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January 6, 2015

Ms. Mary Jo Kunkle
Michigan Public Service Commission
7109 W. Saginaw Highway
P.O. Box 30221
Lansing, Michigan 48909

Re: MPSC Case No. U-17689

Dear Ms. Kunkle:

Attached for paperless electronic filing in the above-referenced matter are Qualifications, Direct Testimony and Exhibits of Alexander J. Zakem on behalf of Energy Michigan Inc. Also attached is a Proof of Service indicating service on the parties.

Thank you for your assistance in this matter.

Sincerely yours,

VARNUM
Timothy J. Lundgren

Digitally signed by Timothy J. Lundgren
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Date: 2015.01.06 14:32:56 -05'00'

Timothy J. Lundgren

TJL/kc

c. ALJ
Parties

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter on the Commission's own motion to commence a proceeding to implement the provisions of Public Act 169 of 2014, MCL 460.11(3) *et. seq*., with regard to **DTE ELECTRIC COMPANY**.	))))))	Case No. U-17689

DIRECT TESTIMONY

OF

ALEXANDER J. ZAKEM

ON BEHALF OF

ENERGY MICHIGAN

Q. Please state your name and business address.

A. My name is Alexander J. Zakem and my business address is 46180 Concord, Plymouth, Michigan 48170.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Energy Michigan.

Q. Please state your professional experience.

A. Since January of 2004 I have been an independent consultant providing services to various clients, including members of Energy Michigan.

From March 2002 to December 2003, I was Vice President of Operations for Quest Energy, an alternative energy supplier in Michigan. My responsibilities included the overall direction and management of Quest's power supply to its retail customers. This included power supply planning, development of customized products, negotiation with suppliers, planning and acquiring transmission rights, and scheduling and delivery of power. It also included managing risk with respect to market price movements and variation of customer loads.

Prior to retiring from Detroit Edison in 2001, from 1998 to 2001 I was the Director of Power Sourcing and Reliability, responsible for purchases and sales of power for mid-term and long-term periods, planning for generation capacity and purchase power

needs, strategy for and acquisition of transmission rights, and related support for regulatory proceedings.

Additional experience, qualifications, and publications are contained in Exhibit EM-1 (AJZ-1).

Q. Have you testified as an expert witness in prior proceedings?

A. Yes. I have testified as an expert witness in several proceedings before the Michigan Public Service Commission ("Commission"), on topics such as standby rates, retail rates and regulations, recovery and allocation of costs and revenues, and the effects of rate restructuring. I have also testified before the Federal Energy Regulatory Commission. Case citations are in Exhibit EM-1 (AJZ-1).

Q. Are you sponsoring any exhibits?

A. Yes. I am sponsoring the following exhibits:

Exhibit EM-1 (AJZ-1)	Qualifications
Exhibit EM-2 (AJZ-2)	Split of Uncollectibles – with Uncollectibles as Proposed by DTE
Exhibit EM-3 (AJZ-3)	Split of Uncollectibles – with No Change in Current Uncollectibles

Q. What is the purpose of your testimony?

A. There are four topics in my testimony. Two topics propose improvements in the application of cost of service analysis, which I will explain and recommend to the Commission. These are straightforward.

The third topic addresses the Midcontinent System Operator's ("MISO's") assessment of resource adequacy for 2016, which DTE has brought up as a factor behind DTE's proposals. MISO's assessment, a specialized study required by the North American Electric Reliability Corporation ("NERC") can be misinterpreted, and I will offer the Commission a more complete picture of the MISO assessment.

The fourth topic discusses aspects of DTE's proposed cost of service methods on which the Commission will have to make decisions, and I will offer a more complete perspective and recommendations on these aspects.

The topics in my testimony are:

1. *Improvement – Separate Uncollectibles by Distribution and Power Supply*:

   Separate the "uncollectibles" into a distribution portion and a power supply portion, and show how each portion should be included in the design of distribution and power supply rates.

2. *Improvement – Continue to Allocate Uncollectibles as a Company-Wide Overhead*:

Explain and recommend a more rational and reasonable way to allocate uncollectibles in the cost of service, compared to DTE's proposal.

3. *Accurate Interpretation – MISO's Resource Adequacy Report for Does Not Support DTE's Cost of Service Changes:*

Explain MISO's assessment compared to DTE's misinterpreted implication of a resource shortage in 2016.

4. *Policy – Allocation Methods for Generation Portfolio and Resulting Rate Design*:

Assess factors regarding the fair allocation of generation fixed costs and DTE's proposed rate design, which the Commission should consider in its decision.

1. Improvement – Separate Uncollectibles by Distribution and Power Supply

Q. What are "uncollectibles" ?

A. The term "uncollectibles" in the context of cost of service is jargon for unpaid electric utility bills. If a customer does not pay a bill, then the utility is short of money needed to cover its costs. Historically, the annual amount of uncollectibles has been able to be estimated reasonably well enough so that it can be included in authorized rates as another cost. The amount of uncollectibles can change in a rate case. In this proceeding, DTE has not proposed any change to the *total amount* of uncollectibles included in rates, but it has proposed a change in the *method* by which the total amount of uncollectibles is allocated to the major rate classes.

Q. How are uncollectibles presently included in rates?

A. At present, *all* uncollectibles are included in the *distribution* part of DTE's rates. (See, *DTE workpaper, Excel file "MLH-12 U-16472 Order COS 12-20-2011," sheet DIST, line 2308*.)

Q. Do uncollectibles include only distribution costs?

A. No. Obviously, if a customer does not pay a bill, that bill includes *both* distribution *and* power supply charges. As a result, total uncollectibles include compensation to the utility for both distribution and power supply costs.

Q. Should all uncollectibles be included only in the distribution part of DTE's rates?

A. No. Because uncollectibles include both distribution and power supply charges, uncollectibles should be separated in a reasonable way into a distribution portion and a power supply portion. The distribution portion should be included in distribution rates, and the power supply portion should be included in power supply rates.

DTE provides separate distribution and power supply services and charges separately for each. Thus, available information allows uncollectibles to be divided up into the respective service components.

Distribution customers should pay a fair share of uncollectibles in their distribution rates, and power supply customers should pay a fair share of uncollectibles in their power supply rates. Dividing up total uncollectibles into a distribution portion and a power supply portion, a simple task, is an equitable way to charge customers for uncollectibles.

Including all uncollectibles only in distribution rates, as DTE does presently, means that customers of other power suppliers – Alternate Electric Suppliers – who take only distribution service from DTE are compensating DTE for DTE's power supply customers who do not pay their power supply charges. Distribution and power supply are *separate services* with separate costs and separate charges,

and the components of those charges should not be mixed. In fact, proper separation of distribution and power supply costs is one of the reasons for doing a careful cost of service study.

Q. Has a similar separation been done before?

A. Yes. In Consumers Energy's last general rate case U-17087, the subsidy for the E-1 rate was allocated to various rate classes, and then separated within each rate class into a distribution portion and power supply portion, which were then included in the respective components of the rate design revenues. I am proposing a similar method for the DTE uncollectibles.

Q. How would the separation of uncollectibles into distribution and power supply components be done for DTE?

A. The information on the two components is available, and the method is straightforward. DTE has allocated the total uncollectibles approved in it last rate case U-16472 to major rate classes and asserts that the amount allocated to each rate class is the responsibility of that rate class. The uncollectibles represent unpaid bills for each class and include both distribution charges and power supply charges. DTE also provides the distribution revenues and power supply revenues for each rate class.

If the Commission approves DTE's proposal to change the allocation method for uncollectibles, I propose that the uncollectibles that DTE allocates to each major

rate class be divided up within the class according to the proportion of distribution revenues and power supply revenues for that class.

For example, assume that $10 of uncollectibles is allocated to a rate class, and assume that distribution revenues are $30 million and power supply revenues are $70 million. Then 30% of the total class revenues of $100 million are distribution revenues. Consequently, 30% of the uncollectibles – $3 – should be put into the distribution rates, and 70% – $7 – into the power supply rates.

Q. Why is it reasonable to divide up the uncollectibles within a rate class according to the distribution and power supply revenues within the class?

A. In its proposed cost of service, DTE has allocated uncollectibles to major rate classes according to the rate class source of the uncollectibles. DTE already divides up all the charges in the rate by distribution (called "delivery") and power supply. DTE categorizes revenues from those charges as distribution and power supply. If a customer does not pay a bill, then both the distribution part and the power supply part are short. In total, considering tens of millions of dollars of uncollectibles, the proportion of distribution and power supply charges in the unpaid bills should reasonably reflect the rate designs for the class and therefore reflect the total distribution and power supply revenues for the class.

Q. Do you have an exhibit that shows how the uncollectibles should be separated into distribution and power supply components?

A. Yes. Exhibit EM-2 (AJZ-2) shows how to separate the uncollectibles into distribution and power supply components and how to include the components into the rate design targets for the major rate classes.

Exhibit EM-2 (AJZ-2) assumes that the Commission approves DTE's proposal to change the current allocation method of uncollectibles. Another exhibit, which I will explain later, assumes that the current allocation method continues.

The top box of Exhibit EM-2 (AJZ-2), lines 1-7, shows source numbers from DTE – distribution revenues, power supply revenues, and uncollectibles. Sources are noted on the exhibit.

The middle box, lines 8-19, accomplishes three tasks: (1) it backs out the uncollectibles from the distribution rates, (2) it calculates the percent of distribution and power supply revenues, and (3) it separates the uncollectibles according to the percent of distribution and power supply revenues.

The bottom box, lines 20-25, adds back the distribution and power supply components of uncollectibles into the distribution revenues without uncollectibles and into the power supply revenues.

DTE has various methods of designing rates for sub-classes of the major rate classes, and there would be no change in these methods.

Q. Does the split of distribution and power supply uncollectibles that you propose result in any changes in total uncollectibles allocated to the rate class or in total revenues for the rate class?

A. No. Total uncollectibles allocated to each major rate class remain the same – line 6 equals line 19 in Exhibit EM-2 (AJZ-2). And the total of distribution plus power supply revenues for each major rate class remain the same – line 4 equals line 24.

Q. What if the Commission rejects DTE's proposal to allocate uncollectibles by source rate class, and instead continues the present allocation method?

A. If the Commission rejects DTE's proposal and the present method of allocating uncollectibles continues, then one more intermediate step needs to be done. The present method allocates total uncollectibles across all major rate classes based on a cost of service percentage method – essentially by class revenues. Consequently, the uncollectibles revenue that is allocated to a *particular* class by the present method does not reflect the distribution and power supply proportions of only the particular class to which the revenue is allocated, but rather reflects the proportions that are in total uncollectibles.

However, since the uncollectibles for each class are known – as a result of DTE's proposal – a weighted average of the distribution and power supply proportions in each rate class can be calculated for the total company and then applied to the

uncollectibles allocated to each class. Exhibit EM-3 (AJZ-3) shows how this should be done.

Exhibit EM-3 (AJZ-3) is similar to Exhibit EM-2 (AJZ-2) with an additional box on lines 21-28 that calculates the weighted average proportion of distribution and power supply uncollectibles and splits the uncollectibles allocated to each major class by this proportion.

Again, total uncollectibles allocated to each major rate class remain the same – line 23 equals line 28 in Exhibit EM-3 (AJZ-3). And the total of distribution plus power supply revenues for each major rate class remain the same – line 4 equals line 33.

Q. What is your recommendation to the Commission?

A. If the Commission accepts DTE's proposal to change the way uncollectibles are allocated to the rate classes, then I recommend that the Commission order that the uncollectibles included in rates be separated into distribution and power supply components according to the method shown in Exhibit EM-2 (AJZ-2).

If the Commission rejects DTE's proposal to change the way uncollectibles are allocated to the rate classes and instead maintains the current allocation, then I recommend that the Commission order that the uncollectibles included in rates be

separated into distribution and power supply components according to the method shown in Exhibit EM-3 (AJZ-3).

To sum up, both of the above methods begin *after* the uncollectibles are allocated to the rate classes. Once the Commission decides, then the appropriate method of separation can be applied.

2. Improvement – Continue to Allocate Uncollectibles as a Company-Wide Overhead

Q. DTE is proposing to change the way uncollectibles are allocated to rate classes. What method are they proposing, and why?

A. DTE witnesses state:

> The proposed allocation of customer-related costs is consistent with past practice except that uncollectibles are allocated to classes based on their historic contribution to net write-offs instead of the former practice of allocating uncollectible expense to classes in proportion to their cost of service. [*Heiser direct testimony, page 7, lines7-10. Emphasis added.*]
>
> The costs associated with uncollectible expense are currently assigned based on each class's cost of service (excluding the cost of uncollectibles). A method that more accurately reflects cost causation is to measure write offs net of recoveries caused by each major class and assign the uncollectible expense on that basis. [*Heiser direct testimony, page 24, lines 17-21. Emphasis added.*]
>
> A more appropriate assignment of uncollectible expense is to allocate these costs to the customer classes that cause them. [*Stanczak testimony, page 15, lines 16-18. Emphasis added.*]

Q. Do customer classes cause uncollectibles?

A. No, they do not. Customers cause uncollectibles, not customer classes – that is, the amount of uncollectibles of a class is not determined by the electric use characteristics of the class. Contrary to the principle of cost causation, DTE's proposal puts the burden of compensation for uncollectibles on the customers in the class who do *not cause uncollectibles at all*, but rather pay their bills.

Further, DTE's proposal for allocation of uncollectibles is contrary to its rationale for changing to voltage level groups for allocation of distribution costs. DTE witness Mr. Heiser states:

> For distribution, I think grouping customers by the voltage level at which they are served is a more meaningful basis for distinguishing one class from another than the current practice of basing class groupings on the end-use of the electricity delivered. For the distribution system the costs to serve two customers at the same voltage level are similar regardless of how they use [of] the energy being delivered. [*Heiser direct testimony, page 22, lines 16-21.*]

Yet, DTE wants to bill uncollectibles to the group of customers who use energy in the same way as the group of customers who do not pay their bills, simply because they use energy in the same way, *e.g.*, for residential or commercial purposes.

A residential customer is no more responsible for – or the "cause" of – a residential customer down the block who did not pay the DTE bill than is the grocery store on the corner or the hospital a mile away. And vice versa.

Q. What is the solution to the allocation of uncollectibles?

A. The solution is apparent and simple – no change in allocation method. The utility must recover uncollectible expenses. Uncollectibles are a company-wide overhead, independent of the electric use of rate classes. Thus the uncollectibles should be allocated in a general and equitable way to all rate classes to be paid by all customers. The current method of allocating uncollectibles to rate classes does this. DTE has not provided any reason to change.

I recommend that the Commission deny DTE's proposal to change the allocation method for Uncollectibles.

The only change I am proposing for uncollectibles is to separate the distribution and power supply components within the class to which uncollectibles are allocated, independent of the method by which they are allocated, as I have described in Section 1 of my testimony and in Exhibit EM-3 (AJZ-3).

3. MISO's Resource Adequacy Report for 2016 Does Not Support Cost of Service Changes

Q. DTE explains that a generation resource "shortfall" published by MISO is one of the reasons behind its proposed changes in cost of service. What report is DTE referring to?

A. DTE references a MISO presentation entitled "2016 Resource Adequacy Forecast," dated June 5, 2014 (MISO June 5 Report). [*Stanczak direct testimony, page 7, line 4.*]

First, the cited report should be clarified. The MISO June 5 Report, as cited above, appears in the June 5 and July 10 meeting materials of the MISO Supply Adequacy Working Group, with the same "June 5" date in the title but with slight revisions in the July 10 materials. In its discovery response EMDE-9, DTE references the version presently in MISO's June 5 meeting materials, and I will reference the same version, which this testimony will refer to as the "MISO June 5 Report."

Q. What is DTE interpreting from the MISO June 5 Report?

DTE witness Mr. Stanczak offers as one of the reasons to reevaluate DTE's cost of service and rate design "the anticipated generation resource shortfall in Midcontinent Independent System Operation (MISO) Zone 7 (the lower peninsula of Michigan) which could occur as early as 2016." [*Stanczak direct testimony, page 5, lines 19-21.*]

DTE also states that the MISO presentation:

> . . . indicates that the MISO Central & North Regions are expected to have a 2.3 GW Resource Requirement shortfall in 2016. Specifically, in Zone 7 (Michigan excluding Upper Peninsula), where DTE Electric's service territory is located, a 1.9 GW Resource Requirement shortfall is expected in 2016. [*Stanczak direct testimony, page 7, lines 5-8.*]

Q. What is the intent of the MISO report?

A. MISO is required by the NERC to provide various types of information. One of the requirements is to compare a long-term load forecast to existing and known planned generation capacity. The difference shows how much additional capacity would be needed. It is important to recognize that while the future load is generally *trended up* based on past history and economic forecasts, the supply is *static* except for known additions.

Q. Is MISO expecting a shortage of capacity in 2016?

To the contrary, MISO is not *anticipating, expecting, or predicting* a shortage or surplus of the magnitudes shown in the MISO June 5 Report, but rather simply *calculating* how much additional capacity is needed. MISO refers to its calculated number as a "shortfall," not "shortage." "Shortfall" is the difference between two precisely defined numbers. "Shortage" implies there is not enough to go around.

MISO's actual expectations are different – it expects that the "shortfalls" it reports to the NERC *will change*. The MISO June 5 Report, on page 16, which shows only the North/Central region, with a 2.3 GW shortfall, states:

> This slide shows a **preliminary forecast** of a 10-year period, as is required for the NERC Long Term Reliability Assessment. MISO fully expects that **these figures will change significantly as future capacity plans are solidified** in the future by load serving entities and state

> commissions. [*MISO June 5 Report, page 16. Emphasis in original*. https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2014/20140605/20140605%20SAWG%20Item%2003%202014%20OMS-MISO%20Survey%20Update.pdf]

And MISO's report to the NERC states:

> MISO is projecting that both the prospective and adjusted-potential margin will stay above the 14.8% planning reserve margin for the assessment period. The prospective margin includes both the low certainty resources identified in the Resource Adequacy survey, existing other capacity and resources that are currently under study in the MISO interconnection queue but do not have a signed interconnection agreement. It's important to note that while the anticipated margin does drop below the requirement MISO fully expects that the margin shortfall will change significantly as future capacity plans are solidified in the future by load serving entities and state commissions. This expectation is represented in both the prospective and adjusted-potential margin." [*MISO SAWG meeting materials, July 10, 2014, "Draft LTRA Narrative Review Language." Emphasis added. https://www.misoenergy.org/Library/MeetingMaterials/Pages/SAWG.aspx See, 2014, meeting 20140710, meeting materials.*]

MISO also explained the situation to its board of directors, at the October 22, 2014, meeting of the board's System Planning Committee. Slides similar to those in the MISO June 5 Report were presented at the meeting. The publication *MW Daily* reported:

> "Michigan is where there is the most turbulence in terms of generation committed to the MISO market," Claire Moeller, MISO executive vice president of transmission and technology, said during the meeting. To address that shortfall, Moeller stressed, does not necessarily mean a fresh spate of generation construction is necessary in the next couple of years. "At this point, it's not a lack of physical capacity but a lack of commercial deals to contract for that capacity," he said. "In the short run, the notion that Michigan has to build 3,000 MW of capacity is not the impression I want to leave you with." [*MW Daily, October 22, 2014. Emphasis added. http://www.platts.com/latest-news/electric-power/louisville-kentucky/lower-michigan-electric-power-capacity-deficit-21437818*]

Q. Does MISO's 2.3 GW "shortfall" for North/Central in 2016 imply a 2.3 GW "shortage" of capacity?

A. Not at all. MISO performs its calculations according to particular assumptions. There is additional capacity that affects the overall MISO surplus/shortage position that is not included under the assumptions that MISO uses in its report to the NERC.

Q. Would you give some examples?

A. First, the 2.3 GW shortfall applies only to the North/Central region. MISO's South region has a *surplus* of 2.5 GW. [*MISO June 5 Report, page 3.*] MISO nets all the zones 1-7 in North Central to get a 2.3 GW shortfall, but it does *not* net the South zones 8-9 against the North/Central zones. [*MISO June 5 Report, page 7.*] For MISO in total, North/Central and South regions combined, MISO's position in 2016 would be a 0.2 MW *surplus*, not shortfall.

Transmission transfer capability, from South to North/Central, comes into play if netting South against North/Central. MISO's estimate of transfer capability is about 4 GW. *["Midwest ISO Presentation to Entergy Regional State Committee Work Group," November 17, 2010, page 13.*] This alone would allow netting to an overall MISO surplus.

A MISO presentation at the February 6, 2014, SAWG meeting put the estimated transfer capability for capacity purposes at 1.5 to 3.0 GW. [*"OMS/MISO*

Resource Adequacy Survey Update," January 31, 2014, page 2, in SAWG meeting materials of February 6, 2014. *https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2014/20140206/20140206%20SAWG%20Item%2004%20OMS-MISO%20Survey%20Update.pdf*] This would change the 2.3 GW shortfall to a number between a 0.8 GW shortfall for North Central to a 0.2 GW surplus for MISO overall.

At present, MISO is in a dispute with the Southwest Power Pool ("SPP") regarding sharing contract path transmission, and pending resolution of that dispute is *administratively limiting* the South to North/Central transfer capability to 1 GW for the purpose of MISO's annual capacity auction. A 1 GW netting would reduce the North/Central shortfall to 1.3 GW. Again, the 1 GW limit is an administrative limit, not an operational limit.

Q. Are there other resources not being counted?

A. Yes. MISO is not counting resources that were labeled "low certainty" resources in the Organization of MISO States (OMS) survey. These resources have *not* declared an intention to retire, but they are not included in either the retirements or in usable resources. MISO puts this number at 2.6 GW for 2016. [*MISO "MTEP14" Report, December 2014, Section 6.2, page 147.* *https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholde*

r/BOD/BOD/2014/20141211/20141211%20BOD%20Item%20IXA%20MTEP%2014%20for%20Board%20Approval.pdf]

Also on June 5, 2014, at the SAWG committee meeting, MISO showed an "unused capacity" report. These were resources that were not counted, for a number of different reasons displayed in the report. The total was 3,615 MW (3.615 GW). While a good portion of the 3,615 MW is out of the game, another good portion of these resources might well be available or become available in 2016. For example, 1,014 MW of capacity with "insufficient transmission reservation"; 460 MW of capacity composed of units less than 50 MW; and part of 525 MW that was shown as "retirement" but part of which (unknown to the public at present) could end up still running as SSR units. [*SAWG meeting materials, June 5, 2014, "2014-2015 PRA, Unused Capacity by Reason," June 5, 2014, page 2. https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2014/20140605/20140605%20SAWG%20Item%2005%20Unused%20Capacity.pdf*]

Q. Are there other factors that might affect the determination of a "shortfall"?

A. Yes. First, the MISO June 5 Report was based on the current required reserve margin of 14.8%. MISO has recently reduced the reserve margin for the 2015-16 Planning Year to 14.3%, a reduction of 0.5%. If 14.3% is used in 2016-17 instead

of 14.8%, that would reduce MISO's capacity requirement – applied to approximately 130 GW of forecast demand – by about 650 MW.

Second, the New Covert power plant in Michigan intends to commit capacity to PJM in 2016. This would remove 1.1 GW of capacity from MISO and from Michigan Zone 7, increasing the Zone 7 shortfall from 1.9 GW to 3.0 GW, according to MISO. [*MISO "Long-Term Resource Adequacy Update," Board of Directors, System Planning Committee, October 22, 2014, pages 5-6.* https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/BOD/System%20Planning%20Committee/2014/20141022/20141022%20System%20Planning%20Committee%20of%20the%20BOD%20Item%2004%20Long%20Term%20Resource%20Adequacy%20Assessment.pdf]

Third, relative capacity prices among various regional transmission organizations ("RTOs") could attract more capacity to MISO, if MISO capacity prices rise as supply becomes tighter. For example, DTE's anticipated MISO capacity price for 2016-2017 is $27.00 per kW-year, as noted previously. The PJM auction 2016-2017 capacity price cleared at $59.37 per MW-day, equivalent to $21.67 per kW-year, which is *lower* than DTE's anticipated MISO 2016-2016 price of $29.00 per kW-year. Currently, the PJM capacity price is higher than the MISO price, which is why some capacity owners such as Tenaska/New Covert are seeking to sell to PJM – but that may not continue in the future.

Q. Does a shortfall in Zone 7 (lower Michigan) imply that resource adequacy for lower Michigan is less than for other zones in MISO?

A. No, not at all. MISO operates as a unified system. The Capacity Import Limit into Zone 7 is 3,813 MW, sufficient to cover the 2016 Zone 7 shortfall with or without New Covert, so resource adequacy in Zone 7 is the same as for all of MISO.

Q. If retail customers switch suppliers in Michigan, does that affect MISO's reported shortfall or surplus?

A. No. MISO's calculation of shortage or surplus does not depend on which suppliers serve which customers. When a retail customer changes suppliers, capacity is *freed up* from the old supplier and *becomes available in the market, or in the MISO auction*, for the new supplier. In fact, when a retail customer changes suppliers during a Planning Year, MISO *automatically transfers* the financial responsibility for the customer's portion of capacity from the old supplier to the new supplier, according to the MISO tariff. Thus, there is no change in the overall shortage or surplus calculation.

MISO serves all load using all resources – it does not dedicate specific resources to customers of specific suppliers. If a retail customer switches suppliers, MISO supply/demand reliability and Zone 7 Michigan supply/demand reliability do not change because the total MISO load stays the same and the total MISO supply

stays the same, as does the Zone 7 load and the capacity resources that are credited with providing Zone 7 capacity requirements.

Retail customer switching has no impact, positive or negative, on MISO's shortfall or surplus and consequently no impact on the need for additional capacity in MISO or in a zone.

What changes due to retail switching is the amount of *financial responsibility* for capacity that suppliers have, not the amount of *physical* responsibility, and consequently any MISO shortfall or surplus is not affected. Under the MISO tariff, physical capacity is pledged *to MISO*, while suppliers (load serving entities) are responsible for the price of that capacity by owning or acquiring Zonal Resource Credits (ZRCs).

Q. As cited previously, DTE concludes that the "shortfall" shown in the MISO June 5 Report is be an "issue" in revisiting DTE's cost of service and rate design. What is your opinion?

From DTE's focus on the "shortfall" in the MISO June 5 Report that it refers to in this proceeding, and from DTE's concern with how a shortage might affect capacity obligations of suppliers, which it discusses in its recently filed general rate case, Case No. U-17767 [*U-17767, Stanczak direct testimony, page 9 line 17, to page 11, line 15*], DTE appears to have an outdated and inaccurate understanding of how suppliers satisfy capacity requirements under the current

MISO tariff. The MISO June 5 Report is not a prediction of a shortage, and the "shortfall" shown in the report is not affected by which suppliers serve which customers. Therefore, the MISO June 5 Report does not support the propositions for which DTE cites it in this proceeding.

Q. Does DTE's capacity resource plan envision a shortage of capacity in the market in 2016?

A. Based on what DTE has filed with the Commission in its recent PSCR plan case, DTE is not anticipating a shortage of capacity in the market in 2016.

For many years, DTE has been short of owned capacity to meet summer load peaks. It has always been able to procure sufficient capacity to meet its requirements.

DTE's cost of service filing here in Case No. U-17689 was submitted to the Commission on September 17, 2014. On September 30, 2014, DTE submitted its 2015 PSCR plan, in Case No. U-17680. Included in that submission was a five-year Capacity Resource Plan, for 2015-2019, that shows "Required Capacity Purchases" of approximately 900 MW annually for 2015-2019. [*U-17680, Exhibit A-13, line 30.*]

Q. Does DTE anticipate that it will be able to purchase capacity from the market during the five-year planning period 2015-2019?

A. Yes. In the 2015 PSCR Plan, Case No. U-17680, DTE witness Mr. Shawn D. Burgdorf states:

> The Required Capacity Purchases are the forecasted amount of additional capacity needed to be acquired in order to achieve the amount of total resources required to serve DTE Electric's forecasted adjusted full service customer peak demand including the MISO planning reserve margin.
>
> The Company currently anticipates purchasing this capacity from the wholesale electric power market.
>
> The Company also plans to purchase a natural gas facility by the first quarter of 2016. If a plant is purchased, the capacity value from this plant would reduce the 903 MW amount of additional capacity needed to be procured from the wholesale electric power market in the 2016 Resource Adequacy Planning Year. [*U-17680, Burgdorf direct testimony, page 11 line 23 to page 12 line 6. Emphasis added.*]

Q. Does the capacity price DTE uses for 2016 reflect a capacity shortage?

A. No. DTE's projected capacity price for 2016 is $27.00 per kW-year. [*U-17680, Exhibit A-12, line 15, column h.*] This price is well under MISO's calculation for the marginal cost of new capacity in Zone 7, which is $90.10 per kW-year. [*MISO, "Resource Adequacy Business Practice Manual," BPM-011-014, page 106. https://www.misoenergy.org/Library/Tariff/Pages/Tariff.aspx See Module E-1 Resource Adequacy, BPM-011 Resource Adequacy, file BPM-011-r14 Resource Adequacy_CLEAN.pdf.*] Further, DTE's projected capacity price in *all* years 2015-2019 is lower than the MISO cost of new capacity.

Q. What is your perspective on resource adequacy in 2016?

A. South to North/Central netting, use of "low certainty resources," re-capture of part of "unused resources," and lower capacity requirements due to lower required reserve margin all can offset the nominal 2.3 – 3.4 GW "shortfall." Plus, any new generation construction will further offset the shortfall.

Finally, without any new resources at all, it should be noted that if a 2.3 GW "shortfall" becomes an actual 2.3 GW "shortage" in 2016, that does not mean certainty of a "blackout". Supply reliability is determined on a probabilistic basis. Required capacity is based on having sufficient reserves above the nominal load forecast to cover load fluctuations and unexpected outages of generation facilities.

Q. What is your recommendation to the Commission?

A. From the evidence at hand, explained above, the pro forma "shortfall" for 2016 that MISO has calculated for its report to the NERC is not seen by MISO as a "shortage."

Further, DTE's publicly filed plans for future capacity assume that capacity in 2016 will be available in the market, at moderate prices.

Therefore, I recommend that the Commission find that DTE's implication that the MISO June 5 Report supports DTE's proposed changes in costs of service methods and the proposed change in D11 rate design is not supported by

evidence, is unreasonable based on the evidence at hand, and should not affect the Commission's decisions on DTE's proposals.

4. Policy – Allocation Methods for Generation Portfolio and Resulting Rate Design

Q. Are DTE's present rates cost based?

A. According to DTE, present rates are cost based. Company witness Mr. Stanczak states: "Thus, based on historical cost of service and rate design methods, DTE Electric's rates are currently cost based." [*Stanczak direct testimony, page 6, lines 14-15.*]

Q. DTE is proposing to change the allocation of production costs to rate classes from the current method of "12 CP 50-25-25" to "4 CP 100-0-0." What does this mean?

A. These terms are shorthand for the method of allocating production costs. DTE explains and uses these terms in its testimony. Company witness Mr. Martin L. Heiser defines these terms in his testimony. [*Heiser direct testimony, page12, lines 16-20, and page 13, lines 3-6.*]

Q. Is DTE's proposed 4 CP 100-0-0 the right answer, or what some call the "true" cost of service?

A. Economists and engineers have been debating how to apportion the joint costs of capacity since the 1890s. *There is no unique "right" answer to how to allocate joint costs, and so there is no "true" cost of service.* Instead, the characteristics of energy use over time, including various peaks in energy use, are assessed to come up with support for a particular method of allocating production costs that the authority controlling the pricing of regulated utility service – in this situation, the Commission – deems to be *reasonable*.

The Commission has approved the methods of allocating costs that have resulted in DTE's present cost-based rates. Consequently, the present methods have been deemed reasonable.

A change in the apportionment of production costs entails a policy decision by the Commission, not a single right answer.

Q. If DTE's rates are already cost based, what is the merit of proposing a different way of allocating costs?

A. Certainly, a change of circumstances can affect what is deemed "reasonable" and so can justify a revision. DTE has filed its proposals as a result of a Commission order that was precipitated by a change in state law. Still, changes to cost structures the Commission has deemed "reasonable" have to be justified. If the reason for a change in a cost of service method is not adequately justified to the Commission, such a change can end up as nothing more than a device to favor

specific customer groups at the expense of other groups – a poorly disguised attempt to avoid the label "subsidy."

Q. Are cost of service allocation methods the only way to apportion costs among customer groups?

A. No. The *rate designs* within a major class also affect how much of the total costs that a customer group within the class bears. DTE has intentionally designed its newly proposed D11 rate to favor "high load factor" customers. DTE witness Mr. Stanczak states: "In addition, I have instructed Witness Block to develop rate designs for the primary class which reflect lower unit costs for high load factor customers by implementing higher demand rates relative to per kWh energy charges. [*Stanczak direct testimony, page 14, lines 22-25.*] And DTE witness Mr. Timothy A. Bloch states:

> As instructed by Witness Stanczak, I designed rate D11 to benefit high load factor customers. Under the proposed rate structure this is accomplished by a rate design with lower energy charges and higher demand charges. To that end, I set the power supply energy charges close to the Company's base fuel and purchased power rate. [*Bloch direct testimony, page 9, lines 10-14.*]

Q. What justification does DTE offer for reducing rates to high load factor customers?

A. DTE offers the conventional wisdom that the cost of serving higher load factor customers is less than the cost of serving lower load factor customers. DTE witness Mr. Stanczak states: "It is appropriate to establish rates that further

encourage and recognized the value of higher load factor use of electricity, since high load factor customers create lower capacity costs to the system compared to other customers." [*Stanczak direct testimony*, *page 14, lines 1-4.*]

Q. Do high load factor customers create lower capacity costs compared to load factor customers?

A. The answer requires more precision. If considering only an existing generation portfolio with sunk costs, then obviously the more energy the portfolio produces the less per-unit capacity cost has to be collected in each unit of energy sold. In this sense, more use from existing capacity – which is what higher load factor means – results in a lower *average price*. It appears to me that DTE witness Mr. Stanczak is addressing this situation – sunk costs, average capacity prices per kWh produced.

Going forward into the future, however, the perspective on whether future costs or future average prices will be higher or lower may be quite different. Going forward, higher load factor customers may or may not be cheaper to serve than lower load factor customers. This is due to the fact that a changed production portfolio in the future may contain *different types* of generation facilities at widely different investment costs that serve both customer types together, while the optimal portfolios for serving each separately may be quite different.

For example, increased load of 1,000 MW at 100% load factor – same load every hour of the year – may trigger the need for a new 1,000 MW nuclear plant, at a nominal $6,000 or so per kW of capacity. Increased load of 1,000 MW for air conditioning on summer days may trigger the need for twenty combustion turbines of 50 MW each, at a capacity cost of a tenth of the nuclear unit. So to conclude that high load factor always means lower capacity costs or lower average costs in the future may not be true.

The *cost* of a production portfolio is an essential component in its design, not just the number of MW. The example above illustrates that the conventional wisdom of higher load factor customers being cheaper to serve is *not always true when the specifics of the design of the production portfolio* are taken into account. It also illustrates that lower load factor customers, such as the additional 1,000 MW of summer air conditioning customers may be using the facilities *designed to serve them* in an economically efficient way.

Q. Is the design of the proposed new rate D11, with its increased monthly on-peak billing demand component and its reduced on-peak and off-peak energy component, consistent with DTE's rationale that higher load factor customers use the system more "efficiently"?

A. As explained previously, DTE's rationale is predicated on energy use of existing capacity resources. Capacity of existing resources is essentially the same for an entire year, and likewise the cost of service is based on *annual* costs.

The D11 rate design, which favors higher load factor customers at the expense of other customers, is based on *monthly billing demand* and monthly energy, not the customer's contribution to *annual peak* and annual energy. So the D11 rate design is focused only on customers with a high *monthly* load factor. A customer could exhibit consistent, high load factor use within each month of the year, yet still have large variations from month to month and thus have a *poor annual load factor*.

Consequently, rate D11's monthly load factor focus is not consistent with DTE's rationale of why high load factor customers should be favored with lower rates. If high load factor customers are to be favored, then the goal should be more use over the year based on existing capacity, not more use over a single month based on monthly billing demand.

Q. Is there a remedy for the design of rate D11?

A. One remedy is to keep the same balance of billing demand prices and energy prices as exist now in the component rates that were joined to make up the new D11 rate. These have been argued and ruled upon in past cases before the Commission.

Another remedy – if the Commission wants to favor high load factor customers – is to apply a 100% 12-month ratchet to the billing demand, the same as exists now

for maximum demand. Then, the new rate will address the true high load factor customers that DTE argues deserve a lower rate, not just customers with high monthly load factors.

Lastly, the Commission should consider that the proposed D11 rate will apply to a variety of customers, not just the intentionally favored high load factor group. As explained previously, there is no single "right" cost of service – the result has to be reasonable for all customers, not just high load factor customers.

Q. Should the Commission recognize the energy value of production facilities in the allocation methods that it will approve?

A. The Commission has recognized the value of energy in its past decisions, for example a "75-25" split of allocation of production costs. There are reasons why energy value should be taken into account in allocation methods. Cost of service allocates *dollars, not MWs*, and consequently the dollar value of the particular design of the entire production portfolio should be taken into account, not just the MWs.

Four main factors, not just MWs, affect the design of a production portfolio: (1) total MW quantity, (2) ability to deliver energy in varying amounts over time, (3) costs – both investment and operating – and (4) risks.

Higher fixed investment costs can result in *lower variable* fuel costs, and therefore some of the value of the fixed investment costs is related to the ability of a facility to produce lower cost energy.

So the question becomes, should the allocation of investment *dollars* depend *only* on four summer peaks when a large part of the investment *cost* of the portfolio – for facilities like large nuclear and coal plants – is designed to produce low-cost energy year around?

Again, as stated previously, there is no single right answer. In my opinion it is reasonable for the Commission to recognize, in the cost allocation method that it approves for production plant, the *total value* of the portfolio to the various customer classes, including both the capacity and the energy value.

Q. What are your recommendations to the Commission?

A. First, if the Commission is to approve a change in rate design that favors higher load factor customers – at the expense of some other customer groups, since the total revenues must remain the same – the proposal should be justified with specific clarity. Is the change justified going forward, or only when applied to historical average sunk costs? And justification should not be based solely on a change in the method of allocating production costs, which would be circular reasoning.

Second, I recommend that the Commission consider the energy value of DTE's production portfolio in its policy decision on whether or not to change the method of allocating production costs.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.

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CONSULTANT – MERCHANT ENERGY AND UTILITY REGULATION

Provide strategies and technical expertise on competitive market issues, transmission issues, state and federal regulatory issues involving the electricity business, and associated legal filings. Scope includes the Midwest ISO Energy Market and Resource Adequacy, FERC proceedings on transmission and market tariffs, state rules for competitive supply, and negotiation of settlements.

PRIOR POSITIONS: Quest Energy, LLC – a subsidiary of Integrys Energy Services

Vice President, Operations **March 2002 to December 2003**

Responsible for the planning, acquisition, scheduling, and delivery of annual power supply and transmission, to serve competitive retail electric customers.

- ***Power Planning*** -- Designed and negotiated customized long-term power contracts, to reduce power costs and exposure to spot energy prices.

- ***Transmission*** -- Revamped transmission strategy to reduce transmission costs.

- ***Load Forecasting*** -- Instituted formal short-term forecasting process, including weather normalization.

- ***Risk Management*** -- Developed summer supply strategy including call options to minimize physical supply risk at least cost. Instituted probabilistic assessment of forecast uncertainty to minimize transmission imbalance costs.

- ***Contract Management*** – Negotiated and recovered liquidated damages for power supply contracts. Included cost of transmission losses into customer contracts.

- ***Operations Capability*** -- Expanded the Operations staff. Oversaw daily activity in spot market purchases. Instituted back-up capability, including equipment and processes, enabling the company to schedule and deliver virtually all power during the August 2003 blackout in the Midwest.

PRIOR POSITONS : DTE Energy / Detroit Edison — 1977 to 2001

Director, Power Sourcing and Reliability **May 1998 to April 2001**

Director of group responsible for monthly, annual, and long-term purchases and sales of power for Detroit Edison, including procuring power for the summer peak season.

- ***Planning*** -- Planned summer power requirements for Detroit Edison, including mix of generation, option contracts, hub purchases, load management, and transmission, which balanced and optimized physical risk and financial risk.

- ***Contract Management*** – Established decision, review, and approval process for evaluation and execution of power transactions, including mark-to-market valuation.

- ***Execution*** -- Executed summer plans, contracting annually for purchased power and transmission services. Directed negotiations for customized structured contracts to provide the company with increased operating flexibility, dispatch price choices, and delivery reliability.

- ***Risk Management*** – Developed an optimizing algorithm using load shapes to minimize corporate exposure to volatile power prices. Developed a hedging strategy to fit power purchases to the corporation's risk tolerance level.

- ***Acquisitions*** -- Team leader for acquisition of new peakers.

- ***Settlements*** -- Negotiated and settled liquidated damages claims.

Relevant prior positions within Detroit Edison

Position	***Organization***	***Time Period***
Director, Special Projects	**Customer Energy Solutions**	**Apr 97 to May 98**

Leader of several special projects involving the transformation of the corporation's merchant energy functions into competitive business units, including merger explorations and the start up of DTE Energy Trading (DTE's power marketing affiliate).

Directed filings to the Federal Energy Regulatory Commission to establish DTE Energy Trading as a power marketer and to gain authority for sales, brokering, and code of conduct. The FERC used DTE's flexible utility/affiliate code of conduct as precedent for rulings for other power marketers.

Director, Risk Management **Huron Energy (temp affiliate)** **Jan 97 to Apr 97**

Leader of team responsible for competitive pricing of wholesale structured contracts and for acquiring risk management hardware and software to support risk management policy. Prepared Board resolutions to implement risk management policy.

Director, Contract Development **Customer Energy Solutions** **Jan 96 to Dec 96**

Leader of team that formulated a business strategy for the corporation in competitive power marketing. Team leader on project evaluating an existing steam and electricity contract, recommending and gaining Board approval for revamping the corporation's Thermal Energy business and strategy.

Project Director **Executive Council Staff & Corporate Strategy Group** **Jan 91 to Dec 95**

Project leader for competitive studies, including business risk, generation pooling, and project financing in the merchant generation industry. Team member and/or team leader for analyses of merger and acquisition opportunities

Special Assignment **Executive Council Staff** **Mar 90 to Dec 90**

Special assignment related to long-term industry strategies and mergers and acquisitions.

Pricing Analyst **Marketing / Rate** **Aug 82 to Mar 90**

Developed, negotiated, and implemented an innovative standby service tariff. Testified as an expert witness in regulatory proceedings and in state legislative hearings.

Engineer **Resource Planning** **Aug 79 to Dec 81**

Member of the company's electric load forecasting team, responsible for SE Michigan energy and peak demand forecasting, and for risk analysis. Developed the company's first residential end-use forecast model.

PRIOR POSITIONS: <u>Prior to DTE Energy</u>

Lear Siegler Corporation, ACTS Computing division, systems analyst and programmer from January 1973 to July 1977.

EDUCATION: M. A. in mathematics, University of Michigan, 1972
B. S. in mathematics, University of Michigan, 1968

MILITARY: U. S. Army, September 1968 to June 1970.
Viet Nam service from June 1969 to June 1970.
Honorably discharged.

PROFESSIONAL: Member, Engineering Society of Detroit (1979-present)

PUBLICATIONS & PAPERS:

- "Competition and Survival in the Electric Generation Market," published in *Public Utilities Fortnightly*, December 1, 1991.
- "Measuring and Pricing Standby Service," presented at the Electric Power Research Institute's "Innovations in Pricing and Planning" conference, May 3, 1990.
- "Assessing the Benefits of Interruptible Electric Service," presented at the 1989 Michigan Energy Conference, October 3, 1989.
- "Principles of Standby Service," published in *Public Utilities Fortnightly*, November 24, 1988.
- "Progress in Conservation," a satirical commentary published in *Public Utilities Fortnightly*, October 27, 1988.
- "Comparing Utility Rates," published in *Public Utilities Fortnightly*, November 13, 1986.
- "Uncertainty in Load Forecasting," with co-author John Sangregorio, published in *Approaches to Load Forecasting*, Electric Power Research Institute, July 1982.

PREVIOUS TESTIMONY:

- Michigan Public Service Commission, U-17429
- Michigan Public Service Commission, U-17087
- Michigan Public Service Commission, U-17032
- Michigan Public Service Commission, U-16794
- Michigan Public Service Commission, U-16566
- Michigan Public Service Commission, U-16472
- Michigan Public Service Commission, U-16191
- Michigan Public Service Commission, U-15768.
- Michigan Public Service Commission, U-15744.
- Federal Energy Regulatory Commission, Docket No. EL04-135 & related dockets.
- Michigan Public Service Commission, U-12489.
- Michigan Public Service Commission, U-8871.
- Michigan Public Service Commission, U-8110 part 2.
- Michigan Public Service Commission, U-8110, part 1.
- Michigan Public Service Commission, U-7930 rehearing.
- Michigan Public Service Commission, U-7930.

Split of Uncollectibles
to Power Supply & Distribution

DTE Proposed Rate Design
with Uncollectibles as Proposed by DTE

Line No.	(A)	(B) Total	(C) Residential	(D) Commercial	(E) Primary	(F) Other	(G) Source
1	**Proposed by DTE:**						
2	Distribution rev	$1,784,612	$1,065,264	$390,542	$285,418	$43,388	Exh. A-15, F2b, page 4, col (d)
3	Power Supply rev	3,055,413	1,182,986	687,424	1,169,564	15,439	Exh. A-15, F2b, page 3, col (d)
4	Total revenues	4,840,025	2,248,250	1,077,966	1,454,982	58,827	= line(2) + line(3)
5							
6	Uncollectibles in DTE Dist rev	57,954	46140	7819	3949	46	DTE File "MLH-11 U-17689 COS,"
7							sheet VDIST, line 2310
8	**Rev w/o uncollectibles**						
9	Distribution rev	1,726,658	1,019,124	382,723	281,469	43,342	= line(2) - line(6)
10	Power Supply rev	3,055,413	1,182,986	687,424	1,169,564	15,439	= line(3)
11	Total revenues	4,782,071	2,202,110	1,070,147	1,451,033	58,781	= line(9) + line(10)
12							
13	Distr rev w/o uncollect %		46.2794%	35.7636%	19.3978%	73.7347%	= line(9) / line(11)
14	Pow Sup rev w/o uncollect %		53.7206%	64.2364%	80.6022%	26.2653%	= 1 - line(13)
15							
16	**Split DTE uncollectibles:**						
17	for Distr rate	$24,950	$21,353	$2,796	$766	$34	= line(6) * line(13)
18	for Pow Sup rate	33,004	24,787	5,023	3,183	12	= line(6) - line(17)
19	Total uncollectibles	57,954	46,140	7,819	3,949	46	= line(17) + line(18)
20							
21	**Revised: w/Distr & P-S Split:**						
22	Distribution rev	$1,751,608	$1,040,477	$385,519	$282,235	$43,376	= line(9) + line (17)
23	Power Suppy rev	3,088,417	1,207,773	692,447	1,172,747	15,451	= line(10) + line(18)
24	Total revenues	4,840,025	2,248,250	1,077,966	1,454,982	58,827	= line(22) + line(23)
25							
26	*Checks: line(4)=line(24); line(6)=line(19)*						

Split of Uncollectibles
to Power Supply & Distribution

Case No. U-17689
Exhibit EM-3 (AJZ-3)
Page 1 of 1

DTE Proposed Rate Design
with No Change in Current Uncollectibles

Line No.	(A)	(B) Total	(C) Residential	(D) Commercial	(E) Primary	(F) Other	(G) Source
1	**Proposed by DTE:**						
2	Distribution rev	$1,784,612	$1,065,264	$390,542	$285,418	$43,388	Exh. A-15, F2b, page 4, col (d)
3	Power Supply rev	3,055,413	1,182,986	687,424	1,169,564	15,439	Exh. A-15, F2b, page 3, col (d)
4	Total revenues	4,840,025	2,248,250	1,077,966	1,454,982	58,827	= line(2) + line(3)
5							
6	Uncollectibles in DTE Dist rev	57,954	46140	7819	3949	46	DTE File "MLH-11 U-17689 COS,"
7							sheet VDIST, line 2310
8	**Rev w/o uncollectibles**						
9	Distribution rev	1,726,658	1,019,124	382,723	281,469	43,342	= line(2) - line(6)
10	Power Supply rev	3,055,413	1,182,986	687,424	1,169,564	15,439	= line(3)
11	Total revenues	4,782,071	2,202,110	1,070,147	1,451,033	58,781	= line(9) + line(10)
12							
13	Distr rev w/o uncollect %		46.2794%	35.7636%	19.3978%	73.7347%	= line(9) / line(11)
14	Pow Sup rev w/o uncollect %		53.7206%	64.2364%	80.6022%	26.2653%	= 1 - line(13)
15							
16	**Split DTE uncollectibles:**						
17	for Distr rate	*$24,950*	$21,353	$2,796	$766	$34	= line(6) * line(13)
18	for Pow Sup rate	*33,004*	24,787	5,023	3,183	12	= line(6) - line(17)
19	Total uncollectibles	*57,954*	46,140	7,819	3,949	46	= line(17) + line(18)
20							
21	*Weighted avg split Dist %*	*43.0507%*					= line(17) col(B) / line(19) col(B)
22	*Weighted avg split Pow Sup %*	*56.9493%*					= 1 - line(21)
23	Current uncollectibles U-16472	$57,955	$25,686	$12,720	$18,792	$757	DTE File "MLH-12 U-16472 Order COS
24							12-20-2011," sheet DIST, line 2308
25	**Split current uncollectibles:**						
26	for Distr rate	$24,950	$11,058	$5,476	$8,090	$326	= line(23) * line(21) col(B)
27	for Pow Sup rate	33,005	$14,628	$7,244	$10,702	$431	= line(23) - line(26)
28	Total uncollectibles	57,955	25,686	12,720	18,792	757	
29							
30	**Revised: w/Distr & P-S Split:**						
31	Distribution rev	$1,751,608	$1,030,182	$388,199	$289,559	$43,668	= line(9) + line (26)
32	Power Suppy rev	3,088,418	1,197,614	694,668	1,180,266	15,870	= line(10) + line(27)
33	Total revenues	4,840,026	2,227,796	1,082,867	1,469,825	59,538	= line(31) + line(32)
34							

35 *Checks: line(4)=line(33); line(23)=line(28)*

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*** * * * ***

In the matter, on the Commission's own motion to commence a proceeding to implement the provisions of Public Act 169 of 2014; MCL 460.11(3) *et seq.*, with regard to **DTE Electric Company**.	))))))	**Case No. U-17689**

PROOF OF SERVICE

STATE OF MICHIGAN)
) ss.
COUNTY OF INGHAM)

Kimberly Champagne, the undersigned, being first duly sworn, deposes and says that she is a Legal Secretary at Varnum LLP and that on the 6th day of January, 2015, she served a copy of Qualifications, Direct Testimony and Exhibits of Alexander J. Zakem on behalf of Energy Michigan Inc. upon those individuals listed on the attached Service List via email at their last known addresses.

Kimberly Champagne

Digitally signed by Kimberly Champagne
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Date: 2015.01.06 14:32:24 -05'00'

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