my understanding is that  
2 whereas Campbell at the time had a one-year extension on  
3 compliance, Karn did not. And so at a certain point in  
4 time the compliance dates for those two plants were  
5 different.

6 Q Page 12 of your rebuttal testimony, lines 1 through 14  
7 address why Consumers Energy is requesting recovery of a  
8 full year of environmental operation expenditures. You  
9 state, "The Company projected the full year of 2016 to  
10 allow full recovery of the Environmental Operations  
11 revenue requirement. If the revenue requirement were  
12 based on pro-rating a portion of 2015 and 2016 expenses  
13 (as suggested by the Attorney General Witness Mr.  
14 Coppola) the Company would collect one month of full  
15 revenue for emission control equipment that will be  
16 operating well beyond the May 2016 test year date."

17 Is that correct?

18 A That is correct.

19 Q You further state that "All emission control equipment  
20 will become operational during the test year in this  
21 case, and customers will receive the full benefit of this  
22 equipment when it becomes operational. Therefore, the  
23 rates established in this case should allow for full  
24 recovery."

25 Is that a further correct

1 characterization of your rebuttal testimony?

2 A Yes, that is a reading of my testimony.

3 Q Could you confirm that the Company chose a test year of  
4 June 2016 -- I'm sorry. What is the chosen test year for  
5 the Company in this case?

6 A I believe it's June 2016 -- No, 2015 through May 31st of  
7 2016. May 30th, whatever date that is, the end of May.

8 Q O.K. That's my understanding too, thanks.

9 Would you agree that the purpose of the  
10 test year is to measure expenses and revenues that will  
11 be incurred during the test year?

12 A Yes. I would. But I would further amplify that we  
13 expect to be able to operate that equipment after the  
14 test year period, and to that extent the costs associated  
15 with that equipment need to be included in this case.  
16 Otherwise, we are operating the equipment without the  
17 appropriate O&M.

18 Q How many months within the test year will the emission  
19 control equipment for Campbell units be operating?

20 A It varies by unit, clearly. And in fact some of the  
21 control equipment that is specifically for MATS is  
22 already in place and operating if you include the  
23 selective catalytic reduction devices for example on  
24 Campbell 3. The devices that we are installing on  
25 Campbell Units 1, 2, and 3, the dates when they would go

1 in would correspond with the outage dates that are in my  
2 testimony.

3 Q On lines 12 through 13 on page 12 of your rebuttal  
4 testimony you mention that customers will receive full  
5 benefits from this equipment. Is that correct?

6 A When it becomes operational, yes.

7 Q What benefits will customers get from the equipment, in  
8 your opinion?

9 A Cleaner air.

10 Q Would you agree that any benefits received by customers  
11 will start when the control equipment becomes fully  
12 operational in 2016?

13 A Again as I have referenced, they will get the benefit of  
14 the devices that we are installing when those devices go  
15 into operation.

16 Q Page 13 of your rebuttal addresses the Jackson plant. I  
17 just wanted to briefly explore this idea of perhaps only  
18 a partial year of costs being included in the projected  
19 test year. Could you confirm --

20 Well, first I wanted to review lines 10  
21 through 18 where you state -- paraphrasing -- the Company  
22 is projecting the full year of 2016 to allow full  
23 recovery of the Jackson plant's revenue requirement. If  
24 the revenue requirement were based on the date of  
25 purchase to the test year date, which would be January 1,

1 2016, to May 31, 2016, the Company would collect five  
2 months of full revenue for a plant that will be running  
3 for well beyond the May 2016 test year date.

4 Is that a correct characterization of  
5 your testimony?

6 A Yes.

7 Q Would you agree that if the Company buys the Jackson  
8 plant effective January 2016, it will generate power and  
9 revenue only for five months in the forecasted test year?  
10 Yes or no?

11 A Yes.

12 Q Shouldn't expenses also be considered for only five  
13 months so it matches revenues and expenses, in your  
14 opinion?

15 A No. Again, we are going to have to be operating this  
16 plant for an entire year subsequent to this case -- or  
17 subsequent to the test year period. And what it would be  
18 asking us to do is operate the plant with only 5/12ths of  
19 the necessary O&M and capital expenses to operate the  
20 plant.

21 Q Page 14 of your rebuttal, would you agree that the \$5  
22 million on line 10 was included in your work paper  
23 WP-DBK-7 as a total unspecified amount?

24 A In the work paper, yes.

25 Q On lines 18 through 22 did you agree that the detailed

1 components of the \$5 million shown here were not in your  
2 work paper?

3 A Yes, they were not in the work paper.

4 Q So is it correct to state that these are being presented  
5 for the first time in your rebuttal testimony?

6 A We were -- the \$5 million was clearly in my work papers,  
7 although not identified as to the contents of that.

8 We're just amplifying on what constitutes that \$5  
9 million.

10 Q Correct. So the detailed components of the \$5 million  
11 shown are being presented for the first time in your  
12 rebuttal testimony; is that correct?

13 A Yes. They were not in the work papers.

14 Q When did you determine the detailed cost components  
15 presented on lines 19 through 22?

16 A I'm sorry. Could you restate the question, please.

17 Q When did you determine the detailed cost components  
18 presented here?

19 A Oh, the details were always there. We simply didn't line  
20 item them out in the work papers.

21 Q So do you have a specific date when these detailed cost  
22 components were determined? Would it be the filing of  
23 your -- the application itself?

24 A It would have been on the date of the filing of the  
25 testimony.

1 Q Rebuttal or direct?

2 A Direct. We simply didn't detail them in the work papers.

3 Q Moving on to page 15 of your rebuttal testimony. On  
4 lines 20 through 21 the question is regarding: Is there  
5 a reason why the Company projected expenditures of  
6 23.9 million for the first five months of 2016. Moving  
7 on between pages 15 and 16 of your rebuttal testimony, is  
8 it correct to state that, at least partially, the reason  
9 why expenses are higher during the first five months of  
10 2016 is because of the major outage and reconditioning  
11 the Campbell Unit 3 being scheduled starting March 12?

12 A Yes. The Campbell Unit 3 is going to be down for the  
13 installation of air pollution control equipment. It  
14 makes sense that while the unit is down for that, that we  
15 do maintenance on the unit at that time. Again the  
16 scheduled outage is listed as part of my testimony. The  
17 unit is expected to be down during that period of time,  
18 so while it's down you have an opportunity to do boiler  
19 work and turbine work, that sort of thing.

20 So that's why there is a somewhat larger  
21 amount of major maintenance in the first part of the  
22 year; it's because compliance with MATS is required by  
23 April 16.

24 Q Is this the first time that a major outage of a plant  
25 unit has been scheduled during the first half of any

1 given year?

2 A Oh, good heavens, no.

3 Q In 2013 and 2014 were there any similar outages scheduled  
4 in the first five months of those years?

5 A I don't remember the specifics as to the outage  
6 scheduling in '13 and '14. I would say that the MATS  
7 compliance date of April 16, 2016, in the case of  
8 Campbell, is driving the occurrence of the major outages.  
9 And that is somewhat unique. We didn't have a MATS  
10 compliance date in '13 or '14.

11 Q On the bottom of page 16 you reference a \$15 million  
12 expenditure for Karn 3 and 4 in a work paper. Could you  
13 confirm that there was a \$15 million amount with no  
14 specified expenditures in this specified work paper,  
15 WP-DBK-8, regardless of whether it is assignable to  
16 Campbell 3 or Karn 3 and 4?

17 A Yes, there was a \$15 million expenditure. I think that's  
18 the gist of the rebuttal testimony, is that there was a  
19 \$15 million expenditure, but I believe it had been  
20 identified as for Campbell 3, but in fact it was for Karn  
21 3 and 4.

22 Q And this detailed component here is being presented in  
23 rebuttal for the first time?

24 A No. It's just simply to correct what we saw as an error  
25 in the testimony.

1 MR. JANISZEWSKI: I think I have no  
2 further questions, your Honor. I'll just reserve the  
3 right to ask recross if needed.

4 JUDGE CUMMINS: O.K. Thank you, Mr.  
5 Janiszewski. Mr. Bzdok.

6 MR. BZDOK: Yes. Thank you.

7 CROSS-EXAMINATION

8 BY MR. BZDOK:

9 Q Good morning, Mr. Kehoe.

10 A Good morning, Mr. Bzdok.

11 Q I have a few questions for you on your Exhibit A-96, and  
12 then I have a couple questions for you regarding your  
13 rebuttal testimony on the Thetford \$10 million capital  
14 expenditure in 2018. So we'll start with A-96.

15 As I understand it, this exhibit provides  
16 project specific contingency amounts for air quality  
17 capital expenditure projects. Is that correct?

18 A Yes, it does.

19 Q And in looking at your rebuttal testimony at page 14 --  
20 sorry, at page 4, you indicate that this, that the  
21 Exhibit A-96 or the information therein was provided to  
22 you by Linda Hilbert; is that correct?

23 A Well, what we provided as an exhibit was a discovery  
24 question that had been submitted by Linda Hilbert.

25 Q So the actual information -- let me try it this way.

1                   So did you prepare the document that's  
2                   A-96 or did she?

3                   A     She did.

4                   Q     O.K.

5                   A     Well, I shouldn't say. I don't know whether she  
6                   personally did, but it was submitted by her as a  
7                   discovery response.

8                   Q     All I'm trying to do is figure out, because there is some  
9                   cross pollination here, I'm just trying to figure out who  
10                  I'm asking about what.

11                  A     Sure.

12                  Q     So these are exploratory questions.

13                                 So did you use this, the information in  
14                   A-96, in some fashion in your exhibits in this case?

15                  A     Indirectly, yes. There is an exhibit in my case that  
16                   shows the environment expenditures, the environmental  
17                   capital expenditures, and you'll note that the numbers  
18                   that are in this response from Linda Hilbert agree with  
19                   the numbers in my exhibit.

20                  Q     Give me just a second.

21                                 Is that exhibit you just referenced A-47?

22                  A     No, I think it's in direct.

23                  Q     Yes.

24                  A     It is -- yes, that is it. Yes, sorry, A-47. That is  
25                   correct.

1 Q O.K. So on this topic of project specific contingency  
2 amounts, we also asked Linda Hilbert a question, the  
3 response to which is 17735-MEC-CE-540, which I have  
4 marked as proposed Exhibit MEC-37 with a narrative  
5 response and a set of confidential attachments. You have  
6 that document I just referenced in front of you, correct?

7 A I do.

8 Q Did you have any role in the preparation of that  
9 document?

10 A None.

11 Q Did you make use of that document in preparing any of  
12 your exhibits?

13 A No. In fact, I saw it for the first time yesterday  
14 afternoon.

15 MR. BZDOK: O.K. Can we go off the  
16 record for a moment?

17 JUDGE CUMMINS: Certainly. Let's go off  
18 the record.

19 (Brief in-place recess.)

20 JUDGE CUMMINS: Let's go back on the  
21 record. Please continue, Mr. Bzdok.

22 Q (By Mr. Bzdok): Mr. Kehoe, my second topic concerns your  
23 rebuttal testimony at pages 20 and 21. And specifically  
24 I'm looking at your response to Mr. Koehler, my witness,  
25 starting at the top of page 21 regarding a \$10 million

Metro Court Reporters, Inc. 248.426.9530

1 expenditure related to the Thetford plant in 2018. Do  
2 you see that question and answer?

3 A I do.

4 Q So more or less, I guess just to paraphrase, Mr. Koehler  
5 indicated that, was questioning that expenditure because  
6 it had not been shown that the project would be the  
7 lowest cost option, and your response more or less is  
8 that the ten million was not to build the plant, it was  
9 for some preliminary permit design and engineering work.  
10 Is that more or less the case?

11 A That's more or less the case. You know, it's preliminary  
12 costs associated with obtaining air permits and doing  
13 some engineering and those sorts of activities.

14 Q Then you go on, on that same page, to reference some  
15 preliminary work that was incurred for the Thetford  
16 Certificate of Necessity filing, Case 17429, corrects?

17 A That is correct.

18 Q And those expenses are also proposed for recovery in this  
19 case, correct?

20 A Yes.

21 Q That was around \$2 million, correct?

22 A Yes.

23 Q So I am interpreting your testimony to be that -- When  
24 you came forward in Case 17429 with a demonstration that  
25 that plant was going to be the most reasonable and

1 prudent option, you were about two million dollars into  
2 the project, correct?

3 A That is correct.

4 Q And here you're proposing, via the IRM, pre-authorization  
5 of about \$10 million for preliminary engineering,  
6 permitting, design-type work, correct?

7 A That is correct.

8 Q So if we're talking about the pre-authorization of  
9 developments costs for a new generating asset, where do  
10 we draw the line? How much money is it appropriate for  
11 the Company to get pre-authorization to collect before  
12 actually having to come in, in a rate case or a CON case,  
13 and make a showing that this is the most reasonable and  
14 prudent option?

15 A Well, that would -- that would be a question outside my  
16 realm of expertise. That's a ratemaking question or  
17 legal question. I don't know what the point is that  
18 would require pre-approval. It's not my business.

19 Q Sure. I am certainly not asking you for a legal opinion.  
20 I'm trying to understand your testimony which I took to  
21 be: We don't need to show the ultimate reasonableness  
22 and prudence of the project in order to get  
23 pre-authorization for the ten million.

24 And so my question is just in that  
25 spirit. Well, at what point do you need to show that?

1 A I don't know.

2 MR. BZDOK: That concludes my questions  
3 for you.

4 JUDGE CUMMINS: Thank you, Mr. Bzdok.  
5 Any other questions of this witness on cross-examination?  
6 Any redirect?

7 MR. BEACH: Just one moment.

8 (Discussion at counsel table.)

9 MR. BEACH: No redirect, your Honor.

10 JUDGE CUMMINS: Thank you, Mr. Beach.  
11 Before us we have a total of 18 exhibits offered in  
12 conjunction with Mr. Kehoe's direct and rebuttal  
13 testimony, five with regard to direct and 13 with regard  
14 to rebuttal. These are Exhibits A-44 through 48, and  
15 A-96 through A-108. Is there any objection to the  
16 receipt of these 18 exhibits? Hearing none, those  
17 exhibits are received into evidence.

18 Mr. Kehoe, you may step down.

19 (The witness was excused.)

20 - - -

21 MR. BEACH: Can we go off the record for  
22 just a moment?

23 JUDGE CUMMINS: Certainly. Off the  
24 record.

25 (Brief in-place recess.)

1 JUDGE CUMMINS: Back on the record. Ms.  
2 Uitvlugt, please call your next witness.

3 MS. UITVLUGT: Yes, your Honor. At this  
4 time the Company calls Company Witness Miller to the  
5 stand.

6 - - -

7 H U B E R T W. M I L L E R, III  
8 was called as a witness on behalf of Consumers Energy  
9 Company and, having been duly sworn to testify the truth,  
10 was examined and testified as follows:

11 JUDGE CUMMINS: I would note for the  
12 record that Mr. Miller has already been sworn.

13 MS. UITVLUGT: All right.

14 DIRECT EXAMINATION

15 BY MS. UITVLUGT:

16 Q Mr. Miller, can you please state your full name and  
17 business address for the record?

18 A Hubert W. Miller, III, One Energy Plaza, Jackson,  
19 Michigan.

20 Q And by whom are you appearing for -- who are you  
21 appearing for in this case and in what capacity?

22 A Consumers Energy, sales forecasting witness.

23 Q And did you cause to be filed with the Commission a  
24 document entitled the Direct Testimony of Hubert W.  
25 Miller, III, which consists of a cover page and 12 pages

1 of questions and answers?

2 A I did.

3 Q And do you have any changes you wish to make at this time  
4 to your direct testimony?

5 A No.

6 Q And if I were to ask you the same questions today, would  
7 give me the same responses?

8 A Yes.

9 Q And are you adopting this as your testimony in this case?

10 A Yes.

11 Q And associated with your direct testimony did you sponsor  
12 any exhibits?

13 A Yes.

14 Q And are those exhibits Exhibit A-10 HWM-1 Schedule E1,  
15 A-10 HWM-2 Schedule E2, A-10 HWM-3 Schedule E3, A-10  
16 HWM-4 Schedule E4, and A-50 HWM-5?

17 A Yes.

18 Q Do you have any changes or corrections to make to your  
19 exhibits associated with your direct testimony?

20 A No.

21 Q And were these exhibits prepared at your direction or by  
22 you?

23 A Yes.

24 Q And did you cause to be filed with the Commission a  
25 document entitled the Rebuttal Testimony of Hubert W.

1 Miller, III, which consists of a cover page and five  
2 pages of questions and answers?

3 A Yes.

4 Q And do you have any changes you wish to make to your  
5 rebuttal testimony at this time.

6 A No.

7 Q And if I were to ask you the same questions today, would  
8 you give me the same responses?

9 A Yes.

10 Q And do you adopt that as your sworn rebuttal testimony in  
11 this case?

12 A Yes.

13 Q And are you sponsoring any rebuttal exhibits or any  
14 exhibits associated with your rebuttal testimony?

15 A Yes.

16 Q And are those exhibits A-109 HWM-6, Exhibit A-10 [sic]  
17 HWM-7, and Exhibit A-11 [sic] HWM-8?

18 A Yes.

19 Q Do you have any changes you would like to your rebuttal  
20 exhibits?

21 A I do. My rebuttal Exhibit A-110 HWM-7, the revenue  
22 column for the original electric forecast has 4,194,807.  
23 I would like to change that to 4,219,333.

24 Then the corresponding line for the  
25 April 2015 forecast is 4,196,958, and I would like to

1 change that to 4,221,484.

2 Q Do you have other changes you wish to make to your  
3 rebuttal exhibits?

4 A No.

5 Q And were these exhibits prepared by you or at your  
6 direction?

7 A Yes.

8 MS. UITVLUGT: Thank you. At this time,  
9 your Honor, I would ask that the direct and rebuttal  
10 testimony of Mr. Miller be bound into the record, and I  
11 would move for the admission of Mr. Miller's exhibit at  
12 the termination of cross-examination, and I tender the  
13 witness for cross.

14 JUDGE CUMMINS: Thank you very much. Any  
15 objection to binding in Mr. Miller's direct or rebuttal  
16 testimony? Hearing none, his direct and rebuttal  
17 testimony are both bound into the record.

18 (Testimony bound in.)

19 - - -

20

21

22

23

24

25

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**  
**OF**  
**HUBERT W. MILLER III**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

HUBERT W. MILLER III  
DIRECT TESTIMONY

1       **I. INTRODUCTION & QUALIFICATIONS**

2       Q.     Please state your name and business address.

3       A.     My name is Hubert W. Miller III and my business address is One Energy Plaza, Jackson,  
4             Michigan.

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

6       A.     I am employed by Consumers Energy Company (“Consumers Energy” or the  
7             “Company”) as a Principal Analyst in the Rates & Business Support section of the Rates  
8             & Regulation Department.

9       Q.     Please describe your qualifications.

10      A.     In May 2002, I graduated from the University of Michigan-Flint with a baccalaureate in  
11             Economics. In May 2008, I graduated from Eastern Michigan University with a Masters  
12             in Applied Economics and in May 2014 with a Masters in Mathematics. I have also  
13             attended various industry seminars addressing marginal cost pricing, the benefits of  
14             financial hedges in power markets, the use of dynamic pricing to promote energy  
15             efficiency (“EE”), and the use of statistically adjusted end-use models to forecast electric  
16             deliveries.

17             In September 2002, I accepted the position of Rate Analyst in the Pricing section  
18             of the Rates & Regulation Department with Consumers Energy. In this position my  
19             primary responsibilities included electric and natural gas rate design, industry research,  
20             and various financial studies. In November 2004, I was promoted to the position of  
21             General Rate Analyst, which expanded the scope of my duties to include sponsoring rate  
22             design testimony and exhibits in filings with the Michigan Public Service Commission  
23             (“Commission”). In April 2009, I was promoted to the position of Senior Rate Analyst,

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 which expanded my responsibilities to include coordinating the electric and natural gas  
2 rate design models and financial forecast studies associated with the Company's electric  
3 contribution in aid of construction.

4 In February 2012, I accepted a Senior Analyst position in the Economic Portfolio  
5 Management section of the Company's Work Process & Business Management  
6 Department. In this position I analyzed the benefits of technology investment initiatives  
7 for increasing operational efficiency, researched the use of mathematical algorithms to  
8 optimize operational performance, and participated in identifying risks to the Company's  
9 electric and gas distribution assets.

10 In February 2013, I accepted my current position as Principal Analyst in the Rates  
11 & Regulation Department. In this capacity I am responsible for preparing the Company's  
12 official electric and gas delivery and customer forecasts, sponsoring these forecasts in  
13 regulatory filings, industry research, and various economic studies.

14 Q. Please list the cases in which you have testified.

15 A. I have testified in the following cases:

Case No.	Description
U-14547	2006 General Natural Gas Rate Case
U-15001R	2007 Power Supply Cost Recovery ("PSCR") Reconciliation
U-15245	2008 General Electric Rate Case
U-15415R	2008 PSCR Reconciliation
U-15675	2009 PSCR Plan
U-15744	Stranded Cost Recovery Reconciliation

HUBERT W. MILLER III  
DIRECT TESTIMONY

1	U-15805	Public Act 295 Renewable Energy and Energy
2		Optimization Compliance Case
3	U-16045	2010 PSCR Plan
4	U-16191	2010 General Electric Rate Case
5	U-16485	2011 Gas Cost Recovery (“GCR”) Plan
6	U-17281	2012 Energy Optimization Plan Reconciliation
7	U-17301	2013 Biennial Renewable Energy Plan
8		Review Case
9	U-17317	2014 PSCR Plan
10	U-17334	2014 GCR Plan
11	U-17351	Amended Energy Optimization Plan
12	U-17429	Certificate of Necessity for the Thetford
13		Generating Plant
14	U-17643	2014 General Natural Gas Rate Case
15	U-17678	2015 PSCR Plan

16 Q. Please explain the purpose of your direct testimony in this proceeding.

17 A. The purpose of my testimony is to present the Company’s electric revenues, deliveries,  
18 generation requirements, and peak demands for the test year June 2015 to May 2016.

19 Q. Are you sponsoring any exhibits in this case?

20 A. Yes. I am providing the following exhibits:

Exhibits	Description
A-10 (HWM-1)	Test Year Total Company Electric Revenues & Deliveries
A-10 (HWM-2)	Electric Deliveries & Customer Counts by Rate Category
A-10 (HWM-3)	Total Electric Deliveries by Major Customer Class and System Output

HUBERT W. MILLER III  
DIRECT TESTIMONY

1           A-10 (HWM-4)                           Calculation of Annual System Load Factor

2           A-50 (HWM-5)                           Estimated Electric Rate Case PSCR Factor

3 Q.       Were these exhibits prepared by you or under your direct supervision?

4 A.       Yes.

5           **II.     TEST-YEAR ELECTRIC REVENUES**

6 Q.       Please describe Exhibit A-10 (HWM-1).

7 A.       Exhibit A-10 (HWM-1) is a single page exhibit that summarizes the component  
8           differences between the 2013 historic revenues and the forecasted test year revenues used  
9           in this case.

10 Q.       The Company is proposing to auto-enroll residential customers who are 65 years of age  
11           or older in its Senior Citizen provision. Is there a revenue impact associated with this  
12           recommendation?

13 A.       Yes, the Company has identified approximately 240,000 residential customers who  
14           satisfy the age criteria but are not presently enrolled in the Senior Citizen provision.  
15           Transferring these customers to Senior Citizen provision is expected to reduce revenues  
16           by approximately \$10.2 million annually based on the \$3.50 monthly credit provided  
17           under the provision. This reduction in revenue is included in the revenues presented in  
18           my Exhibit A-10 (HWM-1) column k.

19 Q.       The Rate E-1 tariff is scheduled to terminate at the end of November 2015. How is the  
20           Company proposing to address the transition of customers on this tariff?

21 A.       The present revenues supported in my Exhibit A-10 (HWM-1) column k are based on the  
22           collection of revenues under Rate E-1 from June 2015 through November 2015 and  
23           demand-based rate design ("Rate GPD") from December 2015 through May 2016. The

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 transition from Rate E-1 to Rate GPD for December 2015 through May 2016 is expected  
2 to increase revenue by \$12 million. The full year implications are being addressed in the  
3 Rate Design testimony of Company witness Laura M. Collins.

4 **III. KEY ELECTRIC DELIVERY AND DEMAND VARIABLES**

5 Q. What are the key variables that affect the electric deliveries and demand forecasts?

6 A. The key variables affecting the forecasts are weather, the economy, and demographics.

7 Q. Please describe the impact of weather on the forecasting process and the assumptions you  
8 made regarding weather variables in the forecast.

9 A. Weather is the primary variable used in the forecasting models to capture the seasonal  
10 variation in deliveries and demand across the year. This is accomplished using a 15-year  
11 average of Heating Degree Days (“HDD”) and Cooling Degree Days (“CDD”) in the  
12 econometric models.

13 Q. Please describe the impact of the economy on the forecasting process and the  
14 assumptions you made regarding these variables in the forecast.

15 A. The Company uses economic indicators to capture the growth expectations related to  
16 increased economic activity in its service territory. Primarily, this includes employment  
17 and industrial production forecasts provided by IHS Global Insight (“Global Insight”).

18 Q. Please describe the impact of demographics on the forecasting process.

19 A. Population projections are used in the development of the long-term customer forecast.  
20 In particular, the forecast of residential customers is derived from the county-level  
21 population projections provided by Global Insight.

HUBERT W. MILLER III  
DIRECT TESTIMONY

1       **IV.   FORECASTING METHODOLOGY**

2   Q.   Please briefly describe the process used to prepare the electric deliveries and peak  
3       demand forecasts.

4   A.   The electric deliveries and peak demand forecasts are prepared using a combination of  
5       econometric and end-use techniques. Typically, a six-step process is used in developing  
6       the electric deliveries forecast. The first step in the process is gathering the class level  
7       historical monthly electric delivery, monthly customer counts, monthly number of billing  
8       days, monthly binaries to account for temporal cycles, and daily temperature information.  
9       Most observations are entered directly into the modeling framework as dependent and  
10      explanatory variables. The daily temperature information, however, is transformed to  
11      monthly HDD and CDD variables prior to entering the modeling framework. The second  
12      step is importing the Michigan population, manufacturing production, manufacturing  
13      employment, and automotive employment variables from Global Insight into the sales  
14      modeling framework. The third step is importing electric use forecasts for wholesale,  
15      electric vehicles, polycrystalline production, and energy savings from the Company's  
16      Smart Energy and EE programs. These forecasts are exogenous to the modeling  
17      framework and were either adopted by the Commission in prior electric rate cases, reflect  
18      current industry expectations, or are based on end-use analyses. The fourth step is  
19      reviewing the imported observations to identify data issues before running the  
20      econometric models. In situations when erroneous data is observed, it is either corrected  
21      where possible or removed from the models. The fifth step is executing the regression  
22      functions and reviewing the corresponding statistical metrics. The final step in the sales

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 forecasting process is to combine the regression forecasts with the external forecasts  
2 imported in step three.

3 The peak demand forecast process is similar to that of the electric delivery  
4 forecast. The first step in the peak demand forecast is importing the Company's monthly  
5 system peak demands, corresponding minimum and maximum daily temperature,  
6 forecasted base electric deliveries, seasonal binaries, and number of customers into the  
7 demand modeling framework. A weighted sum of the minimum and maximum  
8 temperatures is used to develop the peak CDD and HDD variables prior to importing into  
9 the model framework. The second step is reviewing the imported observations to identify  
10 data issues before executing the peak demand econometric model. The third step is  
11 regressing the observed peak demands against the seasonal binary, degree day, and  
12 forecasted base electric sales. The final step in the peak demand forecasting process is  
13 combining the results of the econometric model with the planned peak reductions from  
14 the Company's Dynamic Peak Pricing and Direct Load Administration.

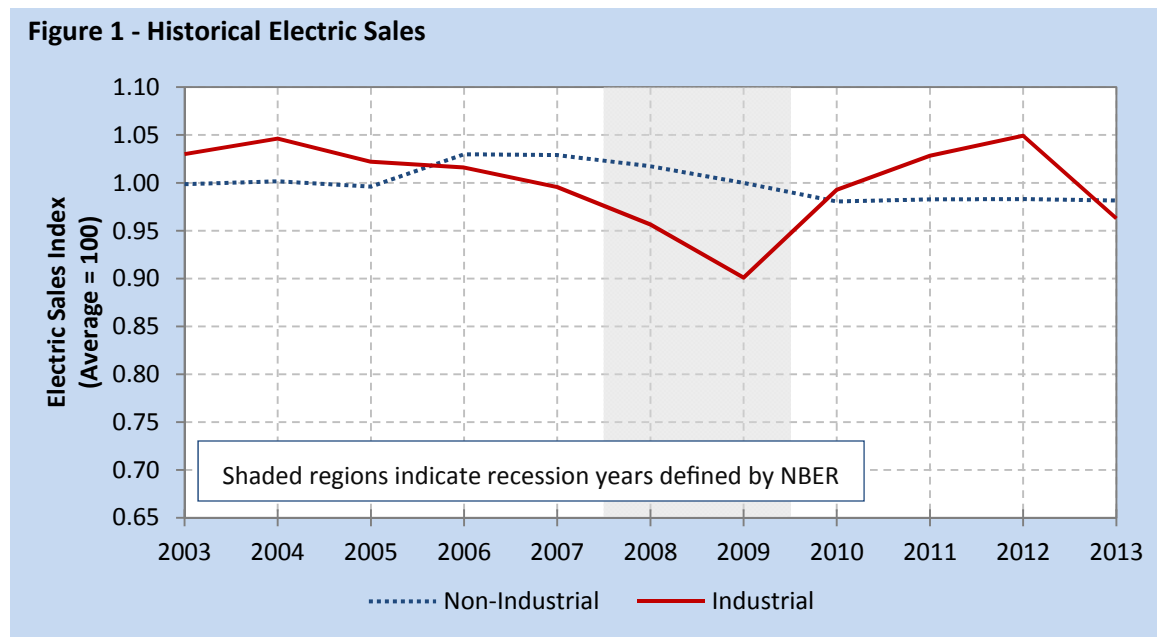
15 **V. HISTORICAL AND FORECASTED ELECTRIC DELIVERIES**

16 Q. Please explain the historical growth in electric deliveries.

17 A. Weather-normalized electric deliveries shrank at a 0.33 percent compounded annual  
18 growth rate ("CAGR") from 2003 to 2013, with most of the observed loss occurring in  
19 the industrial class. This is especially evident when looking at the trend of industrial and  
20 nonindustrial deliveries shown in Figure 1. Prior to 2007, nonindustrial electric  
21 deliveries grew about one percent per year while industrial deliveries decreased about  
22 half a percent per year as the automotive sector contracted in Michigan. Although both  
23 indexes decreased during the 2007 to 2009 recession, the effect on the industrial class

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 was much more pronounced. Industrial electric deliveries decreased about five percent  
2 per year from 2007 to 2009 versus a one percent decrease for nonindustrial electric  
3 deliveries. Although industrial deliveries returned to near 2004 levels by 2012, much of  
4 this gain was lost in 2013.

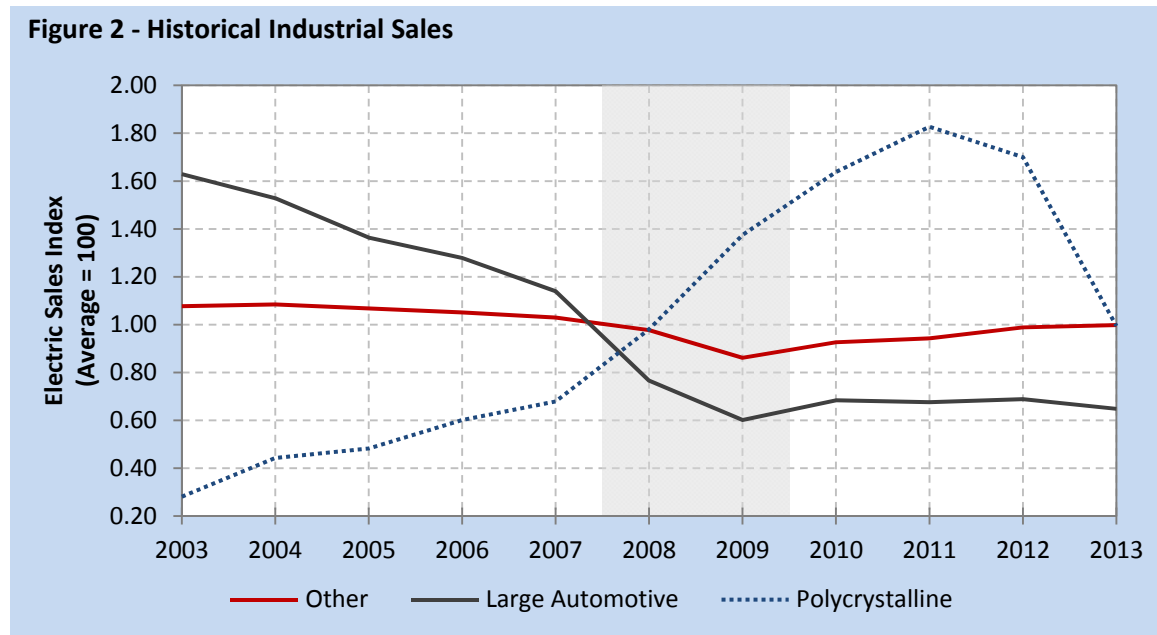


5 Q. What caused the increase in industrial electric deliveries in 2012 and then sudden  
6 decrease in 2013?

7 A. Industrial electric deliveries increased 5.31 percent per year from 2009 to 2012.  
8 However, the increase is not homogeneous across all sectors in the class. As shown in  
9 Figure 2, electric deliveries grew precipitously in polycrystalline manufacturing until  
10 2012. The sudden decrease in 2013 is attributed to international trade restrictions  
11 imposed by East Asian countries. While the polycrystalline industry was booming, the  
12 large automotive, and other industrial sectors, exhibited only moderate growth in electric  
13 deliveries. Indeed, over the past decade electric deliveries in these latter two sectors

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 decreased 1.7 percent per year while increasing 14 percent per year in the polycrystalline  
2 industry.



3 Q. Are you expecting the trend in industrial deliveries to continue?

4 A. Total electric deliveries are expected to increase in the short-term as the polycrystalline  
5 industry returns to 2012 levels by 2018. As mentioned earlier, the short-term ebb of  
6 polycrystalline production reflects trade policy issues in that industry. In the long-run,  
7 however, as these issues are resolved, electric deliveries are expected to return to the  
8 pre-2013 levels.

9 Q. What are the electric delivery expectations for the test year used in this case?

10 A. Total electric deliveries are expected to increase 1.1 percent per year from 2013 to the  
11 2015/2016 test year. The rate category level results are shown in Exhibit A-10  
12 (HWM-2). The annual class level results for 2004 – 2019 is shown in Exhibit A-10  
13 (HWM-3).

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 Q. Are you assuming continued EE savings as part of your electric deliveries forecast?

2 A. Yes. EE savings are predicted to continue growing at one percent per year through the  
3 forecast period.

4 Q. In October 2014, the Company proposed changes to its cost allocation and rate design as  
5 part of Public Act 169. Are you expecting the change to impact customer behavior once  
6 the new cost and design is implemented?

7 A. Yes, the Company is proposing to increase the amount of fixed costs recovered through  
8 its On Peak and Maximum demand charges. The recovery of more costs through these  
9 charges will reduce the average rate paid by customers with high load factors – the ratio  
10 of actual to potential energy usage – and increase the average rate paid by customers with  
11 low load factors. As such, low load factor customers will switch from a Rate GPD to an  
12 energy-only rate design (“Rate GP”) if the increase from the new rate design exceeds the  
13 increase from switching rates. Generally, this is referred to as the economic breakeven-  
14 point or crossing points between rates. Based on the new cost and rate design, I calculate  
15 that approximately 40 percent of Rate GPD customers would benefit from switching to  
16 Rate GP.

17 Q. Have you adjusted the test year forecast to reflect this change?

18 A. No, the test year forecast is premised on the present rate design and economic breakeven-  
19 points. However, Company witness Collins will be addressing this issue in designing  
20 proposed rates.

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 Q. Please describe the process used to determine the Company's total generation  
2 requirements.

3 A. Consistent with prior filings, the forecasted total electric deliveries are increased by a line  
4 loss factor of 7.2 percent to determine the Company's total generation requirements, i.e.,  
5 system output, shown in Exhibit A-10 (HWM-3) and Exhibit A-10 (HWM-4).

6 **VI. FORECASTED PEAK DEMAND**

7 Q. Please describe the forecasted growth in peak demand.

8 A. The Company uses regression analysis based on the predicted level of electric deliveries  
9 to forecast the peak demand. Weather normal peak demand grew at a 1.6 percent CAGR  
10 from 2003 to 2007 but reversed much of this trend during the 2007 to 2009 recession.  
11 Looking forward, peak demand is expected to increase 0.7 percent per year from 2013 to  
12 2019. The monthly system level results of the electric peak demand forecast process is  
13 shown in Exhibit A-10 (HWM-4).

14 Q. Please explain the impact to the peak demand forecast from the Company's future Smart  
15 Energy programs.

16 A. The peak demand forecast is reduced by approximately 58 MW in 2015 and increasing to  
17 370 MW by 2019 for the Company's load administration, peak pricing, prepaid meters,  
18 and web portal programs. These programs are being implemented as part of the  
19 Company's Smart Energy infrastructure investments in which customers are provided  
20 technology and information to better manage their impact on the Company's system.

21 Q. To what extent is the Company's EE program expected to impact peak demand?

22 A. The EE program is projected to reduce peak demand 305 MW in 2015. The cumulative  
23 reductions produced by the EE program are expected to be 482 MW by 2019.

HUBERT W. MILLER III  
DIRECT TESTIMONY

1 Q. Please explain the process used to identify the peak demand impacts of the Company's  
2 Smart Energy and EE programs.

3 A. The Company developed hourly load profiles for the Smart Energy and EE programs.  
4 The monthly energy savings associated with each of these programs are integrated with  
5 the corresponding load shape to develop hourly demand savings curves.

6 Q. Please explain Exhibit A-50 (HWM-5).

7 A. Exhibit A-50 (HWM-5) calculates the projected PSCR Factor based on the electric  
8 deliveries and power supply expenses used in this case.

9 Q. Does this conclude your testimony?

10 A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**  
**OF**  
**HUBERT W. MILLER III**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

May 2015

HUBERT W. MILLER III  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. My name is Hubert W. Miller III and my business address is One Energy Plaza, Jackson,  
3 Michigan.

4 Q. Are you the same Hubert W. Miller III that provided direct testimony on behalf of  
5 Consumers Energy Company (“Consumers Energy” or the “Company”) in this case?

6 A. Yes

7 Q. Please explain the purpose of your rebuttal testimony in this proceeding.

8 A. I am rebutting portions of the direct testimony filed by:

- 9 • Michigan Public Service Commission (“MPSC” or the “Commission”) Staff (“Staff”)  
10 witness Daniel J. Gottschalk relating to his projection of income assistance  
11 participation;
- 12 • Attorney General witness Sebastian Coppola relating to the use of the October 2014  
13 electric deliveries forecast in this case; and
- 14 • Michigan Environmental Council, Citizens Against Rate Excess, and Natural  
15 Resources Defense Council (“MEC/CARE/NRDC”) witness Douglas B. Jester  
16 relating to the system loss factor used to determine the test year generation  
17 requirements.

18 Q. Are you sponsoring any exhibits as part of your rebuttal in this case?

19 A. Yes. I am providing the following exhibits:

Exhibits	Description
A-109 (HWM-6)	Change in Economic Activity
A-110 (HWM-7)	Estimate of Incremental Revenue
A-111 (HWM-8)	Hypothetical Impact to the System Loss Factor from Changes in Class Composition

25 Q. Were these exhibits prepared by you or under your direct supervision?

26 A. Yes.

HUBERT W. MILLER III  
REBUTTAL TESTIMONY

**REBUTTAL OF STAFF WITNESS GOTTSCHALK**

1  
2 Q. Staff witness Gottschalk, beginning at page 5 of his direct testimony, recommends that  
3 the Commission reduce the number of income assistance customers forecast to participate  
4 in the Residential Income Assistance ("RIA") provision from 75,000 per month to 60,000  
5 per month. Do you agree with this recommendation?

6 A. No. Although the level of customers participating in the RIA has recently decreased, the  
7 Company has been investigating the cause of this decrease since January 2015. The  
8 Company has identified approximately 10,000 additional customers in its Consumers  
9 Affordable Resource for Energy ("CARE") program who are also eligible for the RIA  
10 provision. The Company intends to auto-enroll these customers in the RIA, in addition to  
11 keeping them on the CARE program, beginning in June 2015. The Company is also  
12 predicting approximately 7,000 additional CARE customers that would be enrolled in  
13 2016. As such, I recommend that the Commission adopt the Company's original forecast  
14 of 75,000 customers.

**REBUTTAL OF ATTORNEY GENERAL WITNESS COPPOLA**

15  
16 Q. Please briefly explain Attorney General witness Coppola's position regarding the electric  
17 sales forecast in this case.

18 A. Mr. Coppola proposes that the Commission adopt the Company's October 2014 electric  
19 deliveries forecast provided in discovery response 17735-AG-CE-180.

20 Q. Do you agree with Mr. Coppola's recommendation to use the Company's October 2014  
21 forecast provided in discovery response 17735-AG-CE-180 on April 2, 2015?

22 A. No. Although October 2014 was the most recent forecast at the time of the discovery  
23 response, the Company has since finished a more recent forecast. The Company prepares

HUBERT W. MILLER III  
REBUTTAL TESTIMONY

1 two electric deliveries forecasts each year. It prepares an electric deliveries forecast in  
2 October and another the following April. The forecast provided in discovery response  
3 17735-AG-CE-180 was based on the forecast prepared in October 2014. However, since  
4 then the Company has completed its April 2015 forecast. The Company is projecting  
5 37,813 GWh of electric deliveries for the 2015/2016 test year based on updated deliveries  
6 and economic data.

7 Q. Please explain the difference between the forecast provided to the Attorney General in  
8 your discovery response and the April 2015 forecast referenced above.

9 A. The primary difference between the two forecasts is based on a reduction in economic  
10 activity being forecast by IHS Global Insight ("IHS"). The IHS forecast used in the  
11 Company's October 2014 electric deliveries forecast models had a higher level of  
12 economic activity in Michigan. However, IHS revised down their forecast in April 2015  
13 based on slower first quarter 2015 growth. Exhibit A-109 (HWM-6) contains a  
14 comparison of the change in economic variables from IHS used in the October 2014 and  
15 April 2015 forecasts.

16 Q. What is the estimated operating revenue impact if the Commission adopted the more  
17 recent April 2015 forecast?

18 A. The operating revenue impact, using Mr. Coppola's volumetric rates for comparison  
19 purposes, is provided in Exhibit A-110 (HWM-7). The overall impact of updating the  
20 electric deliveries forecast in this case is an increase in operating revenues of \$348,000.  
21 However, should the Commission choose to update the forecast, then I recommend that a  
22 more detailed revenue analysis be done for rate design and cost-of-service purposes.

HUBERT W. MILLER III  
REBUTTAL TESTIMONY

1 Q. What is your recommendation based on the updated information?

2 A. Given the magnitude of the change, I recommend that the Commission reject  
3 Mr. Coppola's proposal to update the electric deliveries forecast in this case. However,  
4 should the Commission wish to use the most recent set of information in this case, then I  
5 recommend it use the Company's April 2015 forecast since it includes the latest deliveries  
6 and economic data available.

7 **REBUTTAL OF MEC/NRDC/CARE WITNESS JESTER**

8 Q. MEC/NRDC/CARE witness Jester argues, at page 5 of his direct testimony, for the  
9 Commission to reject the Company's generation requirements forecast because (i) the  
10 losses used in determining the generation requirements are inconsistent and (ii) it does  
11 not reflect changes in system losses due to changes in the composition of the class loads.  
12 Do you agree with Mr. Jester's assessment of the Company's generation forecast?

13 A. No, I disagree with Mr. Jester's claim for two reasons. First, the Company's generation  
14 requirements forecast is based on the approach approved in the Company's last general  
15 electric rate case, MPSC Case No. U-17087, and Power Supply Cost Recovery Plan case,  
16 MPSC Case No. U-17095. Should the Commission approve an updated loss factor in this  
17 case, then the Company would agree it should be used in determining its generation  
18 requirements forecast going forward.

19         Second, Mr. Jester argues that the Company's current loss factor of 7.2 percent  
20 used to determine the generation requirements in this case is not appropriate because the  
21 industrial class is expected to increase more than the other classes. Over the next five  
22 years the Company does expect the industrial class share of deliveries to increase by one  
23 percent. However, this change is not enough to significantly alter the weighted system

HUBERT W. MILLER III  
REBUTTAL TESTIMONY

1 loss factor. For example, if the hypothetical loss factors for the residential, commercial,  
2 and industrial classes are 7.75 percent, 7.25 percent, and 6.75 percent, respectively, then  
3 the weighted system loss factor for the 2015/2016 test year and 2019 would be  
4 7.23 percent and 7.22 percent. The small difference in the weighted system load factor  
5 from changes in the composition of class load, 0.01 percent decrease in this example, is  
6 not enough to warrant rejecting the Company's generation requirements forecast in this  
7 case. The calculation of this hypothetical impact is provided in Exhibit A-111 (HWM-8).

8 Q. What is your recommendation based on Mr. Jester's assessment?

9 A. I recommend the Commission reject Mr. Jester's claim that the generation forecast  
10 provided in this case is inappropriate and should not be used.

11 Q. Does this conclude your testimony?

12 A. Yes.

1 JUDGE CUMMINS: Any questions of this  
2 witness by the Staff?

3 MR. SINGH: No, your Honor.

4 JUDGE CUMMINS: Mr. Bzdok.

5 MR. BZDOK: I have a few brief ones. I'm  
6 happy to follow the Attorney General.

7 JUDGE CUMMINS: Certainly. Mr.  
8 Janiszewski, why don't you proceed.

9 MR. JANISZEWSKI: Yes. I'm happy to lead  
10 off, your Honor.

11 CROSS-EXAMINATION

12 BY MR. JANISZEWSKI:

13 Q Good morning, Mr. Miller. I have a very brief cross for  
14 you today.

15 In your various job responsibilities at  
16 Consumers Energy, you are responsible for sales  
17 forecasts; is that correct?

18 A Yes.

19 Q And you also prepare sales forecasts for the Company's  
20 GCR and PSCR plan cases; is that correct?

21 A Yes.

22 Q Could you please turn to page 1 of your rebuttal  
23 testimony?

24 A O.K.

25 Q You've already summarized actually for the record what  
Metro Court Reporters, Inc. 248.426.9530

1 exhibits you are sponsoring for this case. The exhibits  
2 referenced on lines 21 through 24, they were prepared  
3 under your direct supervision or by you; is that correct?

4 A Yes.

5 Q Could you please confirm that -- on pages 2 and 3 of your  
6 rebuttal testimony you are rebutting a specific portion  
7 of the Attorney General witness's expert's testimony.

8 On line 18 you state that Mr. Coppola  
9 proposes that the Commission adopt the Company's October  
10 2014 electric deliveries forecasts provided in a  
11 discovery response 17735-AG-CE-180. You disagree with  
12 that recommendation; is that correct?

13 A Correct.

14 Q When providing your reasoning for disagreeing with the  
15 Attorney General witness's recommendation, can you  
16 confirm that essentially what you're saying, that you  
17 prepared a more recent projection of sales that the  
18 Commission should use going forward. Is that correct?

19 A Not quite. What I said was the Company prepares a  
20 forecast in October and April each year. And that what  
21 we responded to in discovery was our October forecast.  
22 Since then we have completed our April forecast which  
23 included more recent information. But it is fairly close  
24 to what we originally filed in this case.

25 Q So the more updated forecast should be used, specifically

1 the April of 2015 forecast; is that your opinion?

2 A If the Commission decides to use a more recent  
3 information, then we would recommend using the April  
4 forecast. Although the magnitude of difference is very  
5 small between what we originally filed and the April  
6 forecast.

7 MR. JANISZEWSKI: I have a proposed  
8 exhibit. Can we go off the record for one minute, your  
9 Honor?

10 JUDGE CUMMINS: Sure.

11 (Brief discussion off the record.)

12 (Document was marked for identification by the Court  
13 Reporter as Exhibit AG-25.)

14 JUDGE CUMMINS: Please continue, Mr.  
15 Janiszewski.

16 MR. JANISZEWSKI: Thank you, your Honor.

17 Q (By Mr. Janiszewski): Mr. Miller, I just handed you an  
18 excerpt from your testimony, rebuttal testimony, in Case  
19 U-17334. Is that correct?

20 A That is correct.

21 Q I just wanted to briefly discuss the Company's practice  
22 of preparing short-term sales forecasts versus long-term  
23 sales forecasts. On page 2 of proposed Exhibit AG-25 you  
24 briefly discuss the Company's preparation of these  
25 different forecasts. Is that a fair characterization?

1 A Yes. For the gas forecasts, that's correct.

2 Q Could you please explain the general difference between  
3 short-term forecasting and long-term forecasting?

4 A Yes. So for the short-term forecasts, in particular what  
5 I am referencing in this rebuttal, has to do with looking  
6 for budget purposes at the next year. Longer term  
7 forecasts generally are five-year forecasts, and we will  
8 look at -- in addition to the growth rates and trends, we  
9 take a longer perspective on that.

10 Q Is it fair to say that in the context of your rebuttal  
11 testimony presented in Exhibit AG-25 that you argued  
12 against utilizing the April long-term sales forecast  
13 within the context of this GCR case. Is that correct?

14 A In this rebuttal what I was arguing, that the forecast is  
15 kind of the beginning point of a rate case. And so if  
16 you are going to continuously try to update the forecast,  
17 you basically have to go back and restart your case. And  
18 that's, for small changes, really not a feasible option,  
19 workable. It would require you to re-examine everything.  
20 And if there is a small impact to the forecast -- the  
21 forecast is that, it's a forecast. It's our best  
22 estimate of what our sales will be at the time given the  
23 information. We take into account as much information,  
24 short-term and long-term, as possible. But it's not  
25 practical to always go back and update the forecast

1 because it has ramifications in other parts of the case.  
2 That was the point of this here.

3 Q O.K. Looking at your position in this rebuttal testimony  
4 in Exhibit AG-25 where you are recommending not using a  
5 long-term forecast for the purposes of that case, whereas  
6 in this case you are recommending reference to the  
7 April 2015 long-term forecast, could you please explain  
8 the difference in your opinion if any between the use of  
9 the April 2015 long-term forecast, between these two  
10 cases?

11 MS. UITVLUGT: Your Honor, I'm going to  
12 object to the question because it changes Mr. Hubert's  
13 [sic] testimony. Mr. Hubert's testimony in this case was  
14 that he recommended sticking to the original forecast and  
15 if the Commission chooses to update, they use the more  
16 recent one. He is not -- his rebuttal testimony does not  
17 recommend updating the case.

18 MR. JANISZEWSKI: I appreciate  
19 Mr. Miller's point of clarification and confirming that  
20 he is waiting -- he is deferring to the Commission on  
21 using the April of 2015 forecast. I do want to just  
22 explore maybe one question just regarding his difference  
23 of opinion, and perhaps the utility, of using and  
24 analyzing a long-term forecast, why he would recommend it  
25 in one instance and not the other.

1 JUDGE CUMMINS: I'm going to overrule the  
2 objection allow you to pursue that.

3 A In this rebuttal I answer that question starting on page  
4 2, line 15, in that I say I don't recommend changing the  
5 forecast for two reasons. First, it's not exclusive of  
6 other components in the case and should not be changed  
7 without also updating the entire case.

8 I'm not saying that a short-term or  
9 long-term forecast, one is better than the other. I'm  
10 just saying that you can't update the forecast without  
11 re-examining the case in its entirety.

12 Q (By Mr. Janiszewski): Do you have an opinion on why  
13 using a September or October short-term forecast would  
14 not be appropriate in the context of this general rate  
15 case, given your prior testimony?

16 A In this context the economic outlook that was in place in  
17 October when we did the short-term forecast has changed.  
18 Now it has been reduced. So that was our concern, is to  
19 say -- At that point in time in October, this is what the  
20 landscape looked like. Things have changed since then.  
21 And if the Commission is looking to use the most recent  
22 information, then it could use our April forecast. But  
23 that's not much different than our original case.

24 Q Page 3 of your rebuttal testimony, lines 9 through 15,  
25 you're talking about differences between a forecast

1 provided to the Attorney General in discovery response  
2 versus the April of 2015 forecast. And you state that  
3 the primary difference between the two forecasts is based  
4 on a reduction in economic activity being forecast by IHS  
5 Global Insight. Is that correct?

6 A Yes.

7 Q Have you observed Consumers Energy sales decline or  
8 increase in the last six months?

9 A Our sales have been below our forecast in the last six  
10 months.

11 Q Another question along this line. Have you seen  
12 Consumers Energy sales decline or increase in the last  
13 six months on a weather normalized basis from the level  
14 estimated in the October forecast used by Mr. Coppola?

15 A On a weather normalized basis the sales have been below  
16 our forecast.

17 Q Do you happen to know a rough estimation or percentage of  
18 that lower sales level?

19 A For 2014 it was about 33 gigawatt hours below our  
20 forecast.

21 MR. JANISZEWSKI: I have no further  
22 questions, your Honor. And at the end of cross I would  
23 move for the admission of AG-25.

24 JUDGE CUMMINS: Thank you, Mr.  
25 Janiszewski.

1 Mr. Bzdok, how long do you think yours  
2 will take?

3 MR. BZDOK: Not long.

4 JUDGE CUMMINS: O.K. Why don't we try to  
5 get that done before lunch.

6 MR. BZDOK: Thank you.

7 CROSS-EXAMINATION

8 BY MR. BZDOK:

9 Q Good morning, Mr. Miller.

10 A Good morning.

11 Q I have a few questions for you related to line loss  
12 factors that were applied to your generation forecasts.

13 A O.K.

14 Q So I would direct your attention I think to Exhibit A-10  
15 perhaps as a place to start.

16 Rather than go through the whole process  
17 of circulating discovery responses, just to recap, I  
18 asked you in discovery what the -- So you're applying a  
19 7.2 percent loss factor to determine generation  
20 requirements in this case, correct?

21 A Correct.

22 Q And the source of that loss factor is the loss factor  
23 used in the last general electric case, 17087; is that  
24 correct?

25 A Correct.

1 Q And what is your understanding is the source of the  
2 7.2 percent in that case?

3 A That was from our accounting department, that they  
4 developed that back in 2007.

5 Q And as you understand it, what was it based on?

6 A The system output for three years, the average compared  
7 to the deliveries for those three years.

8 Q So looking at your Exhibit A-10, is that the same kind of  
9 information that's presented there for historic and  
10 forecast?

11 A Is that HWM-3?

12 Q Yes.

13 A O.K.

14 Q Page 3 of 3. Well, no, that's choice sales. Excuse me.  
15 Yes, page 1 of 3. So here we're looking at total  
16 deliveries, right?

17 A Correct.

18 Q And what you just indicated, the number or the  
19 calculation that you used is the same calculation that  
20 produces these percent of output numbers in column (g) of  
21 Exhibit A-10; is that correct?

22 A Correct.

23 Q And that's true of bundle deliveries on page 1 of --  
24 sorry, of total deliveries on page 1, bundled deliveries  
25 on page 2, and electric choice deliveries on page 3. Is

1 that correct?

2 A Correct.

3 Q O.K. And so as I understand it, the 7.2 number is a  
4 number that was an average from -- was that an average  
5 from 2005, 2006, and 2007, the column (g) numbers?

6 A It was from April of 2007 to the corresponding month in  
7 2004.

8 Q O.K. So it's an average of very similar numbers to the  
9 column (g) numbers in that exhibit?

10 A Yes.

11 Q And it's for the total deliveries, right?

12 A Yes.

13 Q O.K. One of the things that I noted in your Exhibit A-10  
14 page 1 for total deliveries is that the -- that percent  
15 loss number in column (g), the forecasts are that it's  
16 going to be reducing?

17 A Correct.

18 Q Over the years to come; is that correct?

19 A Correct.

20 Q And what's the basis for that, from a forecast  
21 perspective?

22 A This includes the AMI theft reduction, which will lower  
23 line losses.

24 Q Anything else?

25 A It includes the peak demand or DLA program which will

1 also impact it. And the pay as you go, the web portal.  
2 Pay as you go and web portal, other programs. But it's  
3 primarily the theft avoidance.

4 Q And you said peak demand, and then I think you said DLA.  
5 Is that correct?

6 A It's the peak pricing, dynamic peak pricing, and then the  
7 DLA, which is the Direct Load Administration.

8 MR. BZDOK: Thank you. That concludes my  
9 questions.

10 JUDGE CUMMINS: Thank you. Mr. Keskey?

11 MR. KESKEY: Thank you, your Honor.

12 CROSS-EXAMINATION

13 BY MR. KESKEY:

14 Q Good morning, Mr. Miller.

15 A Good morning.

16 Q Let me turn to page 11 of your direct testimony, and  
17 there you talk about forecast and peak demand. What  
18 months does the Company experience peak demand?

19 A It's generally in July or August.

20 Q And what are the essential causes for the Company to  
21 experience a peak during those months?

22 A It would be weather is the primary driver. Humidity.

23 Q Air conditioning load?

24 A Yes.

25 Q And what portion of the peak demand is due to air

1 conditioning?

2 A I don't know.

3 Q Well, do you have any kind of a range or rough estimate?

4 A We look at the peak demand in total. We do not have it  
5 segregated out by end use. But I would say most of it is  
6 air conditioning.

7 Q Is the air conditioning load attributable primarily to  
8 any one customer class?

9 A It would be residential and commercial.

10 Q And you don't want to venture any kind of guess whether  
11 it's 25 percent of your peak, ten percent of your peak,  
12 or 50 percent of your peak, or something in between?

13 A I do not.

14 Q The Company, for several years, had what's called an  
15 interruptible air conditioning tariff, did it not?

16 A No, I don't recall us having an interruptible air  
17 conditioning tariff.

18 Q Do you recall the Company offering an option for  
19 customers to be -- to sign up for a lower rate if they  
20 would sign up for being interrupted during your peak  
21 periods?

22 MS. UITVLUGT: I'm going to place an  
23 objection, your Honor. This witness is not our tariff  
24 witness.

25 JUDGE CUMMINS: I think it was a general  
Metro Court Reporters, Inc. 248.426.9530

1 question. If he can answer, he can. If not, he can say  
2 he does not.

3 A Could you repeat the question?

4 Q (By Mr. Keskey): I'll rephrase it first.

5 Are you aware of any kind of programs,  
6 services or rate programs, whereby customers were offered  
7 to be on an interruptible service relative to air  
8 conditioning?

9 A The Company has rate options for critical peak or time of  
10 use, or the direct load administration has done pilots  
11 with that. But as far as the residential or commercial,  
12 which I assume those are the classes you're specifically  
13 referencing, I am not aware.

14 We do have an interruptible tariff for  
15 industrial customers or large commercial.

16 Q So you're not aware of any effort by the Company to  
17 implement an interruptible air conditioning tariff or  
18 service or program?

19 A I am not aware. I'm not the expert on that, though.  
20 That would be something that Mrs. Collins could address  
21 as the rates witness. I know that they're evaluating  
22 many different options for customers.

23 Q My question really wasn't related to tariffs, it was  
24 related to programs or interruptible air conditioning  
25 options as a generic kind of program.

1 A They are looking -- I know as far as the AMI side,  
2 they're looking at -- or smart energy -- they're looking  
3 at the direct load administration which doesn't interrupt  
4 but cycles the air conditioner. Other than that, I am  
5 not aware.

6 Q Well, a smart meter isn't a prerequisite to some kind of  
7 an air conditioning interruption program, is it?

8 A I don't know enough about the technical requirements as  
9 far as monitoring to ensure that the load was  
10 interrupted, or how that would be communicated to the  
11 customer. So I can't say whether or not a smart meter is  
12 required or not.

13 Q Now, in your testimony on page 11 you mention -- and I'll  
14 take these each at a time -- first of all, you mention on  
15 line 17, load administration. Could you just give us a  
16 brief definition or a description of what you mean by  
17 that?

18 A That's a direct load administration, that refers to the  
19 cycling of air conditioners.

20 Q And how long has the Company had a load administration  
21 program, to your knowledge?

22 A The Company is implementing it as part of its smart  
23 energy, but that would be something that Mr. Warriner,  
24 Lincoln Warriner, could address.

25 Q Now, then you use the word peak pricing. How would you

1 define or describe that?

2 A That refers to the dynamic peak pricing program that the  
3 Company is looking to administer. And that is a  
4 behavioral program in which you send a price response.  
5 The technical aspects of it, I'm not familiar with. That  
6 would be addressed by another witness.

7 Q Are you aware that the Company has an on peak/off peak  
8 pricing program in place now?

9 A Yes. The Company does offer time of use rates.

10 Q So a smart meter is not a prerequisite to having price  
11 signals based on a peak versus off peak, is it?

12 A I don't know about the technical background as far as how  
13 these signals are communicated to customers. This  
14 program, my understanding is that it will send price  
15 signals so that the customers can see, you know, what's  
16 happening. But I'm not familiar enough with it to say  
17 whether or not a smart meter is required or not for this  
18 program.

19 Q Then you mention prepaid meters. What is that?

20 A It's my understanding that this is where the customer  
21 would pay up front, like a prepaid phone for a certain  
22 amount of energy, and then monitor that throughout the  
23 month.

24 Q How long has that program been in effect?

25 A To my knowledge, they're still working at implementing

1 it.

2 Q Well, the Company has offered various programs like  
3 budget programs and things like that for several years,  
4 has it not?

5 A The Company does have a budget program, that is correct.

6 Q And the concept of prepaid energy is not dependent upon  
7 having a smart meter or not, is it?

8 A I don't know as far as this particular program. Again  
9 how they're planning to communicate with the customer may  
10 be dependent upon a meter, but I don't know.

11 Q Then you use the phrase on line 18, web portal programs.  
12 How would you define or describe that?

13 A That is, the customer can log on to the internet and  
14 monitor their daily usage through a web portal.

15 Q How long has that program been in effect?

16 A They are still working to implement it, I believe.

17 Q Use of the internet and a web portal program is not  
18 dependent upon a smart meter, is it?

19 A The ability to retrieve the data on a daily basis I  
20 believe is dependent on having the infrastructure there  
21 to get it back through the smart meters, and allowing  
22 customers to then look at a more detailed look at their  
23 load is dependent on having these meters. That's my  
24 understanding. The current meters are not adequate for  
25 looking at it as far as the daily.

1 Q Well, the current meters permit the customer to read the  
2 meter and its energy usage himself or herself, right?

3 A I'm assuming they could walk out and look at their meter,  
4 but to have that interfaced with the web, I don't believe  
5 the current meters would do that.

6 Q The Company currently has a program where the customer  
7 can send in a monthly energy usage report or postcard,  
8 does it not, under the billing rules?

9 A I'm not the expert on that. I don't know.

10 Q A customer can determine his energy usage or his  
11 behavior, let's say, looking at past bills and past  
12 months and what his pattern seems to be; isn't that true?

13 A I'm assuming they could. A lot of this is to make it  
14 easier, though, for the customer.

15 This is really outside the purview of  
16 what I'm testifying to, and is probably best addressed by  
17 Mr. Warriner.

18 Q If a customer does not want to have daily usage by way of  
19 computer or internet, should he be required to have that  
20 capability?

21 A I don't know.

22 JUDGE CUMMINS: Mr. Keskey, how much more  
23 do you have here?

24 MR. KESKEY: Probably five minutes, ten  
25 minutes.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

JUDGE CUMMINS: It's already almost ten after. I'm sorry to make you have to hold over, but why don't we go ahead and take our lunch break now. We'll start again at 1:30.

(At 12:10 p.m., the hearing recessed for lunch.)

- - -

1                   Lansing, Michigan

2                   Thursday, June 11, 2015

3                   At 1:30 p.m.

4                   - - -

5                   (Hearing resumed following the lunch recess.)

6                   JUDGE CUMMINS: Let's go on the record.

7                   Mr. Keskey, please continue.

8                   MR. KESKEY: Thank you, your Honor.

9                   H U B E R T       W.       M I L L E R,     I I I

10                  resumed the stand, and having been previously sworn,

11                  testified further as follows:

12                  CROSS-EXAMINATION (Continuing)

13 BY MR. KESKEY:

14 Q       Mr. Miller, returning to page 11 of your direct  
15       testimony, you indicate generally from line 16 through 23  
16       that some of the various elements we've discussed, like  
17       load administration, peak pricing, prepaid meters, and  
18       web portal programs, are forecasted to reduce peak demand  
19       by approximately 58 megawatts in 2015 and increasing to  
20       370 megawatts by 2019. Do you see that?

21 A       Yes.

22 Q       And is that 370 megawatts a cumulative figure for all  
23       years between 2015 and through 2018?

24 A       No. That's just the single year, in '19.

25 Q       Oh, so what you're saying here is in 2019, the people

                  Metro Court Reporters, Inc.   248.426.9530

1 will have been reduced by 370 megawatts for that year, in  
2 other words, that would be the level of reduction?

3 A Yes.

4 Q Is that a forecast you performed?

5 A No. That's provided to me by Mr. Warriner.

6 Q Now, later on, lines 21 through 23, you indicate that EE  
7 program is projected to reduce peak demand 305 megawatts  
8 in 2015, and then you say, "The cumulative reductions  
9 produced by the EE program are expected to be 482  
10 megawatts by 2019." Do you see that?

11 A Yes.

12 Q Now, the EE stands for what?

13 A Energy efficiency.

14 Q And when you say cumulative reductions, does that mean  
15 that in 2019 the peak will have been reduced by 482  
16 megawatts as a level, or is that a cumulation of the  
17 years from 2015 through either 2018 or 2019?

18 A The 482 refers to the peak reduction in 2019. The energy  
19 efficiency program has a one-percent incremental every  
20 year, and so by the time that you get to 2019, you've had  
21 multiple years of incremental programs.

22 Q Now, is the 371-megawatt reduction in peak demand for  
23 2019 discussed on line 17, is that separate from the 482  
24 megawatts of peak reduction resulting from energy  
25 efficiency programs referred to in line 23, are they

1 subsets or are they totally separate and --

2 A They're separate.

3 Q So you add them together then, both of these programs are  
4 going to have that net impact?

5 A Yes.

6 Q Did Mr. Warriner provide you any other studies or  
7 assistance besides the forecast that you refer to on page  
8 11 of your direct testimony?

9 A No.

10 MR. KESKEY: I have no other questions,  
11 your Honor.

12 JUDGE CUMMINS: Thank you, Mr. Keskey.

13 Any redirect?

14 MS. UITVLUGT: No redirect, your Honor.

15 JUDGE CUMMINS: Very well. That being  
16 the case, we have a total of eight exhibits that were  
17 mentioned and are part of Mr. Miller's testimony, five  
18 from his direct testimony and three from his rebuttal  
19 testimony. Are there any -- is there any objection to  
20 the receipt of these five exhibits; these are A-10  
21 (HWM-1) through (4), A-50 (HWM-5), and A-109, 110 and  
22 111? Hearing none, those exhibits are received into  
23 evidence.

24 We also had an exhibit offered by the  
25 Attorney General during cross-examination, this is AG-25.

1 Any objection to the receipt of that exhibit? Hearing  
2 none, that exhibit is received into evidence.

3 Mr. Miller, thank you. You're dismissed.

4 (The witness was excused.)

5 - - -

6 JUDGE CUMMINS: Ms. Uitvlugt, you may  
7 call your next witness.

8 MS. UITVLUGT: Thank you, your Honor.  
9 Before I call my next witness, I'd like to note for the  
10 record that yesterday the Company indicated that all the  
11 parties had waived cross of Company Witness VanBlarcum.  
12 It turns out today that we have been advised that that is  
13 incorrect. He will not be appearing today, as we thought  
14 he had been waived, but he will be attending at a later  
15 date, just for the record.

16 JUDGE CUMMINS: O.K. Very well.

17 MS. UITVLUGT: And with that, I would  
18 call Company Witness Williams to the stand.

19 JUDGE CUMMINS: Thank you.

20 M I C H A E L J. W I L L I A M S  
21 was called as a witness on behalf of Consumers Energy  
22 Company and, having been duly sworn to testify the truth,  
23 was examined and testified as follows:

24 JUDGE CUMMINS: Please proceed.

25 MS. UITVLUGT: Thank you.

## DIRECT EXAMINATION

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

BY MS. UITVLUGT:

Q Can you please state your full name and business address for the record?

A Michael J. Williams. Business address is One Energy Plaza, Jackson, Michigan.

Q And who are appearing for in this case, and in what capacity?

A Consumers Energy.

Q And what's your role at Consumers Energy?

A I am the Director of Corporate Security.

Q And did you cause to be filed with the Commission a document entitled the Direct Testimony of Michael J. Williams, which consists of a cover page and six pages -- or five pages of questions and answers?

A I did.

Q And are there any changes you would like to make at this time to your direct testimony?

A Yes. I believe in the header of my testimony on those pages, portions of my name has been dropped or is missing. I want to make sure that is corrected.

Q Thank you. Do you have any other corrections you'd like to make to your direct testimony?

A I do not.

Q And if I were to ask you the same questions today, would

1 the answers be the same?

2 A Yes.

3 Q And are you adopting this as your sworn testimony in this  
4 case?

5 A Yes.

6 Q And did you also cause to be filed with the Commission a  
7 document entitled the Rebuttal Testimony of Michael J.  
8 Williams?

9 A I did.

10 Q And does that consist of a cover page and three pages of  
11 questions and answers?

12 A Yes.

13 Q And do you have any changes you wish to make to your  
14 rebuttal testimony?

15 A I do not.

16 Q And if I were to ask you the same questions today, would  
17 the answers be the same?

18 A Yes.

19 Q And you are adopting this as your sworn testimony in this  
20 case?

21 A Yes.

22 Q Thank you.

23 MS. UITVLUGT: At this time, your Honor,  
24 I would ask that Mr. Williams' direct and rebuttal  
25 testimony be bound in the record, and I tender the  
Metro Court Reporters, Inc. 248.426.9530

1 witness for cross-examination.

2 JUDGE CUMMINS: Thank you very much.

3 Any objection to binding in the direct  
4 and rebuttal testimony of Mr. Williams? Hearing none,  
5 that rebuttal testimony is bound into the record.

6 (Testimony bound in.)

7 - - -

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**  
**OF**  
**MICHAEL J. WILLIAMS**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

1 Q. Please state your name and business address.

2 A. My name is Michael J. Williams and my business address is One Energy Plaza, Jackson,  
3 Michigan.

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

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the  
6 “Company”) as the Director of Corporate Security in the Human Resources and Shared  
7 Services organization.

8 Q. Please describe your qualifications.

9 A. I am a May 1983 graduate of Michigan State University, holding a Baccalaureate degree  
10 in Communications. I have various continuing education experiences and training,  
11 including completion of the Executive Leadership Program from Cornell University.  
12 This 12-week program focused on strategic thinking, executive decision making, and  
13 capital investments.

14 I am a 35 year employee with the Company with varied experiences in utility  
15 operations, project management, and corporate that includes domestic experience  
16 throughout the United States and international experience.

17 In 2001, immediately following the 9/11 attacks, I was asked by senior  
18 management to assess the Company’s security capabilities because of my varied  
19 operations background. I made recommendations to senior management in November of  
20 2001 on how to improve and re-establish a security program. In January of 2002, I was  
21 named the Director of Corporate Security and have built a first quartile security program  
22 as recognized by the Department of Homeland Security (“DHS”), Federal Energy  
23 Regulatory Commission (“FERC”), Transportation Security Administration (“TSA”),

MICHAEL J. WILLIAMS  
~~CHAEL J. WILLIAMS~~  
DIRECT TESTIMONY

1 Michigan State Police Emergency Management and Homeland Security Division, and  
2 various other agencies.

3 Through the State's Michigan Infrastructure Coordinating Committee ("MICC"),  
4 I chaired the Michigan Energy Sector from 2008 – 2012 in cooperation with the  
5 Michigan Public Service Commission (Brian Ballinger). I represent the Company on  
6 security matters with the DHS, the Edison Electric Institute ("EEI"), the American Gas  
7 Association ("AGA"), the Great Lakes Hazards Coalition ("GLHC"), and hold a  
8 clearance from the DHS.

9 Q. Please explain the purpose of your direct testimony in this proceeding.

10 A. I would like to provide supporting testimony concerning changes to section C1,  
11 subsection C1.3 of tariff sheet C-2.00, section C5, subsection C5.2 of tariff sheet C-31.00  
12 and section C6, subsection C6.2 of tariff sheet C-37.00, sponsored by Company witness  
13 Laura M. Collins. The Company proposes to react to confirmed threats or acts of  
14 violence activity from customers by discontinuing electric service immediately, and  
15 charging the expenses associated with confirmed threats or acts of violence activity to the  
16 customers who are making the threats.

17 Q. Are you sponsoring any exhibits in this case?

18 A. No.

19 Q. Please describe the Company's experience with confirmed threats or acts of violence  
20 activity.

21 A. Unfortunately, Consumers Energy has experienced over 500 incidents of threats of  
22 violence annually since 2010. The most serious incident, assaults, has dropped over the  
23 past two years from a high of 16 in 2008, to just 4 in 2013. However, through the end of

MICHAEL J. WILLIAMS  
~~CHAEL J. WILLIAMS~~  
DIRECT TESTIMONY

1           October 2014, 13 Consumers Energy employees have been assaulted, fortunately without  
2           serious injury. Of the threats reported year to date, 16% of those involved a weapon and  
3           43% involving a dog resulting in an employee being bitten. The Company has  
4           experienced 137 verbal, 80 dog-related incidents, and 44 weapons related threats against  
5           its employees, including threats to blow up Company facilities.

6    Q.     How will the Company respond to threats or acts of violence?

7    A.     The Company's response to threats or acts of violence consists of the following actions:

- 8           1. Employee, and/or a contractor acting on behalf of the Company, reports a threat of  
9           violence to the Company's security command center.
- 10          2. Preliminary incident information is collected by command center staff and then  
11          shared with an assigned field investigator from corporate security.
- 12          3. A threat code is assigned to the business partner account, both at the device (meter)  
13          level and at the premise level (business partner address). The assigned threat code is  
14          determined by the circumstances and severity of the threat or act of violence.
- 15          4. A threat alert is issued to all stakeholders within the affected service territory as a  
16          means to heighten awareness to a possible safety risk. In addition, based upon the  
17          severity and/or circumstances of the threat, a truck roll may be requested to  
18          disconnect service.
- 19          5. The field investigator will investigate the incident through various means, but  
20          minimally by discussing the incident with the affected employee or contractor, and  
21          also with the business partner; in addition to any witnesses at the location of the  
22          threat. If the threat is made over the phone, the investigator may request a copy of  
23          any audio recording via the Company's customer call center.
- 24          6. Should the threat or act of violence be an assault, or through the use of a weapon,  
25          local law enforcement is notified. Through the investigation, a determination will be  
26          made as to the validity of the threat, how it was initiated, and what conditions of  
27          service might be required of a business partner if the threat condition is confirmed.  
28          Those conditions of service will include: payment of all related costs (truck roll for  
29          disconnect, investigative costs, medical costs if any, etc.) and a decision by the field  
30          investigator as to the severity of the threat and the proper threat coding applied to the  
31          business partner, the device (meter), and the premise address.
- 32          7. Request law enforcement, electric service crew, investigator, and field supervisor  
33          response to premise for service disconnect upon assault, weapon threat and/or dog  
34          attack.

1 8. Determine all costs and expenses related to threat response to be billed, and paid, by  
2 business partner prior to the reconnection of service.

3 9. The final actions taken will be to communicate with the customer what steps they will  
4 need to take to fulfill all conditions of service elements prior to the restoration of  
5 service.

6 Q. Among the requirements identified to have service restored, you stated that the customer  
7 must reimburse the Company for the expenses incurred by the Company as a result of the  
8 threats or acts of violence. What would such expenses be?

9 A. This would include the cost of investigations, operating crews required to terminate  
10 service, and any health care related expenses incurred by the Company through a workers  
11 compensation claim due to injury as a result of a physical assault or related threat.

12 Q. How will these tariff changes improve employee safety?

13 A. This change will help the Company reduce threats or acts of violence for the safety of  
14 our employees, contractors, and agents working on behalf of Consumers Energy.

15 Q. What is the estimated amount of expenses associated with confirmed threats or acts of  
16 violence activity?

17 A. The expenses associated with confirmed threats or acts of violence activity is typically  
18 less than \$250,000 annually.

19 Q. Where would these costs be reflected and how would they be collected?

20 A. Through our investigative process, all related costs would be captured in an incident  
21 report specific to the event. The costs for the incidents going forward would be charged  
22 to the customer's bill. These costs would have to be paid *and* the Company must have a  
23 reasonable expectation that a threat no longer exists prior to any restoration of service.  
24 The actual costs would be charged to various areas within the Company depending on the  
25 variables specific to each incident (ie investigation, healthcare, crew time, materials and

1 other expenses). The Company did not project a reduction to O&M expenses in this  
2 filing as a result of this tariff change as it is expected to be a di minimus amount. Rather,  
3 this tariff change is being requested as a deterrent to further protect Consumers Energy  
4 employees and contractors from future threats and to hold customers accountable for their  
5 actions.

6 Q. Does that conclude your testimony?

7 A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**  
**OF**  
**MICHAEL J. WILLIAMS**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

May 2015

MICHAEL J. WILLIAMS  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. My name is Michael J. Williams, and my business address is One Energy Plaza, Jackson,  
3 Michigan.

4 Q. Are you the same Michael J. Williams that provided direct testimony on behalf of  
5 Consumers Energy Company (“Consumers Energy” or the “Company”) in this case?

6 A. Yes.

7 Q. Please explain the purpose of your rebuttal testimony in this proceeding.

8 A. The purpose of my testimony is to rebut the direct testimony of Geoffrey C. Crandall on  
9 behalf of Michelle Rison and Residential Customer Group (“RCG”) concerning the  
10 purpose of Consumers Energy’s proposed threats of violence tariff. I will also rebut the  
11 direct testimony of Michigan Public Service Commission (“MPSC” or the  
12 “Commission”) Staff (“Staff”) witness Daniel J. Gottschalk concerning Staff’s position  
13 on the Company’s proposed threats of violence tariff.

14 **RCG WITNESS CRANDALL**

15 Q. On page 11 of his direct testimony, RCG witness Crandall infers that Consumers  
16 Energy’s proposed threat or act of violence tariff is related to the installation of Smart  
17 Meters. Is this correct?

18 A. No. The proposed tariff is not related to the installation of a Smart Meter. The purpose  
19 of this tariff is to help ensure the safety and protection of utility employees and  
20 contractors. The tariff will not require a customer to accept a Smart Meter.

MICHAEL J. WILLIAMS  
REBUTTAL TESTIMONY

1        **STAFF WITNESS GOTTSCHALK**

2        Q.     On page 8 of his direct testimony, Staff witness Gottschalk indicates that disconnecting  
3                service to a customer who has already made a threat of violence would escalate the  
4                situation and maintains that not disconnecting the service of violent customer would  
5                alleviate the issue. Do you agree with this?

6        A.     No, I do not. When the threat or act of violence occurs, a Company representative is  
7                often already onsite disconnecting service. These disconnections could be occurring for a  
8                variety of reasons, such as nonpayment or theft on the account. If the Company  
9                representative was prevented from discontinuing service by the act of violence, the  
10                Company can still disconnect service regardless of this tariff modification. Further, the  
11                Company takes the safety of its employees very seriously. Customers who engage in  
12                serious threats or acts of violence pose a potential risk to employees and contractors who  
13                are onsite performing utility service work.

14        Q.     On page 8 of his direct testimony, Mr. Gottschalk discusses the restoration of service for  
15                a customer who has threatened or performed an act of violence against a Company  
16                employee or contractor. Is the Company willing to restore the customer's service?

17        A.     Yes, assuming the account is current. However, prior to having service restored, the  
18                Company reviews each individual threat event to ensure there is an accurate assessment  
19                of risk regarding the safety of our employees and contractors. Follow-up reviews of  
20                incident details, discussion with the customer involved, and follow-up discussions with  
21                the employee involved are all elements that allow our experienced investigators to  
22                determine if any safety risk with a given customer or account remains.

MICHAEL J. WILLIAMS  
REBUTTAL TESTIMONY

1 Q. When does the Company review customer accounts that have been involved in a threat of  
2 violence incident?

3 A. The Company reviews threat-coded accounts at least semiannually. In addition, the  
4 Company will review any threat-coded account in response to a customer inquiry.

5 Q. On pages 9-10 of his direct testimony, Staff witness Gottschalk disagrees with allowing  
6 Consumers Energy to collect reasonable costs associated with a threat or act of violence.  
7 Do you agree?

8 A. No. The Company's proposed tariff only seeks recovery of the incremental reasonable  
9 costs that are directly associated with the actions of the customer involved. If the  
10 Company is not able to recover these costs directly from the individual involved, those  
11 costs are passed on to all ratepayers. In fact, the Company's tariffs allow recovery of  
12 reasonable costs with respect to issues similar to this one. For example, in C5 Customer  
13 Responsibilities, in C5.2 Bills and Payments, the Company reserves the right to recover  
14 all unbilled service revenue and reasonable actual costs associated with the theft of  
15 energy, stolen meters, or switched meters. The customer or other user who benefits from  
16 the unauthorized or fraudulent use is responsible for payment of the reasonable actual  
17 cost of the service used during the period such fraudulent or unauthorized use or  
18 tampering occurred, or is reasonably assumed to have occurred, and is responsible for the  
19 reasonable actual cost of the tampering investigation and any associated damages.

20 Q. Does this conclude your rebuttal testimony?

21 A. Yes.

1 JUDGE CUMMINS: Cross-examination.

2 Staff?

3 MR. BRANDENBURG: No cross from Staff.

4 JUDGE CUMMINS: Very well. Mr. Keskey?

5 MR. KESKEY: Thank you, your Honor.

6 CROSS-EXAMINATION

7 BY MR. KESKEY:

8 Q Good afternoon, Mr. Williams.

9 A Good afternoon.

10 Q How long have you been a Director of Corporate Security  
11 for the Company?

12 A Since January of 2002.

13 Q And how long has that section or division or unit existed  
14 at the Company?

15 A Corporate Security originally was referred to as Asset  
16 Protection, it had a very small staff, and typically  
17 responded to internal events only until 9/11, that's when  
18 I was asked to assume this position and build a program.

19 Q Looking at your direct testimony, page 2, you indicate  
20 that you have provided the testimony to support the  
21 tariffs presented by Witness Collins, and you make the  
22 reference to some tariffs on lines 10 to 13 on page 2.

23 Do you see that?

24 A Yes, I do.

25 Q Now, with respect to those tariffs, let me ask you some

1 questions regarding tariff C5.2, which is sheet number  
2 C-31.00, and I see on that tariff there's some italics  
3 language appearing on that tariff. Do you see that?

4 A Yes.

5 Q What's the difference between the italics language and  
6 the language that is not in italics?

7 A There is no difference. It is text that we edited for  
8 the purpose of this tariff.

9 Q So would the italics language be proposed additions that  
10 you're making for this tariff?

11 A Yes.

12 Q How long has the previous tariff language that is not in  
13 italics been in effect?

14 A I don't know.

15 Q Was it in effect in the last rate case?

16 A I believe so.

17 Q Now, with respect to the italics language, there is  
18 reference to the word "threat". What is the -- what is  
19 the definition of a threat?

20 A We have defined threats in a series of severity  
21 escalation. For the purpose of this tariff language,  
22 we've defined that as any action that results in a  
23 physical assault; also, any threat to use or the actual  
24 use of a weapon, including an animal, in an act against  
25 any Company representative; deliberate damage to Company

1 property and assets; and verbal threats to commit bodily  
2 harm, including bomb threats.

3 Q O.K. Now, a verbal threat, how broad is that or how  
4 limited is that?

5 A The threat needs to be specific with intent.

6 Q If someone, if a customer is having a verbal disagreement  
7 with a customer -- excuse me. Let me rephrase that.

8 If a customer is having a verbal  
9 disagreement with a Company representative, is that a  
10 threat?

11 A No, it is not.

12 Q How do you make sure that of the many employees of  
13 Consumers Energy, that some employees would not be  
14 informed of what a threat is or is not, where the line is  
15 crossed; what kind of training program do you have to  
16 provide guidance to the employees who may perceive they  
17 have a threat?

18 A We provide annual training to all employees, particularly  
19 our field employees who have direct interaction with our  
20 customers in the field. That training is broad in nature  
21 from the sense of what they should be able to anticipate  
22 or identify as behaviors or actions that could constitute  
23 the escalation of a situation. In addition, we provide  
24 scenario-based training. For example, we will train  
25 employees on how to defend themselves in the event of a

1 dog attack.

2 Q If a customer has a verbal disagreement with a Company  
3 employee regarding their bill by way of telephone or some  
4 other means from a distance, is that considered a threat?

5 A No, it is not. But it depends ultimately on the specific  
6 words used in that discussion.

7 Q Now, this tariff language also uses the terminology of a  
8 confirmed threat. What's the process that we get -- or  
9 what is the process that's utilized to go from a threat  
10 to a confirmed threat?

11 A All Company employees are trained that any time they get  
12 into a circumstance with a customer, and to repeat some  
13 of your examples, perhaps a verbal altercation or a  
14 verbal discussion, regardless of the circumstance, they  
15 are to report those conditions to our security command  
16 center. Our team in the field, who are experienced  
17 former law enforcement professionals, they will  
18 investigate that threat. By investigation, I mean they  
19 will actually reach out to the employee involved to make  
20 sure they get the facts of that interaction from the  
21 employee, they will go to the premise, if possible, but  
22 minimally, they will talk to the customer involved via  
23 phone, but preferably via a visit to the home, they will  
24 also talk to any witnesses to make sure that we get all  
25 the facts of the interaction between customer and

1 employee.

2 Q And what -- after they collect the facts, what happens  
3 next, how does that get communicated to someone else in  
4 the Company?

5 A When that threat initially occurs, we assign a threat  
6 code to the account and to the device, such as the meter,  
7 we send down an alert across the Company to any employees  
8 or contractors that may be working in that particular  
9 service area. So if it's the Lansing Service Center,  
10 there's a number of employees and leadership that would  
11 receive that threat alert. That threat alert, however,  
12 after confirmation of the investigation, including  
13 discussion with the customer and/or employee, can in fact  
14 be removed from the account if we've already established  
15 it for safety purposes.

16 Q Is there a report made to local law enforcement?

17 A There is a report made to local law enforcement if there  
18 has been the use of a weapon or an assault; but keep in  
19 mind that the employee in this case is the victim, not  
20 the Company, so that employee would necessarily make the  
21 decision, with guidance from my team in the field, as to  
22 whether or not they want to file any kind of police  
23 report.

24 Q What kind of a report is made to the Staff of the  
25 Michigan Public Service Commission?

1 A We do not make a report to the MPSC Staff.

2 Q Now, this language in italics includes, sort of in the  
3 middle of the last italics paragraph, it inserts the word  
4 "installation of Smart Meters". Why is that there?

5 A That is simply there because the Smart Meter in the  
6 future in this process would allow us to potentially  
7 avoid a repeated threat because we will not, for example,  
8 have a meter reader at the premise because meter reads  
9 will be done via the Smart Meter.

10 Q Meter reads could be done by way of communication without  
11 the requirement of a Smart Meter, could they not?

12 A I don't know.

13 Q By telephone connection or perhaps even the internet?

14 A If the customer has the ability and knowledge to read  
15 their meter, yes.

16 Q And a customer has a right under the billing rules to  
17 read their own meter and send in a postcard on the meter  
18 energy usage figures; is that right?

19 A That's my understanding.

20 Q And so the installation of a Smart Meter is not  
21 necessarily connected to various options for minimizing  
22 visits to that residence or location?

23 A I don't know that for certain.

24 Q Are you aware of what other options that the Company has  
25 to address your suggestion that it would be beneficial to

1       avoid, or reduce at least, visits to the premises of  
2       other than requiring the installation of a Smart Meter?

3   A     No, not necessarily. We have an obligation to maintain  
4       those assets and to service those assets.

5   Q     Now, you mention in your testimony later on on page 2 and  
6       3, you talk about a number of, sort of a historical  
7       experience with incidents of threats for various years.

8       And do you know how many of those threats involved  
9       disputes relating to the installation of a Smart Meter?

10  A     No, I do not.

11  Q     Do you know whether there is a statistical history  
12       relative to the amount of threats that are -- that have  
13       been experienced from customers who have a Smart Meter  
14       compared to those who do not have a Smart Meter?

15  A     No, not specifically. Most of these statistics are  
16       pre-deployment of the Smart Meter.

17  Q     Now, so you're not saying in any fashion or form here  
18       that threats are occurring because of the Smart Meter  
19       installations?

20  A     That's correct. If I understand your statement properly,  
21       these threats are not an indicator in any way, shape or  
22       form of a Smart Meter installation.

23  Q     Now, let's turn to your proposed tariff revision on sheet  
24       number C-2.00 and a subparagraph of C-1.3 where you  
25       inserted a new paragraph, subsection -- subparagraph (c).

1 Do you see that?

2 A Yes.

3 Q Now, with respect to that, you indicate here that you  
4 would propose to be able to cut off electric service  
5 without any prior notice. Is that right?

6 A Yes.

7 Q And it would also mean that there would be no opportunity  
8 for any form of a hearing or some other process before  
9 you cut off service?

10 A Typically communications or notifications have already  
11 occurred with the customers. These threats occur when an  
12 employee from the Company is at the premise. It's not  
13 a -- this tariff proposal is not a result of the threat  
14 itself, it's because the act has occurred and we're  
15 reacting or responding to the threat at that premise.

16 Q How does it help to address the situation by cutting off  
17 service without notice?

18 A Well, as I stated, the response to the threat is  
19 occurring after the act has already occurred.

20 Q I know. But as far as trying to address a resolution of  
21 the threat or the confirmed threat or to approach  
22 remedies, how does cutting off a customer's electric  
23 service without prior notice contribute to any kind of a  
24 positive outcome?

25 A There are a number of examples where as a result of

1 investigation, threat codes are removed, which is to the  
2 benefit of the customer; but at the end of the day, we  
3 want to hold the customers more accountable for their  
4 actions if it involves the safety of our employees or our  
5 agents, such as a contractor.

6 Q All of the other investigation procedures, reporting  
7 procedures that exist in the Company would still exist  
8 without requiring the additional remedy of cutting off  
9 electric service without notice, right?

10 A I don't know that for a fact.

11 Q And then the next part of the paragraph says: Service  
12 disconnection shall remain in effect for as long as the  
13 Company has reasonably -- has reasonable expectation that  
14 a threat remains and until all applicable charges have  
15 been paid. What are the applicable charges that you're  
16 referring to there?

17 A Depends on the specific circumstance. In many cases  
18 these threats could occur because a Company  
19 representative is at the premise for a service  
20 disconnect, the lack of payment, that would be one  
21 example.

22 Q Are there some additional charges besides the routine  
23 energy bill that the customer gets that you're referring  
24 to?

25 A In this proposed tariff, we are seeking to recover any

1 reasonable costs associated with the investigation in  
2 this space, because we are not just now with one  
3 individual at the premise dealing with the initial work  
4 order or service order, we now have additional resources  
5 at that site to intervene and ensure the safety of our  
6 employee. We may in fact have to roll a service crew to  
7 disconnect service because the customer has not allowed  
8 us to carry through on that initial work order.

9 Q Is there a list of charges, which I mean by charges is is  
10 there a list of tariff charges that the Company is  
11 proposing in any tariff that would be associated with  
12 this?

13 A I don't know that for certain.

14 Q Who would determine what the reasonable costs are for the  
15 incident that are referred to?

16 A As described in my testimony on page 3, that through the  
17 course of that investigation, if in fact we had to  
18 intervene with an investigator or if in fact we had to  
19 intervene with an additional service crew to disconnect  
20 service either at the meter or at the pole, for example,  
21 then we would capture and document all those related  
22 costs to this particular event in an incident report, and  
23 that's where the reasonable costs would be calculated  
24 from.

25 Q And would the customer have the right to notice and

1 hearing as to the asserted costs that the Company would  
2 seek to collect?

3 A I believe they would through the normal billing  
4 practices.

5 Q But your tariff doesn't specifically provide a process  
6 for a hearing on that, does it?

7 A No, it does not.

8 Q And what is meant by the phrase that service would remain  
9 disconnected until the Company has a reasonable  
10 expectation that -- I'm sorry. I'll rephrase it.

11 What is the definition or meaning of the  
12 words reasonable expectation, in other words, that the  
13 service would remain disconnected as long as the Company  
14 had a reasonable expectation that the threat remained?  
15 What's a reasonable expectation?

16 A A reasonable expectation is that we intervene immediately  
17 with an investigator. As I had mentioned previously, we  
18 want to talk to the customer, we want to talk to our  
19 employee, we want to talk to any witnesses, we want to  
20 capture the facts.

21 The best way for me to exemplify that  
22 statement is a threat that we received in the last two  
23 weeks. This was a customer that was upset with some  
24 other matters within the Company. This customer  
25 threatened to blow up a Consumers Energy facility. That

1 is in fact a felony. Our investigator tried to intervene  
2 and talk to that customer immediately, and that customer  
3 refused, would not return to the phone call. Ultimately,  
4 after what I would define as a cooldown period, just a  
5 few hours later, that customer did have a conversation  
6 with us, and once we understood all the facts and why  
7 that customer lost their composure and made that threat,  
8 we removed the threat code that had been placed on his  
9 account four or five hours earlier.

10 So that was a case, in this example,  
11 we're not going to send another Company representative to  
12 that premise in the first few hours of that threat,  
13 because we don't know what that customer might do to a  
14 Company agent going to the site.

15 Q Now, the last sentence of that subparagraph (c) indicates  
16 the Company will review the status of the service  
17 disconnection at the customer's request, or at least  
18 semiannually. Is there some timeframe that must pass  
19 before the Company would review the status at the  
20 customer's request?

21 A No, not at all. Our program, we review existing threat  
22 codes, as you just stated, twice a year, but at any time  
23 if a customer makes an inquiry through the Company's call  
24 centers, that inquiry in this space around threats of  
25 violence is forwarded to my team and we look into the

1 circumstances of the event itself and have a conversation  
2 with the customer and try to reach a satisfactory  
3 resolution.

4 Q And in the process that you described here, is there any  
5 opportunity for objective third -- objective third-party  
6 involvement relative to the review of the situation other  
7 than an employee or an office within the Company, for  
8 example, referral to the Michigan Public Service  
9 Commission complaint process or hearing process?

10 A I would suppose that that type of process has the  
11 potential to be established. However, keep in mind we  
12 are talking about events that happen on the spot, we  
13 launch an alert in less than 25 minutes across the  
14 Company, because at the end of the day, this is about the  
15 safety of our employees.

16 Q Now, this was another tariff that Witness Collins  
17 sponsored, which is sheet number D-9.00, in which there  
18 are proposed surcharges relative to -- I'm going to  
19 withdraw that question because I think I referred to the  
20 wrong sheet.

21 But in any event, Witness Collins, and  
22 Witness Warriner is going to speak to this, that proposed  
23 both initial and monthly surcharges for customers who opt  
24 out of the Smart Meter program. Are you familiar with  
25 that tariff at all?

1 A No, I am not.

2 Q Did you have any input with Witness Warriner as to those  
3 changes in that tariff?

4 A No, I did not.

5 Q Did you have any interface or involvement with Witness  
6 Ross relative to cost of service studies at all?

7 A No, I did not.

8 Q Did you draft the language that appears in these proposed  
9 tariff revisions that we had discussed?

10 A I did.

11 Q Were there other persons who also reviewed or modified  
12 the language?

13 A A few members of our Rates and Regulatory Staff assisted  
14 just to give me guidance.

15 Q Was there any interface or discussions held with any  
16 member of the Michigan Public Service Commission or its  
17 Staff relative to the proposed language?

18 A No, there was not.

19 MR. KESKEY: I have no other questions,  
20 your Honor.

21 JUDGE CUMMINS: Thank you, Mr. Keskey.

22 Any other questions or cross-examination  
23 of this witness? Hearing none.

24 Any redirect of this witness?

25 MS. UITVLUGT: No, your Honor.

1 JUDGE CUMMINS: Very well. That being  
2 the case, we don't have any exhibits sponsored by  
3 Mr. Williams. You may step down.

4 A All right. Thank you.

5 (The witness was excused.)

6 - - -

7 JUDGE CUMMINS: You may call your next  
8 witness.

9 MS. UITVLUGT: Thank you, your Honor. At  
10 this time the Company calls Company Witness Varvatos to  
11 the stand.

12 - - -

13 C H R I S T O P H E R J. V A R V A T O S  
14 was called as a witness on behalf of Consumers Energy  
15 Company and, having been duly sworn to testify the truth,  
16 was examined and testified as follows:

17 JUDGE CUMMINS: Please continue.

18 MS. UITVLUGT: Thank you.

19 DIRECT EXAMINATION

20 BY MS. UITVLUGT:

21 Q Can you please state your full name and business address  
22 for the record?

23 A Christopher J. Varvatos, One Energy Plaza, Jackson,  
24 Michigan.

25 Q And by whom are you employed and in what capacity?

Metro Court Reporters, Inc. 248.426.9530

1 A I am employed by Consumers Energy Company as an Executive  
2 Director in the Information Technology Department.

3 Q And did you cause to be prefiled with the Commission a  
4 document entitled the Direct Testimony of Christopher J.  
5 Varvatos, which consists of a cover page and 29 pages of  
6 questions and answers?

7 A Yes.

8 Q And are there any changes you wish to make at this time  
9 to your direct testimony?

10 A No.

11 Q And if I were to ask you the same questions today, would  
12 you give the same responses?

13 A Yes, I would.

14 Q And do you adopt this as your sworn testimony in this  
15 case?

16 A Yes, I do.

17 Q And did you sponsor any exhibits with your direct  
18 testimony?

19 A I did.

20 Q And are those Exhibit A-69 (CVJ) [sic], A-70 (CVJ) [sic],  
21 Exhibit A-71 (CVJ) [sic], Exhibit A-72 (CVJ) [sic], and  
22 Exhibit A-73 (CVJ) [sic]?

23 A Yes.

24 Q And are there any changes you wish to make to your  
25 exhibits?

1 A No.

2 Q And were these exhibits prepared by you or at your  
3 direction?

4 A Yes, they were.

5 Q And did you cause to be filed with the Commission a  
6 document entitled the Rebuttal Testimony of Christopher  
7 J. Varvatos?

8 A Yes, I did.

9 Q And does this rebuttal testimony consist of a cover page  
10 and 18 pages of questions and answers?

11 A Yes.

12 Q And if I asked you the same questions today, would you  
13 give me the same responses?

14 A Yes, I would.

15 Q And did you have any changes to make to that rebuttal  
16 testimony?

17 A No, I do not.

18 Q And do you adopt that as your sworn rebuttal testimony in  
19 this case?

20 A Yes.

21 Q And are you sponsoring any exhibits associated with your  
22 rebuttal testimony?

23 A Yes.

24 Q And are those exhibits Exhibit A-121 -- excuse me.  
25 Exhibit A-118 (CVJ-6) [sic], Exhibit A-19 (CVJ-7) [sic],  
Metro Court Reporters, Inc. 248.426.9530

1 and Exhibit A-20 (CVJ-8) [sic]?

2 A Yes.

3 Q And are there any changes you wish to make to your  
4 exhibits today?

5 A None.

6 Q And were these exhibits prepared by you or at your  
7 direction?

8 A Yes.

9 MS. UITVLUGT: At this time, your Honor,  
10 I would ask that the direct and rebuttal testimony of  
11 Company Witness Varvatos be bound into the record, and I  
12 move for the admission of his exhibits at the end of  
13 cross-examination, and I tender the witness to cross.

14 JUDGE CUMMINS: Thank you very much.

15 Any objection to binding in the direct  
16 and rebuttal testimony of Witness Varvatos? Hearing  
17 none, the direct and rebuttal testimony will be bound  
18 into the record.

19 (Testimony bound in.)

20 - - -

21

22

23

24

25

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**

**OF**

**CHRISTOPHER J. VARVATOS**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

December 2014

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. Christopher J. Varvatos, One Energy Plaza, Jackson, Michigan.

3 Q. How long have you worked for Consumers Energy Company (“Consumers Energy” or  
4 the “Company”), and what positions have you held?

5 A. I have been with Consumers Energy for over 22 years, having worked all of that time in  
6 the Information Technology (“IT”) department. I joined the Company as a Systems  
7 Analyst and have held a number of increasingly responsible positions, including team  
8 leader, large project manager, manager of application development, and director. I am  
9 currently the Director of Business Relationship Management for Energy Distribution. In  
10 this capacity, I serve as the primary liaison between the IT department and the Gas and  
11 Electric Energy Distribution departments.

12 Q. Would you please state your educational background?

13 A. I earned a Bachelor of Science degree in Industrial and Systems Engineering from the  
14 University of Michigan – Dearborn in May of 1985.

15 Q. Have you ever testified in any other proceedings before the Michigan Public Service  
16 Commission (“MPSC” or the “Commission”)?

17 A. Yes, I filed rebuttal testimony in MPSC Case No. U-16855. I also testified in MPSC  
18 Case Nos. U-17087, U-17197, and U-17643.

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

20 A. The purpose of my testimony is to describe the Business Technology Solutions (“BTS”) department and then identify and support the BTS department’s: (i) Operation and  
21 Maintenance (“O&M”) expense and (ii) Capital Expenditures. I will discuss the  
22

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 hardware and software application projects and maintenance costs. I will also describe  
2 the Asset Management capital expenditures.

3 Q. What exhibits are you sponsoring in this proceeding?

4 A. I am sponsoring the following exhibits:

5 Exhibit A-69 (CJV-1) Employee and Contractor Counts

6 Exhibit A-70 (CJV-2) Summary of Projected Electric & Common O&M  
7 Expenses for the years 2013, 2014, 2015 and  
8 12 Months Ended May 31, 2016

9 Exhibit A-71 (CJV-3) Summary of Projected Electric & Common Capital  
10 Expenditures for the Years 2013 through 2018

11 Exhibit A-72 (CJV-4) Asset Management Capital – Electric & Common

12 Exhibit A-73 (CJV-5) Software Applications Capital – Electric &  
13 Common

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

15 A. Yes, they were.

16 **DESCRIPTION OF THE BTS DEPARTMENT**

17 Q. Please describe the BTS department.

18 A. The BTS department is the IT department for Consumers Energy. It is staffed by a mix  
19 of Company employees and contractors, as shown in Exhibit A-69 (CJV-1) Employee  
20 and Contractor Counts. As shown in this exhibit, the numbers of employees and  
21 contractors can vary depending on the workload within the department in any given year.

22 Q. What is the purpose of the BTS department?

23 A. The purpose of the BTS department is to provide and maintain reliable and secure IT  
24 solutions and services that support the Company's business objectives.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Q. Please describe the functions that the BTS department performs.

2 A. The BTS department provides IT solutions and services including the identification,  
3 implementation, operational support, and maintenance of software solutions, computing,  
4 and communications infrastructure. BTS also provides the day-to-day operational  
5 support for each individual user of technology, whether that technology is a desktop,  
6 laptop, or mobile device, which includes ruggedized field devices, tablet computers, cell  
7 phones, smart phones, or other handheld devices.

8 Q. What is meant by the phrase “software solutions”?

9 A. Software solutions are business applications that automate and support business functions  
10 such as customer service and billing, work and asset management, outage management,  
11 payroll, supply chain, electronic mail, and document creation and management. The BTS  
12 department operates and maintains a full range of tools and computing infrastructure for  
13 the software applications utilized by the Consumers Energy workforce.

14 Q. Please describe the Company’s computing infrastructure.

15 A. Consumers Energy’s computing infrastructure consists of hardware and communications  
16 networks which are utilized by virtually all aspects of the Company’s operations.  
17 Hardware includes servers and data storage devices, bill-processing equipment,  
18 workstations, printers, and mobile devices. Communications networks for telephone and  
19 radio systems enable voice, data, and wireless communications across the Company.

20 Q. How do software solutions and computing infrastructure provided by the BTS department  
21 support the Company and benefit its customers?

22 A. The IT that is supplied and supported by BTS facilitates virtually every work process in  
23 the Company and helps the business run more efficiently. Software applications and the

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 computing infrastructure they run on: (i) support the workforce in the customer call  
2 centers to respond to customer requirements; (ii) support the electric generation and  
3 distribution and field operations to plan and manage work and maintain engineering and  
4 asset records; (iii) support the supply chain functions to procure, distribute, and assign  
5 material to the worksites; and (iv) support the “back office” to perform the business  
6 functions of accounting, accounts receivable including customer billing, and accounts  
7 payable. “Back office” refers to the internal functions of an organization, which are not  
8 “customer facing” functions. Customer facing functions are collectively known as “front  
9 office” functions.

10 In addition, the communications infrastructure provides voice and data  
11 communications flow between customers and the Company, between dispatchers and  
12 work crews, between Company personnel at any location, between the Company and its  
13 vendors, and other relevant stakeholders. The reliability and functionality of the software  
14 applications and the computing infrastructure is operationally critical to workforce  
15 efficiency and public and workforce safety.

16 **BTS DEPARTMENT’S O&M EXPENSES**

17 Q. Please describe Exhibit A-70 (CJV-2) – Summary of Projected Electric & Common  
18 O&M Expenses For the years 2013, 2014, 2015 and 12 Months Ended May 31, 2016.

19 A. Exhibit A-70 (CJV-2) – Summary of Projected Electric & Common O&M Expenses For  
20 the years 2013, 2014, 2015 and 12 Months Ended May 31, 2016 summarizes the Electric  
21 allocation of actual and projected BTS department O&M expenses. Specifically:

- 22 • Column (a) provides the O&M expense category.
- 23 • Column (b) identifies the 2013 actual O&M expense as \$36,349,000.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

- 1 • Column (c) identifies the 2014 projected O&M expense as \$44,989,000.
- 2 • Column (d) identifies the 2015 projected O&M expense as \$43,717,000.
- 3 • Column (e) identifies the 12 Months Ended May 31, 2016 projected O&M
- 4 expense as \$41,411,000.
- 5 • Column (f) identifies the source reference.

6 Q. Please explain how the 2013 BTS department's O&M expenses were calculated.

7 A. The 2013 BTS department's O&M expenses were taken from the Company's records for  
8 the period January through December 2013. These costs include internal and external  
9 labor costs associated with operating and maintaining the Company's business software  
10 systems and the computing infrastructure. Licensing of software systems and  
11 maintenance contracts for computing infrastructure and communications networks are  
12 also operating expenses included in the BTS department's costs.

13 Q. What was the actual level of O&M expenses for BTS in 2012?

14 A. In 2012, BTS spent \$44,015,000 in O&M.

15 Q. Please explain the decrease between the actual expense for 2012 and the actual expense  
16 for 2013.

17 A. O&M expenses declined by 17.4% in 2013, and there were two main reasons for the  
18 decrease. Expenses were higher in 2012 because the Company decided not to continue  
19 with the Systems, Application, and Products in Data Processing ("SAP") Portfolio and  
20 Project Management module. The write-off of this project was a one-time event that  
21 caused 2012 expenses to be higher than normal. Expenses also declined in 2013 as fewer  
22 contract resources were used for operations work and more project work was performed  
23 in-house.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Q. Please explain the O&M expense requested in this docket for 2014.

2 A. 2014 O&M is 23.7% higher than 2013, and this is made up of increases in both  
3 Operations and Investments categories.

4 Q. Please describe the Operations portion of the O&M expense requested in this docket for  
5 2014.

6 A. Operations costs in 2014 are 12.9% higher than 2013 due to increases in hardware  
7 maintenance for Cyber Security applications, contractual increases for other hardware  
8 and software maintenance, maintenance costs for new applications going into production,  
9 and increases in maintenance costs for SAP. In addition, business expenses are  
10 increasing in 2014 for a KPMG audit, additional security costs, and additional business  
11 travel as required by our contract with the managed service provider HCL Technologies.  
12 These increases are partially offset by lower overall labor costs as the managed service  
13 provider HCL Technologies performs more of the daily BTS operations work, and  
14 employees are able to perform more project work.

15 Q. Please describe the Investments category of the O&M expense requested in this docket  
16 for 2014.

17 A. Expenses in the Investments category include the O&M cost associated with capital  
18 projects and programs. These expenses are higher than 2013 as they include the O&M  
19 costs for a number of projects, including the multi-year Field Mobility program in 2014.  
20 This program, along with a number of projects planned for the test year, is described in  
21 the Software Applications capital section.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Q. Please explain the O&M expense requested in this docket for 2015.

2 A. The O&M expense for 2015 is 2.8% lower than 2014. This is mainly due to a 6.1%  
3 reduction in O&M Operations expense in 2015. Operations costs are lower in 2015 due to  
4 contractual decreases in the managed services contract, reductions in costs for Software  
5 Licenses, and Software and Hardware maintenance contracts due to renegotiation of  
6 those contracts, reductions in O&M labor costs as more labor is planned for project work,  
7 and reductions in business expenses.

8 Q. Please describe the Investments category of the O&M expense requested in this docket  
9 for 2015.

10 A. O&M Investment costs in 2015 will be 7.2 % higher than 2014, mainly due to the costs  
11 associated with strategic projects such as Field Mobility program and the Call Center  
12 Infrastructure Refresh project, and Business Partner funded projects.

13 Q. Is it typical for the O&M Investments category to vary from year to year?

14 A. Yes. This category of O&M expense includes the O&M portion of capital projects,  
15 which would include data conversion costs, training costs, costs incurred during the  
16 preliminary project stage and costs incurred after all substantial testing of the project is  
17 complete. This category of O&M expense would also include the cost of O&M projects,  
18 which are usually smaller projects that fall below the threshold for capitalization.

19 Q. Please explain the O&M expense requested in this docket for the 12 months ended  
20 May 31, 2016.

21 A. The O&M expense requested for the 12 months ended May 31, 2016 is 5.3% lower than  
22 2015. While the O&M Operations cost for the 12 months ended May 31, the 2016 O&M  
23 Operations cost is within .2% of the 2015 O&M Operations expense, O&M Investments

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 are 20% lower for the same period. This is mainly due to lower O&M costs associated  
2 with strategic and Business Partner funded projects planned in the 12 months ended  
3 May 31, 2016.

4 Q. Are Consumers Energy's O&M expenses in the BTS department reasonable?

5 A. Yes. The levels of O&M expenses in the BTS department are reasonable and appropriate  
6 in order to provide IT solutions and services for Consumers Energy's electric business,  
7 including the operational support and maintenance of software solutions and computing  
8 infrastructure, in a reliable and efficient manner. Benchmarking information supports the  
9 conclusion that O&M expenses in the BTS department are reasonable, as the BTS  
10 financial performance is consistently better than the industry average. For 2013, the  
11 Company's IT spend as a percent of operational expense was 2.87%,<sup>1</sup> which was lower  
12 than the Gartner utility average of 2.90% for utilities with between \$1 billion and  
13 \$10 billion in revenue.<sup>2</sup>

14 Gartner was founded in 1979 and is the world's leading IT research and advisory  
15 company. Of the Fortune 500 companies, 80% use Gartner for their key technology  
16 initiatives, and each year Gartner delivers over 5,500 IT cost and performance  
17 benchmarks.

18 Q. What does BTS do to control costs in order to ensure customer value?

19 A. Contracts for non-specialized goods and services are competitively bid to maximize  
20 business value. Projects are prioritized within BTS and across the Company to ensure  
21 that the most critical needs of the customers and business are met. In addition, BTS uses

---

<sup>1</sup> Based on the internal calculations of Consumers Energy.

<sup>2</sup> Taken from the "IT Key Metrics Data 2014: Key Industry Measures: Utilities Analysis: Current Year," published December 16, 2013. See page 11, IT Spending as a Percent of Operating Expense section, Table 4.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 benchmarking information, as noted above, to determine whether its costs are in line with  
2 other IT departments in the utility industry.

3 Q. What else is BTS doing to control costs?

4 A. Consumers Energy is also using its Employee Development and Sourcing Initiative  
5 (“EDSI”) as another means of controlling costs. In our technology-driven world there is  
6 an ever-increasing demand for IT solutions to business problems. Over the years,  
7 Consumers Energy has increasingly used contractors to assist with IT project design and  
8 build activity. With the EDSI project, Consumers Energy has moved employees from  
9 system maintenance roles into roles that are focused on project design and build. The  
10 system maintenance roles that had been traditionally performed by Company employees  
11 within BTS are now being performed by contractors. This shift in workload took place in  
12 2012, and over time is expected to increase capacity to meet current and future demand.  
13 Business value will be added by lowering the overall cost of maintenance for existing  
14 technologies, which will offset some of the incremental maintenance costs associated  
15 with additional technology investments. Some of the projects that employees will be  
16 working on in the test year are described in the section entitled Software Applications  
17 Projects.

18 Q. How does the Company decide which projects will be implemented?

19 A. Potential projects from departments across the Company are evaluated to determine  
20 which projects are most needed by the business. This evaluation process begins with the  
21 project sponsor or subject matter expert collaborating with a BTS Business Relationship  
22 Manager to prepare a business case for the project. Projects are documented using a  
23 standard format that includes both costs and benefits, and are presented to Senior

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Management for evaluation and prioritization. The officers evaluate the benefits, costs,  
2 and alignment with Company goals to prioritize the projects.

3 Q. Who decides which technology projects will be funded each year?

4 A. Technology projects are evaluated along with other projects as part of the Portfolio  
5 Management Process. The purpose of the Portfolio Management Process is to ensure  
6 effective optimization in the allocation and deployment of O&M and capital financial  
7 resources across the utility. The objective of the process is to provide alignment of the  
8 strategic, financial, and operational plans to achieve the greatest customer value.

9 Q. How are customer benefits included in project evaluation?

10 A. Customer benefits are included in the project evaluation in several ways. First, customer  
11 value is comprised of the project's cost benefit ratio and the JD Power impact ratio. This  
12 weighting favors projects that have strong financials in that they provide a good value for  
13 the customer. It also favors projects that are designed to provide specific customer  
14 benefits.

15 The other ways in which customer benefits are included in project evaluation are  
16 related to whether a project supports the long-term Goals or the Performance Measures of  
17 the utility. The long-term Goals of the utility include Improve Employee & Public  
18 Safety, Improve Customer Electric Reliability, Improve Productivity, Improve Quality,  
19 Improve Customer Satisfaction (J.D. Power), and Competitive Gas and Electric Price. In  
20 addition to the Goals listed above, the Performance Measures of the utility include Gas  
21 Leak Response, Downed Wire Response, Repetitive Electric Outages, and Call Center  
22 Response.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1        **CAPITAL EXPENDITURES**

2        Q.     What is the nature of the capital expenditures incurred by the BTS department?

3        A.     The capital expenditures for the BTS department fall into two main categories: (i) Asset  
4        Management expenditures and (ii) Software Applications Projects.

5        Q.     Please describe the capital expenditures shown on Exhibit A-71 (CJV-3) – Summary of  
6        Projected Electric & Common Capital Expenditures for the Years 2013 through 2018.

7        A.     Exhibit A-71 (CJV-3) – Summary of Projected Electric & Common Capital Expenditures  
8        for the Years 2013 through 2018 identifies the electric allocation of projected capital  
9        expenditures to procure, install, and implement the software and infrastructure identified  
10       earlier in this testimony to meet business requirements. Specifically:

- 11                • Column (a) provides the description of the capital expenditures.
- 12                • Column (b) identifies the 2013 actual capital expenditures as \$56,798,000.
- 13                • Column (c) identifies the 2014 projected capital expenditures as \$65,185,000.
- 14                • Column (d) identifies the 2015 projected capital expenditures as \$75,721,000.
- 15                • Column (e) identifies the 5 months ended May 31, 2016 projected capital  
16                expenditures as \$19,966,000.
- 17                • Column (f) identifies the 7 months ended December 31, 2016 projected capital  
18                expenditures of \$36,345,000.
- 19                • Column (g) identifies the 2017 projected capital expenditures of \$55,733,000.
- 20                • Column (h) identifies the 2018 projected capital expenditures of \$55,698,000.
- 21                • Column (i) identifies the source reference for each category listed.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1                   (1)    Asset Management

2    Q.    Please describe the Asset Management capital expenditures.

3    A.    Asset Management capital expenditures include the annual capital investments required  
4           to provide the Company with secure and reliable computing infrastructure. A summary  
5           of Asset Management costs from 2013 through 2018 is included as Exhibit A-72 (CJV-4)  
6           Asset Management Capital – Electric & Common.

7    Q.    What is the purpose of the Asset Management expenditures?

8    A.    To ensure the operation, availability, reliability, and functionality of the computing  
9           infrastructure for business continuity, the BTS department conducts Asset Management  
10          programs for voice, data, and wireless networks, servers, multi-function printers, desktop  
11          computers, laptop computers, field devices, and Cyber Security assets. These programs  
12          are designed to minimize costs by replacing assets that are at the end of their useful life  
13          before significant repair costs or business-impacting outages of technology systems are  
14          incurred. The reliability and functionality of this equipment is critical to the Company's  
15          workforce in completing day-to-day responsibilities and in responding to emergency  
16          situations.

17   Q.    Are any Major Technology projects included in the Asset Management category?

18   A.    Yes, two Major Technology projects are included in the Asset Management category:

- 19           •    Field Services Solution
- 20           •    Call Center Infrastructure Refresh

21   Q.    Please describe the Field Services Solution project.

22   A.    The Field Services Solution project, which is planned for the years 2014 through 2016,  
23          will replace the outdated Order Management and Routing System with mobile

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 applications and devices which will increase the productivity of field employees. The  
2 Field Services Solution will also improve the applications for schedulers, dispatchers, and  
3 field leaders.

4 Q. Please describe the Call Center Infrastructure Refresh project.

5 A. The Call Center Infrastructure Refresh project is planned for 2015, and entails a  
6 comprehensive replacement of the key components of the Company's five call centers.  
7 The equipment to be replaced will be at the end of its expected life in 2015, and over the  
8 years it has become technically outdated. Completing this project will ensure that the  
9 Company's call centers continue to be available to take customers' calls on a day-to-day  
10 basis and are able to accept and respond to the significant call volume increases during  
11 storms and emergency situations. The project will be considering the disposition of the  
12 following systems at the Company's call centers:

- 13 • Three Automated Call Distributors and supporting voice network equipment.
- 14 • 500 call center agent consoles.
- 15 • Multiple Integrated Voice Response ("IVR") Units.
- 16 • Application software and supporting servers and storage.

17 The IVR Voice Recognition project is being implemented in conjunction with the  
18 Call Center Infrastructure Refresh project. IVR Voice Recognition will upgrade the  
19 existing dual tone, multi-frequency Interactive Voice Response Unit to include voice or  
20 speech recognition. IVR Voice Recognition is being performed in response to our  
21 customers' interest in new and more convenient ways of communicating with the  
22 Company. This project will help our customers by providing speech-enabled menus for

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 selected applications, including: Payment Locations, Payment Plans, Report a Payment,  
2 Payment Arrangements, Billing Information, and Move-In/Move-Out.

3 (2) **Software Applications Projects**

4 Q. Please describe the Software Applications projects the Company plans to fund through  
5 the end of the test year.

6 A. A summary of Software Applications costs from 2013 through 2018 is included as  
7 Exhibit A-73 (CJV-5) – Software Applications Capital – Electric & Common.

8 Q. Will you please describe some of the projects included in Exhibit A-73 (CJV-5) –  
9 Software Applications Capital – Electric & Common?

10 A. Yes. Below is a list of the programs and projects I will describe in the next section of my  
11 testimony:

- 12 • Field Mobility
  - 13 ○ Field Connectivity
- 14 • Customer Value Initiative
  - 15 ○ eServices Redesign
  - 16 ○ Learning Management
  - 17 ○ CE Website Redesign
  - 18 ○ Two-Way Customer Communication
- 19 • Communication, Collaboration, and Productivity
  - 20 ○ Bring Your Own Device Content and Application Deployment
    - 21 ■ Mobile Content Manager
    - 22 ■ Mobile Application Manager

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

- 1                                   ▪ Virtual Desktop Infrastructure
- 2                                   ▪ CE Web Portal
- 3                   • Business Partner Functionality
- 4                                   ○ Electric Geographic Information System – Outage Management System
- 5                                    Upgrade
- 6                                   ○ High Performance Analytic Appliance
- 7                                   ○ Managed Wholesale Meter
- 8                                   ○ Customer Relationship and Billing - Billing Excellence
- 9                                   ○ Emergency Management Web Emergency Operations Center
- 10                                  ○ Electric Distribution Historian Implementation
- 11                                  ○ Meter Operational Data Manager Historian
- 12                                  ○ Grid Communication Modernization
- 13                                  ○ Geographic Information System Integrated Design
- 14                                  ○ Contract Lifecycle Management
- 15                                  ○ Enterprise Compliance Solution
- 16                                  ○ Electric Distribution Grid Model
- 17                                  ○ Distribution Management System
- 18                   • Security
- 19                                  ○ Database Activity Monitoring
- 20                                  ○ NERC/CIP Version 5
- 21                                  ○ Energy Resource Security Architecture
- 22                                  ○ Virtual Firewall

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

- 1           • SAP Enhancements  
2           • Obligation to Serve  
3           • Technical Architecture

4 Q. Please describe the project listed under the Field Mobility program.

5 A. Field Mobility includes the Field Connectivity project, which is planned for 2014 and  
6 will extend the Company's computing network to field workers. It will provide the  
7 technology, processes, and training to provide wireless connectivity in the field and crew  
8 rooms to allow field personnel to be able to work wirelessly. This will give field workers  
9 access to e-mail, online training, safety databases, timesheet entry, and other important  
10 systems and documentation wherever they are located. Field Mobility also includes the  
11 major technology project Field Services Solution, which was discussed previously under  
12 the Asset Management section.

13 Q. Please describe the projects listed under the Customer Value Initiative ("CVI") program.

14 A. A number of projects are being developed as part of the CVI program, which aims to  
15 improve our customers' experience when they are dealing with the Company. These  
16 include eServices Redesign, which is planned for 2014, and will improve our customers'  
17 experience when using this system to complete online transactions and electronically  
18 interact with Consumers Energy. Customers currently use eServices to pay bills, report  
19 payments, create payment arrangements, enroll in payment plans, report meter reads, and  
20 start/cancel services. This project will improve the appearance, navigation, and search  
21 features, which will make it easier for customers to complete online transactions with the  
22 Company. It will also include a more customer-focused presentation of safety,

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 regulatory, and other required information in order to increase awareness and  
2 compliance.

3 The Learning Management project is planned for 2015 and will provide the  
4 Company's Customer Service Representatives ("CSRs") with continuous learning  
5 opportunities through refresher training, particularly at times when call volumes are low.  
6 This will give our CSRs the opportunity for continual growth and improvement, and to  
7 develop capabilities that will help them excel at their jobs. It will also ensure the CSRs  
8 are following current policies and processes, and are properly using the current software.  
9 Implementation of this project will help ensure our customers receive the best possible  
10 service from our CSRs when they call Consumers Energy.

11 CE Website Redesign is projected for 2014 – 2015, and is a project that will  
12 improve our customers' overall satisfaction with the Consumers Energy website by  
13 making the style, navigation, features, and appearance more current. As increasing  
14 numbers of our customers become more technology-centric, they expect our website will  
15 be as robust and easy to navigate as many of the other sites they visit and use. This  
16 change will make the Consumers Energy website more user-friendly to our customers,  
17 which will in-turn increase traffic to the site and increase the number of agent-less  
18 transactions.

19 The Two-Way Customer Communications project, currently planned for 2014 –  
20 2015, will provide customers with timely and targeted billing and electric outage  
21 communications via their preferred communication channel. Customers will be able to  
22 update their preferred channel of communication through a webpage, text message, or  
23 contacting Consumers Energy. Once registered, messages will automatically be sent for

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 different programs based on system parameters including: bill is ready, electric outage  
2 estimated restoration time update, and power is restored. Customers will also be able to  
3 initiate and receive automated text conversations to get their billing balance, pay their  
4 balance, report an electric outage, and get electric outage estimated restoration  
5 information.

6 Q. Please describe the projects listed under the Communications, Collaboration, and  
7 Productivity program.

8 A. The Bring Your Own Device (“BYOD”) – Content and Application Deployment project  
9 is planned for 2016 – 2017, and will allow employees to access certain data and  
10 applications on any device of their choosing, enabling them to access data without the  
11 need of a corporate machine on hand. This project will improve productivity and  
12 enhance employee engagement.

13 For Consumers Energy to support a BYOD model, foundational technologies  
14 need to be in place so that the Company can deliver content and applications to corporate  
15 and non-corporate managed machines in a secure and compliant manner. To achieve  
16 this, the Company will need to deploy the following key technology solutions:

- 17 • Mobile Content Manager
- 18 • Mobile Application Manager
- 19 • Virtual Desktop Infrastructure
- 20 • Further investment in the corporate Web Portal

21 A Mobile Content Manager (“MCM”) allows for the deployment of data from  
22 corporate systems to mobile devices utilizing containers and encryption to restrict and

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 protect the data. The MCM also provides controls to lock and delete data in the case of  
2 device loss or employee release.

3 The Mobile Application Manager deploys corporate applications to mobile  
4 devices in a containerized manner and provides a secure communication path for those  
5 applications back to the corporate systems.

6 Virtual Desktop Infrastructure (“VDI”) provides a set number of virtual machines  
7 that users can access from any workstation, once the VDI client is installed. This allows  
8 them to work within the protected environment from any device while restricting  
9 document downloading.

10 Finally, the CE Web Portal will be further developed to enable greater access to  
11 web based applications externally, beyond the current e-mail access. With the  
12 deployment of these foundational BYOD technologies, the Company would be able to  
13 allow employees to use personal devices to access corporate data and applications.

14 Q. Please describe the projects listed under the Business Partner Functionality program.

15 A. There are a number of projects which BTS plans to complete that will provide new or  
16 enhanced functionality for our Business Partners. The Electric Geographic Information  
17 System (“GIS”) – Outage Management System (“OMS”) Upgrade project is planned for  
18 2014 and will implement the version of the GIS and OMS software that is required for  
19 the Smart Grid effort. This will enable the Company to utilize the Smart Grid  
20 functionality which is integrated in the OMS solution.

21 The High Performance Analytic Appliance (“HANA”) is planned for 2014 and is  
22 SAP’s next generation in-memory computing appliance. The HANA platform will  
23 transform the Company’s approach to "big data." As the data needs of the organization

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 grow, HANA is SAPs direction to change the industry through faster analytics and easier  
2 access to data.

3 The Managed Wholesale Meter project is also planned in 2014 and is critical to  
4 the successful settlement with the Midcontinent Independent System Operator (“MISO”)  
5 of over \$6 billion in transactions annually. This project will develop a user interface that  
6 will enable the user to load meter data from the Supervisory Control and Data  
7 Acquisition (“SCADA”) system and other sources to permit modeling, validation,  
8 correction, and exporting of data for use in the MISO Market Meter Data Management  
9 (“MDMA”) process. Exported data from this system will also be used in market  
10 forecasting, the accounting process, as well as with gas and electric suppliers and in  
11 reconciliation of Non-Utility Generation settlements. The existing MDMA was in place  
12 prior to the Company’s MISO agreement and does not enable timely response to requests  
13 without significant manual effort. The new system will enable the Company to be timely  
14 in its responses, improve productivity, and ensure compliance with the MISO agreement  
15 and Federal Energy Regulatory Commission (“FERC”) guidelines.

16 Customer Relationship & Billing - Billing Excellence is planned for 2014, and is  
17 a project that will reduce billing errors and improve billing accuracy in SAP by making  
18 sustainable improvements to the process and systems. Consumers Energy serves  
19 2.7 million electric and gas customers, producing 37 million invoices annually. We  
20 currently have an accuracy rate of 97.3%, and the goal of this project is to improve our  
21 accuracy rate by 50%. This project will also include implementation of a quality  
22 improvement process to minimize negative impact to the customer invoices.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1           The Emergency Management – Web Emergency Operations Center (“EOC”)  
2 project is also planned for 2014, and is the next step in aligning our emergency  
3 management approach with the National Incident Management System. That system is a  
4 best practice within our industry and also is used by the federal government, the State of  
5 Michigan, and local governments across the nation. Web EOC is the incident  
6 management software that brings real-time crisis information to the State's EOC. The  
7 primary function of Web EOC is to provide a browser-based communications link  
8 between the State’s EOC, State Agencies, and County Emergency Centers during  
9 exercises and real-time responses to crises and emergency events. Web EOC is designed  
10 to make crisis information universally available to authorized users, and will improve  
11 communications and alignment with the Company’s public sector partners.

12           The primary driver behind the Electric Distribution Historian Implementation  
13 project is to provide the foundational elements to support the Company’s Grid  
14 Modernization strategy. This project, which is planned for 2014 – 2015, will enable the  
15 investment required for Distribution Supervisory, Control, and Data Acquisition  
16 (“DSCADA”). DSCADA devices will be installed in distribution substations through the  
17 year 2017, and the DSCADA system will encompass 35 headquarters and  
18 719 substations. The implementation of the data historian provides the  
19 storage/operational analytics platform for these devices and will serve as the data  
20 foundation for the enterprise Distribution Management System project.

21           The Meter Operational Data Manager Historian project is planned for 2014 –  
22 2015 and will enable the use of AMI (“Advanced Metering Infrastructure”) meter data on  
23 an operational and planning basis. This project will configure the OSIsoft PI Historian

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 system to house all of the electric and gas metering information which will then become  
2 the historian for the Smart Grid Meter Data Manager (“MDM”) application. Metering  
3 data, including register reads, interval reads, and events, will be copied from the Smart  
4 Grid MDM application to this Operational Data Manager (“ODM”) so that it can keep  
5 history for a minimum of 7 years. Historical reporting can then be done from the ODM.  
6 Additionally, the information from this ODM for gas and electric metering can be  
7 correlated with the information from the other historians to see the data across the entire  
8 network.

9 Grid Communications Modernization is planned for 2014 – 2015 and will address  
10 the problems the Company will face when Verizon “sunsets” their analog, multi-drop  
11 service after February 28, 2015, and their Frame Relay service after December 31, 2015.  
12 This change would result in a loss of SCADA communications to our critical substations  
13 and power plants, leaving the Company unable to monitor and control the grid as we do  
14 today. Grid Communications Modernization is a project to design and implement a  
15 system to modernize all grid communications, including voice, secured and non-secured  
16 data, cameras, card readers, digital fault recorders, protective relays, capacitor banks,  
17 motor operated air brakes, re-closers, etc. The end result will be to replace the  
18 communications technology to the 30 frame relay sites and approximately 250 critical  
19 substations.

20 The Geographic Information System (“GIS”) Integrated Design project is planned  
21 for 2014 – 2016, and will replace the current design software with a GIS-based tool. This  
22 will help avoid technology obsolescence with the current design software, which is no  
23 longer supported, align the design technology with other corporate geospatial

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 technologies, and improve the efficiency of our Customer Energy Specialists as they  
2 design construction projects for our customers.

3 Contract Lifecycle Management is a project planned for 2015 – 2016 that will  
4 implement the SAP Contract Lifecycle Management module at Consumers Energy. This  
5 project will provide significant process improvements that will lead to better visibility of  
6 the \$600-\$700 million in annual service contract spend. It will enable more proactive  
7 management of contract service costs and risks. It will also eliminate some redundant  
8 administrative activity, and allow more rapid realization of value from contracts. With  
9 this module in place, the Company will be better positioned to ensure compliance with  
10 internal and external audit requirements.

11 The Enterprise Compliance Solution (“ECS”) project will be completed in several  
12 releases, which are planned over the years 2014 – 2018. ECS will create a  
13 comprehensive, integrated, and enterprise-wide data management and regulatory  
14 compliance solution for Consumers Energy. Compliance is currently managed using  
15 various technologies, including manual systems and applications that are not integrated.  
16 The ECS project will be implemented in several releases. Release 2 will include the  
17 following Compliance Accountable Authorities: (i) Safety and Health; (ii) Self-  
18 Assessment; (iii) Fleet; (iv) MPSC Code of Conduct; and (v) Gas Code common  
19 elements. Release 3 is expected to incorporate Human Resources, Tax, and Sarbanes-  
20 Oxley. Release 4 plans include the additional Compliance Accountable Authority of  
21 Government Reports.

22 The Electric Distribution Grid Model (formerly known as the Electric Asset  
23 Management project) which is planned in 2017 will implement an enterprise electric Low

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Voltage Distribution asset management system that will provide the ability to know and  
2 evaluate the condition and performance characteristics of all inventoried assets in any  
3 property inventory. The system will be designed and implemented in a manner such that  
4 it will serve as an extensible platform to support existing Distribution Operations and  
5 Engineering and Transmission asset management processes as well as emerging  
6 regulatory and business requirements. It will integrate and extend our current enterprise  
7 portfolio of systems that support the asset management system (Electric GIS, SAP,  
8 Cascade, and Computer Aided Design) and supplement where required, and include a  
9 data collection method to gather the asset data.

10 The Distribution Management System (“DMS”) project is planned for 2018 and  
11 will implement an electric network management software that will provide advanced  
12 functionality in distribution grid analytics, operations, and service restoration. These  
13 tools will be used in dynamic visualization, monitoring, and control of the electric  
14 distribution network. The primary driver for this project is the need to realize the full  
15 benefits of the system and meter data that will be available in the coming years. Because  
16 of the very large volume of new data that will be available, a new system is needed to  
17 help analyze that data and turn it into actionable information. The DMS will enable the  
18 Company to operate its electric system closer to its optimal level.

19 Q. Will you please describe the projects listed under the Security program?

20 A. Several projects are planned for Cyber Security, whose mission is to enable Company  
21 business objectives and to protect critical infrastructure through appropriate risk  
22 management and security assurance activities. Consumers Energy has been investing in  
23 Cyber Security over the past several years in order to bolster the Company’s overall

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Cyber Security program given the dramatic increase in threats the Company faces. Some  
2 of the Cyber Security projects that will be implemented after the test year are listed  
3 below.

4 The Database Activity Monitoring project planned for 2016 will implement  
5 technology that will monitor our most critical database applications, looking for  
6 malicious traffic and potential data loss. This project will specifically look for attacks on  
7 Company systems and any signs of data leakage.

8 The NERC/CIP (“North American Electric Reliability Corporation/Critical  
9 Infrastructure Protection”) Version 5 project is planned for 2015 – 2016 and is required to  
10 maintain compliance with CIP standards for the Company’s Bulk Electric Systems  
11 (“BES”) Cyber Systems. We are currently required to be compliant with version 3 of the  
12 NERC/CIP standards. However, we will be required to be compliant with the version 5  
13 standards for Medium Impact BES Cyber Systems and Low Impact Cyber Systems on  
14 April 1 of 2016 and April 1 of 2017, respectively. This project will involve significant  
15 effort related to network segmentation to minimize in-scope cyber assets and separate  
16 High, Medium, and Low Impact cyber assets while minimizing the risk to the reliability  
17 of the Bulk Electric System.

18 Energy Resource Security Architecture is a project planned for 2015 – 2016 that  
19 will implement consistent Cyber Security architecture across the Energy Resource  
20 department’s electric generation fleet. The project will gather appropriate stakeholders  
21 from various assets and collaboratively create a security reference architecture including  
22 the appropriate security controls and monitoring. The goal will be to create a single  
23 architecture which can be used across various assets to enable consistent security

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 practices and centralized security monitoring via Consumers Energy's Cyber Security  
2 Operations Center. The project will take the security posture of these assets to the next  
3 level of maturity focusing on controls beyond segmentation of networks. The project will  
4 involve a combination of process improvements and technology implementations. This is  
5 a multi-year effort which will start with implementations on our most critical assets.

6 The Virtual Firewall project, which is planned for 2017, addresses the fact that all  
7 of Consumers Energy's current firewalls are physical devices. In a virtual server  
8 environment, traffic has to leave the back plane to be inspected by the firewall. Virtual  
9 firewalls will allow inspection within the virtual environment. We expect virtual  
10 firewalls will be more cost-effective as a future replacement for some firewall appliances.  
11 Firewall technology used in virtual server environments is used to segment virtual servers  
12 and desktops. These firewalls gain increasing importance for our organization as we  
13 move toward a cloud-based infrastructure. This project will evaluate and implement  
14 virtual firewall capabilities for Consumers Energy's private and public environments.

15 Q. Will you please describe the SAP Enhancements projects?

16 A. SAP Enhancements are projects that will add new functionality to the existing SAP  
17 system in order to meet the changing requirements of the business.

18 Q. Will you please describe the Technical Architecture projects?

19 A. The Technical Architecture Projects consist of technology investments that provide the  
20 foundation for future business capabilities resulting in customer value, employee  
21 productivity, safety and security, and other operational benefits. The projects include  
22 base, enterprise-level technology platform, hardware, and software investments that will  
23 be used across multiple projects and business areas. One such example would include the

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 base investment the Company is currently making in Windows configuration  
2 management software to upgrade to the Windows 7 operating system. It is important that  
3 the Company continually make strategic investments in its technology platforms to  
4 leverage new capabilities and avoid technical obsolescence.

5 Q. Will you please describe the Obligation to Serve projects?

6 A. Obligation to Serve includes projects that are required to meet legal or regulatory  
7 requirements, or are needed to ensure business continuity. This category includes a  
8 number of projects, including:

9 i. The Desktop Transformation project, which will install the Windows 7  
10 operating system on all enterprise workstations and field devices in 2014;

11 ii. The Power Plant Upgrade project in 2014, which will implement Tax  
12 Repairs processing to meet Internal Revenue Service (“IRS”) guidelines  
13 and to prepare for the 2014 IRS reporting in 2015;

14 iii. The SAP Data Archiving project in 2015, which will implement a SAP  
15 archiving strategy to alleviate the problems associated with the continued  
16 growth in the amount of data being stored in SAP;

17 iv. The Testing Center of Excellence (“TCOE”) Automation and TCOE –  
18 Test Data and Environment Management projects in 2015 and 2016,  
19 which will accelerate regression testing for future projects and improve the  
20 quality and efficiency of SAP test and development environments; and

21 v. The 800 MHz Tower Connectivity Optimization project (2015 – 2017),  
22 which will mitigate the risks to our private voice radio network caused by  
23 third-party telecom providers who use aging copper technology to provide  
24 the “last mile” of connectivity between our network and our radio towers.  
25 This project will allow the Company to continue to rely on the voice radio  
26 network in responding to emergency situations.

27 Q. Are the capital expenditures identified here reasonable and prudent?

28 A. Yes. The CVI projects that are included in this case will improve service to our  
29 customers and increase their level of satisfaction with the Company. The Field Mobility  
30 projects will enhance communications and improve productivity in the workforce. Other

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 projects address specific business needs that require a technology solution. Finally, all  
2 projects from across the Company are evaluated to determine which ones add the greatest  
3 customer and business value.

4 The BTS capital expenditures are reasonable when compared against other  
5 utilities. The Company's IT spend includes both BTS capital expenditures and O&M  
6 expense. As cited earlier, for 2013 the Company's IT spend as a percent of operational  
7 expense was 2.87%, which was lower than the Gartner utility average of 2.90% for  
8 comparable utilities.

9 BTS competitively bids contracts for non-specialized goods and services in order  
10 to maximize business and customer value. It evaluates future business requirements and  
11 then aggregates purchases to maximize volume discounts whenever this is practical. To  
12 the extent possible, BTS also uses its own employees for software application  
13 development to minimize the cost of additional contract resources and to achieve greater  
14 project control.

15 BTS also competitively bids for more specialized and complex work such as  
16 projects. In such cases, bidding may consist of any combination of Request(s) for  
17 Proposal(s) for application software and/or systems integration services (project  
18 management, analysis, programming, testing, and implementation). Many factors are  
19 considered during the bidding process including cost, how closely the proposed solutions  
20 meet our business and functional requirements, vendor track record, resources offered,  
21 references from other companies, etc. This is done in order to control costs and ensure  
22 efficient delivery of effective technology solutions to meet the requirements of the  
23 Company.

CHRISTOPHER J. VARVATOS  
DIRECT TESTIMONY

1 Q. Does this conclude your testimony?

2 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**

**OF**

**CHRISTOPHER J. VARVATOS**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

May 2015

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. Christopher J. Varvatos, One Energy Plaza, Jackson, Michigan 49201.

3 Q. Are you the same Christopher J. Varvatos that provided direct testimony in this  
4 proceeding?

5 A. I am.

6 Q. What is the purpose of your rebuttal testimony?

7 A. The purpose of my rebuttal testimony is to respond to the testimony and exhibit of the  
8 Michigan Public Service Commission (“MPSC” or the “Commission”) Staff (“Staff”)  
9 that pertains to the Company’s cyber security expenditures. I will also respond to the  
10 direct testimony of Staff witness Robert F. Nichols II concerning his proposed reductions  
11 to Business Technology Solutions’ (“BTS”), now known as the Information Technology  
12 or (“IT”) Department, operation and maintenance (“O&M”) expenses. I will then  
13 provide rebuttal testimony responding to the testimony and exhibits submitted by the  
14 Attorney General in this case concerning IT’s O&M expenses and capital expenditures.  
15 Specifically, I will address Attorney General witness Sebastian Coppola’s proposed  
16 reductions in IT O&M expenses and capital expenditures for the projected test year.

17 Q. Are you sponsoring any exhibits in this proceeding?

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

19 Exhibit A-118 (CJV-6) Discovery Response 17735-AG-CE-253

20 Exhibit A-119 (CJV-7) Discovery Response 17735-AG-CE-257

21 Exhibit A-120 (CJV-8) Discovery Response 17735-AG-CE-277

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

23 A. Yes, they were.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. Do you agree with the Staff's assessment of the Consumers Energy Company's  
2 ("Consumers Energy" or the "Company") cyber security program?

3 A. Yes. Consumers Energy appreciates Staff's assessment of Consumers Energy's cyber  
4 security program and the Staff's recommendation that the Company's cyber security  
5 expenditures are reasonable and prudent. The Company has built a comprehensive cyber  
6 security program and expects to continue investment as the threats facing our Company  
7 continue to evolve.

8 Q. Do you agree with the Staff's recommendation that the Company should provide an  
9 annual report on its cyber security program?

10 A. Consumers Energy generally agrees with Staff witness Brian J. Sheldon's  
11 recommendation regarding the annual report. The proposed annual report will keep the  
12 Commission informed about the Company's actions regarding cyber security, while also  
13 ensuring the Company's ability to keep certain information protected.

14 Q. On page 4 of Staff witness Sheldon's direct testimony, Mr. Sheldon recommends that the  
15 information in the annual report be "at a similar level of detail as information voluntarily  
16 provided by the Company in recent years." Do you have any comments regarding this  
17 recommendation?

18 A. Yes. The proposed annual report specifically asks for information surrounding incidents,  
19 vulnerability assessments, and penetration tests. This is not information that the  
20 Company has provided previously to the Commission. Regardless, the Company feels  
21 comfortable with the proposed report as long as the information provided can be shared,  
22 either verbally or in writing, at the Company's discretion. This allows the due diligence  
23 needs of the Commission to be fulfilled, maintains the Company's need to keep certain

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 information protected, and ultimately ensures that the reliability needs of our customers  
2 are met.

3 Q. What is the Staff's position with respect to Consumers Energy's projected IT O&M  
4 expenses for the test year?

5 A. Staff witness Robert F. Nichols II projects a test year IT O&M expense of \$ 39,649,000,  
6 which is a \$ 1,762,000 reduction to the Company's test year IT expense projection.

7 Q. Do you believe that the Staff's projection represents a more reasonable estimate of  
8 Consumers Energy's IT expense?

9 A. No. The Staff's recommendation for IT O&M expense is solely based on budget data  
10 supplied by the Company as part of a Staff audit request. The budget referenced by Staff  
11 witness Nichols is based on assumptions that do not necessarily utilize the comprehensive  
12 cost projection process that the Company undertakes in preparation for electric rate case  
13 proceedings. Moreover, Mr. Nicholas did not provide any reasoning that would validate  
14 the reasonableness of the projection. The Company maintains that the O&M expenses  
15 projected in this filing are the appropriate amount in order to meet customer service  
16 expectations, and as a result, Staff's projected IT O&M expense should be rejected.

17 Q. Regarding the testimony of the Attorney General witness Coppola, by what amount is  
18 Mr. Coppola proposing to reduce IT O&M expenses in the test year?

19 A. On page 24 of his direct testimony, Mr. Coppola recommends reducing IT O&M  
20 expenses by \$1,700,000 for the test year.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. Does Mr. Coppola explain why he recommends that IT O&M expenses be reduced in the  
2 test year?

3 A. Yes. Mr. Coppola recommends disallowing expenses in the Investments category. This  
4 category contains O&M expenses that are associated with capital projects. The test year  
5 O&M expenses requested in the Investments category is \$9.6M, and Mr. Coppola claims  
6 that in response to data request 17735-AG-CE-253 the Company only identified \$7.9M  
7 of identifiable expenses. He further alleges at page 24 of his direct testimony that “The  
8 remaining \$1.7M of the \$9.6M forecasted is unsupported.”

9 Q. Do you agree with Mr. Coppola’s recommendation?

10 A. No. In response to discovery request 17735-AG-CE-253, which has been included with  
11 this rebuttal testimony as Exhibit A-118 (CJV-6), I provided the project O&M expense  
12 associated with each of the IT capital projects from 2013 – 2015 and the test year. This  
13 was the information what was requested. What I did not provide was the other O&M  
14 expenses in the investment category. This would include “origination” costs, which are  
15 not project specific and are not included in project O&M expenses. Origination includes  
16 O&M expenses incurred in the idea phase of the project. This work includes definition of  
17 high-level business requirements, identification of business value and justification for the  
18 project, and development of project cost estimates. Project O&M expense plus the  
19 origination O&M expense add up to the total \$9.6M of Investment O&M expense in the  
20 test year.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. By what amount is Mr. Coppola proposing to reduce IT capital expenditures in the test  
2 year?

3 A. On page 53 of his direct testimony, Mr. Coppola recommends that IT capital  
4 expenditures be reduced by a total of \$22,500,000 for the Call Center Infrastructure  
5 Refresh project and several other projects.

6 Q. Do you agree with Mr. Coppola's recommendation that \$8,700,000 should be removed  
7 for the Call Center Infrastructure project?

8 A. No, I do not. Mr. Coppola's recommendation seems to be based, in part, on the Call  
9 Center Infrastructure Project's implementation date. In response to 17735-AG-CE-257,  
10 which I have included as Exhibit A-119 (CJV-7), I stated that the implementation date for  
11 this project is currently estimated for June 30, 2016. Implementation was defined as the  
12 date when the new equipment would be live and in production. In his direct testimony,  
13 Mr. Coppola took this information and erroneously stated "the Company now reports that  
14 the project has been delayed for implementation into the second half of 2016." This  
15 statement is clearly misleading, and ignores the reality that nearly all of the expenditures  
16 for this project will likely have been made prior to the end of the test year for this project  
17 to go-live on June 30, 2016.

18 Q. Are there other reasons that you disagree with Mr. Coppola's recommendation?

19 A. Yes. On page 52, lines 3-5 of his direct testimony, Mr. Coppola states "The main driver  
20 for undertaking this project appears to be capacity constraint to handle peak call volume  
21 during extreme weather periods." Mr. Coppola appears to have ignored my testimony on  
22 page 13, lines 5-16 which states that the Call Center Infrastructure project:

23 "entails a comprehensive replacement of the key components of  
24 the Company's five call centers. The equipment to be replaced

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 will be at the end of its expected life in 2015, and over the years it  
2 has become technically outdated. Completing this project will  
3 ensure that the Company's call centers continue to be available to  
4 take customers' calls on a day-to-day basis and are able to accept  
5 and respond to the significant call volume increases during storms  
6 and emergency situations. The project will be considering the  
7 disposition of the following systems at the Company's call centers:

- 8 • Three Automated Call Distributors and supporting voice  
9 network equipment.
- 10 • 500 call center agent consoles.
- 11 • Multiple Integrated Voice Response ("IVR") Units.
- 12 • Application software and supporting servers and storage."

13 The intent of my testimony was to underscore that fact that the hardware components  
14 used by the Call Centers were at the end of their expected life, are technically out of date,  
15 and need to be replaced. The main driver of this project was not to increase call capacity.

16 Q. Are there other reasons that you disagree with Mr. Coppola's recommendation?

17 A. Yes. Mr. Coppola states in his direct testimony that the cost/benefit analysis provided by  
18 the Company is incomplete and undecipherable.

19 Q. Do you agree with Mr. Coppola's assertion?

20 A. No, I do not. In response to the Attorney General's interrogatories, the Company  
21 provided the Attorney General with hundreds of business case files for capital projects  
22 that IT is developing or will develop. Each file contains a "Navigation" tab, that when  
23 clicked, opens to a page that displays various buttons that open tabs with names such as  
24 "Basic Information," Rough Order of Magnitude ("ROM") Calculator, "Detail by Role,"  
25 "Cash Flow," "Value & Impacts," "Business Case," "FIDM Scorecard," and "Audit"  
26 report. Each of these files contains a wealth of information regarding each project. To

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 say that the file containing the cost benefit analysis is “incomplete and undecipherable” is  
2 simply not true.

3 Q. Are there any other reasons why you do not agree with Mr. Coppola’s recommendation  
4 regarding the Call Center Infrastructure Refresh project?

5 A. Yes. As seen in Exhibit A-119 (CJV-7), in my response to the Attorney General’s  
6 interrogatory where he asked why it was “necessary, critical and essential that the Call  
7 Center Infrastructure Refresh project be done now,” I stated:

8 “The criticality of this project is due to technical obsolescence of  
9 this system. Specifically, the lack of vendor support for critical  
10 components poses an operational risk for our Call Center and our  
11 ability to serve our customers.

- 12 • The Aspect Spectrum Automatic Call Distributer (ACD)  
13 phone switches go end of life, and are no longer supported  
14 by the vendor, on October 31, 2015.
- 15 • The Aspect Work Force Management software is currently  
16 not supported by the vendor.
- 17 • Our Windows based Genesys call routing and reporting  
18 software is not certified to run on a 64 bit Operating  
19 System so we are forced to house this software on old  
20 servers running the soon to be unsupported Windows 2003  
21 Operating System. Windows 2003 goes end of life in July  
22 2015.
- 23 • Our Genesys desktop applications are not certified for  
24 Windows 7 so they are running on Windows 2003 Citrix  
25 servers.”

26 It appears as though Mr. Coppola has ignored my response, and the valid reasons for  
27 completing this project. I cannot agree with his recommendation.

28 Q. What is your recommendation regarding the Call Center Infrastructure Refresh project?

29 A. This project is currently underway and will be substantially complete in the test year and  
30 not in the “second half of 2016” as Mr. Coppola claims. As stated in my testimony and

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 shown in Exhibit A-119 (CJV-7), the main driver of this project is to replace equipment  
2 which is at the end of its useful life and is technically out of date. The lack of vendor  
3 support and lack of spare parts creates an unacceptable risk of Call Center failures that  
4 can be prevented with this project. The electronic version of the business case given to  
5 Mr. Coppola provided him with information supporting this project which he appears to  
6 have ignored. My conclusion is that the Call Center Infrastructure Refresh project is  
7 necessary for the continued, reliable operation of the Company's call centers, and the  
8 funds requested for this project are reasonable and prudent.

9 Q. Please identify the other projects that Mr. Coppola recommends be de-funded.

10 A. Mr. Coppola recommends that funding be withdrawn for the Contract Lifecycle  
11 Management project, High Performance Analytic Appliance ("HANA") Customer  
12 Relationship Management ("CRM"), Bring Your Own Device ("BYOD"), 800 MHz  
13 Tower Connectivity Optimization, Business Intelligence ("BI") Reporting Improvements,  
14 Storage Refresh and Redesign for Next Generation Storage, and Upgrades and  
15 Replacements.

16 Q. Does Mr. Coppola provide any specific reason for recommending that funding for these  
17 projects be withdrawn?

18 A. In apparent reference to the 800 MHz Tower Connectivity Optimization project, at pages  
19 52-53 of his direct testimony, Mr. Coppola states: "In some cases, such as the upgrading  
20 of the current radio communication system, it seems unnecessary to spend money on such  
21 a project if the Company is developing a field connectivity system that uses cellular  
22 devices." This is the only specific reason provided by Mr. Coppola for recommending  
23 that funding be withdrawn for any of these projects.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. Do you agree with Mr. Coppola's conclusions regarding the 800 MHz Tower  
2 Connectivity Optimization project?

3 A. No, I do not. In my response to 17735-AG-CE-269, I previously explained the need for  
4 this project as follows:

5 "The 800 MHz tower connectivity relies on leased copper based  
6 TDM (Time Division Multiplexing) services provided by the  
7 various telco carriers. Much of the existing telco infrastructure  
8 was installed over several decades. Time and the elements have  
9 taken their toll on the copper cable, which has been exposed to  
10 Michigan's weather and wild life. The ever increasing need for  
11 higher bandwidth, coupled with technological advancements have  
12 driven telco carriers to reduce, or in some cases eliminate,  
13 maintenance activities on the aged copper cabling in favor of  
14 deploying fiber based services. Urban areas have been targeted by  
15 the carriers as they can pick up larger numbers of customers for the  
16 least amount of investment. Rural areas are lagging behind as there  
17 is less return on their investment.

18 The major telco carriers have indicated their desire to discontinue  
19 TDM based telco services by 2020. Much of the telco central  
20 office equipment, which makes up the ability to provide TDM  
21 services, is aging along with the copper cable that provides the  
22 transport. The technological obsolescence of this central office  
23 equipment adds to the carriers' desire to move to newer more  
24 advanced transport protocols services such as Carrier Ethernet and  
25 MPLS. The TDM based T1 circuits our radio towers rely on for  
26 connectivity will be going away and we must replace them with  
27 the new functionally equivalent services.

28 Consumers Energy has been tracking telco T1 circuit performance  
29 for many years. When the 800 MHz radio system was built in the  
30 early 1990's, leased T1 circuits were at the pinnacle of reliability  
31 with very active maintenance practices employed by the telco  
32 carriers. Over time technology advancements have "left T1 circuits  
33 behind" with emphasis today on the newer higher bandwidth  
34 services. Below are the numbers of minutes of downtime for the  
35 circuits which support Consumers radio traffic with the field work  
36 crews for the previous 4 years.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

- 1 • 2011 – 31,545 minutes
- 2 • 2012 – 47,522 minutes
- 3 • 2013 – 89,390 minutes
- 4 • 2014 – 137,376 minutes”

5 The need for this project is becoming increasingly clear with each passing year.

6 Q. Are there additional reasons for the 800 MHz Tower Connectivity Optimization project?

7 A. Yes. The Company’s need to rely on its 800MHz system for emergency communications  
8 has been demonstrated repeatedly over the years. In emergency situations, the Company  
9 cannot exclusively rely on cellular communications with its field workers. The Land  
10 Mobile Radio (“LMR”) system provides voice communications flow for both day-to-day  
11 and emergency communications between dispatchers and work crews, and between  
12 Company personnel at any location. While the LMR system is the primary means of  
13 communication for our field employees, Consumers Energy does extensively utilize  
14 Public Communications Carriers (“PCC”) for specific applications. The Company has  
15 explored the possibility of moving from an LMR system to a PCC solution for voice  
16 communications. The results of these investigations align with what other Public Safety  
17 and Critical Infrastructure entities have discovered that: PCC’s provide services that  
18 increase productivity and provide specific features and capabilities, yet fall short in  
19 functionality, coverage, and reliability, especially in emergencies. LMR systems are  
20 uniquely positioned to provide critical communications during natural and manmade  
21 disasters.

22 Q. What is your recommendation regarding the 800MHz Tower Optimization project.

23 A. The technology used for the Company’s 800 MHz tower connectivity is aging, and lack  
24 of maintenance by the telecommunication carriers has led to a steady increase in the

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 amount of downtime for the circuits which support Consumers Energy's radio traffic.  
2 The major telecommunication carriers have indicated their desire to discontinue the  
3 current time division multiplexing ("TDM") service in favor of newer and more advanced  
4 transport protocols. The 800 MHz radio communication system provides the Company  
5 with the ability to communicate with its field employees in any location and in any kind  
6 of weather. While the Company is indeed increasing its usage of cellular  
7 communications for daily work order management activities, remote application access  
8 and electronic communications; the ability to have reliable communications is especially  
9 important during emergency situations as it speeds the Company's response time, helps  
10 protect the public, and ensures employee safety. The 800 MHz Tower Connectivity  
11 Optimization project is necessary to ensure the continued, reliable operation of the  
12 Company's radio communication system, and the funds requested for this project are  
13 reasonable and prudent.

14 Q. Do you agree with Mr. Coppola's conclusion that funding be withdrawn for the Contract  
15 Lifecycle Management project?

16 A. No, I do not. I explained in detail to the Attorney General why this project was needed  
17 and identified the benefits the Company expects to realize from it. Below is an excerpt  
18 from the Attorney General's discovery request 17735-AG-CE-265, which reads as  
19 follows:

20 "b. Explain how contract management is done now and what  
21 problems are being experienced that make it necessary and critical  
22 for this project to be undertaken in 2015-2016.

23 b. Supply Chain Management is under increasing pressure to  
24 proactively manage both the company's contract portfolio and legal  
25 risks as well as ensure compliance with internal and external audit  
26 requirements. The process of negotiating, execution and

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 administering service contracts remains largely manual and is  
2 divorced from the SAP ERP system. This reality has resulted in  
3 the need for some redundant activities and has also contributed to  
4 less than acceptable visibility of our contract services expenditures.  
5 Suboptimal workflow (email and internal mail) results in a contract  
6 execution process that is not best in class. There is limited ability  
7 to proactively manage active agreements and increased risk from  
8 less effective monitoring of contract compliance. Contract  
9 creation to execution service to support end users is very time  
10 consuming and slow.

11 This project will result in significant process improvements which  
12 in turn will improve buyer productivity, accelerate time to realize  
13 value from company contracts and help reduce exposure to contract  
14 risks. Service Contracting process, included for this project, will  
15 begin following RFP/bid award (beginning of contracting) and ends  
16 with Contract completion and storage. The plan is to implement the  
17 functionality of CLM, integrate it with SAP for such transactions as  
18 Purchase Orders and Invoices, provide status reporting as contracts  
19 progress through the process of contract creation, editing, red lining  
20 and finalization, capture milestones and key deliverables in the  
21 contract and ensure benefits are harvested. Improved visibility of  
22 \$600-\$700 million in contract service spend will enable more  
23 proactive management of contract service costs and risk, reduce  
24 administrative activity, allow more rapid realization of value from  
25 contracts, ensure vendor's delivery on commitments, obtain  
26 discounts when appropriate, and enable Consumers Energy to  
27 monitor vendor commitments and ensure they are delivered. It is  
28 anticipated that up to a 1% savings (\$6,000,000) could be  
29 realized on the service contract spend through the following  
30 benefits of the project:

- 31 • Relevant contract documentation in a single flexible,  
32 searchable document repository
- 33 • Enable effective review and approval workflows. Provide  
34 the ability to capture signatures electronically
- 35 • Enable effective versioning and change tracking of all  
36 contract documents
- 37 • Provide standard templates and clause libraries to create  
38 legal agreements
- 39 • Provide a centrally located library of approved contract  
40 language

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

- 1 • Enable direct integration with SAP ERP (Purchase Orders,  
2 Purchase Requisitions, invoices, Service Entry Sheets,  
3 etc...)
- 4 • Facilitate earlier realization of contract benefits by  
5 accelerating the contract creation and execution lifecycle
- 6 • Optimize contract related negotiations through timely  
7 renewals and by enabling instant access to full contract  
8 history / documentation
- 9 • Reduce lead time to get contractor(s) to the field (e.g.  
10 Currently, takes 6 weeks from request to get a contractor  
11 doing work – could reduce to 3 weeks)
- 12 • Reduced labor for filing of contracts – 1 FTE annual  
13 savings.”

14 Q. What is your recommendation regarding the Contract Lifecycle Management project?

15 A. The benefits of converting a largely manual system for contact lifecycle management to  
16 an electronic system integrated with SAP are significant, including process  
17 improvements, eliminating redundant activates, and automating actives that are currently  
18 performed manually. Mr. Coppola has given no specific reasons the Company should not  
19 improve its contract management process with this project. Accordingly, the Contract  
20 Lifecycle Management project is reasonable and prudent, and the project should be  
21 funded at the requested levels.

22 Q. Do you agree with Attorney General witness Coppola’s conclusion that funding be  
23 withdrawn for the BYOD project?

24 A. No. Once again, Mr. Coppola has given no specific reason that funding for this project  
25 should be disallowed from the Company’s request. On page 18 of my direct testimony,  
26 line 8 through page 19, line13, I fully explained the BYOD project.

27 Q. What is your recommendation regarding the BYOD project?

28 A. The BYOD project will improve productivity by allowing employees to access Company  
29 data and applications at any time from any device they have available. Employee

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 engagement will be improved as it will reduce the need for employees to carry a  
2 company computer with them wherever they go in order to access the Company's  
3 network. Mr. Coppola has given no specific reason that funding should be withdrawn for  
4 this project. Therefore, I recommend that the BYOD project should be funded at the  
5 requested level.

6 Q. Do you agree with Mr. Coppola's conclusion that funding be withdrawn for the HANA  
7 CRM project?

8 A. No. The purpose of the HANA for CRM project is to address the need to sustain the  
9 overall responsiveness, reliability, and currency of the SAP CRM platform. CRM is the  
10 primary application used by the Company's Customer Service Representatives ("CSRs")  
11 to respond to customer requests and inquiries. HANA is the high performance,  
12 in-memory technology platform on which SAP is migrating its core application products.  
13 HANA would improve the CRM application's performance, especially for search and  
14 customer interaction. Improving the speed and performance of CRM will give CSR's the  
15 ability to provide quicker responses to customer inquiries and improve overall customer  
16 satisfaction. With the infrastructure that supports the Company's SAP applications  
17 (including CRM) reaching end-of-life in 2016, the Company is initiating a SAP  
18 Modernization project that will build a new SAP platform, and will incorporate the  
19 objectives of the HANA for CRM project. The new SAP platform will include a less  
20 costly infrastructure and more flexible architecture. The project will increase SAP  
21 application availability for CSRs and all SAP users by eliminating single points of  
22 failure, reducing planned and unplanned application downtime, and reducing time to  
23 recover from application failure.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. What is your recommendation regarding the HANA for CRM project?

2 A. The objectives of this project, being incorporated into the SAP Modernization project,  
3 will sustain and improve the availability and responsiveness of SAP applications,  
4 enabling the Company's CSRs to provide quicker responses to customers' inquiries.  
5 Again, Mr. Coppola has given no specific reason that funding for this project should be  
6 withdrawn. It is my recommendation that the HANA for CRM project should be funded  
7 at the requested level.

8 Q. Do you agree with Mr. Coppola's conclusion that funding be withdrawn for the BI  
9 Reporting Improvements project?

10 A. No, I do not. BI is a critical reporting platform for the Company. Data driven decision  
11 using BI platforms is an expectation within the Company, and technology investments  
12 are providing the opportunity to deliver a richer set of insights into the Company's  
13 operations and customers. The SAP BI reporting environment has been upgraded to  
14 HANA (in-memory computing), which gives the Company a base platform for "big data"  
15 reporting and analytics. "Big data" includes many data types, such as transactional data  
16 (e.g. from SAP), machine generated data, and geospatial data. SAP contains the  
17 Company's customer, asset, employee, maintenance, finance, and material data. Other  
18 projects are underway to build repositories for machine generated, operational data  
19 coming off smart meters and distribution and generation assets. ESRI is the Company's  
20 existing repository for geospatial data, including portions of the electric distribution  
21 connectivity model. Integrating the aforementioned data types, enabling algorithms for  
22 data discovery, and implementing visualization tools (e.g. dashboards, geospatial views)  
23 will provide the capabilities to derive new insights and drive significant value from the

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 data. These are capabilities that are mature in other industries, but are lagging in the  
2 Company, and beginning to take hold in the utility industry. The BI Reporting  
3 Improvements project will implement such capabilities that will provide benefits in a  
4 number of use cases, including operational reporting, load forecasting, asset management,  
5 predictive maintenance analytics, demand side management and customer engagement,  
6 dynamic customer segmentation and personalized interactions, and system operations  
7 through grid visibility and situational awareness.

8 Q. What is your recommendation regarding the BI Reporting Improvements project?

9 A. The BI Reporting Improvements project will provide high value reporting and analytics  
10 that will provide benefits in the areas of electric reliability and customer service.  
11 Mr. Coppola has given no specific reason for de-funding this project. Accordingly, the  
12 funds associated with the BI Reporting Improvements project are reasonable and prudent  
13 and should be approved at the requested levels.

14 Q. Do you agree with Mr. Coppola's conclusion that funding should be withdrawn for the  
15 Storage Refresh and Redesign for Next Generation Storage project?

16 A. No, I do not. The Company's current storage platform will become obsolete and  
17 incompatible with future corporate storage needs. This project will address multiple  
18 challenges the Company is facing, including: 1) backing up its growing, 24 Terabyte  
19 SAP data base on a nightly basis in a timely and cost effective manner; 2) addressing  
20 increasing storage maintenance costs due to growing data volumes and backup  
21 requirements; and 3) addressing storage needs that support increasing requirements for  
22 data security and availability.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. What is your recommendation regarding the Storage Refresh and Redesign for Next  
2 Generation Storage project?

3 A. The Company must continue to look for ways to address current and future data storage  
4 needs. Storage requirements will continue to increase, and the Company's current  
5 storage systems will not continue to meet the needs for highly available, secure data in a  
6 cost effective way for its customers. Mr. Coppola has offered no specific reason this very  
7 reasonable and prudent project should not proceed. Therefore, the funds requested for  
8 the Storage Refresh and Redesign for Next Generation Storage project are reasonable and  
9 prudent, and the project should be funded at the requested levels.

10 Q. Do you agree with Mr. Coppola's conclusion that funding be withdrawn for the Upgrades  
11 and Replacements program?

12 A. No, I do not. One of the purposes of the Upgrades and Replacements program is to  
13 consolidate all of the IT Department's asset refresh programs, such as Workstation Asset  
14 Management, Printer Asset Management, Server and Storage Asset Management, Field  
15 Device Asset Management, etc. In my response to the Attorney General's discovery  
16 request 17735-AG-CE-277, which is attached as Exhibit A-120 (CJV-8), I provided the  
17 Company's Total Cost of Ownership calculations supporting these refresh programs. In  
18 addition to consolidating the Asset Refresh programs, the Upgrades and Replacements  
19 program also includes funding to ensure that the Company's software applications remain  
20 current and supported by its vendors, to avoid technical obsolescence, and reduce  
21 operational risk.

CHRISTOPHER J. VARVATOS  
REBUTTAL TESTIMONY

1 Q. What is your recommendation regarding the Upgrades and Replacements program?

2 A. The Upgrades and Replacements program is necessary to ensure that the Total Cost of  
3 Ownership of the Company's hardware devices is minimized, that the software  
4 applications it uses are able to be supported by their vendors to maximize their reliability,  
5 and problems associated with technology obsolescence are prevented. Mr. Coppola has  
6 offered no specific reason for withdrawing funding for this program. The funds related to  
7 the Upgrades and Replacements program are reasonable and prudent, and the project  
8 should be funded at the requested level.

9 Q. Does this conclude your rebuttal testimony?

10 A. Yes, it does.

1 JUDGE CUMMINS: Cross-examination of this  
2 witness?

3 MR. BRANDENBURG: None from Staff.

4 JUDGE CUMMINS: Mr. Janiszewski?

5 MR. JANISZEWSKI: Yes, your Honor.

6 JUDGE CUMMINS: Actually, can we take a  
7 break for just five minutes.

8 (At 2:10 p.m., there was a five-minute recess.)

9 JUDGE CUMMINS: Let's go back on the  
10 record. At this point in time, we were starting with  
11 Mr. Janiszewski. Is there anything we need to address  
12 before we start cross-examination?

13 MS. UITVLUGT: Very quickly, your Honor.  
14 When listing the witness's exhibits, I inadvertently  
15 mixed up his initials. All initial references should be  
16 CJV, not CVJ. Thank you.

17 JUDGE CUMMINS: Thank you.

18 With that correction, Mr. Janiszewski,  
19 you have the floor.

20 MR. JANISZEWSKI: Thank you, your Honor.

21 CROSS-EXAMINATION

22 BY MR. JANISZEWSKI:

23 Q Good afternoon, Mr. Varvatos.

24 A Good afternoon.

25 Q All right. I have some lines of questioning here largely

1 concerning your responsibilities as overseeing the  
2 Company's IT operations. Is that part of your job  
3 responsibilities, correct?

4 A I'm an Executive Director in the IT Department, I'm part  
5 of the IT leadership team.

6 Q What portions of the team are you specifically  
7 responsible for?

8 A I'm responsible for the application, development,  
9 delivery, and support for our distribution operations,  
10 engineering and transmission business unit, interacting  
11 closely with the rest of my leadership team on all  
12 matters of IT in the department.

13 Q Part of your overall responsibilities include working on  
14 the O&M budget for the -- of the IT Department; is that  
15 correct?

16 A Yes, I submit input into the O&M budget for the IT  
17 Department.

18 Q Do you have overall responsibility for the development  
19 and implementation of the capital projects discussed in  
20 your rebuttal testimony?

21 A I have direct responsibility for some of those, and like  
22 I said, I work with the rest of the IT leadership team on  
23 the collection of projects.

24 Q O.K. Please turn to page 3 of your rebuttal testimony.  
25 I'd like to start by reviewing lines 5 through 14 of page

1 3 here. You are answering questions about Staff's  
2 position with respect to the Company's projected IT O&M  
3 expenses for the test year; is that correct?

4 A Correct.

5 Q The forecast used by Staff Witness Nichols derives from  
6 the Company's internal budget for the projected test  
7 year; is that your understanding?

8 A That is my understanding of his proposal.

9 Q Did you put that budget together or had some role in it?

10 A I did not directly put the budget together, I helped feed  
11 the planning process that then feeds the Company's  
12 budgeting process.

13 Q And you were involved in developing the forecast of O&M  
14 expenses for the test year filed in this case?

15 A Yes.

16 Q On line 11, when discussing the budget referenced by  
17 Staff Witness Nichols, you state it's based on  
18 assumptions that do not necessarily utilize the  
19 comprehensive cost projection process that the Company  
20 undertakes. What do you mean by comprehensive?

21 A Part of the comprehensive process is looking at a  
22 planning level of the projects that we deem necessary and  
23 prudent to serve our customers, and then we estimate the  
24 necessary O&M to both complete projects and operate our  
25 technology. That feeds the planning process that I

1 referred to, which then feeds the budget. We developed  
2 our filing based on those planning numbers for those  
3 projects we deem, projects and operations that we deem  
4 appropriate and necessary to serve our customers, which  
5 are different than Mr. Nichols' conclusions.

6 Q Could you please further describe these differences  
7 you're referring to?

8 A It would be the difference in the operations and O&M  
9 project numbers that are what we submitted versus what  
10 Mr. Nichols proposed our budget be.

11 Q Why doesn't the internal budget contain more detailed and  
12 comprehensive information than the summary numbers  
13 presented in your exhibits?

14 A I'm sorry, can you repeat the question?

15 Q Why doesn't the internal budget contain more detailed and  
16 comprehensive information than the summary numbers  
17 presented in your exhibits?

18 A I can't speak to the detailed content of the budget  
19 numbers that were submitted that Mr. Nichols had used.

20 Q Well, when you use the term necessarily on line 11, page  
21 3, of your rebuttal testimony, does it mean that the  
22 internal budget may have been just as comprehensive as  
23 the rate case filing?

24 A My understanding is the budget process is informed by the  
25 long-term planning requirements that I outlined earlier

1 that feed this filing. How that is determined to be --  
2 how that moves from the planning into the detailed  
3 budget, I'm not directly a part of.

4 Q Is there a specific reason you could point to why you use  
5 the qualifying term necessarily on line 11 there?

6 A I believe that is because I do not know all of  
7 Mr. Nichols' assumptions that he made.

8 Q Moving on to line 13, you further state on the same  
9 topic, "Moreover, Mr. Nichols did not provide any  
10 reasoning that would validate the reasonableness of the  
11 projection." Is that correct?

12 A It is correct, that is what I have in my rebuttal.

13 Q I want to explore this statement, because it's my  
14 understanding Mr. Nichols was using projections he  
15 received from the Company. So why would he need to  
16 provide support to validate the reasonableness of these  
17 projections if he in fact received them from the Company?  
18 Is my understanding correct?

19 A That is my understanding.

20 Q O.K. So why would Mr. Nichols need to provide any  
21 support to validate the reasonableness of his projection  
22 which in fact was received from the Company?

23 A We believe in the filing, which had a higher submission,  
24 that we provided very strong reasons for the  
25 reasonableness and prudence of our investments, so to

1 move down to a budget number that is less than what we  
2 believe is necessary per our filing, we did not feel that  
3 that was strong reasoning.

4 Q So comparing the rate case filing and the internal  
5 budget, is it a fair statement just in general terms  
6 based on your observation that the summary numbers  
7 presented in your exhibits in the rate case filing are  
8 more detailed and comprehensive than the information  
9 presented in the internal budget?

10 A I did not see the internal budget that Mr. Nichols  
11 referred to, so I can not comment on how detailed it was  
12 compared to the rate case filing.

13 Q Is it correct to say that the Company's O&M end  
14 projections are not valid or reasonable and should not be  
15 relied on -- I'm sorry. Strike that question.

16 Moving down to line 20 of page 3, could  
17 you please confirm that Mr. Coppola's proposed reduction  
18 in O&M was approximately \$762,000 lower than Staff's  
19 adjustment?

20 A I'm sorry, can you say those figures again, please?

21 Q Based on your review of the Attorney General witness's  
22 testimony in preparing your rebuttal testimony, is it  
23 your understanding that Mr. Coppola's proposed reduction  
24 in O&M was approximately \$762,000 lower than Staff's  
25 adjustment?

1 A That's not my understanding. If I look at the numbers  
2 that I believe you're comparing, I think it is a \$62,000  
3 difference.

4 Q Yes, that would be my understanding now looking at the  
5 numbers again. Sorry about that.

6 A I'm sorry. Can you ask that again, then?

7 Q Right. The difference between Mr. Coppola's recommended  
8 reduction to the IT O&M is \$62,000 lower than Staff's  
9 adjustment recommendation; is that correct?

10 A That is correct, based on those numbers, but those  
11 numbers are referring to two different -- although they  
12 look like they're close, Mr. Coppola's understanding of  
13 the number is not the reasons that he gave in his  
14 testimony.

15 Q I'm not concerned about reasoning right now, I'm just  
16 looking at the comparison of numbers here. Is it a fair  
17 statement that, based on this comparison, that  
18 Mr. Coppola's proposed O&M expense for IT was \$62,000  
19 higher than the Company's internal budget?

20 A If the number on -- provided by Mr. Nichols reflects the  
21 budget, and the difference that we talked about of  
22 \$62,000 is applied, then you could arrive at that number.

23 Q Thank you.

24 Moving on to page 4 of your rebuttal  
25 testimony, lines 3 through 8, you briefly discuss

Metro Court Reporters, Inc. 248.426.9530

1 Mr. Coppola's explanation why he recommends that IT and  
2 O&M expenses be reduced apply to the test year set forth  
3 by the Company. You state, "Mr. Coppola recommends  
4 disallowing expenses in the Investments category." And  
5 you -- Mr. Coppola makes a statement, "The remaining \$1.7  
6 million of the \$9.6 million forecasted is unsupported."

7 Specifically on this topic, could you  
8 please turn to your proposed -- your prefiled Exhibit  
9 A-70.

10 A A-70 from the original testimony?

11 Q Yes. I'm sorry. If you could just give me one minute, I  
12 just wanted to review this exhibit.

13 Have you also had an adequate chance to  
14 review the exhibit, Mr. Varvatos?

15 A Yes, I have.

16 Q O.K. Thank you. Please confirm that the \$9.6 million  
17 appearing on line 8 of your rebuttal testimony on page 4  
18 is the same number as shown in Exhibit A-70, line 2,  
19 under the projected test year.

20 A That reflects the same number.

21 Q Still looking at page 4 of your rebuttal testimony,  
22 looking further down lines 9 through 13, you indicate  
23 disagreement with Mr. Coppola's recommendations, stating,  
24 in response to discovery request 17735-AG-CE-253, you  
25 provided the project O&M expense associated with each of

1 the IT capital projects from 2013 to 2015 and the test  
2 year. Is that correct?

3 A Yes. And it also included O&M projects as well.

4 Q O.K. You also reference in this testimony Exhibit A-118.  
5 If you could please turn to that exhibit. Could you  
6 please confirm that the data request shown in Exhibit  
7 A-118 is a list of each of the investment projects for  
8 each year, 2013 to 2015, in the forecasted test year,  
9 correct?

10 A It is that portion of the investment O&M that corresponds  
11 to specific projects, yes.

12 Q Why didn't you include the origination costs of  
13 idea-phased projects that you mention on page 4, lines 14  
14 through 18, of your rebuttal testimony?

15 A The origination, which is what we referred to as the idea  
16 or concept phase of proposed projects, is where we spend  
17 the time, which is an O&M expense, to develop and  
18 identify project benefits, costs and justification to  
19 determine if we recommend it should be in approved  
20 projects. All of the time spent in that origination  
21 phase is now tied to specific projects that make it on to  
22 our approved plan, so all of that expense does not tie to  
23 individual line items when it is incurred.

24 Q Could you please describe some of these idea-phased  
25 projects for the record?

1 A I can refer to some of the projects referred to in the  
2 list that went through those idea phase. There's tens  
3 and hundreds in that exhibit.

4 Q If you could just describe a handful.

5 A Field connectivity, GIS integrated design application.  
6 I'm miscellaneous looking through some of these that are  
7 on the list because they all have gone through the  
8 origination phase. OMS and electric GIS upgrade, SAP  
9 production landscape refresh.

10 Q Well, is this the first rate case where the Company  
11 started including expenses for idea-phased projects, to  
12 your knowledge?

13 A I don't recall offhand. We've always had O&M related to  
14 projects, and but I do not recall which rate case this  
15 may have started in.

16 Q So there was no express contemplation of starting the  
17 inclusion of idea-phase projects in this specific rate  
18 case; is that a correct statement?

19 A I'm sorry. Repeat that, please.

20 Q Since you were mentioning that you don't recall if prior  
21 cases, rate cases included idea-phased projects, my  
22 followup question was whether you recall an express  
23 conversation or process in the Company that deliberately  
24 said, well, let's start including idea-phased projected  
25 in this rate case, 17735?

1 A There was not an explicit decision for this rate case  
2 where --

3 Q So it was just a given that idea-phased projects were  
4 already included in rate cases and this is just the  
5 normal course of preparing the, your rate case material;  
6 would that be a correct statement?

7 A Yes, that would be correct. It reflects how we plan for  
8 projects, and because it's specific information that we  
9 know, we reflect that in our filing.

10 Q To your knowledge, do all of the dollars budgeted for  
11 idea-phase projects in a particular year get spent, or do  
12 some of those dollars go unspent?

13 A I don't have that information right now.

14 Q I don't necessarily need specific concrete information,  
15 but in general, do you have any sense or idea if all of  
16 the dollars in these budgeted items for idea-phased  
17 projects in any given year get spent 100 percent?

18 A The budgeted dollars are not by an idea phase for each  
19 project, it's a budget for taking projects through an  
20 origination phase and working through the origination for  
21 ideas that never become official projects.

22 Q So these origination dollars get spent 100 percent of the  
23 time, setting aside whether the projects are ultimately  
24 pursued?

25 A It is a set of funds that is allocated to that activity,

1 and generally we spend the time on that activity during  
2 the year, which we believe is a way to determine and work  
3 through our investments to determine whether they're  
4 prudent and reasonable to undertake.

5 Q I appreciate you giving me a better sense of this  
6 process. You said you generally partake in pursuing  
7 these items. Is there ever a time where you just set  
8 aside some of these items in the origination process and  
9 put them on a shelf for a time and don't pursue them?

10 A There would be projects which I do not have documented  
11 here that have not made it into our plans because we went  
12 through the prudence in the process of the origination  
13 effort.

14 Q And that would -- what you're referring to there is  
15 deliberately ending the project after the origination  
16 process?

17 A Determining that it should not be part of our plan which  
18 you see in the filing here because we went through that  
19 process.

20 Q Could you please turn to page 5 of your rebuttal  
21 testimony. On lines 8 through 17 you explain your  
22 disagreement with the Attorney General's witness's  
23 recommendation that \$8.7 million should be removed for,  
24 regarding the Call Center Infrastructure Project.

25 Mr. Coppola indicated in his testimony that this

1 disallowance should be because the project has been  
2 delayed and the dollars related to it should be removed  
3 from rate base. Do you recall proposing this same  
4 project in Consumers Energy's prior general rate cases,  
5 specifically the last completed electric rate case,  
6 17087?

7 A Without having that in front of me, I do not recall what  
8 was specifically included relative to this project.

9 Q On the other side of the Company's business, the gas  
10 side, do you happen to recall if you proposed this same  
11 project in the Company's last completed natural gas rate  
12 case, 17643?

13 A Without having that detail in front of me, I can not  
14 state that I included that in that testimony. It is  
15 certainly possible. I don't have that in front of me,  
16 though.

17 Q So you --

18 A I would not want to give you a year or a specific answer  
19 without having that information in front of me.

20 Q O.K. Yeah, I don't have a copy of your testimony in  
21 those cases to refresh your recollection, unfortunately,  
22 but I will ask you just one followup question here. Do  
23 you know the past completion dates of this project  
24 presented in prior cases just on a very general timeframe  
25 basis?

1 MS. UITVLUGT: I'm going to place an  
2 objection, your Honor. The witness has already indicated  
3 that he didn't know for the last two rate -- both the  
4 last recent electric rate case and the last recent gas  
5 rate case.

6 JUDGE CUMMINS: Overrule the objection.  
7 If you can answer, please, Mr. Varvatos.

8 A As I indicated, I do not know what was included  
9 specifically for this project, and therefore what year it  
10 would have been proposed. If it was included, not having  
11 that in front of me, I don't know if it corresponds to  
12 this timing.

13 Q (By Mr. Janiszewski): Given my lack of material here,  
14 perhaps I will prepare a discovery question within the  
15 next day or so and perhaps pursue this line of  
16 questioning in that route because we can have just better  
17 information in front of us.

18 Specifically referring to the filed rate  
19 case in 17735, the go-live date of June 30, 2016, for the  
20 Call Center Infrastructure Refresh Project is after the  
21 end of the Company's projected test year of May 31, 2016;  
22 is that correct?

23 A That is correct.

24 Q Will the project -- will the project be fully used and  
25 useful before the end of the projected test year, in your

1 opinion?

2 A With the plan, the date of June 30, it would not be in  
3 production until after the end of the test year, although  
4 most of the expenditures would take place in the test  
5 year.

6 Q O.K. Moving to page 6 of your rebuttal, just briefly,  
7 lines 20 through 26, you reference sending hundreds of  
8 business case files to the Attorney General's witness and  
9 the Attorney General in this case. Did you personally  
10 test and review the Excel files that were sent to the  
11 Attorney General to ensure that all the links worked and  
12 all the support data files were included?

13 A I did not review every file.

14 Q Did these files include, to your knowledge, the net  
15 present value of expected future benefits and costs, or  
16 only the revenue requirement analysis for the regulatory  
17 cost recovery?

18 A The intent of those files is to have the net present  
19 value when it is available.

20 Q Operating under the assumption that the NPV was  
21 included -- I'm going to strike that.

22 Can you please turn to page 7 of your  
23 rebuttal. Moving down to the bottom of that page, on  
24 lines 26 and 27 where you opine that Mr. Coppola ignored  
25 your response and valid reasons for completing the

1 project discussed above. Is that a fair  
2 characterization?

3 A Yes, it is.

4 Q On this same page you indicate the criticality to get  
5 this project done is a lack of vendor support on lines 8  
6 through 11. Is that fair to say?

7 A Yes.

8 Q Do all IT systems get replaced before or soon after a  
9 vendor stops supporting the software in general?

10 A Not all of them. Based on criticality.

11 Q Is there a percentage you could give?

12 A I don't have a percent.

13 Q Are you aware whether Consumers Energy delays for many  
14 years the replacing of obsolete systems or systems no  
15 longer supported by vendors?

16 A We have instances where we have -- I'm sorry. I want to  
17 make sure I answer the question. Can you repeat it?

18 Q Are you aware whether Consumers Energy delays for many  
19 years the replacing of obsolete systems or systems no  
20 longer supported by vendors?

21 A I don't have the data to support your question of whether  
22 it's many years or not. We do have systems that we  
23 operate beyond vendor support at risk to the operation,  
24 so that's why when we have applications that are very  
25 critical to our business operations and our customers, we

1 treat those differently in terms of priority.

2 Q Moving on to page 8 of your rebuttal testimony, lines 22  
3 and 23. You testify that the only basis Mr. Coppola had  
4 for recommending a disallowance for -- of capital  
5 projects was the use of cellular devices. Is that fair  
6 to state?

7 A He used -- his statement, "In some cases, such as  
8 upgrading of the current radio communication system, it  
9 seems unnecessary to spend money on such a project if the  
10 Company is developing a field connectivity system that  
11 uses cellular devices." So we concluded he was referring  
12 to the 800 megahertz tower connectivity optimization.

13 MR. JANISZEWSKI: One minute, your Honor.  
14 I just wanted to grab Mr. Coppola's testimony to read an  
15 excerpt.

16 Q (By Mr. Janiszewski): Do you have Mr. Coppola's  
17 testimony available with you, Mr. Varvatos?

18 A For my reference?

19 Q Yes.

20 A I do.

21 Q O.K. Let me get my copy. One second. Never mind, my  
22 copy is in my car.

23 MR. BZDOK: I got it. I got it, John, I  
24 think.

25 Q (By Mr. Janiszewski): Mr. Varvatos, if you have a copy  
Metro Court Reporters, Inc. 248.426.9530

1 of the testimony, could you just please read page 52 of  
2 Mr. Coppola's direct testimony, lines 14 through 17.

3 A The first sentence that starts on line 14?

4 Q Yes, please.

5 A "The necessity to initiate development of some of these  
6 systems, particularly during a period when the Company  
7 needs to spend hundreds of millions of dollars to  
8 retrofit its power plants to comply with the  
9 ever-expanding emission rules, is questionable at best."

10 Q Did you take this excerpt from his testimony into  
11 consideration in preparing your rebuttal testimony?

12 A I took into consideration where he pulled six or seven  
13 projects of the list of excess of 300 to highlight versus  
14 the statement you're referring to.

15 Q On page 13 of your rebuttal testimony, lines 22 through  
16 26, you discuss the BYOD project. Can you please explain  
17 for the record what the BYOD means?

18 A BYOD means bring your own device.

19 Q And what does the BYOD project entail?

20 A BYOD entails implementing the necessary technologies to  
21 allow non-Company computers and devices to access Company  
22 applications.

23 Q What type of personal employee devices does the Company  
24 envision being connected to the Company's computer  
25 system?

1 A The project has not been defined in its phase to have  
2 developed a comprehensive list of applications that would  
3 be accessible.

4 Q Why is such a project critical at this time when the  
5 Company needs to spend billions of dollars on capital  
6 projects for environmental compliance, such as  
7 retrofitting its power plants and to comply with emission  
8 rules and upgrade its generation and distribution  
9 infrastructure?

10 MS. UITVLUGT: Objection, your Honor.  
11 That goes beyond the scope of the witness's testimony.  
12 This witness only testified to IT costs.

13 JUDGE CUMMINS: I'll allow it on a  
14 general basis. You can answer. And I realize by doing  
15 so, it simply calls for personal opinion.

16 A Notwithstanding other needs for capital in the Company,  
17 there are drivers around productivity, employee  
18 expectations, and technology directions within the  
19 industry that do not stop with other capital needs. The  
20 BYOD is a trend in companies to, from a productivity and  
21 an employee-engagement perspective, to allow employees to  
22 use other devices to increase their productivity and  
23 satisfaction in working for the Company. So like I said,  
24 those needs and trends do not go away with other capital  
25 needs? and priorities that may exist for the Company as

1 well.

2 Q (By Mr. Janiszewski): And is it your opinion that  
3 connecting personal employees devices wouldn't present a  
4 cyber security or privacy risk, if you know?

5 A It's my opinion that that would be a key component of the  
6 project, to ensure that that information does remain  
7 secure.

8 MR. JANISZEWSKI: I have no further  
9 questions at this time, your Honor.

10 JUDGE CUMMINS: Thank you,  
11 Mr. Janiszewski.

12 Mr. Keskey, did you have questions of  
13 this witness?

14 MR. KESKEY: Yes, your Honor.

15 JUDGE CUMMINS: It's getting close to  
16 3:00. How long do you have, how long would you expect?

17 MR. KESKEY: I don't know. Half hour  
18 maybe.

19 JUDGE CUMMINS: Why don't we take our  
20 break now, and when we come back, we can get a running  
21 start at this then. We'll take a break until 10 after  
22 and we'll begin then with Mr. Keskey. We're off the  
23 record.

24 (At 2:55 p.m., there was a 15-minute recess.)

25 JUDGE CUMMINS: Let's go back on the  
Metro Court Reporters, Inc. 248.426.9530

1 record. Mr. Keskey, you had questions of this witness?

2 MR. KESKEY: Yes, your Honor.

3 JUDGE CUMMINS: Please proceed.

4 - - -

5 CROSS-EXAMINATION

6 BY MR. KESKEY:

7 Q Good afternoon, Mr. Varvatos.

8 A Yes, good afternoon.

9 Q On page 1 of your direct testimony you indicate the  
10 purposes of your testimony is to identify and support the  
11 business technology solutions department's operation and  
12 maintenance expense and capital expenditures.

13 Is your testimony and your exhibits  
14 limited to that specific department only or is there --  
15 is your presentation company-wide?

16 A It's limited to the O&M and capital for Information  
17 Technology projects which are done for, often done for  
18 other areas of our business as well.

19 Q Well, would your exhibits and your testimony include  
20 investments and also costs for the AMI infrastructure and  
21 the smart meters and also the overall AMI program?

22 A Not for the infrastructure and the smart meters. I have  
23 two projects in submitted testimony, a submitted exhibit  
24 with my rebuttal, that includes investment O&M for two  
25 smart energy projects for system integration efforts.

1 Q So clearly, to get a picture of the entire AMI  
2 investment, let's say for the projected test year and the  
3 entire operation and maintenance expense for the  
4 projected test year and any other financial aspects of  
5 the AMI would not be your testimony and exhibits, but it  
6 would be Mr. Warriner's?

7 A Correct.

8 Q However, looking at solely your department, can you give  
9 us a total, and perhaps sub categories, of the investment  
10 related to AMI that's associated with just your  
11 department for the projected test year?

12 A I'm sorry. Can you state that again?

13 Q Looking at the projected test year in this case, could  
14 you point us to the total capital cost for investment  
15 related to AMI for your department?

16 A I do not have any capital investment dollars covered in  
17 my testimony for AMI.

18 Q O.K. Now looking at operation and maintenance expense  
19 for the projected test year, do you have financial  
20 information as to the amount related to AMI for the  
21 projected test year?

22 A I have those two project line items for project O&M  
23 related to two projects in the AMI program in my Exhibit  
24 CJV-6 in my rebuttal testimony.

25 Q And what does that show?

1 A That shows two project line items related to complex  
2 billing and DLA and DPP.

3 Q And the amount included for the projected test year is  
4 what?

5 A That total is approximately 1.2 million.

6 Q Are there any other financial impacts related to AMI  
7 relating to your department other than operation and  
8 maintenance expense?

9 A No. Not in my testimony.

10 Q Does your testimony segregate or calculate the operation  
11 and maintenance costs for your department that are  
12 related strictly to opt-out customers who don't want  
13 smart meters?

14 A No, it would not include any dollars related to that.

15 Q So you are not presenting here an assertion that opt-out  
16 customers are costing your department expense for the  
17 projected test year?

18 A I don't know what that impact would be, if any. I don't  
19 know it.

20 Q So therefore you're not presenting it? You're not  
21 presenting any information that there is a cost?

22 A I don't have that explicitly in my testimony.

23 Q Do you know if you or your department or the Company has  
24 done a study or analysis of what the costs for opt-out  
25 customers is projected to be for the projected test year?

1 A I do not know if such a study was done.

2 Q Did you have any interface with a cost of service study  
3 done for purposes of this case?

4 A I don't know. I did not personally.

5 Q Did you have any input or discussions with either Mr.  
6 Ross or Mr. Warriner relative to cost of service studies?

7 A I did not directly.

8 Q Would you indirectly have had such involvement?

9 A I don't know.

10 MR. KESKEY: I have no other questions,  
11 your Honor.

12 JUDGE CUMMINS: Thank you, Mr. Keskey. I  
13 believe that's all the potential cross-examiners.

14 Is there any redirect for this witness?

15 MS. UITVLUGT: No, your Honor.

16 JUDGE CUMMINS: Very well. We have a  
17 total of eight exhibits. These have been marked as A-69  
18 through A-73, as well as A-118 through A-120. Is there  
19 any objection to the receipt of these exhibits? Hearing  
20 none, those exhibits are received into evidence.

21 You may step down.

22 (The witness was excused.)

23 - - -

24 MR. BZDOK: May I have just a moment to  
25 confer with the Company, Judge, before we start? Off the  
Metro Court Reporters, Inc. 248.426.9530

1 record?

2 JUDGE CUMMINS: Certainly. Let's go off  
3 the record.

4 (Brief in-place recess.)

5 JUDGE CUMMINS: We're back on the record.  
6 Please proceed.

7 MS. HALL: Thank you, your Honor.

8 - - -

9 R. M I C H A E L S T U A R T

10 was called as a witness on behalf of Consumers Energy  
11 Company and, having been duly sworn to testify the truth,  
12 was examined and testified as follows:

13 DIRECT EXAMINATION

14 BY MS. HALL:

15 Q Could you please state your full name and business  
16 address for the record?

17 A R. Michael Stuart, One Energy Plaza, Jackson, Michigan.

18 Q For whom are you appearing today and in what capacity?

19 A For Consumers Energy, in the capacity of supporting the  
20 recovery of the EICP.

21 Q And what is your job title for Consumers Energy?

22 A I am the Utility Metrix Director.

23 Q Did you cause to be prepared a document entitled Direct  
24 Testimony of R. Michael Stuart on behalf of Consumers  
25 Energy Company, which consists of a cover page and seven

Metro Court Reporters, Inc. 248.426.9530

1 pages of questions and answers?

2 A Yes.

3 Q And did you also cause to be prepared a document entitled  
4 Rebuttal Testimony of R. Michael Stuart, which consists  
5 of a cover page plus six pages of questions and answers?

6 A Yes.

7 Q And is it correct that you did not sponsor any exhibits  
8 associated with your direct or rebuttal testimony?

9 A That is correct.

10 Q Are there any changes that you wish to make at this time  
11 to either your direct or your rebuttal testimony?

12 A No.

13 Q If I were to ask you the same questions today as posed in  
14 your direct and rebuttal testimony, would your answers be  
15 the same?

16 A Yes.

17 Q And is that testimony that you're adopting as your own  
18 today?

19 A Yes.

20 MS. HALL: At this time, your Honor, the  
21 Company moves to bind in the direct and rebuttal  
22 testimony of R. Michael Stuart. And with that, I tender  
23 him for cross-examination.

24 JUDGE CUMMINS: Very well. Any objection  
25 to receipt or to binding in the testimony, both the

1 direct and rebuttal of Mr. Stuart? Hearing none, the  
2 direct and rebuttal testimony is bound into the record.

3 (Testimony bound in.)  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**  
**OF**  
**R. MICHAEL STUART**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

December 2014

R. MICHAEL STUART  
DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. My name is R. Michael Stuart and my business address is One Energy Plaza, Jackson,  
3 Michigan, 49201.

4 Q. By whom are you employed and what is your present position?

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the  
6 “Company”) as Utility Metrics Director.

7 Q. Please review your educational and business experience.

8 A. I was graduated from Michigan State University in December of 1985 with a Bachelor of  
9 Arts Degree in Business Administration. Since joining Consumers Energy in June of  
10 2000, I have held various positions in the Supply Chain, Electric Meter Operations,  
11 Business Technology Support, and Strategic Development, Communications, and  
12 Integrations Departments.

13 Q. What are your responsibilities as Utility Metrics Director?

14 A. I am responsible for the development and administration of the Company’s Breakthrough  
15 Goal program which includes the operational metrics incorporated in the Company’s  
16 Employee Incentive Compensation Plan (“EICP”).

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

18 A. The purpose of my testimony is to provide support for Consumers Energy’s request for  
19 rate recovery for costs of annual EICP incentives. I will discuss Consumers Energy’s  
20 EICP operational performance goals and thresholds and how the EICP goals provide  
21 customer-related benefits.

22 Q. Are you sponsoring any exhibits?

23 A. No.

R. MICHAEL STUART  
DIRECT TESTIMONY

1 Q. How has the Michigan Public Service Commission (“MPSC” or the “Commission”)  
2 historically addressed the inclusion of incentive compensation in customers’ rates?

3 A. Based on my research, the issue of recovery in rates of incentive compensation expenses  
4 was first raised in Michigan Consolidated Gas Company’s rate case, Case No. U-10150,  
5 in which the utility requested recovery of 100% of incentive compensation paid to  
6 company executives. The Commission’s Order in this case stated that:

7 “Executive bonuses have often been viewed as an appropriate cost  
8 of operating a utility. This is particularly true when the bonus plan  
9 is structured in a way that produces significant benefits for the  
10 utility’s ratepayers.”

11 The Commission adopted the MPSC Staff’s position of a 50/50 sharing between  
12 ratepayers and shareholders of these costs, noting that in future filings, Michigan  
13 Consolidated Gas Company’s recovery of incentive compensation would require a  
14 showing by the utility that customer benefits are commensurate with the costs.

15 The Commission subsequently further modified the ratemaking that it had been  
16 following with respect to incentive compensation plans. In a subsequent Consumers  
17 Energy general rate case, an electric proceeding, Case No. U-14347, the Company  
18 requested 100% recovery of the costs associated with its incentive compensation  
19 programs. In a December 22, 2005 Order in Case U-14347, the Commission stated:

20 “In Case Nos. U-10149 and U-10150, the Commission determined  
21 that executive bonus and employee incentive plans require a  
22 showing that the plan will not result in excess rates and that the  
23 benefits to ratepayers from the bonus and incentive plans will, at a  
24 minimum, be commensurate with the programs’ costs.”

25 The Commission disallowed 100% of the Company’s request related to recovery of  
26 incentive compensation expenses. For several rate cases after Case No. U-14347, the  
27 Company continued to request either full or partial recovery of the costs associated with

R. MICHAEL STUART  
DIRECT TESTIMONY

1 its incentive compensation plans. In spite of the Company's efforts to align its incentive  
2 compensation programs with the standard expressed by the Commission regarding the  
3 demonstration of benefits to customers in excess of the costs, the Commission continued  
4 to deny recovery of these costs.

5 Q. Is there a direct tie between the design of the current incentive plan and desirable benefits  
6 for customers?

7 A. Yes. There is a direct tie between the current design of the incentive plans and desirable  
8 benefits for customers. The Commission should permit recovery of these costs in the  
9 current case.

10 Q. Do you believe that benefits to customers from the incentive plans will, at a minimum, be  
11 commensurate with the programs' costs?

12 A. Yes. I believe that the Company fully satisfies the Case No. U-14347 standard in this  
13 case, and recovery of incentive compensation expenses should be allowed even if the  
14 Commission chooses to use that standard in this case. Company witness Amy M. Conrad  
15 discusses various benefits to customers from the design of the Company's incentive  
16 compensation plan. In addition, there are quantitative benefits. The design of the EICP  
17 clearly leads to lower costs and improved service which benefit our customers.

18 Q. Has the Company quantified customer benefits that are tied to its incentive compensation  
19 program?

20 A. Yes. Although specific quantification of the costs of the program and the benefits is not  
21 easy to perform for every metric included in the program, the Company has looked at five  
22 key metrics of the program and has quantified benefits associated with these metrics.  
23 The benefits associated with these metrics confirm the Company's conclusion that there  
24 is substantial benefit that accrues to the customer. The first of those metrics is employee

R. MICHAEL STUART  
DIRECT TESTIMONY

1 safety. Employee safety incidents decreased by 72% from 2006. The resulting reduction  
2 in lost work days and medical expenses approximates \$2.2 million of annual savings that  
3 accrues to the benefit of the customer. A second metric that can be translated to cost  
4 avoidance for our customers is in the area of distribution reliability. Using cost per  
5 outage minute estimates from Berkeley Labs, the seven-minute reduction in average  
6 outage minutes from 2006 results in annual savings to our business customers in excess  
7 of \$25 million. The third quantified metric is generation reliability. Our improvement in  
8 this area from an annual forced outage rate of 9% to an annual rate of 4% reduces fuel  
9 expenses by more than \$4.6 million per year. A fourth metric that the Company  
10 quantified customer benefits for is first time quality improvement. The initial year for  
11 this metric was 2013, and calculated savings that benefited the customer were in excess  
12 of \$1.4 million. The fifth metric that the Company quantified customer benefits was in  
13 productivity improvement. The productivity improvement of approximately 46% over  
14 the past seven years is a key reason that the Company's operation and maintenance  
15 ("O&M") expenses are near the top of the second quartile versus our utility peers. To  
16 quantify the benefit to customers we can look at an industry standard for measuring  
17 productivity, Customers per Employee. During this period, the number of Consumers  
18 Energy employees per customer has decreased at an average rate of 1.25% per year. This  
19 represents an average annual savings of \$10.7 million.

20 Q. What does first time quality improvement measure?

21 A. First time quality is an equally-weighted index of process improvement measures across  
22 seven operating areas. These measures were established to quantify the Company's  
23 continuous process improvement efforts. The Company endeavors to reduce, rework,  
24 and eliminate waste. Annual improvement targets are established for each metric and for

R. MICHAEL STUART  
DIRECT TESTIMONY

1 the index total. In the first year, the Company achieved a 24% improvement versus a  
2 10% improvement target.

3 Q. Please explain how you define productivity improvement and how you calculated that  
4 there has been a productivity improvement of approximately 46% over the past seven  
5 years.

6 A. Consumers Energy's productivity metric is based upon the percent improvement across  
7 10 weighted department-level productivity metrics. These 10 areas are weighted based  
8 upon their O&M expense from the Breakthrough Goal base year of 2006, and those  
9 weighting percentages were carried forward into the current Breakthrough Goal period of  
10 2013-2017. A productivity target is established annually for the Company, and each of  
11 the 10 areas contributes towards that goal. The annual achievements are then summed to  
12 determine the improvement level over the Breakthrough Goal period. For the Company's  
13 2006-2012 Breakthrough Goal period there was a cumulative achievement of 41%. The  
14 Company achieved a 5% incremental improvement in 2013.

15 Q. Why have you included both electric and gas benefits in your quantification?

16 A. Consumers Energy's utility operations are combined in one organization. Establishing  
17 operational goals in the critical areas of safety, reliability, and customer value helps keep  
18 employees focused on the importance of safety, reliability, and customer value for both  
19 the electric and gas operations. The quantified benefits show that benefits to electric  
20 customers clearly exceed the electric incentive compensation amounts that Consumers  
21 Energy has requested to be included in rates in this case. The EICP metrics are based on  
22 annual targets that support the achievement of Consumers Energy's longer-term  
23 Breakthrough Goals. This establishes a culture of continuous improvement that benefits  
24 the customers.

R. MICHAEL STUART  
DIRECT TESTIMONY

1 Q. What portion of the benefits that you have quantified above do you conclude benefit  
2 electric customers?

3 A. Of the metrics that I have quantified above, improvements in distribution and generation  
4 reliability have the most direct benefit to electric customers; while a portion of the  
5 quantified benefits in the areas of employee safety, quality, and productivity benefit  
6 electric customers. Utilizing an allocation of 63% for electric customers this would  
7 equate to annual savings for electric customers of more than \$9 million. When combined  
8 with the annual benefit of distribution (\$25 million) and generation (\$4.6 million), the  
9 total quantified annual benefit to electric customers is approximately \$38.6 million.

10 Q. Why did you use a 63% allocation to evaluate benefits to electric customers?

11 A. The 63% allocation is based on the total number of electric employees as a percentage of  
12 total number of Consumers Energy employees. Using the percentage of total employees  
13 is a reasonable allocation methodology to use to allocate the employee safety benefits,  
14 first time quality, and improved productivity benefits that I have identified above.

15 Q. Aren't these benefits things that the Company should be pursuing independent of the  
16 incentive compensation plan?

17 A. Yes. The incentive plan takes this into consideration. As discussed by Ms. Conrad,  
18 incentive mechanisms help communicate priorities, engage employees in business  
19 success, reward valued skills and behaviors, and create business understanding for  
20 employees. The incentive plan is structured in a way that helps to highlight certain  
21 important elements of utility service and to emphasize to employees that they should pay  
22 particular attention to achieving these targets. Making it clear to employees that a portion  
23 of their total compensation depends upon their collective ability to meet these targets  
24 communicates clearly to employees the importance of serving customers and encourages

R. MICHAEL STUART  
DIRECT TESTIMONY

1           them to deliver their best performance. Because the incentive compensation plan has  
2           been designed so that the incentive payments simply bring employee compensation to a  
3           competitive market-rate level, I think a better way to describe this program is that  
4           employees are penalized if the targets are not achieved.

5 Q.       Do you believe that the incentive plan is the reason that the above benefits have been  
6           realized?

7 A.       I believe that the design of the incentive plan is intended to, and does, make it more likely  
8           that these customer benefits will be achieved. As mentioned above, it is not easy to  
9           quantify exact savings directly attributable to every incentive compensation plan metric.  
10          However, even if one were to take an extremely conservative approach to that  
11          quantification and apply it only to the five metrics discussed above, then it would remain  
12          evident that customers receive significant benefits from improvement in the performance  
13          areas included in the Company's incentive compensation plan. The benefit to electric  
14          customers far exceeds the incentive compensation expense for its electric business that  
15          the Company has included in this filing.

16 Q.       Does this conclude your testimony in this proceeding?

17 A.       Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**

**OF**

**R. MICHAEL STUART**

**ON BEHALF OF**

**CONSUMERS ENERGY COMPANY**

May 2015

R. MICHAEL STUART  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. R. Michael Stuart, One Energy Plaza, Jackson Michigan 49201.

3 Q. Are you the same R. Michael Stuart who previously submitted testimony in this case?

4 A. Yes.

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

6 A. The purpose of my rebuttal testimony is to provide rebuttal to testimony presented by  
7 witnesses for the Staff, the Attorney General, and Energy Michigan regarding Consumers  
8 Energy Company's ("Consumers Energy" or the "Company") incentive compensation  
9 plan.

10 Q. How is your rebuttal testimony organized?

11 A. In Section I of my rebuttal, I address testimony presented by the Attorney General's  
12 witness Sebastian Coppola. In Section II of my rebuttal, I address testimony presented by  
13 Energy Michigan's witness Alexander J. Zakem.

14 **I. Rebuttal to the Attorney General Witness Coppola**

15 Q. At page 31 of his testimony, Mr. Coppola states: "I see considerable duplication in many  
16 of the measures. For example, under the safety category, the Company measures  
17 employee safety twice in slightly different ways. Similarly, in the customer value  
18 category, the Company measures both the call center response and the customer  
19 satisfaction survey. In both of these examples, one measure is likely to affect the other.  
20 So if the Company does a good job answering customer calls quickly, this performance  
21 will likely result in high scores in customer satisfaction surveys since most customers  
22 only have contact with the Company by telephone." Do you agree that there is  
23 duplication in the incentive compensation metrics?

R. MICHAEL STUART  
REBUTTAL TESTIMONY

1 A. No. The portfolio of incentive compensation measures was carefully constructed to  
2 provide a balance between customer value, reliability, and safety. It is important for  
3 employees to understand the balance of these measures as they focus on achieving the  
4 annual targets for the individual metrics. Mr. Coppola's claim that the Company  
5 measures employee safety twice in slightly different ways is incorrect. The Company has  
6 only one employee safety measure which is based upon reducing the total number of  
7 safety incidents each year. Secondly, Mr. Coppola uses the example of call center  
8 response and customer satisfaction as duplicative. However, customer satisfaction is  
9 derived through good performance in a number of key driver areas and is only marginally  
10 impacted by the call center response. Call center response is an important measure,  
11 independent of customer satisfaction, which measures the Company's ability to respond  
12 to customers in a timely manner.

13 Q. At page 31 of his testimony, Mr. Coppola states, "Another concern is the low threshold to  
14 achieve a payout under the EICP." Do you agree that the number of measures required to  
15 be achieved is low?

16 A. No. As an initial matter, it needs to be kept in mind that the Company's Employee  
17 Incentive Compensation Program ("EICP") is not a bonus program. The EICP is a part  
18 of the reasonable level of compensation and not in addition to it. The EICP is a  
19 component of reasonable, market-based compensation which is placed at risk unless the  
20 targets are achieved. Aggressive targets for the measures are set annually, with the  
21 expectation that with very good performance the Company should be able to achieve 8 of  
22 11, targets and therefore pay 100% of the employee's base pay that has been put at risk in  
23 this program.

R. MICHAEL STUART  
REBUTTAL TESTIMONY

1 Q. At page 32 of his testimony, Mr. Coppola states, “many of the underlying performance  
2 measures for productivity improvements basically measure activities and not results.” Do  
3 you agree?

4 A. No. The Company’s productivity measures have been refined over six years to measure  
5 improvement that drives improved overall productivity and create accountability at the  
6 department level. The productivity measures are results based.

7 Q. At page 35 of his testimony, Mr. Coppola states, “it becomes obvious that the claimed  
8 financial benefits are highly inflated and often unsupported. In one of the major items,  
9 the Company claims to have achieved average annual savings of \$2.2 million from fewer  
10 employee safety incidents. Although the numbers seem to have declined from 2006 to  
11 2012, in 2013 the number of incidents were up 14% over the prior year. Moreover, the  
12 Company provided no calculation or support to justify the \$2.2 million of annual  
13 savings.” Do you agree that the financial benefits are highly inflated and often  
14 unsupported?

15 A. No. All calculations are based upon industry norms or studies. In the specific case of  
16 employee safety, the value of the elimination of days lost, medical expense savings, and  
17 the reduction of exposure to paid compensation is calculated and compared to the  
18 previous year. Mr. Coppola states that in 2013, the Company did not have an  
19 improvement, which is true. The resulting increase in expenses brought the average  
20 savings per year down.

R. MICHAEL STUART  
REBUTTAL TESTIMONY

1 Q. At page 35 of his testimony, Mr. Coppola states that, “The reduction in the SAIDI index  
2 cannot be used directly to calculate the benefits of lower outage time.” Do you agree?

3 A. No. In the Berkeley National Laboratory study, "Estimated Value of Service Reliability  
4 for Electric Utility Customers in the United States" from June of 2009, System Average  
5 Interruption Duration Index (“SAIDI”) is very effectively used to model the economic  
6 and societal benefits related to customer reliability. These benefits are based on  
7 independent, expert research of the Berkely National Laboratory.

8 Q. At page 35 of his testimony, Mr. Coppola claims that the Company’s presented savings  
9 for residential customers of \$52,000 for each minute reduction in outage time, and  
10 approximately \$1.8 million for commercial and industrial customers for each one minute  
11 reduction in outages “is rather preposterous even if based on a study by the Berkeley  
12 National Laboratory.” Do you agree?

13 A. No. The savings referenced by Mr. Coppola are not, as he contends, calculated as cost  
14 savings. Rather, these benefits are the economic societal benefit related to reductions in  
15 outage time. The Company’s calculations of benefits are the result of independent,  
16 third-party research and analysis. It is not preposterous to consider that each minute of  
17 SAIDI improvement results in a \$52,000 benefit to more than 1.5 million residential  
18 customers, a \$1.8 million benefit to 248,000 small commercial and industrial customers,  
19 and a \$1.7 million benefit to 8,500 large commercial and industrial customers.

R. MICHAEL STUART  
REBUTTAL TESTIMONY

1 Q. At page 36 of his testimony, Mr. Coppola claims that the Company's presented savings  
2 of \$4.6 million per year from improvements in the generation forced outage rate were  
3 highly dependent on the locational marginal prices, which are outside the Company's  
4 control, so any savings or costs are masked by market price variations that can swing  
5 wildly from year to year. Do you agree?

6 A. No. The Company works aggressively to reduce the forced outage rate of our coal  
7 baseload generation units to provide our customers the lowest cost of power possible.  
8 Calculated savings are based on what it would have cost to purchase power at market to  
9 replace the power generation capacity lost to forced outages of historical outage rates.  
10 By improving the reliability of our baseload generation units the Company is reducing  
11 the risk of market fluctuations in price for our customers.

12 Q. At page 36 of his testimony, Mr. Coppola claims that "the purported cost savings to  
13 customers are questionable at best, not sufficiently supported or objectively determined."  
14 Do you agree?

15 A. No. The calculated savings put forth in my testimony are quite conservative and represent  
16 only a portion of the required metrics for the EICP. The metrics whose value have not  
17 been quantified also provide significant value to the customer. However the economic  
18 value to the customer is more difficult to calculate and has therefore been excluded from  
19 my calculations. The calculations used to determine economic value to the customer are  
20 based on industry norms, and studies, and are reasonable.

R. MICHAEL STUART  
REBUTTAL TESTIMONY

1       **II.     Rebuttal to Energy Michigan’s Witness Zakem**

2       Q.     At page 8 of his testimony, Mr. Zakem states “Consumers Energy has failed to separate  
3             distribution service benefits from power supply service benefits.” Do you agree that  
4             distribution service benefits should be separated from power supply service benefits?

5       A.     No. It would be inappropriate to exclude one class of customer. The EICP is designed to  
6             focus the efforts of employees on areas of improvement that will provide value to all  
7             customers. It is important to maintain balance in the financial and operational aspects of  
8             the entire business to maximize the value that all customers realize. To segment metrics  
9             and classes of customers would upset this balance and would be inappropriate.

10     Q.     Does this conclude your rebuttal testimony?

11     A.     Yes.

1 JUDGE CUMMINS: I'm assuming the exhibits  
2 that are going to be offered will come in through  
3 cross-examination; is that correct? Or is that by  
4 stipulation?

5 MR. BZDOK: What I believe I have a  
6 stipulation to is the entry of five discovery responses  
7 and exhibits in lieu of cross-examination by me. So I am  
8 waiving in return for the Company's stipulation of these  
9 exhibits which, for the record, are proposed MEC-39  
10 through 43, which are discovery responses MEC-CE-61  
11 through 65, all signed by Mr. Stuart.

12 JUDGE CUMMINS: Thank you. Why don't we  
13 handle that first.

14 (Documents were marked for identification by the  
15 Court Reporter as Exhibits MEC-39 through MEC-43.)

16 JUDGE CUMMINS: Is there any objection to  
17 the receipt of these five exhibits? Hearing none, those  
18 exhibits will be received into evidence.

19 Any cross-examination by the Staff of  
20 this witness?

21 MR. BRANDENBURG: No, your Honor.

22 JUDGE CUMMINS: Very well.

23 Mr. Keskey, do you have any questions of  
24 this witness?

25 MR. KESKEY: No, your Honor.

1 JUDGE CUMMINS: My understanding, based  
2 on what I have heard from counsel for the Applicant, is  
3 that Mr. Janiszewski has indicated that he had no  
4 questions as well.

5 That being the case, you may step down.

6 (The witness was excused.)

7 MS. HALL: The Company calls Lincoln  
8 Warriner.

9 JUDGE CUMMINS: Thank you very much.

10 - - -

11 L I N C O L N D. W A R R I N E R

12 was called as a witness on behalf of Consumers Energy  
13 Company and, having been duly sworn to testify the truth,  
14 was examined and testified as follows:

15 JUDGE CUMMINS: Please proceed, Ms. Hall.

16 MS. HALL: Thank you, your Honor.

17 DIRECT EXAMINATION

18 BY MS. HALL:

19 Q Could you please state your full name and business  
20 address for the record?

21 A My name is Lincoln D. Warriner, and my business address  
22 is 1945 West Parnall Road, Jackson, Michigan.

23 Q For whom are you appearing in this case and in what  
24 capacity?

25 A I am appearing on behalf of Consumers Energy. My role at  
Metro Court Reporters, Inc. 248.426.9530

1 Consumers is a senior regulatory and business analyst for  
2 dealing with the smart energy project.

3 Q Did you cause to be prepared a document entitled Direct  
4 Testimony of Lincoln D. Warriner on behalf of Consumers  
5 Energy Company that consists of a cover page plus 23  
6 pages of written questions and answers?

7 A Yes.

8 Q And did you also prepare a document consisting of a cover  
9 page plus 29 pages of questions and answers, the document  
10 which is labeled Rebuttal Testimony of Lincoln D.  
11 Warriner on behalf of Consumers Energy Company?

12 A Yes.

13 Q Are there any changes that you wish to make today to  
14 either your direct or rebuttal testimony?

15 A I do have a few minor corrections. In my direct  
16 testimony on page 6, line 7, the words "currently  
17 pending" should be replaced with "recently approved".

18 On page 20, line 39, the words "which  
19 are" should be stricken from my testimony.

20 JUDGE CUMMINS: What was that citation  
21 again? Where was that located?

22 A On page 20, line 39, the very last two words on that  
23 line, "which are", those should be stricken.

24 On page 21, line 1, at the very beginning  
25 of that page, the words "described in part four of my

1 testimony of those" should also be stricken.

2 In my rebuttal testimony, on page 14,  
3 line 18, the acronym ITC should be replaced with ICT.

4 Those are all the corrections I have in  
5 the testimony.

6 Q (By Ms. Hall): With those changes, if I were to ask you  
7 the same questions today would your answers remain the  
8 same?

9 A Yes.

10 Q And is that the testimony that you are adopting as your  
11 own today?

12 A Yes.

13 Q And is it correct that you also prepared a number of  
14 exhibits associated with your testimony and rebuttal  
15 testimony?

16 A Yes, I did.

17 Q And are those the exhibits that have been marked by the  
18 Court Reporter as Exhibits A-74, A-75, A-76, A-121,  
19 A-122, A-123, and A-124?

20 A That is correct.

21 Q Do you have any changes that you wish to make today to  
22 those exhibits?

23 A I do on Exhibit A-76. Starting on page 2 through page 6,  
24 in the heading of that exhibit, the case number refers to  
25 Case No. U-xxxxx. That should read U-17735.

1 Q Do you have any other changes to your exhibits?

2 A No, that's all.

3 Q Were those exhibits prepared by you or at your direction?

4 A Yes.

5 MS. HALL: Your Honor, with that the  
6 Company moves to bind in the direct and rebuttal  
7 testimony of Lincoln D. Warriner as corrected today on  
8 the witness stand and for the admission at the end of  
9 cross-examination of Exhibits A-74, A-75, A-76, A-121,  
10 A-122, A-123, and A-124. And with that, I tender Mr.  
11 Warriner for cross-examination.

12 JUDGE CUMMINS: Thank you, Ms. Hall. Is  
13 there any objection to binding in the direct and rebuttal  
14 testimony of Mr. Warriner? Hearing none, that testimony  
15 with the previously explained changes will be bound in  
16 the record.

17 (Testimony bound in.)

18 - - -

19

20

21

22

23

24

25

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**DIRECT TESTIMONY**  
**OF**  
**LINCOLN D. WARRINER**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

December 2014

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 Q. Please state your name and business address.

2 A. My name is Lincoln D. Warriner, and my business address is 1945 West Parnall Road,  
3 Jackson, Michigan 49201.

4 Q. By whom are you employed?

5 A. I am employed by Consumers Energy Company (“Consumers Energy” or the  
6 “Company”).

7 Q. What is your position with the Company?

8 A. I am a Senior Regulatory and Business Analyst in the Smart Energy Financials  
9 Department, supporting the Smart Energy Program.

10 Q. Please describe your educational background.

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

14 Q. What is your business experience?

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

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 receipts and disbursements, payroll, records center, and mail room operations. In  
2 February 1995, I transferred to the Electric Strategic Business Unit (“SBU”) Planning  
3 Department, which was subsequently consolidated within the Rates and Business Support  
4 Department. In that department, I was responsible for coordinating the development of  
5 financial plans, budgets, analysis, and forecasts for the Electric SBU. My responsibilities  
6 expanded within the Rates and Business Support Department to include the electric  
7 deliveries and peak demand forecasts, as well as supervisory responsibility for the  
8 Company’s electric revenue forecasts and gas deliveries forecasts. In October of 2012, I  
9 accepted my current position, which supports the Smart Energy Development Project by  
10 maintaining the project business case, evaluating the estimated costs and benefits of the  
11 project, partnering with operating departments to plan for the realization of project  
12 benefits, and providing analytical support for various regulatory filings.

13 Q. Have you testified in other cases before the Michigan Public Service Commission  
14 (“MPSC” or the “Commission”)?

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

- 16 • U-16191 – January 2010 electric rate case. I presented adjustments to 2008 historical  
17 actual sales and revenues for the purpose of developing the projected test year sales  
18 and revenue. I also presented the Company’s forecast of electric deliveries,  
19 generation requirements, and peak demand for the years 2009-2013.
- 20 • U-16412 – September 2010 energy optimization plan amendment. I explained the  
21 historical and forecasted sales and revenue data that the Company used in developing  
22 its amended energy optimization plan.
- 23 • U-16418 – August 2010 gas rate case. I adopted the testimony of Linda J. Clark  
24 regarding the Company’s forecast of gas deliveries and provided rebuttal testimony  
25 concerning adjustments to the Company’s forecast that were proposed by interveners  
26 in that case.
- 27 • U-16432 – September 2010 power supply cost recovery (“PSCR”) plan case. I  
28 presented the Company’s official forecasts of electric deliveries, generation  
29 requirements, and peak demand forecasts for 2011-2015.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

- 1 • U-16543 – February 2011 renewable energy plan amendment. I explained the  
2 historical and forecasted sales and revenue data that the Company used in developing  
3 its amended renewable energy plan.
- 4 • U-16794 – June 2011 electric rate case. I presented adjustments to 2010 historical  
5 actual sales and revenues for the purpose of developing the projected test year sales  
6 and revenue. I also presented the Company’s forecast of electric deliveries,  
7 generation requirements, and peak demand for the years 2011-2015.
- 8 • U-16670 – August 2011 energy optimization plan amendment. I explained the  
9 historical and forecasted sales and revenue data that the Company used in developing  
10 its amended energy optimization plan.
- 11 • U-16890 – September 2011 and February 2012 PSCR plan case. I presented the  
12 Company’s official forecasts of electric deliveries, generation requirements, and peak  
13 demand forecasts for 2012-2016.
- 14 • U-16924 – December 2011 gas cost recovery plan case. I presented the Company’s  
15 official forecasts of natural gas sales and natural gas transportation for 2012-2016.
- 16 • U-17087 – September 2012 electric rate case. I presented adjustments to 2011  
17 historical actual sales and revenues for the purpose of developing the projected test  
18 year sales and revenue. I also presented the Company’s forecast of electric deliveries,  
19 generation requirements, and peak demand for the years 2012-2017.
- 20 • U-17095 – September 2012 PSCR plan case. I presented the Company’s official  
21 forecasts of electric deliveries, generation requirements, and peak demand forecasts  
22 for 2013-2017.
- 23 • U-17429 – July 2013 Certificate of Necessity filing for the Thetford Generating Plant.  
24 I presented the Company’s forecasts of customer participation in its demand response  
25 programs, and the associated impact on the Company’s forecast of peak demand.
- 26 • U-17643 – July 2014 gas rate case. I presented the Company’s Smart Grid/Advanced  
27 Metering Infrastructure (“SG/AMI”) Program update and forecasts for capital  
28 expenditures and operating and maintenance (“O&M”) expenses for 2015.
- 29 Q. What is the purpose of your testimony in this proceeding?
- 30 A. The purpose of my testimony is to describe the Company’s ongoing SG/AMI Program  
31 and more specifically the electric AMI aspects of the program. In this case filing the  
32 Company is requesting:
- 33 • Approval and recognition in customer rates of \$14.238 million in projected O&M  
34 expenses for the direct and common costs associated with the installation of electric  
35 AMI meters and related activities for the 12 months ended May 31, 2016

LINCOLN D. WARRINER  
DIRECT TESTIMONY

- 1 • Approval and recognition in customer rates of projected capital expenditures of  
2 \$76.709 million in 2014, \$104.249 million in 2015, and \$54.522 million in the  
3 5 months ended May 31, 2016.
- 4 • Approval of revisions to the critical peak pricing component of demand response  
5 rates that will support the realization of planned benefits associated with demand  
6 response programs. These rates are included in the revised tariff sheets that are being  
7 sponsored by Company witness Laura M. Collins in this proceeding.
- 8 • Commission recognition of updated meter installation plans as the benchmark for  
9 future decisions regarding the waiver of electric meter testing requirements through  
10 2017.

11 My testimony includes the following four major sections:

- 12 i. SG/AMI Program Summary/Update;  
13 ii. Program Costs/Benefits Analysis;<sup>1</sup>  
14 iii. Electric AMI Benefits; and  
15 iv. Proposed Tariff Changes.

16 Q. What exhibits are you sponsoring in this case?

17 A. I am sponsoring the following exhibits:

- |                         |   |
|-------------------------|---|
| 18 Exhibit A-74 (LDW-1) | Summary of Projected Electric & Common Capital<br>19 AMI Expenditures for the years 2013 through 2018 |
| 20 Exhibit A-75 (LDW-2) | Summary of Projected Electric & Common O&M AMI<br>21 Expenses for the 12 months ended May 31, 2016    |
| 22 Exhibit A-76 (LDW-3) | Summary of Business Case Costs and Benefits 2007 – 2032   |

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

24 A. Yes.

25 **(i) SG/AMI Program Summary/Update**

26 Q. Please describe Consumers Energy's SG/AMI Program.

27 A. The Consumers Energy SG/AMI Program was established in 2007 with the objective of  
28 developing and installing an AMI. The AMI system includes the following: electric  
29 meters and gas meter modules capable of transmitting and receiving data ("smart meter"),

---

<sup>1</sup> With regard to the Company's analysis of costs and benefits related to the implementation of AMI, the terms "cost/benefit analysis" and "business case" are used to generally refer to the Company's analysis of the net present value of net revenue requirements associated with the AMI meter and systems implementation.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 a two-way cellular point-to-point communications network, system integration to support  
2 the use of the data for billing and operational uses, and a customer interface/web portal.  
3 Additionally, AMI enables and promotes various new beneficial customer programs and  
4 billing options for electric and electric/gas combination residential, commercial, and  
5 industrial customers who have a smart meter installed.

6 Q. Please describe the status of the Company's installation of smart meters.

7 A. Smart meter installation began in August 2012. The Muskegon and Zeeland areas were  
8 the first to receive electric smart meters, and the Company transitioned installation to the  
9 Grand Rapids area beginning in November 2013. As of November 2, 2014, the Company  
10 has installed 341,583 smart meters, or 19%<sup>2</sup> of the total electric AMI meters planned for  
11 installation. During 2014, the Company determined that smart meter installation would  
12 be accelerated from prior plans, and the project is now scheduled for completion during  
13 2017. AMI meter installation milestones include:

- 14 • By year-end 2014, the Company will be 21% complete with the planned installation  
15 of AMI electric meters.
- 16 • In 2015, the Company will continue installing AMI meters in the Grand Rapids area,  
17 and will begin installing AMI meters in Allegan, Big Rapids, Boyne City, Cadillac,  
18 Flint, Fremont, Greenville, Hastings, Kalamazoo, and Traverse City areas. By  
19 year-end 2015, AMI meter installations will be 40% complete.
- 20 • In 2016, AMI meter installations will be completed in Grand Rapids, Zeeland,  
21 Muskegon, Flint, and Traverse City. The Company will also install AMI meters in  
22 the areas of Adrian, Battle Creek, Benzonia, Bronson, Jackson, Lapeer, Ludington,  
23 Saginaw, South Monroe, and Tawas. By year-end 2016, the Company will be 73%  
24 complete with the installation of electric AMI meters.
- 25 • During 2017, AMI meter installations will be completed in Saginaw and Jackson.  
26 The areas of Alma, Clare, Lansing, Midland, Owosso, Prudenville, and Rose City are  
27 also scheduled for AMI meter installation in 2017. Installations in these areas will  
28 complete the planned upgrade of the Company's electric service area meters.

---

<sup>2</sup> 341,583 electric smart meters installed / 1,830,379 total planned electric smart meters = 19%.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 Q. In its September 26, 2014 Order in Case No. U-17057,<sup>3</sup> the Commission stated that  
2 850,000 AMI meters should be installed by year-end 2015, or the temporary waiver of  
3 electric meter testing would be rescinded for 2016 and 2017. How does that referenced  
4 installation plan relate to the current implementation schedule described above?

5 A. The Commission's statement in the referenced Case No. U-17057 Order assumes an even  
6 distribution of meter installations from the time of the application, filed August 8, 2014,  
7 through 2015. The Company's ~~currently pending~~ recently approved gas rate case and this electric rate case  
8 reflect updated plans to have 754,693 AMI meters installed at the end of 2015, with  
9 higher installation rates planned for 2016 and 2017 to complete the installation of meters  
10 associated with the Smart Energy program. In 2015, installation of polyphase meters for  
11 Commercial and Industrial customers and gas modules for electric/gas combination  
12 customers will begin. Both of these require a controlled ramp up period to validate both  
13 the installation processes and the systems integration associated with these metering  
14 technologies. The Company is also making a conscious effort to adequately test the  
15 integration of AMI systems with existing customer billing and operational systems prior  
16 to aggressively replacing existing legacy meters. The systems development and  
17 integration is also scheduled for completion at the end of 2015.

18 In Case No. U-16794, the electric rate case filed by the Company in June 2011,  
19 the Company anticipated cumulative AMI meter installations by year-end 2015 of  
20 935,584 meters. Subsequently, in September 2012 the Company filed another electric  
21 rate case, Case No. U-17087. The Company's AMI business case in that case planned for  
22 the installation of 590,515 AMI meters by the end of 2015. Changes to the Company's

---

<sup>3</sup> In Case No. U-17057 the Company requested a temporary waiver of portions of MPSC Rule 460.3613, which identifies requirements for electric meter testing, for the time period beginning January 1, 2015 and continuing through December 31, 2017.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 meter installation plans since 2011 have been made in response to a number of  
2 implementation variables, such as the availability of end-state systems and supporting  
3 technology. The current meter installation plan coordinates the completion of system  
4 development and integration work with the acceleration of AMI meter installations. For  
5 this reason, the Company respectfully requests that the Commission recognize the current  
6 meter installation plan as the benchmark for future determinations regarding the  
7 temporary waiver of electric meter testing requirements during 2016 and 2017.

8 Q. Please describe the status of the Company's development of AMI software and systems  
9 integration.

10 A. In addition to the installation of smart meters, systems work is required to enable smart  
11 meter functionality and to achieve the benefits provided by the AMI program. Successful  
12 systems implementations to date include:

- 13 • Device Lifecycle Management (March 2012) – enhanced SAP and other systems to  
14 support supply chain processes, work management, quality, and audit management.  
15 Work order processing between Consumers Energy and our meter installation vendor  
16 was also enabled with this release.
- 17 • Meter Installation Release (July 2012) –provided for the implementation of the AMI  
18 Head End and Meter Data Management (“MDM”) applications just ahead of the  
19 initial meter implementation effort that began in August 2012. The Head End  
20 application enabled all of the communication with the smart meters, while the MDM  
21 application stores all of the meter reading information (registers, interval, and  
22 alarms/event data) that is collected from the smart meters.
- 23 • Billing Release (April 2013) – initiated customer billing from the automated meter  
24 reads that are provided by the AMI network. This release also supported the  
25 implementation of a pilot customer web portal, which was launched in July 2013.  
26 The pilot web portal includes the capability to alert customers by e-mail or automated  
27 voice message that current month consumption is trending higher than prior months,  
28 and also offers customer tips on how to reduce energy consumption. The billing  
29 release also enabled basic data analytics for operational reporting.
- 30 • Enhanced Operations (July 2014) – provided initial field operations functionality for  
31 remote connection and disconnection of electric AMI meters at locations where the  
32 past-due collections process has resulted in insufficient payment for electric services  
33 used, provided functionality for on-demand remote meter reads, and the ability to

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 remotely determine the operational state of AMI meters. Additional data analytics for  
2 operational reporting were also provided in this release. Systems functionality was  
3 also enabled that supports the offering of a customer selected bill due date.<sup>4</sup>  
4 Determination of the operational state of a meter allows the ability for the Company  
5 to ping a smart meter and check the status of the disconnection switch in the meter.  
6 By doing this the Company can also determine if power is flowing to the meter. The  
7 return message from this prompt to the meter also confirms that the meter is  
8 communicating.

9 Additional systems releases are scheduled for completion through 2015. These releases  
10 continue to build on earlier releases and include enhancements to various business  
11 processes, and are described as follows:

- 12 • Remaining 2014 enhancements will:
  - 13 ○ Enable the installation of electric polyphase AMI meters and provide the ability to
  - 14 track meter firmware history; and
  - 15 ○ Prepare the Company for the ability to bill demand rate customers using
  - 16 automated meter reads that are provided by the AMI network.<sup>5</sup>
  
- 17 • Enhancements scheduled for 2015 will:
  - 18 ○ Expand the remote connection and disconnection of electric AMI meters to serve
  - 19 move-in/move-out and other customer requests;
  - 20 ○ Implement basic data analytics, including electric energy theft identification and
  - 21 verification;
  - 22 ○ Support implementation of the final web portal application;
  - 23 ○ Enable initial functionality for remote gas meter reading and register billing;
  - 24 ○ Implement functionality for the Direct Load Administration (“DLA”) customer
  - 25 program, including work order processing with our device installation vendor;
  - 26 ○ Additional data analytics will be added to support gas energy theft identification
  - 27 and verification;
  - 28 ○ Enable customer enrollment and participation in the Dynamic Peak Pricing
  - 29 (“DPP”) Program, and the Pay As You Go Program;
  - 30 ○ Implement the capability for power factor and interval billing using automated
  - 31 meter reads provided by the AMI network; and
  - 32 ○ AMI meter data will be integrated with the Company’s Outage Management
  - 33 System.

---

<sup>4</sup> The MPSC approved the Company’s request to implement a customer selected bill due date option to customers with AMI meters on May 13, 2014, in Case No. U-17597.

<sup>5</sup> Prior to billing demand rate customers using automated meter reads, a transition from the current process of manually recording monthly maximum demands is planned that will utilize optical port connections to the AMI meter to collect hourly interval data, and use the interval data to calculate the maximum demand for billing. This process transition will be completed in 2015, and supports the verification of billing data prior to full automation.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 Q. Please describe the status of the Company's development of business processes and AMI  
2 software/systems integration that support a customer request to opt-out of AMI metering.

3 A. The Company provides customers who do not want a smart meter with a legacy  
4 (non-communicating) meter. System changes required for this option and associated  
5 tariff provisions were implemented during 2014. Charges associated with the Manual  
6 Meter Reading Program were authorized in Case No. U-17087, and cover the costs to  
7 maintain and test the legacy equipment and to obtain monthly manual meter readings.  
8 Prior to implementing the approved charges the Company proactively communicated  
9 through direct mail and outbound calls with customers who selected the Manual Meter  
10 Reading option, alerting them that the associated fees would start appearing on their  
11 electric bills. In April 2014, opt-out customers started being charged those fees. As of  
12 November 2, 2014, the smart meter acceptance rate is 99.54%,<sup>6</sup> which means 0.46% of  
13 customers in areas where AMI meters have been installed chose the Manual Meter  
14 Reading service option.

15 **(ii) Program Costs/Benefits Analysis**

16 Q. What is the total capital investment expected in conjunction with the implementation of  
17 Consumers Energy's Smart Energy Program?

18 A. The purchase, testing, processing and installation of electric smart meters and gas meter  
19 modules, the enabling systems and infrastructure and design, pilot and implementation of  
20 customer programs will result in approximately \$750 million in capital investment for the  
21 period 2007-2019.<sup>7</sup> The estimated direct and indirect capital costs associated with the  
22 electric SG/AMI components are projected to be \$662.448 million of the program total

---

<sup>6</sup> Smart meter acceptance rate:  $1 - (1,568 \text{ opt-outs} / 341,583 \text{ meters installed}) = 99.54\%$

<sup>7</sup> Although the installation of the AMI smart meters and associated systems will be complete by the end of 2017, capital investments associated with the \$750 million total continue through 2019 because DLA switches will continue to be installed as customers enroll in that program.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 (Exhibit A-76 (LDW-3), page 1, line 6, columns c-o). The remainder of the \$750 million  
2 capital investment referenced above is associated with the purchase and installation of  
3 gas modules for the project.<sup>8</sup>

4 Q. How were the electric/gas allocation of shared Project Management and other  
5 expenditures for the SG Program determined?

6 A. The allocation of common Program Engineering/Design and Management, and other  
7 shared expenditures is currently 88% to Electric Operations and 12% to Gas Operations  
8 for program years 2007-2017. This allocation reflects gas module/communications costs,  
9 electric meter/communications costs, and load control program direct costs. A large  
10 share of common costs are allocated to electric because the Company will be installing  
11 over one million more electric smart meters than gas AMI meter modules.<sup>9</sup>

12 Q. Please describe Exhibit A-74 (LDW-1), Summary of Projected Electric and Common  
13 Capital Expenditures for the Smart Energy Program.

14 A. This exhibit presents the capital expenditures associated with electric activities for the  
15 Smart Energy Program.

16 Line 1: Field Equipment/Facilities includes the projected costs of central air conditioning  
17 unit switches that will be acquired and installed to support the DLA<sup>10</sup> Program, starting in  
18 2015. Capital expenditures include the purchase cost, with sales tax, of switch hardware.

---

<sup>8</sup> Recovery of capital investments for gas modules and the allocated gas portion of common project costs are included in the Company's Case No. U-17643 gas rate case filing, and are not included in the Company's requested electric rate recovery in this case.

<sup>9</sup> 1.8 million electric AMI meter installations are planned; of this 1.8 million, 611,000 electric/gas combination customers are planned to have gas meter module installed.

<sup>10</sup> The DLA Program provides incentives for customers to allow the Company to control the operation of their central air conditioners during periods of high-peak demand. The marketing and enrollment of customers in Smart Energy customer programs is administered through the Smart Energy Solutions section of the Company's Customer Operations and Quality Department. The costs of acquisition and installation of switches are included in Exhibit A-74(LDW-1). The O&M costs associated with marketing and enrollment of customers are included in Exhibit A-51(MPP-1). All costs are accounted for in the Company's cost/benefit analysis included in Exhibit A-76 (LDW-3).

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 Costs projected for the installation of switch devices are included, as well as vendor  
2 administrative costs associated with switch installations. The Company is planning for  
3 the installation of switches in 2015-2019 to support 110,236 enrollments in the DLA  
4 Program, at a total investment of \$33.314 million between 2015 and 2019.<sup>11</sup>

5 Line 2: Meters are the direct costs associated with the purchase and installation of electric  
6 AMI meters. The Company is currently executing its plan to install more than 1.8  
7 million AMI meters, and will complete the installation of electric AMI meters in 2017.  
8 Annual capital expenditures include the costs of meter purchases, pre-installation testing,  
9 meter installation, installation vendor administrative costs, and electric service  
10 refurbishments. Electric service refurbishments are anticipated to be required at 0.75% of  
11 residential meter locations. Annual capital expenditures for meters in 2016 and 2017 also  
12 include an allowance for project contingency.<sup>12</sup> The Company has invested \$34.747  
13 million in AMI meters through 2013, and projects an additional investment of \$307.295  
14 million between 2014 and 2017.

15 Line 3: Software/Systems Development includes new systems development, existing  
16 systems modifications, and software licensing allocated costs. Software and system  
17 modifications included in the scope of the AMI project have been described in part (i) of  
18 my testimony. All systems development work is scheduled for completion in 2015. The  
19 Company has invested \$132.530 million on software and systems modifications through

---

<sup>11</sup> Some customers have more than one central air conditioning unit, so the Company's projections also plan for 14,705 secondary switch installations in its projection of capital expenditures.

<sup>12</sup> The total \$750 projected capital expenditure for the AMI project includes contingency of \$25.4 million, which is approximately 3.4% of all capital expenditures. The inclusion of this project contingency in the cost/benefit analysis has the effect of reducing the net present value of net revenue requirements by \$21.3 million.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 2013, and projects additional investment of \$69.641 million in 2014 and 2015.<sup>13</sup> There  
2 are no projected costs in this category in 2016 and beyond.

3 Line 4: SG Infrastructure includes allocated costs for the computer and network  
4 infrastructure to support the installation of AMI meters, gas modules, and their associated  
5 systems. The Company has invested \$20.051 million in supporting infrastructure through  
6 2013, and plans to invest an additional \$18.517 million between 2014 and 2019.<sup>14</sup>

7 Line 5: Program Engineering/Design & Management refers to allocated costs for the  
8 design, integration, and management of electric meters and gas meter modules, and  
9 overall costs to implement the program (labor and expenses, corporate allocations).  
10 Through 2013, the Company has invested \$64.453 million for program engineering,  
11 design, and management. An additional \$19.786 million of investment is planned  
12 between 2014 and 2017.<sup>15</sup> The capital expenditures related to program  
13 engineering/design and management will be completed during 2017.

14 Q. Please describe Exhibit A-75 (LDW-2), Summary of Projected Electric and Common  
15 O&M AMI Expenses.

16 A. This exhibit presents the actual and projected electric O& M expenses for the SG  
17 Program.

18 Line 1 Project Management and Other refers to the allocation of total program  
19 management, systems and software O&M, and SG infrastructure O&M. The level of  
20 expense projected for the 12 months ended May 31, 2016 is \$9.345 million. Examples

---

<sup>13</sup> Software and system modification investments are split between the electric and the gas utility operations. The electric share is 88% of the total investment.

<sup>14</sup> The electric capital expenditure is 88% of the total planned for SG infrastructure. The remaining 12% is allocated to the gas utility business.

<sup>15</sup> The capital expenditures for program management are allocated 88% to the electric utility and 12% to the gas utility.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 include support for systems and software post-implementation and on-going support to  
2 ensure continued functionality.

3 Line 2 Deployment and Meter provides the forecast of O&M costs associated with the  
4 purchase and installation of electric AMI meters. Examples include meter general  
5 maintenance expense and MDM expense. The level of expense projected for the  
6 12 months ended May 31, 2016 is \$3.607 million.

7 Line 3 Operations represents the actual and allocated cost of preparing for supporting  
8 electric meters primarily after their installation. The forecasted costs for operations have  
9 been included in line 2 of this exhibit, which is labeled "Deployment and Meter."

10 Line 4 Customer Programs, Change Management, and Communications includes costs  
11 associated with customer communication prior to AMI meter installation, as well as costs  
12 associated with preparing employees to use the AMI functionality and support Smart  
13 Energy customers. The level of expense projected for the 12 months ended May 31,  
14 2016 is \$1.286 million.

15 Q. Please discuss the overall results of the cost/benefit analysis as summarized in Exhibit  
16 A-76 (LDW-3), Summary of AMI Business Case Costs and Benefits 2007 – 2032.

17 A. The Company's business case for SG/AMI includes both costs and benefits for both  
18 electric only and electric/gas combination customers. The net present value ("NPV")<sup>16</sup>  
19 calculation in the business case is based on numerous tested assumptions for both costs  
20 and benefits that are updated as the program progresses. The key areas of variability in  
21 annual costs are the meter/module installation schedules and the systems modifications  
22 and new systems development requirements. The areas of variability on the benefits side  
23 (primarily electric) include the addition of new customer programs, the response of

---

<sup>16</sup> When calculating the NPV of the program costs and benefits, the Company follows an analytical approach that can also be described as the "present value of net revenue requirements," or PVR.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 customers to demand response programs, and the value of avoided capacity requirements  
2 due to peak load reductions which result from AMI-enabled programs and capabilities.  
3 The current program net present value of revenue requirements (“PVRR”) calculation  
4 shows savings to customers of \$24.5 million (a reduction of \$24.5 million in NPV  
5 revenue requirements) assuming long-term capacity prices are 87.5% of projected Cost of  
6 New Entry (“CONE”).<sup>17</sup> The details of this calculation are provided in Exhibit A-76  
7 (LDW-3), on page 5 of 6. A similar calculation of electric customer net PVRR (a  
8 reduction of \$15.2 million in NPV revenue requirements) is provided in Exhibit A-76  
9 (LDW-3), on page 6 of 6.

10 Q. Can you describe the changes in the net PVRR that are reflected in this most current  
11 update relative to the NPV calculations provided in Case No. U-15645-R (AMI remand)  
12 and Case No. U-17643 (gas rate case)?

13 A. Yes. The Company’s cost/benefit analysis in the AMI remand case reflected a net PVRR  
14 savings to customers of \$53 million,<sup>18</sup> while the Company’s cost/benefit analysis the gas  
15 rate case reflected a net PVRR savings to customers of \$41.5 million.<sup>19</sup> A variety of  
16 modifications were made in the business case spreadsheet model to reflect the  
17 acceleration of meter installations from completion in 2019 to 2017, and benefits were  
18 adjusted to reflect updated expectations related to the timing of projected benefit

---

<sup>17</sup> CONE refers to the estimated annual revenue requirements of a new combustion turbine generation unit. Various industry estimates of the cost to add new capacity have been reviewed to evaluate the sensitivity of the AMI business case to changes in capacity price forecasts. For example, the Brattle Group prepared estimates for PJM of 2018 costs for gas simple cycle and combined cycle plants in May 2014. When used as an indicator of future capacity costs, the lowest CONE forecast in that analysis results in a \$47.14 million NPV benefit for the Company’s business case, which is a \$22.69 million improvement in the AMI business case shown in Exhibit A-76 (LDW-3). Midcontinent Independent System Operator (“MISO”) prepared an estimate of the CONE value for each Local Resource Zone in the MISO region in September 2014. MISO’s estimates were calculated for an advanced combustion turbine unit. Using the MISO Zone 7 CONE estimate as an indicator of future capacity costs results in a \$4.8 million NPV for the Company’s business case, which is \$19.64 million less than the NPV presented in Exhibit A-76 (LDW-3).

<sup>18</sup> Case No. U-15645 (AMI remand) Exhibit A-2 (DES-1)

<sup>19</sup> Case No. U-17643 (gas rate case) Exhibit A-69 (LDW-3)

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 realization. Two specific adjustments are the primary contributors to the overall change  
2 in NPV. The most significant change reduced the outlook for summer peak generation  
3 capacity prices that are used to calculate the customer benefits related to DLA and DPP  
4 Programs. A 12.5% reduction in long-term capacity prices (from 100% of projected  
5 CONE prices to 87.5% of projected CONE prices) had the impact of reducing the NPV  
6 by \$24.2 million. This was offset by a \$12.6 million increase in NPV that resulted from  
7 changing the NPV calculation base year from 2012 to 2014. Since the gas rate case filing  
8 of July 1, 2014, the Company revised the estimates of O&M costs associated with various  
9 customer programs, such as the Web Portal, Pay as You Go, DLA, and DPP. These  
10 updated projections reflect updated projections of customer enrollment and program  
11 vendor software costs. These programs will be administered in conjunction with other  
12 energy efficiency program offerings to leverage the Company's experience with customer  
13 focused energy efficiency efforts.

14 Q. Please describe the summer peak capacity price values used in the calculation of the peak  
15 generating capacity customer benefits and reflected in your Exhibit A-76 (LDW-3).

16 A. The actual capacity value in future Midcontinent Independent System Operator ("MISO")  
17 capacity market auctions has the potential to exhibit volatility relative to CONE  
18 associated with the periodic imbalances in the annual supply vs. annual peak demand of  
19 generation capacity within the MISO market. The Company used 100% of projected  
20 CONE in various regulatory filings, including the 2013 Biennial Renewable Resource  
21 Energy Plan (Case No. U-17301) and the 2013 Certificate of Necessity for the Thetford  
22 Generating Station (Case No. U-17429) application. The 100% CONE forecast was also  
23 utilized in the AMI business case presented by Company witness David E. Schonhard in  
24 the AMI Remand case (Case No. U-15645). In 2014, 75% of projected CONE was used

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 by Company witness Sara T. Walz to forecast capacity costs for MISO Zonal Resource  
2 Credit purchases during 2015-2019 in the Company's 2015 PSCR Plan case (Case No.  
3 U-17678). Also during 2014, the Company filed a Public Act 169 of 2014 filing (Case  
4 No. U-17688) that used the 75% CONE value for 2016 to support a \$7.00/kw credit for  
5 rate GPD interruptible customers proposed by Company witness Laura M. Collins. To  
6 limit the volatility of the AMI business case net PVRR, the Smart Energy Program  
7 averaged the Company's 2013 and 2014 MISO capacity auction price outlook. This  
8 averaged outlook equates to capacity prices at 87.5% of CONE. Given these changes in  
9 CONE projections, applying 87.5% of CONE in the cost/benefit analysis was reasonable.

10 Q. Given that the future prices of MISO capacity auction prices are uncertain, would it be  
11 prudent to suspend the installation of AMI meters and the development of associated  
12 systems?

13 A. No. In Exhibit A-76 (LDW-3) on page 5 of 6, the net PVRR associated with the AMI  
14 project is segmented by year. For the time period of 2009 to 2014, the NPV calculation  
15 reflects a cost of \$145.5 million. These costs are sunk costs and should not influence the  
16 decision to continue with the implementation of AMI. For the time period of 2015 to  
17 2032, the business case shows the NPV of net benefits to customers is \$170.0 million.  
18 Continued implementation of the Company's AMI investment is required to achieve  
19 these forward-looking benefits.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 Q. Does the cost/benefit analysis of the AMI Program support the Company's plan to  
2 complete the installation of AMI metering infrastructure and associated system  
3 enhancements by the end of 2017?

4 A. Yes. The AMI Program results in savings to customers of \$24.5 million dollars on a net  
5 PVRR basis.<sup>20</sup> In addition to the savings reflected in the cost/benefit analysis, customers  
6 also experience other benefits that cannot be directly quantified in terms of ratemaking  
7 revenue requirements.

8 Q. What other benefits will result from the AMI Program?

9 A. The AMI Program provides the foundation for many other customer and Company  
10 benefits that improve the efficiency, reliability, economics, and sustainability of the  
11 electric system. The use of AMI data empowers customers to make informed energy and  
12 cost-saving decisions about their energy consumption, improves operational efficiencies,  
13 and enhances Consumers Energy's analytics relating to energy needs and service  
14 interruptions, and supports connection of new resources to the grid. These benefits are  
15 recognized by experts independent of Consumers Energy, as noted in MPSC Staff  
16 witness Shannon M. Whiton's direct testimony in Case No. U-15645 (AMI remand),  
17 1 TR 317 (transcript of May 5, 2014 remand evidentiary hearing):

18            "...the new meters improve customer service through an increased  
19 accuracy of meter reading and billing. The new meters shorten  
20 outage times with improved outage detection. Furthermore, the  
21 new meters and ancillary components enable the Company to  
22 provide customer rate incentives to voluntarily reduce their energy  
23 use at peak times through a dynamic peak pricing program or  
24 participation in a voluntary direct load management program.

---

<sup>20</sup> The NPV calculation result is also sensitive to the timing of present value factors to future annual net revenue requirements. The business case summary shown in Exhibit A-76 (LDW-3) uses nominal dollar values for all years through 2013, and then discounts 2014-2032 values back to their present value at the beginning of 2014. If the NPV calculation is modified to use nominal dollar values for all years through 2015, then discounting 2016-2032 values back to their present value at the beginning of 2016, the NPV benefit to customers increases by \$28.8 million to \$53.2 million overall.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 Participation in these programs allows customers to make informed  
2 cost-saving decisions about their consumption. All of these  
3 benefits add convenience and improve electric service for  
4 Consumers Energy's customers and the shorter outage times may  
5 be lifesaving for customers who have lost their power."

6 Consumers Energy has already begun to develop and pilot customer programs to build on  
7 this foundation. Some of these include:

- 8 • Consumers Energy Smart Energy™ Challenge – a community-based outreach pilot  
9 designed to promote energy efficiency, engaging customers in the Grand Rapids area  
10 through local non-profit organizations to learn new ways to reduce energy  
11 consumption, earn rewards and support local organizations; and
- 12 • Behavioral Demand Response Pilot – engaging 70,000 customers with smart meters  
13 in behavioral changes in energy consumption based only on request to reduce  
14 consumption on specific peak demand days.

15 These are just a few examples of early customer engagement opportunities enabled by  
16 AMI data.

17 **(iii) Electric AMI Benefits**

18 Q. Please describe the major benefits which AMI provides customers.

19 A. Major benefits of the AMI system include:

- 20 • Reduced meter reading operating expenses, including costs associated with obtaining  
21 meter reads, meter reader handheld devices, vehicle mileage reimbursement,  
22 supervision, and administrative costs. Automation of meter reading enables daily and  
23 on-demand meter reads, and also improves the accuracy of meter reads. Savings in  
24 meter reading operating expenses are being realized as AMI meter installations are  
25 transitioned to the automated meter read billing process. Over 275,000<sup>21</sup> AMI meters  
26 are now being billed from automated meter reads. As a result, the Meter Reading  
27 Department has realized 22<sup>22</sup> staff reductions in AMI installation areas. The  
28 Company is encouraged by the meter reading cost trends of other utilities that have  
29 adopted advanced metering technology. Several of these utilities had actual meter  
30 reading O&M expenses in 2013 that were 75%-99% lower than historical costs  
31 incurred prior to the installation of AMI.<sup>23</sup>

<sup>21</sup> As of 11/2/2014, 275,640 meters have transitioned to automated meter reading.

<sup>22</sup> Meter Reading staff reductions are reported as of the end of September 2014.

<sup>23</sup> Oncor Electric Delivery Company, CenterPoint Energy Houston Electric, PPL Electric Utilities Corporation, Alabama Power Company, and Oklahoma Gas and Electric Company have achieved meter reading expense reductions in the range of 75% - 99%. This is based on meter reading O&M data reported in Federal Energy Regulatory Commission Form 1 reports.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

- 1           • Improved meter read accuracy and reduced number of estimated bills. For customers  
2 with smart meters, satisfaction is improved as estimated meter reads are reduced to  
3 2% or less.<sup>24</sup> The rate of billing read estimates for automated read meters  
4 experienced in 2014 is only 0.43%.<sup>25</sup> The utilization of automated meter reading has  
5 resulted in 225,008 fewer estimated bills than what would have occurred if the  
6 Company relied on Manual Meter Reading processes for AMI meters.<sup>26</sup> As a result,  
7 the Company has avoided 9,000 estimated bill related customer inquiries to the  
8 Company's call center during this same time period.<sup>27</sup> This also reduces on-demand  
9 field trips to obtain actual meter reads.
- 10           • Improved theft detection is beneficial to all customers as it results in revenue  
11 increases without the Company incurring any additional power supply costs, or  
12 results in lower overall power supply costs as non-technical energy losses are  
13 reduced. The Company has utilized a variety of information sources during the meter  
14 installation process to identify theft cases, and will transition to the utilization of AMI  
15 data analytic capabilities to enhance the Company's theft investigation process. For  
16 example, the Smart Energy project has partnered with the Corporate Security/Theft  
17 and the Customer Billing areas using reports that identify meters in a planned meter  
18 installation area where energy consumption has occurred without an active account  
19 for billing. So far, 1,081 cases of energy theft or other types of energy consumption  
20 on inactive meters have been confirmed and resolved as a result of these reviews.  
21 The Company also receives theft tips from our AMI meter installation vendor. To  
22 date, 89 tips from AMI meter installers have been confirmed energy theft cases.  
23 During 2014, the Smart Energy project has initiated the reporting and analysis of  
24 AMI meter events for theft investigation. So far, 30 theft cases have been confirmed  
25 from AMI meter event analysis and investigation.<sup>28</sup> During 2015, theft identification  
26 capabilities will continue to expand as new AMI software system releases integrate  
27 customer work order and notification information and customer consumption patterns  
28 into the meter event analysis framework. AMI theft analytics are under development  
29 that will provide the capability to report and analyze daily meter activity, resulting in  
30 identification of more theft situations than would be possible using only the analysis  
31 of pre-installation reports and visual inspection by meter installers.
- 32           • Increased customer access to detailed energy usage web portal/energy efficiency  
33 services. In July of 2013, customers with smart meters were provided access to a web  
34 portal that provides hourly energy usage information and energy conservation related  
35 services. The ability to view interval usage, along with comparisons to similar homes  
36 and even previous, weather adjusted, time periods and consumption alerts all enable  
37 customers to make informed decisions about how to manage their energy  
38 consumption. In addition to interval usage views, consumption alerts are also  
39 available via e-mail or recorded phone call. Through August 30, 2014, there have

<sup>24</sup> The 2% or less performance standard for AMI meter estimates is based on Itron's (the Company's AMI meter vendor) contractual commitment for AMI performance.

<sup>25</sup> Billing estimate rate for automated meters is reported as of the end of October 2014.

<sup>26</sup> Avoided billing estimates for 2014 are reported as of the end of October.

<sup>27</sup> Based on the Company's customer call experience, 4% of customers who receive an estimated bill will inquire about the estimate through the call center.

<sup>28</sup> Results are for meter event analysis and investigation are for June through September 2014.

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1           been 13,447 unique customers visiting the website. This represents 4.82% of  
2           customers with smart meters.

- 3           • Availability and enablement of customer programs, including DPP, DLA, Pay As  
4           You Go, and the additional option for customers to select their own due date. These  
5           programs provide customers with new rate options and energy consumption  
6           information that will support customer efforts to manage their energy usage and costs.  
7           Additionally, all customers benefit through lower power supply costs enabled by  
8           reduced capacity requirements during “critical peak” conditions. Various operational  
9           aspects of these customer programs have been tested through the use of pilot studies,  
10          which provide valuable experience for the development of new business processes to  
11          support these program offerings. The Company is currently working with  
12          experienced implementation vendors to assist in the development and implementation  
13          of these programs.
- 14          • Improved outage management and reduction in outage times as AMI meter outage  
15          event and restoration data are made available to the Company’s outage management  
16          systems. As noted in the MPSC Staff’s October 1, 2014 Report to the Commission  
17          on the December 2013 Ice Storm in Case No. U-17542,<sup>29</sup> the increased accessibility  
18          to system information from AMI will help utilities restore service faster and improve  
19          the accuracy of restoration time estimates provided to customers. The AMI system  
20          will provide beneficial information for improving the outage restoration process. For  
21          example, the installation of electric meters and integration with the outage  
22          management system will reduce the dependency on customer calls to report outages  
23          and enable proactive customer communications to alert customers of smart meter  
24          “last gasp” events that are communicated by the meter when power is interrupted.
- 25          • Improved operational efficiencies from remote turn-on/turn-off capability. This  
26          capability eliminates field trips (“truck rolls”) associated with past due billing  
27          collection activity and reduces unauthorized usage. There is also a reduction in  
28          uncollectible expense with the ability to respond more quickly to past due accounts.  
29          Customers who have made payment arrangements on disconnected accounts or who  
30          are involved in move-in /move-out activity will have service provided more quickly.  
31          The Company is currently in the initial stages of rolling out remote turn-on/turn-off  
32          capabilities, and expects reductions in field trips in the Muskegon, Zeeland, and  
33          Grand Rapids areas starting in 2014. Reductions in uncollectible accounts will also  
34          result as turn-off delays associated with manual process are minimized through the  
35          use of remote service disconnections performed over the AMI network.

36    Q.     How were AMI benefits determined?

37    A.     When projecting the benefits provided by the implementation of AMI, the Company has  
38          taken a customer-centered analytical approach to quantify the expected changes in overall  
39          revenue requirements. We relied on lessons learned from various pilots, ~~which are~~

<sup>29</sup> The MPSC Staff Report is available at <http://efile.mpsc.state.mi.us/efile/docs/17542/0045.pdf>

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 ~~described in part (iv) of my testimony~~, a variety of internal and external data sources, and  
2 actual experience in making these projections. Internal data sources include information  
3 such as workload volumes, staffing levels, and average cost data for manual processes  
4 that will be automated with AMI. Future peak demand capacity costs and annual  
5 revenues are examples of internal data sources that are used to ensure that the AMI  
6 business case accurately reflects expected future business conditions. Meter installation  
7 schedules and systems delivery schedules are also integrated into the overall business  
8 case in the determination of benefits during the transition to full AMI. External data  
9 sources include industry studies and/or expert opinions that provide guidance and support  
10 for assumptions made to determine the value of benefits such as energy theft, peak  
11 demand reduction, and energy consumption savings.

12 **(iv) Proposed Tariff Changes**

13 Q. Are you proposing any changes to the Non-Transmitting Meter Provision?

14 A. Yes, the Company proposes to remove the exclusion of apartment complexes and other  
15 dwellings with meter banks serving multiple customers from the Non-Transmitting Meter  
16 Provision. This exclusion is not necessary given the high customer acceptance rate of  
17 smart meters to date. Changes to tariff sheet C-32.20, rule C5.5 for the Non-Transmitting  
18 Meter Provision are provided by Company witness Collins.

19 Q. Are you proposing any changes to the summer power supply charges included in the  
20 Company's DPP tariff rates?

21 A. Yes, the Company proposes to change the critical peak price summer energy charge rates  
22 as summarized in the following table. As the Company nears completion of the AMI  
23 system development that will enable customer enrollment in DPP Programs, it is  
24 necessary to set critical peak period prices at a level that will incent customers to take

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 actions that will realize the average customer demand reductions that are planned for in  
2 the AMI business case. In analyzing the required change in these rates, the Company  
3 utilized the results of its summer 2010 pricing plan pilot. The residential price elasticity  
4 identified in that pilot for residential customers was utilized to determine the  
5 recommended rates for residential service rate RS. The recommended critical peak prices  
6 for rates GS, GSD, and GP were developed using the ratio of each rate category's  
7 summer price levels to the comparable rate RS summer charges. The Company also  
8 reviewed existing critical peak pricing programs at other utilities, and believes these  
9 proposed rates are consistent with similar rates in other utility service areas. The  
10 proposed critical peak price rates are as follows:

Critical Peak Pricing		
Power Supply Charges		
Summer Energy Charge		
for the hours of 2:00 PM to 6:00 PM during a critical peak event day		
	Current	Proposed
RATE CATEGORY	\$/kWh	\$/kWh
RESIDENTIAL SERVICE SECONDARY RATE RS		
Residential With Dynamic Pricing (RDP) - 1007	\$0.500000	\$1.000000
Residential With Dynamic Pricing Rebate (RDPR) - 1008	-\$0.500000	-\$1.000000
GENERAL SERVICE SECONDARY RATE GS		
Commercial With Dynamic Pricing - 1121	\$0.500000	\$1.000000
Industrial With Dynamic Pricing - 1122	\$0.500000	\$1.000000
GENERAL SERVICE SECONDARY DEMAND RATE GSD		
Commercial With Dynamic Pricing - 1156	\$0.500000	\$0.721681
Industrial With Dynamic Pricing - 1157	\$0.500000	\$0.721681
GENERAL SERVICE SECONDARY RATE GP		
Commercial (Customer Voltage Level 1, 2 or 3) With Dynamic Pricing - 1211		
Industrial (Customer Voltage Level 1, 2 or 3) With Dynamic Pricing - 1212		
Customer Voltage Level 1	\$0.500000	\$0.719680
Customer Voltage Level 2	\$0.500000	\$0.761201
Customer Voltage Level 3	\$0.500000	\$0.809362

LINCOLN D. WARRINER  
DIRECT TESTIMONY

1 (v) Summary

2 Q. Do you have any final comments?

3 A. Yes, Consumers Energy's research, foundation of best practices, initial feedback received  
4 from our Smart Energy customers, collaborations, and measured approach for testing,  
5 piloting, and implementing advanced meter installation has resulted in a well-paced, high  
6 quality, and prudent approach to implementing the SG/AMI technology for the benefit of  
7 customers. Consumers Energy's measured approach has mitigated the risk associated  
8 with installation of newer technologies. We are enhancing the functions of core  
9 information technology systems, testing meters and equipment for functionality, quality,  
10 and adherence to the security and interoperability standards, and validating that the  
11 system performs as designed. The step-by-step implementation, focus on quality while  
12 completing robust testing, ensures that the investment choices will produce significant  
13 customer and operational benefits. The most recent business case update as discussed  
14 above continues to indicate a positive NPV benefit for customers. In addition, early  
15 results and positive customer feedback have validated our approach and assumptions.  
16 The costs associated with AMI are reasonable, and align well with the Company's  
17 strategy of making prudent investments which enhance customer value while at the same  
18 time promoting safe, reliable, and efficient operations.

19 Q. Does this conclude your testimony?

20 A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of )  
 CONSUMERS ENERGY COMPANY )  
 for authority to increase its rates for )  
 the generation and distribution of )  
 electricity and for other relief. )  
 \_\_\_\_\_ )

Case No. U-17735

**REBUTTAL TESTIMONY**  
**OF**  
**LINCOLN D. WARRINER**  
**ON BEHALF OF**  
**CONSUMERS ENERGY COMPANY**

May 2015

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Q. Please state your name and business address.

2 A. My name is Lincoln D. Warriner, and my business address is 1945 West Parnall Road,  
3 Jackson, Michigan 49201.

4 Q. Are you the same Lincoln D. Warriner who previously submitted direct testimony in this  
5 proceeding?

6 A. Yes.

7 Q. What is the purpose of your rebuttal testimony?

8 A. The purpose of my testimony is to rebut certain assertions and recommendations made by  
9 the following witnesses regarding the Smart Energy (or Advanced Meter Infrastructure  
10 (“AMI”)) Program expenses discussed in the testimony and exhibits I filed as part of  
11 Consumers Energy Company’s (“Consumers Energy” or the “Company”) original  
12 Application in this case:

- 13 1. The Attorney General’s witness Sebastian Coppola,
- 14 2. The Michigan Environmental Council, Natural Resources Defense Council, and  
15 Citizens Against Rate Excess’s (“MEC/NRDC/CARE”) witness Douglas B.  
16 Jester,
- 17 3. The Michigan Public Service Commission (“MPSC” or the “Commission”)  
18 Staff’s (“Staff”) witness Ryan Laruwe, and
- 19 4. The Residential Customer Group’s (“RCG”) witness Geoffrey C. Crandall.

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

21 A. Yes. I am sponsoring the following exhibits:

22 Exhibit A-121 (LDW-4)	Comparison of Existing Opt-Out Tariff to Current 23 Cost-Based Opt-Out Tariff
24 Exhibit A-122 (LDW-5)	U-17087 Workpaper LEY-3 Opt-Out Tariff
25 Exhibit A-123 (LDW-6)	U-17087 Staff Exhibit S-6 Opt-Out Tariff

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Exhibit A-124 (LDW-7) Development of Current Cost-Based Opt-Out Tariff  
2 Charge

3 Exhibit A-122 (LDW-5) and Exhibit A-123 (LDW-6) provide the historical detail on the  
4 development of the initial Opt-Out Tariff rates in Case No. U-17087. Exhibit A-124  
5 (LDW-7) updates the Opt-Out Tariff rates for current cost and participation estimates.  
6 Exhibit A-121 (LDW-4) provides a summary comparison of the Opt-Out Tariff rates  
7 approved in Case No. U-17087 to the proposed rates provided with this testimony.

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

9 A. Yes.

10 **PART 1: OPT-OUT PROGRAM**

11 Q. What specific recommendations have the various parties made with respect to the  
12 Company's AMI meter Opt-Out Program?

13 A. The RCG's witness Crandall recommends that the Company replace the existing Opt-Out  
14 Tariff with an opt-in tariff which would require prior notice and advance, written  
15 affirmative customer consent for installation of a smart meter. In addition, he  
16 recommends no upfront, monthly, or special charges applied to customers who choose to  
17 not receive a smart meter.

18 Q. What information did RCG witness Crandall provide to support this recommendation?

19 A. Witness Crandall states, "Numerous other utilities throughout the United States allow  
20 customers to decide for themselves what meter type is best suited for themselves and  
21 their families without incurring special charges to keep existing meters,"<sup>1</sup> then provided  
22 an example for the State of Vermont and referenced the states of Arizona, California,  
23 Tennessee, Virginia, and Washington, with no specific utility names.

---

<sup>1</sup> Witness Crandall direct testimony, page 9, lines 8 to 10.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Q. Is this information representative of opt-out tariffs at utilities?

2 A. No. In California alone, the three major utilities all have fees associated with opting out  
3 of an AMI meter. The table below is representative of investor owned utilities (“IOUs”)  
4 with AMI implementations of over one million meters and the fees associated with their  
5 opt-out program.<sup>2</sup>

Utility Name	State	Meter Fee	Monthly Fee
Baltimore Gas and Electric	MD	\$ 75.00	\$ 11.00
Centerpoint	TX	\$171-\$201	\$ 32.80
Florida Power and Light	FL	\$ 89.00	\$ 13.00
NV Energy	NV	\$ 52.86	\$ 8.82
Oncor	TX	\$169 - \$211	\$26.69 - \$31.38
Pacific Gas and Electric	CA	\$ 75.00	\$ 10.00
Sand Diego Gas and Electric	CA	\$ 75.00	\$ 10.00
Southern California Edison	CA	\$ 75.00	\$ 10.00

6 Q. On page 3 of his direct testimony, Mr. Crandall claims that smart meters have been  
7 installed without the advance notice of customers. Is this accurate?

8 A. No, the Company does notify customers in advance of a smart meter installation.

9 Q. Please describe how the Company notifies customers that an AMI meter is scheduled for  
10 installation.

11 A. The customer notification process begins with public outreach and advertisements in  
12 planned implementation areas at least six months prior to meters being scheduled for  
13 installation. Public outreach efforts include presentations to municipal and community  
14 organizations about the Smart Energy Program installation schedule and process. In

---

<sup>2</sup> <http://www.bge.com/Search/Pages/DefaultResults.aspx?k=ami%20opt%20out>  
<http://www.centerpointelectric.com/cehe/smartmeters/optout/>  
<https://www.fpl.com/rates/meter-options.html>  
<http://www.reviewjournal.com/business/energy/smart-meters-battle-ends-good>  
<http://www.askoncor.com/EN/Pages/FAQs/Category.aspx?q=Meter>  
<http://www.pge.com/en/myhome/customerservice/smartmeter/optout/index.page>  
<http://www.sdge.com/residential/smart-meter-opt-out/smart-meter-opt-out-program>  
<https://www.sce.com/wps/portal/home/customer-service/my-account/smart-meters/opt-out/>

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 addition, billboards and digital media provide another source of general awareness to  
2 customers. Individual customers are mailed postcard notifications 30 days prior to the  
3 scheduled meter upgrade. The Company also mails individual letters to customers  
4 14 days prior to their scheduled meter upgrade, detailing what to expect on the day of the  
5 upgrade and what to do if they have questions. Lastly, the Saturday before the week of  
6 the scheduled upgrade, an automated call is made to the customer, again notifying them  
7 of the scheduled upgrade and providing a toll free phone number for questions or to  
8 schedule an appointment, if desired.

9 Q. How has this process been received by customers?

10 A. Customer response to the Company's implementation of the AMI investment has been  
11 very positive. The Company surveys customers in scheduled implementation areas  
12 before and after the meter upgrade. These surveys measure customers' overall  
13 satisfaction with the Company, AMI meters, and the meter upgrade process, including the  
14 communications received. The results are used to measure the effectiveness of the  
15 communication and installation process. Overall results have shown a 48%<sup>3</sup> increase in  
16 Net Promoter Score – which is the likelihood that customers would recommend the  
17 Company to their friends and family. Seventy-eight percent<sup>4</sup> of customers remember  
18 receiving communication from the Company regarding their smart meter installation. In  
19 our surveys, customers who recalled receiving communications from the Company  
20 regarding their meter rated the Company higher in areas for installation satisfaction and

---

<sup>3</sup> The Net Promoter Score percent increase is calculated based on an increase between the pre- and post-install surveys conducted in each installation area. The 48% increase is the average across three main installation areas: Muskegon, Zeeland, and Grand Rapids.

<sup>4</sup> Calculation based on customer survey data from the post-install surveys in the Muskegon, Zeeland, and Grand Rapids areas.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Company satisfaction.<sup>5</sup> We have also seen an improvement of more than 20<sup>6</sup> points in  
2 our J.D. Power Customer Satisfaction metric for those customers who have identified as  
3 smart meter customers.

4 Q. Does Consumers Energy obtain customer consent prior to installing an AMI meter?

5 A. AMI meters are the Company's standard metering technology. In order to receive  
6 electric utility service from the Company, a customer must have a meter and comply with  
7 the General Terms and Conditions, as provided in Section D of the electric Rate  
8 Schedule, as highlighted below.

**SECTION D  
RATE SCHEDULES**

**GENERAL TERMS AND CONDITIONS OF THE RATE SCHEDULES**

- A. Bills for utility service are subject to Michigan State Sales Tax. Customers may file a request with the Company for partial or total exemption from the application of sales tax in accordance with the laws of the State of Michigan and the rules of the Michigan State Department of Treasury.
- B. Bills shall be increased within the limits of political subdivisions which levy special taxes, license fees or rentals against the Company's property, or its operation, or the production and/or sale of electric energy, to offset such special charges and thereby prevent other customers from being compelled to share such local increases.
- C. Bills shall be increased to offset any new or increased specific tax or excise imposed by any governmental authority upon the Company's generation or sale of electrical energy.
- D. A customer that commences service under any of the Company's Rate Schedules thereby agrees to abide by all of the applicable Rules and Regulations contained in this Rate Book for Electric Service.
- E. *Full Service Customers, applicants for service, or operators with generating facilities on or after June 8, 2012 are required to take service under General Service Self Generation Rate GSG-1 or GSG-2.*
- F. *Full Service Customers shall not participate in any regional transmission organization wholesale market program until the Michigan Public Service Commission issues an order authorizing participation.*

9 By agreeing to take electric service, the customer provides consent to having a  
10 meter. The Opt-Out Tariff or the Non-Transmitting Meter Provision,<sup>7</sup> provides

<sup>5</sup> Based on data from customer post-install surveys in the Muskegon, Zeeland, and Grand Rapids area.

<sup>6</sup> Source: <http://www.jdpower.com/industry/energy>

<sup>7</sup> The Non-Transmitting Meter Provision Tariff is provided in Rule C5.5, which is included in Exhibit A-18 (LMC-8), on page 12 of 93.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 customers an option to decline a smart meter if they do not want this standard meter  
2 technology. The choice of a meter technology to use in the provision of electric utility  
3 service is a management decision of the Company. That management prerogative has  
4 been affirmed by the Michigan Court of Appeals.

5 Q. Please describe the practical effect of an opt-in tariff, as suggested by RCG witness  
6 Crandall.

7 A. Replacing the MPSC-approved opt-out option with a requirement that customers  
8 affirmatively “opt in” to receiving a smart meter would severely hinder the Company’s  
9 ability to efficiently and effectively implement its AMI Program, and would reduce and  
10 delay the benefits which are provided to all customers by the AMI Program. Smart  
11 meters have become standard metering technology and a standard part of electric utility  
12 service. The Company’s method of implementing smart meters in its service territory is  
13 operationally reasonable and efficient, and also provides customers ample notice of the  
14 meter upgrade they are scheduled to receive. The ability to opt out of a smart meter is a  
15 unique aspect of the AMI Program. For example, customers are not typically provided an  
16 option of “opting out” of individual components of utility service or choosing the type of  
17 utility equipment which is used to provide them service. The Company’s AMI Program  
18 reasonably provides customers the flexibility to abstain from receiving a smart meter, for  
19 whatever reason they deem appropriate. The Opt-Out Tariff is designed to recover  
20 incremental costs caused by customers’ decision to opt out of the standard AMI metering  
21 technology. Requiring the Company to change its AMI implementation from one which  
22 provides customers a means of opting out, and instead requiring the Company to obtain  
23 from each customer an affirmative “opt in” would unnecessarily and unreasonably

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1       complicate and delay the program's implementation. In addition, changing to an opt-in  
2       program, as suggested by Mr. Crandall, would significantly increase the costs of the AMI  
3       program, without an increase in commensurate benefits.

4       Q.    On page 4 of his direct testimony, Mr. Crandall contends that according to the  
5       Commission's Order in Case No. U-17087, charges associated with the non-transmitting  
6       meter provision need to be reviewed in "each and every future rate case." Do you agree  
7       with this conclusion regarding the Commission's Order in Case No. U-17087?

8       A.    No, I do not agree with Mr. Crandall's conclusion. The statement made by the  
9       Commission in the Case No. U-17087 Order was made in reference to its approval of the  
10       continued full deployment of AMI. The approval of the non-transmitting meter provision  
11       charges did not contain a requirement for review in "each and every future rate case."  
12       The costs that were projected in Case No. U-17087 to be incurred to implement a  
13       non-transmitting meter provision should not be confused with the costs that the  
14       Commission approved for continued implementation of AMI in that case. In fact, except  
15       for the proposed charges related to the non-transmitting meter provision, the Company's  
16       base rate increase request in that case did not include any costs to implement a  
17       non-transmitting meter provision.

18       Q.    On page 7 of his direct testimony, Mr. Crandall makes a claim that the non-transmitting  
19       meter charges that were approved in Case No. U-17087 are a "form of punitive pricing  
20       and a penalty charge which forces customers to accept the installation of an advanced  
21       meter..." Do you agree with Mr. Crandall's claim?

22       A.    No. The non-transmitting meter charges were developed to recover the costs associated  
23       with developing and maintaining a non-transmitting meter option. This option is desired

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 by a small fraction of the Company's customers, and because the non-transmitting meter  
2 option will not result in any benefits to the general customer population, it is appropriate  
3 for the participating customers in this provision to share the costs of developing systems  
4 and business processes to support that option.

5 Q. Have you reviewed the costs associated with offering the non-transmitting meter option  
6 to customers who do not want an AMI meter?

7 A. Yes, the updated costs associated with offering the non-transmitting meter option are  
8 displayed in Exhibit A-121 (LDW-4). The costs of implementing the smart meter  
9 deployment exceptions process have proven to be substantially greater than the  
10 pre-implementation estimate which was developed and presented in Case No. U-17087.  
11 The Company's projection of customer participation in the non-transmitting meter  
12 opt-out option has also been revised downward based on the Company's experience to  
13 date. A lower participation estimate causes the per customer cost of the smart meter  
14 deployment exceptions process to increase, because the costs incurred need to be  
15 recovered from a smaller group of customers. Decreases in customer participation in the  
16 opt-out option also increases the costs to manually read meters as having fewer  
17 non-transmitting metered customers to serve results in an even more inefficient manual  
18 meter reading process than projected in Case No. U-17087. As a result, updated opt-out  
19 charges results in higher costs of service for non-transmitting (opt-out) meter customers.

20 Q. Please summarize the work that was required to implement a smart meter deployment  
21 exceptions process.

22 A. The Company incurred costs associated with 5,363 hours of work by a mix of employees  
23 and contractors with information technology development and testing skills. Hourly rates

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 for these types of technical resources range from \$66 per hour to \$320 per hour. An  
2 estimated average rate of \$200 was used to calculate the \$1,072,600 cost of systems  
3 development associated with the smart meter deployment exceptions process.

4 Q. How has the Company's projection of customer participation in the non-transmitting  
5 meter option changed since the original projection made in Case No. U-17087?

6 A. The Company projected in Case No. U-17087 that 1.5% of all electric customers would  
7 elect the non-transmitting meter option. Based on the Company's actual experience with  
8 customer acceptance of smart meter technology since then, we now expect the  
9 participation rate to be closer to 0.6%. As a result, the updated cost per customer  
10 estimates are based on 10,800 participating customers instead of the 27,000 customers  
11 projected in Case No. U-17087. As of May 3, 2015, the Company currently has  
12 2,316 non-transmitting meter customers, while 468,689<sup>8</sup> customers have accepted the  
13 upgrade to smart meter technology at their home or business.

14 Q. What does this change in AMI opt-out participation mean for the Company's meter  
15 reading operations?

16 A. In Case No. U-17087, the Company projected staffing requirements of 35 meter readers  
17 to support the non-transmitting meter provision. At the updated actual opt-out rate of  
18 0.6%, the Company now projects staffing requirements of 21 meter readers for opt-out  
19 meter reading. While the overall number of meter readers has declined, the revised  
20 staffing projection is not proportional to the participation reduction because the meter  
21 reading group must account for a lower expectation for meter reading productivity that

---

<sup>8</sup> Areas included: Muskegon, Zeeland, Metro Grand Rapids, Outer Grand Rapids, Fremont, Big Rapids, Greenville, Hastings, and Traverse City meter installation areas.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 will occur as a small number of customers are distributed randomly throughout the  
2 Company's service territory.

3 Q. What is your recommendation regarding the Opt-Out Tariff?

4 A. My primary recommendation to the Commission regarding the fees associated with  
5 customer participation in the non-transmitting meter provision is that these fees should  
6 not be eliminated as recommended by Mr. Crandall. The non-transmitting meter  
7 provision has obvious costs associated with it as described above and as detailed in the  
8 exhibits that I have provided with this rebuttal testimony. These costs have increased  
9 since the Company made its original projections in Case No. U-17087, and it would be  
10 appropriate for the Commission to increase the non-transmitting meter fees as indicated  
11 in Exhibit A-121 (LDW-4).

12 Q. How should revenues from the Non-Transmitting Meter Tariff be treated in the context of  
13 a general rate case?

14 A. The Company accounts for revenues from non-transmitting meter charges as a  
15 miscellaneous revenue. These revenues are included in Federal Energy Regulatory  
16 Commission ("FERC") account 456, Other Electric Revenues. It is appropriate to  
17 include one-time and monthly charges from the Non-Transmitting Meter Tariff in test  
18 year miscellaneous revenues. This would allow all customers to receive the benefit  
19 related to opt-out charges as an offset to the costs associated with providing for the  
20 opt-out program.

21 In the Company's Application in this case, Company witness Hubert W. Miller III  
22 includes miscellaneous revenue on line 23 of Exhibit A-10 (HWM-1). Mr. Miller made  
23 one adjustment to the 2013 actual miscellaneous revenue in column (b) of that exhibit to

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 remove miscellaneous revenue associated with purchased power administrative fees, and  
2 recommended that \$40.993 million be included as test year jurisdictional miscellaneous  
3 revenue. Due to the time required to implement and test the Opt-Out Tariff customer  
4 service and billing system modifications, the Company did not bill any charges to opt-out  
5 customers until April 2014. Since there were no actual opt-out revenues in the 2013  
6 historical year, I have concluded that the Company's Application in this case does not  
7 currently include any of those revenues as an offset to the opt-out costs.

8 Q. Would it be reasonable for the Commission to make an adjustment to the Company's  
9 projection of test year jurisdictional revenue?

10 A. Yes, it would be reasonable for the Commission to make a modest adjustment to the  
11 Company's projection of test year jurisdictional revenue. Using actual opt-out revenues  
12 billed for April 2014 through March 2015, an adjustment of \$278,427 would be  
13 reasonable and appropriate. If the Commission decides to change the opt-out charges  
14 from those approved in Case No. U-17087, a modification to the historical amount would  
15 be appropriate to reflect the new rates.

16 **PART 2: DEMAND RESPONSE**

17 Q. What specific recommendations have the various parties in this case made with respect to  
18 the Company's plans to implement programs to reduce the Company's requirements for  
19 summer peak capacity?

20 A. Staff witness Laruwe recommends that the Commission should exclude the costs  
21 associated with the Company's Direct Load Administration Program. He states the  
22 benefits of controlling the load of central air conditioners through AMI-enabled switch  
23 technology would limit the demand reduction benefits to customers. He indicates that

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Staff would prefer a thermostat based program. In support of his conclusion, Mr. Laruwe  
2 indicates that the Staff has completed a benchmarking analysis, which is provided on  
3 pages 17 to 20 of his direct testimony. Mr. Laruwe's analysis and recommendations are  
4 addressed in my rebuttal testimony starting on page 13, line 1 and continuing through  
5 page 19, line 12.

6 Mr. Jester has provided testimony on behalf of MEC/NRDC/CARE regarding the  
7 enrollment of customers in various AMI-enabled rate structures. He has also  
8 recommended changes to the critical peak prices proposed by the Company in this case.  
9 Mr. Jester's recommendations are addressed in my rebuttal testimony starting on page 19,  
10 line 13 and continuing through page 22, line 4.

11 Q. Please generally describe the device technology requirements that the Company has  
12 designed into its business processes as it plans for the enrollment of customers in demand  
13 response programs.

14 A. The Company has designed business processes that utilize the Zigbee communications  
15 protocol to deliver cycling signals from a demand response management system to  
16 individual central air conditioning switch devices, and also deliver a confirmation back to  
17 the demand response management system that the device has received the initial signal  
18 and responded. This two-way communication approach provides the Company with  
19 timely feedback after demand response events to confirm that targeted load reductions are  
20 actually realized. The business processes have been developed considering the potential  
21 future addition of new compatible thermostats or other devices, but for the reasons  
22 described in this testimony, the Company believes that air conditioning switch devices  
23 are a critical first step in the implementation of demand response in our service area.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1        **PART 2a: Staff Witness Ryan Laruwe**

2        Q.        What is your opinion of the benchmarking analysis provided by Staff witness Laruwe?

3        A.        I have reviewed the information provided by Mr. Laruwe on pages 17 to 20 of his direct  
4                testimony, and my opinion is that Mr. Laruwe's analysis is insufficient to support his  
5                conclusion. Mr. Laruwe's analysis does not discuss any programs that utilize the direct  
6                load control technology planned for implementation by the Company. Load control  
7                switches on central air conditioning equipment have been used by electric utilities for  
8                years and are proven to successfully reduce demand for reliability and economic purposes  
9                on summer peak days.

10                The benchmarking analysis provided by Mr. Laruwe includes brief descriptions of  
11                13 thermostat programs at seven electric utilities. There are no details included in  
12                Mr. Laruwe's analysis regarding the current or projected customer participation in these  
13                programs, and no details regarding the actual or projected peak demand reductions that  
14                would be realized by these programs. Mr. Laruwe did not provide any information that  
15                would indicate which of the 13 thermostat programs represent the most cost-effective  
16                programs for the Company to adopt. Mr. Laruwe does not address program  
17                implementation questions, such as whether the thermostat would become the property of  
18                the homeowner, whether an appointment that requires the customer be present at the time  
19                of installation is a barrier to enrollment, or whether the Company would be responsible  
20                for the ownership costs of the thermostat. He does not recommend any specific  
21                enrollment incentive or rate discount to encourage customer enrollment in a Company  
22                sponsored thermostat based load control program. Without reliable estimates of the  
23                incremental benefits that could be realized, and the incremental costs that would be

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 incurred, his conclusion that net benefits would exceed the programs already planned for  
2 by the Company has a high degree of uncertainty.

3 Q. What types of analysis has the Company completed in developing the demand response  
4 programs that are included in the request for cost recovery in this case?

5 A. The Company has conducted pilots to determine the peak demand reductions that can be  
6 expected with the implementation of direct air conditioning control programs and  
7 Dynamic Peak Pricing (“DPP”) programs. The results of those pilots were provided in  
8 June of 2011 by Company witness Stephen T. Hirsch in Case No. U-16794. Those pilot  
9 studies, as well as the advice of industry experts in demand response, have informed and  
10 validated the Company’s projections of the expected peak demand reductions that can be  
11 achieved as part of our implementation of AMI. In fact, the Company’s cost-benefit  
12 analysis for AMI is conservative with regard to peak demand benefits because we have  
13 not projected any incremental benefits that would be expected when combining a DPP  
14 rate structure with an enabling technology such as an intelligent programmable  
15 thermostat. The Company has also not included any costs associated with intelligent  
16 communicating thermostats (“ICTs”) or other DPP enabling devices in its cost-benefit  
17 analysis, and similarly, has not requested cost recovery for those devices in this case.

18 Q. Is the Company exploring the use of ~~ICTs~~<sup>ICTs</sup> and window air conditioning devices as  
19 potential demand response programs for customers with advanced metering?

20 A. Yes, as Mr. Laruwe indicated in his testimony, the Company has tested an ICT in the  
21 2011 DPP pilot. The results of the pilot indicate that the DPP price is a primary driver of  
22 demand reduction at the time of a critical peak event, and that an ICT helps DPP  
23 customers realize some incremental improvement in peak reduction over those customers

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 that participate in DPP without an ICT. However, for customers that remained on a  
2 standard residential rate, the communication of critical peak information through a web  
3 portal application had the same effective load reduction as providing a customer with an  
4 ICT.

5 The Company does have energy efficiency rebate programs currently in place that  
6 help offset the initial costs of thermostat upgrades for homeowners. A \$10  
7 programmable thermostat rebate is offered to gas customers, and \$50 rebates are offered  
8 to electric and/or gas customers who install Wi-Fi-enabled thermostats. The Company  
9 also provides thermostat upgrade incentives to customers through the Home Performance  
10 with Energy Star Program. To date the Company has encouraged the installation of  
11 62,910<sup>9</sup> thermostat upgrades through these energy efficiency measures.

12 The Company is also testing Wi-Fi-enabled thermostats to determine the energy  
13 savings potential these devices would provide in our service area. There are  
14 352 participants in this pilot test, and models from three manufacturers are being tested.  
15 Based on communications that our Smart Energy Efficiency Solutions group has had with  
16 manufacturers of ICTs, most thermostats installed as part of a utility demand response  
17 program are one-way programmable paging units. We estimate the installed saturation of  
18 ZigBee enabled thermostats used for demand response from active manufacturers  
19 nationally to be approximately 110,000 units to date, and Wi-Fi-enabled demand  
20 response enrolled thermostat saturation from primary retail manufacturers to  
21 approximately 35,000 - 40,000 units.

---

<sup>9</sup> As of April 30, 2015: 59,025 programmable setback thermostats since 2009; 3,885 Wi-Fi enabled thermostats starting in 2014

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1           According to DTE Energy’s website, the specific thermostat that was tested in the  
2           DPP pilot for their service area is not currently available to the mass market. They also  
3           indicate that manufacturers continue to explore the connectivity between home energy  
4           management and mobile devices, and that a growing number of energy management  
5           software and devices are appearing in the marketplace.<sup>10</sup> In comparison, there are  
6           millions of central air conditioning load control switches in use in the United States

7           One area of uncertainty that the Company is concerned about with regard to  
8           thermostat control programs is the longevity of the peak demand savings after the  
9           acquisition and installation of the thermostat. Information from other utilities indicates  
10          that thermostats have an average useful life of approximately seven years, where air  
11          conditioning switches can operate reliably for 25 years.<sup>11</sup> The Company is also  
12          concerned that the type of thermostats suggested by Mr. Laruwe may limit the number of  
13          customers that could participate in a peak load demand response event to only those  
14          customers that have an in-home wireless internet connection. The advantage of a central  
15          air conditioning switch load control program is that all central air conditioning customers  
16          will be eligible to participate.

17          Utilities have experienced higher failure rates with thermostats than with central  
18          air conditioning switches. Our Smart Energy Efficiency Solutions group believes that  
19          customers are more likely to utilize load control event opt-out features with a thermostat  
20          than with a load control switch. This is because most customers who participate in an air

---

<sup>10</sup> DTE’s website accessed 5/7/15:

<https://www2.dteenergy.com/wps/portal/dte/residential/productsPrograms/details/smartcurrents/>

<sup>11</sup> The 25-year life of air conditioning switches experienced at other utilities demonstrates that the Company has been conservative in its evaluation of the net present value of net revenue requirements associated with AMI implementation. We have projected costs associated with the Direct Load Management Program that plan for a 10-year replacement cycle on air conditioning switches, but based on the experience of other utilities we may actually incur lower costs than planned over the long term.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 conditioning load control switch program usually do not notice when the air conditioner  
2 is being cycled.<sup>12</sup>

3 Direct load control switches installed on central air conditioning equipment have  
4 proven to provide reliable load reductions over several years at other utilities in the  
5 United States, and the solution the Company is proposing utilizes two-way  
6 communication that provides strong confirmation regarding what load is available and  
7 the response to a load control signal. In contrast, direct control of window or room air  
8 conditioners is a newer approach to demand response, and utilities such as Consolidated  
9 Edison Company of New York have found that it is more difficult to impact the summer  
10 peak demand with smaller air conditioning units that are less likely to be operating or  
11 plugged in to the control device when demand response events are initiated.<sup>13</sup> Therefore,  
12 direct load control switches offer the most certainty and best value to our customers.

13 Q. What type of direct load control switch does the Company plan to install for customers  
14 that enroll in Direct Load Management (“DLM”)?

15 A. The Company has selected the LCR 6200 Load Control Receiver, manufactured by  
16 Cooper Power Systems. The Cooper Power Systems switch has been designed for easy  
17 and cost-effective installation. The switch has been certified and tested by utilities and  
18 demand response program vendors for communications reliability and accuracy. The  
19 Cooper switch is designed for long-term, trouble free usage. The long-term annual

---

<sup>12</sup>Source: David Ladd, Cadmus presentation at the Spring 2015 PLMA conference.

[http://c.ygcdn.com/sites/www.peakload.org/resource/resmgr/16thspringconf/Residential\\_Customer\\_Engagem.pdf](http://c.ygcdn.com/sites/www.peakload.org/resource/resmgr/16thspringconf/Residential_Customer_Engagem.pdf)

<sup>13</sup>Source: “Cost-effectiveness of CECONY Demand Response Programs,” November 2013, pages 68-71. This report is available online at:

<http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BBE9E7304-DA3C-4C06-B18B-ADD0D4568E3F%7D>

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 failure rate of all of Cooper Power Systems switches is less than 0.55%.<sup>14</sup> Since 2007,  
2 Cooper Power Systems has shipped over 1.25 million load control switches to over  
3 100 utilities (IOU, Co-ops, and Municipals). This switch is currently in use for load  
4 control at Xcel Energy, Duke, Public Service Electric and Gas Company, PacifiCorp,  
5 Pacific Gas and Electric Company, and Baltimore Gas and Electric Company (“BGE”).

6 Q. Do you have any further comments on Mr. Laruwe’s analysis and recommendations?

7 A. The Company appreciates the Staff’s interest in AMI-enabled thermostat programs. The  
8 installation of AMI provides multiple customer benefits. Our cost-benefit analysis  
9 quantifies the benefits that are projected to be realized within the scope of our current  
10 AMI meter installation and systems development program. AMI-enabled ICTs and other  
11 new AMI compatible technologies represent future opportunities to extend customer  
12 benefits beyond those currently included in our systems development scope. The  
13 Company expects that there may be customer segments that find thermostat devices  
14 useful in the future. However, the Company expects load control switches to be a  
15 reliable and predictable source of load control customer benefits for many years into the  
16 future.

17 Since the Company is planning for a modest DLM Program participation of  
18 110,000 customers over the next five years, there will be plenty of market potential for  
19 thermostat programs to potentially provide incremental benefits beyond the air  
20 conditioning switch devices planned for installation. Approval of the Company’s DLM  
21 Program will not preclude the Company from employing other demand reduction  
22 programs such as the thermostat program suggested by Mr. Laruwe in the future. The

---

<sup>14</sup> This value is based on annual volume shipments of over 200,000 per year.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Company will continue to test alternative demand reduction programs and will pursue  
2 those programs expected to reduce customer costs, but meeting our targets for load  
3 reduction through the installation of switches on central air conditioning equipment will  
4 remain a priority for the realization of AMI customer benefits.

5 Q. What is your recommendation to the Commission regarding the thermostat program  
6 alternative to DLM of central air conditioning equipment, as suggested by Mr. Laruwe?

7 A. I recommend that the Commission approve the Company's implementation of load  
8 control switches to provide customer benefits associated with reducing the need for  
9 summer peak capacity. The Company has demonstrated that its DLM Program will  
10 deliver savings to customers in the form of reduced summer peak capacity requirements.  
11 Therefore, the Company respectfully requests that the program costs be included in base  
12 rates as requested in our original filing.

13 **PART 2b: MEC/NRDC/CARE Witness Jester**

14 Q. What recommendations did Mr. Jester make with regard to DPP rates?

15 A. Mr. Jester's recommendations include the following proposals:

- 16 1. DPP rates are recommended to be made immediately available on an opt-in basis  
17 to current customers who have an AMI meter.
- 18 2. All current residential customers assigned to Rate REV<sup>15</sup> are recommended to be  
19 transferred to Rate RSDP<sup>16</sup> unless they opt to another residential rate.
- 20 3. All new customers who have an AMI meter should be assigned by default to a  
21 DPP rate.
- 22 4. All customers who have had an AMI meter for at least a year and would have had  
23 a lower bill in the previous year in the RSDP or GSDP rate than in their current  
24 secondary rate should be assigned to Rate RSDP or Rate GSDP unless they opt to  
25 another rate.

---

<sup>15</sup> REV: Residential Electric Vehicle

<sup>16</sup> RSDP: Residential Secondary Dynamic Pricing

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1           5. Critical peak pricing is recommended in any hour when the Company forecasts  
2           total system load at generation will exceed 6300 MW, with a critical peak rate of  
3           approximately \$1.81 per kWh adjusted by the appropriate system loss factor  
4           based on the customers interconnection point to the distribution system.

5           6. The Commission discontinues the Residential Dynamic Price Rebate Rate  
6           RSDPR.

7 Q.       Should DPP rates be made immediately available on an opt-in basis to current customers  
8           who have an AMI meter?

9 A.       Mr. Jester's recommendation to make DPP rates available on an opt-in basis to customers  
10          with AMI meters is consistent with the Company's implementation plan for AMI. There  
11          is no need for the Commission to approve this recommendation. The Company has not  
12          yet implemented billing on DPP rates for AMI customers yet because there are billing  
13          system modifications that need to be completed and thoroughly tested to confirm that  
14          AMI meter consumption information is being accurately translated into billing  
15          determinants for customers that select a DPP rate. The required system development  
16          work is in progress, and DPP rates will be available on an opt-in basis as soon as this  
17          system development work is completed.

18 Q.       Should current residential customers billed on Rate REV be transferred to Rate RSDP  
19          with an option to opt-in to another rate?

20 A.       Mr. Jester's recommendation to transfer customers from Rate REV to Rate RSDP should  
21          not be adopted by the Commission. Customers currently billed on Rate REV have  
22          already made a decision to opt-in to that rate. The Company plans to inform customers  
23          through the AMI web portal application on which rate options may provide savings to  
24          them. The Company believes it is best to give customers the option to make their own  
25          informed decisions regarding participation in alternative rate structures. The billing  
26          determinants provided by Company witness Laura M. Collins on Exhibit A-11 (LMC-3)

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 and on page 3 of 32 of her direct testimony indicate that the summer on-peak energy  
2 consumption for customers on Rate REV-1 is minimal. It does not appear that a change  
3 in rate for these customers could have any measurable impact on summer peak demand.

4 Q. Should all new customers who have an AMI meter be assigned by default to a DPP rate?

5 A. No. New customers will be informed of the rate options available to them. The decision  
6 to select a new rate structure such as DPP should be left up to the customer.

7 Q. Should the Company assign customers who have had an AMI meter for more than a year  
8 to a DPP rate if an analysis of the past year's consumption indicates they would save  
9 money?

10 A. No. The Company is developing a web portal application that will inform customers of  
11 which rate options they should consider based on historical usage patterns. However,  
12 historical usage patterns may not represent expected future usage patterns for any  
13 individual customer. The decision to select a new rate structure such as DPP should be  
14 left up to informed individual customers.

15 Q. Should the Company implement a DPP rate of \$1.81 per kWh, adjusted by the  
16 appropriate system loss factor, for customers that opt-in to a DPP rate structure?

17 A. No. Given the Company's plan to implement DPP as an opt-in rate option, a critical peak  
18 rate of this magnitude may discourage customers from participating.

19 Q. Should the Company discontinue the Residential Dynamic Price Rebate Rate RSDPR?

20 A. No. The Company has conducted pilot tests of a DPP rebate structure as part of the 2011  
21 DPP pilot, and our expectation is that customers who elect to opt-in to this rate will  
22 experience similar peak demand reductions as customers that elect to opt-in to RSDP.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Other consumer survey organizations<sup>17</sup> have found that customers are interested in  
2 participating in a critical peak rebate program. It is important for the Company to have  
3 this rate option available for customers who may prefer the DPP rebate incentive to  
4 critical peak price.

5 **PART 3: AMI COST-BENEFIT ANALYSIS**

6 Q. On page 8 of his direct testimony, Attorney General witness Coppola makes a  
7 recommendation that the Commission should suspend the Smart Grid/AMI Program until  
8 it becomes economically justifiable. His alternative recommendation is that the  
9 Commission should defer recovery of depreciation expense to mitigate the risk to  
10 customers. On page 59 of his direct testimony, he also recommends that the Commission  
11 should not approve any cost recovery for the AMI Program. Do you agree with  
12 Mr. Coppola's recommendations?

13 A. No, the Commission should not adopt Mr. Coppola's recommendations to suspend the  
14 Smart Grid/AMI Program. The Commission should not disallow investment and  
15 operating cost recovery, and Mr. Coppola's recommendation to defer the recovery of  
16 depreciation expense should also be dismissed.

17 Q. Please summarize Mr. Coppola's rationale in this case for his recommendations.

18 A. Mr. Coppola's discussion in support of his recommendations can be summarized as  
19 follows:

- 20 1. Mr. Coppola believes that the Company has projected benefits associated with  
21 AMI that are inflated, not only in this case but in prior cases including Case No.  
22 U-15645-Remand and Case No. U-17643.

---

<sup>17</sup> Smart Grid Consumer Collaborative, Consumer Pulse and Market Segmentation Wave 5 study, 2015.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1           2. Mr. Coppola questions the validity of the Company's projection of capacity  
2           prices, citing his disagreement with the Company's projection in Case No.  
3           U-15645-Remand.

4           3. Mr. Coppola criticizes information that was provided in response to discovery that  
5           quantifies customer benefits associated with reduced outage duration.

6           4. Mr. Coppola references Public Service Commission of Maryland Order 83531 as  
7           a deferred cost recovery example.

8   Q.    Has the Company projected inflated benefits in the AMI cost-benefit analysis?

9   A.    No. The benefit projections provided by the Company in the AMI cost-benefit analysis  
10       are reasonable and achievable. The benefit projections have been informed by pilot  
11       studies, industry studies, consultation with experts in the field of demand response  
12       participation, and discussions with subject matter experts within the Company. There is  
13       always some level of uncertainty in long-range projections, and the Company has  
14       mitigated the risk of this uncertainty by being conservative in these projections.

15   Q.    Can you provide examples of how the Company has been conservative with respect to  
16       estimating the future benefits of AMI?

17   A.    Yes. In the example of savings associated with the automation of meter reading, the  
18       Company has historically achieved actual meter read rates of approximately 90% using  
19       manual meter reading processes. This means that on average approximately 10% of all  
20       customers would receive an estimated billing read each month. As I reported on page 19  
21       of my direct testimony, only 0.43% of AMI customers received estimated billings during  
22       2014.<sup>18</sup> In effect, the Company is realizing higher meter read rates that, without an AMI  
23       system, would require additional meter reading staff to achieve. However, the Company  
24       has ignored the cost that would be incurred to realize higher actual read rates manually in

---

<sup>18</sup> As indicated in my direct testimony, this result was reported as of the end of October, 2014.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 its cost-benefit analysis. There are also convenience benefits for customers because the  
2 Company does not need customers to arrange for a meter reader to have physical access  
3 to the Company's meter, and pets do not need to be restrained in order for a meter reader  
4 to safely approach the meter. An automated meter reading process eliminates these  
5 concerns for customers.

6 With respect to the Company's AMI-enabled demand response programs, DLM  
7 and DPP, the Company has included benefit estimates associated with the participation of  
8 Residential customers only. The Company anticipates there will be future opportunities  
9 to expand demand response programs to business customers as well, but at this point the  
10 benefits from those programs are not quantified because additional pilots are required to  
11 test the technology, identify the potential for peak demand reduction, and understand the  
12 customer experience associated with these programs. Customer surveys also indicate that  
13 a higher residential customer participation level may be realized when customers have a  
14 peak time rebate rate option as proposed by the Company.

15 The Company has expected for several years that the implementation of AMI  
16 would also result in benefits to customers associated with the integration of AMI power  
17 outage notifications with the Company's outage management system. These benefits  
18 result from reduced outage duration that will occur as the Company uses power outage  
19 notifications and AMI meter communication capabilities to better monitor the restoration  
20 status of customer outages. These direct customer benefits are not included in the  
21 cost-benefit analysis because the savings will be realized directly by individual  
22 customers, especially by business customers that will experience less business  
23 interruption that is experienced during power outages. The value of these direct benefits

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 to customers has recently been quantified, and as Mr. Coppola mentioned, the results  
2 were shared with him as part of a discovery response that has been provided as Exhibit  
3 AG-13.

4 Q. Please describe the process you used to quantify the outage duration benefits for  
5 customers.

6 A. I have been provided input by outage management leaders within the Company that they  
7 expect reductions in customer outage duration from 1% to 5% as a result of the  
8 integration of power outage notifications from AMI meters with the Company's outage  
9 management system. This integration of AMI meter data with the outage management  
10 system is within the AMI systems development scope of work, and is scheduled for  
11 completion near the end of 2015.

12 Along with this range of expected results, I also utilized information regarding the  
13 number of customers in our electric service area and the average annual consumption for  
14 each customer. I was then able to utilize the "Interruption Cost Estimate Calculator" to  
15 estimate the cost savings for the Company's electric customer population at various  
16 levels of average outage duration. The interruption cost calculator tool was funded by the  
17 Lawrence Berkeley National Laboratory and the Department of Energy and it was  
18 developed by Freeman, Sullivan & Co.

19 The estimated savings for a 1% reduction in outage duration would be  
20 approximately \$6 million annually, and the savings for a 5% reduction in outage duration  
21 would be approximately \$31 million annually. The \$18 million annual savings reflected  
22 in Exhibit AG-13 represents the midpoint of this expected range, or a 3% reduction in  
23 outage duration.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Q. Are there other cost-benefit assumptions that Mr. Coppola should have considered in his  
2 analysis?

3 A. Yes. Mr. Coppola has made a recommendation in his testimony and exhibits that the  
4 Company's revenue requirements should be based on a pretax weighted average cost of  
5 capital of 8.55%, as provided in his Exhibit AG-15. If Mr. Coppola believes this level of  
6 capital cost is appropriate for setting overall revenue requirements in this case, then it  
7 seems he would also believe that that level of capital cost would be appropriate for  
8 evaluating the costs and benefit of the Company's investment in AMI. In contrast, the  
9 Company has used a 9.26% pretax weighted average cost of capital, which should be  
10 viewed as conservative in light of Mr. Coppola's recommended cost of capital.

11 Q. Please explain how using a higher weighted average cost of capital results in a  
12 conservative estimate of the net present value ("NPV") of net revenue requirements in the  
13 AMI cost-benefit analysis?

14 A. Using a higher weighted average cost of capital results in a conservative NPV estimate as  
15 a function of two concepts that are included in the cost-benefit analysis. The first concept  
16 is the calculation of the revenue requirements associated with the return on investment  
17 associated with AMI assets. When you use a higher cost of capital rate, the cost-benefit  
18 model calculates a correspondingly higher annual revenue requirement, or cost to  
19 customers, associated with AMI. Second, when you use a higher cost of capital rate to  
20 discount the future value of AMI benefits back to a current base year, the current value of  
21 future benefits are substantially smaller than what would be calculated if a lower  
22 weighted average cost of capital were used. The Company's NPV estimate is  
23 conservative if Mr. Coppola's recommended lower pretax weighted average cost of

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 capital is used as compared to what was utilized by the Company in evaluating the costs  
2 and benefits of AMI.

3 Q. At page 60 of his testimony, Mr. Coppola recommends that the Commission defer the  
4 recovery of depreciation costs associated with the Company's investment in AMI. Is this  
5 recommendation something the Commission should consider?

6 A. No. Mr. Coppola's request to defer the recovery of the Company's investment in AMI is  
7 unnecessary given prior Commission rulings regarding investments in AMI technology.  
8 The Commission has consistently indicated that it supports investments in AMI, but has  
9 not guaranteed approval of recovery for future expenditures. Utilities that implement  
10 AMI continue to remain responsible to support expenditures for reasonableness and  
11 prudence. The Staff will continue to provide independent assessments of the prudence  
12 and the usefulness of these expenditures, and recommend to the Commission whether or  
13 not they should be included in rates. This approach clearly provides customer protection  
14 from unreasonable requests for cost recovery, and is consistent with how other utility  
15 investments are treated for purposes of rate recovery. My direct testimony, as well as the  
16 cost-benefit analysis summarized in Exhibit A-76 (LDW-3), provide the Company's  
17 basis for the Commission to find that AMI investments are being made to provide  
18 benefits to customers.

19 Consumers Energy has presented substantial evidence demonstrating the benefits  
20 to customers of the Company's AMI investments. Disallowing or delaying the recovery  
21 of depreciation expense associated with the AMI Program would be an unfair denial of  
22 recovery of costs of a program which is reasonable and benefits customers.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1           Conversely, Mr. Coppola has not provided a cost-benefit analysis to support his  
2 conclusion that the deferred recovery of depreciation expense would be in the interest of  
3 customers. My recommendation is that the Commission reject Mr. Coppola's  
4 recommendation to defer recovery of depreciation on AMI investments.

5 Q. Mr. Coppola provided excerpts of an Order issued by the Public Service Commission of  
6 Maryland to support his recommendation regarding regulatory asset treatment of the  
7 Company's AMI investment. Please discuss your analysis of that Order relative to the  
8 Company's request for investment recovery in this case.

9 A. In response to discovery from the Company in Case No. U-17643, Mr. Coppola provided  
10 the entire text of the Public Service Commission of Maryland's Order No. 83531 in Case  
11 No. 9208. I do not believe that the Maryland Commission's Order in this case represents  
12 a standard regulatory response to a request for investment recovery, based on the key  
13 facts discussed in this Order. Those facts are as follows:

- 14           • On page 1 of Order No. 83531, the case title and subsequent discussion indicate  
15 that BGE was seeking authorization to proceed with a planned smart grid  
16 initiative. In contrast, the Company has already begun the implementation of  
17 AMI in our service area and has already invested in the development and  
18 integration of AMI systems. This systems work will be completed during 2015.
- 19           • BGE was also requesting approval of a "hybrid tracker mechanism" as a condition  
20 for proceeding with the smart grid initiative. The tracker mechanism proposed by  
21 BGE would recover 25% of the total project cost prior to the base rate approval of  
22 AMI project costs. In contrast, the Company is asking in this case for approval to  
23 recover the electric utility share of capital investments projected for 2014, 2015,  
24 and the five months ended May 31, 2016. While the Company's plan projects  
25 additional expenditures for electric AMI meters in 2016 and 2017, those costs are  
26 not being included in our request for recovery in this case.
- 27           • The Company's request for recovery differs in substance from the BGE request  
28 because the Company's request is being made as part of a general rate case filing.  
29 It appears that the Maryland Commission was being requested to decide only if  
30 BGE's smart grid initiative should proceed, and decide if BGE's request for a  
31 temporary recovery mechanism in Case No. 9208 should be approved. Any  
32 decisions regarding normal base rate recovery were outside the scope of that case.

LINCOLN D. WARRINER  
REBUTTAL TESTIMONY

1 Q. What is your recommendation to the Commission regarding Mr. Coppola's suggestion to  
2 defer the recovery of depreciation expense for AMI?

3 A. Because the facts and circumstances of the BGE request in Maryland Case No. 9208 are  
4 fundamentally different than the Company's request for cost recovery in this case, I  
5 recommend that the Commission find Mr. Coppola's suggestion regarding deferred  
6 recovery of depreciation expense to be unsupported by the Maryland Commission's  
7 Order in Case No. 9208. Denying the Company recovery of the depreciation expense on  
8 its AMI investments would be an unreasonable denial of the recovery of costs of a  
9 reasonable and prudent investment which benefits customers.

10 Q. Does this conclude your testimony?

11 A. Yes it does.

1 JUDGE CUMMINS: Cross-examination of this  
2 witness, Staff?

3 MS. DONOFRIO: Yes. Could we go off the  
4 record for just a moment?

5 JUDGE CUMMINS: Sure. Let's go off the  
6 record.

7 (Brief discussion held off the record.)

8 JUDGE CUMMINS: Back on the record.

9 Mr. Bzdok, if you would proceed.

10 (Document was marked for identification by the Court  
11 Reporter as Exhibit MEC-38.)

12 - - -

13 CROSS-EXAMINATION

14 BY MR. BZDOK:

15 Q Good afternoon, Mr. Warriner.

16 A Good afternoon.

17 Q How are you doing?

18 A I'm fine. How are you?

19 Q Good. I'm going to hand you a discovery response I  
20 received from you that I have marked as proposed Exhibit  
21 MEC-38, which is discovery response MEC-CE-551 in this  
22 case. Have I identified that correctly?

23 A Yes.

24 Q This is a discovery response prepared by you, correct?

25 A That is correct.

1 Q And in this discovery response you were answering a  
2 question from me that referenced your rebuttal testimony  
3 at page 20; is that correct?

4 A That's right.

5 Q In that rebuttal testimony, just to sort of streamline,  
6 you were responding to some testimony by my witness,  
7 Douglas Jester; is that correct?

8 A Yes.

9 Q And specifically to his recommendation to make dynamic  
10 pricing rates available immediately on an opt-in basis to  
11 customers who have smart meters; is that correct?

12 A Yes.

13 Q And you indicated that the Company is essentially already  
14 in the process of doing that and so there was no need for  
15 Commission action in that regard. Is that correct?

16 A Yes. That was my testimony.

17 Q And in the discovery response we asked you to produce the  
18 documents that represented that implementation plan that  
19 you are referring to in your rebuttal testimony, correct?

20 A Yes.

21 Q This was the discovery response and two attachments that  
22 you indicate represent that implementation plan and  
23 schedule; is that correct?

24 A Yes.

25 Q Can you just point -- So really my next couple questions

1 for you are just to help me interpret this document.

2 A O.K.

3 Q Can you explain to me what in the document represents  
4 that schedule? Is it the chart on the back or is it  
5 something else?

6 A The chart on the back represents the schedule for various  
7 releases associated with AMI systems that are under  
8 development.

9 Q O.K.

10 A So in the fourth quarter of 2015 there is a line item  
11 under release 5 for, under the DPP program, for DPP  
12 enrollment. That stands for Dynamic Peak Pricing  
13 enrollment. So the rest of the document relates to the  
14 business process that's being developed to allow the  
15 Company to enroll customers in Dynamic Peak Pricing as  
16 well as what all the system requirements are to be able  
17 to support that from a technology perspective.

18 Q So the schedule for opting in, anybody who chooses to,  
19 that has a smart meter, in dynamic pricing, is reflected  
20 in this document, the fourth quarter of this year? Am I  
21 understanding your testimony?

22 A That's when we plan to have the system work completed so  
23 that it would be -- we would go live with those system  
24 implementations. So from a technical perspective we  
25 would be able to enroll customers in Dynamic Peak

1 Pricing. We would initially ramp customers into the  
2 Dynamic Peak Pricing rate, because we want to be able to  
3 test the system's functionality to make sure that it's  
4 working the way that we expect it to before we enroll a  
5 lot of customers and create a lot of billing problems for  
6 customers.

7 So we're going to test the program and  
8 make sure it works the way that we expected it to in a  
9 go-live production environment. And then customers who  
10 wish to opt in will be able to do so.

11 Q O.K. So just from a practical perspective, critical peak  
12 events, by and large, happen during the summertime,  
13 correct?

14 A That is correct.

15 Q So are we talking about testing during this summer, or  
16 testing during next summer of 2016?

17 A Well, we would be testing in a test environment before we  
18 go live with that system in the fourth quarter of 2015.  
19 And then after we go live, we'll need to do some testing.  
20 And I don't know if that's going to require us to  
21 actually be in an actual demand or sponsored event during  
22 the summer or if we can do a test event before the summer  
23 to make sure everything is working properly.

24 Q O.K. So I mean just as a practical matter, my mom and  
25 dad are Consumers customers. If they want, if they have

1 their smart meter and they want to opt into the critical  
2 peak rate, when are they going to be able to start doing  
3 that?

4 A When are they going to start taking service on Dynamic  
5 Peak Pricing?

6 Q Yes.

7 A Well, they would be able to enroll in Dynamic Peak  
8 Pricing after that system goes live in the fourth quarter  
9 of 2015.

10 Q O.K.

11 A So I would imagine that your parents are interested in  
12 the time of use aspect of that rate?

13 Q Well, they're not yet because I haven't told them about  
14 it yet.

15 A All right. Sorry. But from my own experience, my father  
16 is interested in the rate too, because he wants to pay  
17 the off peak charge.

18 Q So basically the testing and implementation issues that  
19 you're referring to in your rebuttal testimony on page 20  
20 are issues that are being worked through, according to  
21 the information in this report, prior to the fourth  
22 quarter of 2015, and then the enrollment starts the  
23 fourth quarter of 2015. Is that --

24 A So the process for testing post go live is similar to the  
25 same process we have used for the other system

1 implementations we have had with AMI. We implement, we  
2 test the system before it goes into production, but then  
3 once it gets into production we do a gradual ramp-up of  
4 moving customers into that program so that we can make  
5 sure that in a live environment, that the systems are  
6 working exactly the way we expect them to.

7 Q So what do you mean by gradual ramp-up?

8 A Well, for example when we implemented the capability to  
9 do remote disconnection and reconnection using AMI  
10 technology, once we implemented that we limited the  
11 number of customers who we disconnected that first week  
12 to a handful, maybe five customers that first week. And  
13 we went through and we checked the process step by step  
14 to make sure that everything that we planned for that  
15 process worked the way we expected it to.

16 And then once we had confirmed that, then  
17 the next week we would include 25 customers, and then do  
18 the same thing, not step by step, but we would check and  
19 make sure that all 25 of those customers had a  
20 disconnection when they were supposed to have a  
21 disconnection and that they had a reconnection when they  
22 were supposed to have a reconnection.

23 Q So just as a practical matter, if you have a smart meter,  
24 when is this sort of ramp-up process going to be over?

25 When are we going to be at the point where if you have a

1 smart meter you can opt in and start using the program?

2 A Well, as soon as we get through that testing, then it  
3 would be available to all customers. I would guess based  
4 on our experience that we could get through that ramp-up  
5 within a month.

6 Q Within a month of commencement in fourth quarter of 2015?

7 A Right. So early in the first quarter of 2016, any  
8 customer who has a smart meter and wants to enroll in  
9 dynamic pricing, all the systems should be tested and in  
10 place for them to do that.

11 MR. BZDOK: Thank you. That concludes my  
12 questions.

13 And I'm going to move to admit MEC-38 at  
14 this time.

15 JUDGE CUMMINS: Very well.

16 Mr. Janiszewski, you had questions?

17 MR. JANISZEWSKI: Yes, your Honor.

18 JUDGE CUMMINS: Please proceed.

19 - - -

20 CROSS-EXAMINATION

21 BY MR. JANISZEWSKI:

22 Q Hello, Mr. Warriner.

23 A Good afternoon.

24 Q You are responsible for overseeing the implementation of  
25 the AMI program; is that correct?

1 A My role on the AMI program is to support the program by  
2 doing analysis of the program's business case, so.

3 Q Financial --

4 A The financial analysis of the program.

5 Q Financial analysis?

6 A Exactly.

7 Q Who is currently responsible for the implementation of  
8 the program?

9 A Well, Mr. Garrick Rochow is our Vice President, and he is  
10 the managing director of the program.

11 Q Have you been involved with automatic meter reading  
12 programs installed by other utilities before the  
13 Consumers Energy AMI program?

14 A You mean have I worked at other utilities?

15 Q Sure.

16 A O.K. No, I have not.

17 Q So is it a fair statement that you have been learning  
18 about AMI meters, their features and benefits, slowly and  
19 progressively while involved with Consumers Energy  
20 program, correct?

21 A What do you mean by slowly and progressively?

22 Q That you have been learning about the program as the AMI  
23 roll out has been going on?

24 A Well, I would say that I have been learning at an  
25 accelerated pace. I've been in my role with the program

1 since October of 2012.

2 Q Could you please turn to page 23 of your rebuttal  
3 testimony?

4 A I'm there.

5 Q On lines 15 through 14, you state that -- I'm  
6 paraphrasing -- the Company has been conservative in  
7 estimating the future benefits of AMI. Is that a fair  
8 characterization?

9 MS. HALL: Objection. That is a  
10 question. Lines 14 and 15 include -- I think you just  
11 need to clarify what lines you're talking about.

12 MR. JANISZEWSKI: I was referring to  
13 lines 15 through 24.

14 A So on line 15 the question says: Can you provide  
15 examples of how the Company has been conservative with  
16 respect to estimating the future benefits of AMI.

17 And then in lines 17 through 24, I give  
18 examples of situations where, in my opinion, I believe  
19 the Company has been conservative. And there are other  
20 benefits associated with AMI that haven't been  
21 quantified.

22 Q (By Mr. Janiszewski): Does the higher meter reading rate  
23 by itself justify installing the AMI program?

24 A You mean would we invest in AMI for the sole reason of  
25 increasing our meter reading rate?

1 Q Sure, that's another way to pose the question.

2 A Yes. So I was just trying to understand your question.

3 I don't -- No, I don't believe that the  
4 Company would implement AMI just to increase the actual  
5 meter reading rate.

6 Q Moving on to page 24 of your rebuttal testimony,  
7 beginning on line 15, you discuss additional benefits of  
8 outage management. Is that a fair characterization?

9 A Yes. So what we plan to do with AMI data is, we'll take  
10 indicators from the meter that tell us when a customer  
11 has experienced a power outage and we'll transmit that  
12 data into our outage management system so that  
13 information can be analyzed by our outage management team  
14 and we can respond more quickly than we would if we  
15 relied on customers phoning in to report an outage.

16 Q Do you have anything to add on that topic on how these  
17 benefits would accrue to customers regarding these, the  
18 additional benefits of outage management?

19 A On page 25 of my rebuttal testimony I discussed some  
20 analysis I had done using an on-line tool called the  
21 Interruption Cost Estimate Calculator, that looks at --  
22 or I was able to translate our planned improvement in  
23 interruption duration and use that model to estimate  
24 savings from a customer's perspective that would be in  
25 addition to the utility cost.

1                   It would be things like their being able  
2                   to maintain production and avoid down time due to  
3                   outages.

4   Q            On lines 4 through 11 of page 25 of your rebuttal you  
5                   describe the process used to quantify the outage  
6                   duration.  What I'm focusing on is the subsequent  
7                   paragraph where you come up with a one percent to five  
8                   percent figure that the Company expects reductions in  
9                   customers outage duration.  Is that correct?

10  A            Yes.  That's the improvement that we expect from  
11                   integrating the AMI meter data with our outage management  
12                   system.

13  Q            Do you have a rough estimate of how many hours or minutes  
14                   that improvement translates to?

15  A            It would be in the range of two to ten minutes per  
16                   customer per year.

17  Q            Do you agree that in order to achieve that reduction in  
18                   outage time, that repair crews would need to get to  
19                   customer homes or places of business sooner and need to  
20                   work faster than in the past?

21  A            My expectation is that with the AMI data integrated into  
22                   our outage management system, we'll be able to identify  
23                   the source of outages quicker and so we will be able to  
24                   direct crews to the correct location.  And we'll be able  
25                   to realize improvements in outage duration by having more

1 information at the start of the outage. It doesn't have  
2 anything to do with the crews working faster; it just has  
3 to do with getting the crews to the right place faster.

4 Q So it's your opinion as of right now, there is no  
5 inefficiencies with how fast crews work?

6 A The efficiencies of our crews in restoring and outages is  
7 not a subject of my testimony.

8 Q You mentioned the Interruption Cost Estimate Calculator.  
9 Could you please describe the basis for the one percent  
10 to five percent outage savings? Is that solely derived  
11 from this calculator?

12 A The one percent to five percent expectation is not  
13 derived from the calculator. That is input I received  
14 from our outage management leadership. So that was  
15 provided to me as their expectation from being to able to  
16 integrate the AMI data into the outage management system.

17 The Interruption Cost Estimate Calculator  
18 took that estimate of the number of outage minutes and  
19 the duration and the frequency, along with information  
20 about the number of customers that we have and whether  
21 they are industrial, commercial, or residential, and what  
22 their average use is, and from those we were able to  
23 calculate it, the interruption cost.

24 Q Besides this one percent to five percent outage  
25 reduction, the information being passed down to you, do

1 you know any details of the basis for these numbers, this  
2 estimate?

3 A Do I know the basis for the Interruption Cost Estimate  
4 Calculator?

5 Q No. The one percent to five percent estimated reductions  
6 in customer outage duration, you mentioned that this  
7 information was passed down to you from outage management  
8 leaders. Do you happen to know any details about the  
9 basis for this?

10 A Yes. So we have situations in our service restoration  
11 called nested outages where we will send a crew to repair  
12 an outage situation based on the information that we  
13 have. So the crew goes out to look at that location, and  
14 makes the repair that's been called for, and then we find  
15 out after the fact that there are other customers that  
16 have not been restored as we expected. So there was  
17 another problem on the system that had not been  
18 identified.

19 So the ability to identify all customers  
20 that are experiencing an outage will reduce the incidents  
21 of crews leaving outage locations before all of those  
22 customers have been restored.

23 Q Well, it's not as though repair crews are currently  
24 wandering around aimlessly right now. I mean is there  
25 currently a system in place to where they have targeted

1 repairs? Is this really an area where a difference is  
2 going to be made?

3 A Currently our outage management system depends on  
4 customer calls and reports to identify the location of an  
5 outage. So the outage management system will use those  
6 calls and estimate what equipment needs to be inspected  
7 or repaired to resolve that outage. So what happens as a  
8 result of that process is that not all of our customers  
9 call in to the Company to let us know that they're  
10 experiencing an outage, so we don't have complete  
11 information to use in our outage management system. So  
12 we send a crew out to a location knowing that there is an  
13 outage, but we don't know the full extent of the outage  
14 until somebody -- until a customer calls after the fact  
15 and says: I see that power has been restored in my  
16 neighborhood but my power hasn't been restored.

17 With AMI we'll be able to identify those  
18 customers without them even calling us to let us know, so  
19 we'll know sooner exactly who is out of power and what  
20 equipment needs to be repaired.

21 Q For comparative purposes, to your knowledge have other  
22 utilities with this technology already installed and  
23 operable, have they experienced real percentage savings  
24 similar to the Company's estimate?

25 A The articles that I have read have indicated that other

1 utilities have achieved results well beyond the  
2 expectations that we have at this point.

3 Q Have you provided any of this information in your  
4 testimony or exhibits?

5 A I provided information in response to an audit request  
6 from the Michigan Public Service Commission Staff. That  
7 request is labeled Request No. 6. The question states:  
8 Witness Poppe claims that installing the AMI meters will  
9 shorten outage times on page 16 of her testimony. Please  
10 provide evidence that AMI meters are currently decreasing  
11 outage times where currently installed.

12 And so my response to that included a few  
13 reports. One is from the U.S. Department of Energy.  
14 It's titled Smart Grid Investments Improve Grid  
15 Reliability, Resilience, and Storm Response. That's a  
16 report from November of 2014.

17 There is another report from the  
18 Department of Energy titled Smart Meter Investments  
19 Benefit Rural Customers in Three Southern States.

20 And there is a report or a white paper  
21 from Silver Spring Networks called How The Smart Grid  
22 Makes Restoration Faster and Easier for Utilities.

23 Q Could you please turn to page 27 of your rebuttal.

24 A I'm ready.

25 Q Starting on line 3 and really down to the complete bottom

1 of this page you are rebutting the Attorney General  
2 witness's recommendation concerning the Commission  
3 deferring the recovery of depreciation costs associated  
4 with the Company's investment in AMI. This is something,  
5 a proposal that you disagree with; is that correct?

6 A Yes. I disagree with Mr. Coppola's proposal.

7 Q Are you confident in the reasonableness of your forecast  
8 in that cost savings will materialize in excess of the  
9 cost of the AMI program?

10 A I'm very confident.

11 Q Given this confidence in your savings projection, what is  
12 the risk then to the Company of recovering the  
13 depreciation expense as savings materialize?

14 A I don't know how to describe what the risk would be. I  
15 believe that Mr. Coppola's recommendation is based on an  
16 order that was made in response to a request that has no  
17 resemblance to the Company's request for recovery of AMI  
18 costs that are incurred.

19 Q Well, I can get to that.

20 On lines 1 through 3 of page 28 of your  
21 rebuttal testimony, you state that Mr. Coppola did not  
22 present a cost-benefit analysis proving that deferring  
23 depreciation will be advantageous to customers. Since  
24 this is a relatively straightforward issue, why would the  
25 Commission, would they need a cost-benefit analysis to

1 understand that deferring recovery of depreciation would  
2 mitigate risk for customers?

3 A Can you repeat your question, please.

4 Q Deferring recovery of depreciation within the context of  
5 this AMI program would mitigate risks for customers. Is  
6 that correct?

7 MS. HALL: Objection. Asked and  
8 answered.

9 JUDGE CUMMINS: I'm going to overrule it.  
10 I'll allow it. Mr. Warriner, if you could.

11 A If the Commission was to defer recovery of depreciation  
12 expense associated the AMI investment for a future  
13 recovery, then I believe the Company would be required to  
14 establish a regulatory asset for that depreciation  
15 expense, and that regulatory asset would grow over time  
16 based on the Company's cost of capital. So customers  
17 would be at risk for future increases in the cost of  
18 capital for the Company.

19 Q (By Mr. Janiszewski): Going back to just potential  
20 outage savings, did you assume the outage savings were  
21 calculated across the entire residential and commercial  
22 customer base of the approximately 1.5 million customers,  
23 or only a select group of customers?

24 A The way that the calculation was performed by the  
25 Interruption Cost Calculator, it looks at the total

1 customer population of the utility and uses indicators of  
2 total customer interruption frequency and customer  
3 duration.

4 Q What value did you assign per hour or minute of time that  
5 the average residential and commercial customers would  
6 save, if you know?

7 A The value of the time in terms of dollars was calculated  
8 by the Interruption Cost Calculator.

9 Q Do you know what value was assigned per hour or minute of  
10 time that the average residential and commercial customer  
11 would save?

12 A I don't recall that.

13 Q Do you recall and know if your calculation assumed that  
14 for each minute of time of outage the residential  
15 customer or commercial customer would incur a cost  
16 equivalent to your assumption?

17 A I'm sorry. Can you clarify your question?

18 Q I'll try to rephrase.

19 Does your calculation of outage savings  
20 assume that for each minute of time of outage, the  
21 residential customer or commercial customer incurs a cost  
22 equivalent to your assumption?

23 A When you say your assumption, which assumption are you  
24 referring to?

25 Q I believe the value -- well, since you said -- O.K.

1 Well, you said you didn't recall the value assigned,  
2 correct? Value assigned per hour or minute of time that  
3 the outage --

4 A So the value is calculated by the Interruption Cost  
5 Calculator. It's not an assumption that I made.

6 MR. JANISZEWSKI: I think I prepared a  
7 convoluted question here. I'll just move on.

8 I have no further questions.

9 JUDGE CUMMINS: Thank you, Mr.  
10 Janiszewski.

11 Mr. Keskey, questions of this witness?

12 MR. KESKEY: Well, I guess I was hoping  
13 Staff would go next.

14 JUDGE CUMMINS: Why don't we go off the  
15 record for a second.

16 (Discussion was held off the record.)

17 - - -

18 (Transcript continues on Page 1003 of the  
19 Confidential Record.)

20 - - -

21

22

23

24

25

1 (Transcript continues following Page 1013 of the  
2 Confidential Record.)

3 - - -

4 JUDGE CUMMINS: That being the case, it's  
5 closing in on 5:00 o'clock, we're going to take a break  
6 at this point, resume again tomorrow morning with the  
7 Staff's questioning of Mr. Warriner, and this will be in  
8 the nonconfidential portion with the questions that the  
9 Staff wants to ask. And we'll continue I think at that  
10 point with Mr. Keskey's questioning of this witness.

11 That being the case, we're off the record  
12 for now. We're adjourned until tomorrow at 9:00.

13 MR. FILLER: Thank you.

14 MR. KESKEY: Thank you.

15 (At 4:52 p.m., the hearing adjourned to Friday, June  
16 12, 2015, at 9:00 a.m.)

17 - - -

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

## C E R T I F I C A T E

We, the undersigned, do hereby certify that we reported stenographically the foregoing proceedings had in the within-entitled matter, being Case No. U-17735, before Mark E. Cummins, Administrative Law Judge with Michigan Administrative Hearing System, at 7109 West Saginaw Highway, Lansing, Michigan, on June 11, 2015, and that the foregoing transcript constitutes a full, true and correct transcript of our said stenographic notes.

---

---

Dated: June 11, 2015