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October 29, 2019

Ms. Lisa Felice Executive Secretary Michigan Public Service Commission 7109 W. Saginaw Highway P.O. Box 30221 Lansing, MI 48909

Re: MPSC Case No. U-20471

Dear Ms. Felice:

Please be advised that Energy Michigan, Inc. filed an Initial Brief and this Proof of Service in the above-referenced matter. If you have any questions, please feel free to contact my office.

Very truly yours, **VARNUM** 

Laura A. Chappelle

LAC/sej
Enclosures
c. ALJ
All parties of record.

#### **STATE OF MICHIGAN**

#### BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the Application of	)	
DTE ELECTRIC COMPANY for	)	
approval of its Integrated Resource Plan	)	Case No. U-20471
pursuant to MCL 460.6t, and for other relief.	)	
	)	

## INITIAL BRIEF OF ENERGY MICHIGAN, INC.

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#### INITIAL BRIEF OF ENERGY MICHIGAN, INC.

#### I. INTRODUCTION

This Initial Brief is filed on behalf of Energy Michigan, Inc. ("Energy Michigan") by its attorneys, Varnum LLP. Failure to address any issues or positions raised by other parties should not be taken as agreement with those issues or positions.

#### II. HISTORY OF PROCEEDINGS

On March 29, 2019, DTE Electric Company ("DTE Electric" or the "Company") filed an Application ("Application") and supporting testimony, pursuant to its Proposed Course of Action ("PCA"), for an Integrated Resource Plan ("IRP"), pursuant to Section 6t of 2016 PA 341, MCL 460.6t ("Sec. 6t"), the Michigan Public Service Commission's ("MPSC" or "Commission") December 20, 2017 order in Case No. U-18461 ("Order U-18461") and November 21, 2017 order in Case No. U-18418 ("Order U-18418"), and all other applicable law.

DTE Electric separated its PCA into two parts, the near-term defined PCA, covering years 2020-2024, and the flexible PCA, covering years 2025-2035. The Company's flexible PCA, as defined in its Application, leaves several issues to be determined in its next IRP.

Application, p. 3. However, DTE stated that its near-term defined PCA for years 2020-2024 "is fully integrated" and requests approval of such in its entirety. Application, p. 4.

DTE Electric states that the "focus of this IRP is the next five years, when the pathway is defined. In that time, three power plants will retire and the BWEC combined cycle plant, which was approved in the Company's CON case, U-18419, the Dearborn CHP plant, and renewable energy projects will come on line, as well as additional EWR, DR, and CVR/VVO, will be developed to replace the capacity of the retiring coal plants. As technologies and regulations continue to evolve, the Company plans to update assumptions and inputs in the planned 2025 IRP, and at that time the Company will determine the mix of resources to best fill the 2030 capacity need that will be created when Belle River Power Plant is planned to retire. These resources will likely include additional renewables, EWR, DR, and potentially other resources such as batteries, conservation voltage reduction and volt-var optimization (CVR/VVO), or simple or combined cycle gas generation." 2 Tr 46.

The Company's IRP also address planning objectives, as set forth by the Commission, as well as by DTE Electric, through its "complementary planning principles." Application, p. 7. The Company's review and assessment of resource adequacy through 2040 is also addressed in the IRP. Application, p. 9.

#### III. JURISDICTION AND STANDARD OF REVIEW

Section 6t(3) requires, in part, that:

[E]ach electric utility whose rates are regulated by the commission shall file with the commission an integrated resource plan that provides a 5-year, 10-year, and 15-year projection of the utility's load obligations and a plan to meet those obligations, to meet the utility's requirements to provide generation reliability, including meeting planning reserve margin and local clearing requirements determined by the commission or the appropriate independent system operator, and to meet all applicable state and federal

reliability and environmental regulations over the ensuing term of the plan.

The specified requirements of an IRP filing are provided in MCL 460.6t(5)(a)-(o). Furthermore, MCL 460.6t(8)(a) provides that the Commission shall approve a proposed IRP if the Commission determines that the IRP represents "the most reasonable and prudent means of meeting the electric utility's energy and capacity needs." To make such a determination, the Commission must consider whether the proposed IRP appropriately balances the following factors:

- (i) Resource adequacy and capacity to serve anticipated peak electric load, applicable planning reserve margin, and local clearing requirement.
- (ii) Compliance with applicable state and federal environmental regulations.
- (iii) Competitive pricing.
- (iv) Reliability.
- (v) Commodity price risks.
- (vi) Diversity of generation supply.
- (vii) Whether the proposed levels of peak load reduction and energy waste reduction are reasonable and cost effective. Exceeding the renewable energy resources and energy waste reduction goal in section 1 of the clean and renewable energy and energy waste reduction act, 2008 PA 295, MCL 460.1001, by a utility shall not, in and of itself, be grounds for determining that the proposed levels of peak load reduction, renewable energy, and energy waste reduction are not reasonable and cost effective.

MCL 460.6t(8)(a)(i)-(vii). Thus, resource adequacy considerations are one of the seven listed factors that the Commission must balance in determining whether or not the proposed IRP represents "the most reasonable and prudent means of meeting the electric utility's energy and capacity needs." MCL 460.6t(8)(a)(i).

#### IV. DTE ELECTRIC'S INTEGRATED RESOURCE PLAN

#### A. Resource Adequacy, In General

Encompassed in DTE Electric's IRP is an examination of the amounts and type of potential generation resources that the Company believes would be needed over the near-term defined PCA, as well as the flexible PCA. 7 Tr 2952. The amount and placement of these potential resources are partially dictated by the resource adequacy needs in DTE Electric's service territory, which is in MISO's Zone 7. 4 Tr 789; 792.

In its IRP, DTE Electric discusses the resource adequacy requirements that are governed by a combination of the North American Electric Reliability Corporation ("NERC"), the Midcontinent Independent System Operator ("MISO"), and the Michigan Public Service Commission ("Commission" or "MPSC"). 4 Tr 790. In part, DTE Electric Witness Shawn D. Burgdorf provided testimony in support of the Company's IRP and the PCA that included: 1) an overview of the resource adequacy requirements and capacity market, and 2) an overview of the Planning Year 2019/2020 calculation for the ECIL for MISO Zone 7 for consideration of external capacity imports. *Id*.

Mr. Burgdorf discussed, in detail, the resource adequacy requirements of NERC, MISO and the MPSC. 4 Tr 790-799. Regarding the MPSC, he noted that "MCL 460.6w (PA 341) requires the Company to demonstrate, annually, that it will have sufficient resources to meet its projected planning reserve margin on a four-year forward basis. This Michigan requirement is intended to ensure proper longer-term planning for resource adequacy, which is not the case with MISO's one-year annual planning cycle . . ." 4 Tr 790.

MISO, as the Planning Coordinator for the Midcontinent ISO region, establishes the resource adequacy requirements for Load Serving Entities ("LSE"), such as DTE Electric, as well as the manner in which MISO establishes annual planning reserve margin ("PRM")

requirements. 4 Tr 790-791. Each year, MISO establishes a Planning Reserve Margin ("PRM") that "is intended to maintain reliable operation while meeting unforeseen events such as extreme weather and unexpected capacity outages." *Id.* MISO's resource adequacy requirements are set on an annual basis and implemented for the immediate, upcoming planning year. Every year, LSEs in MISO are required to demonstrate compliance with their Planning Reserve Margin Requirement ("PRMR"), which is their forecasted peak demand (coincident with MISO's peak demand) plus the required PRM. 4 Tr 791.

MISO also implements resource adequacy on a more localized level, by way of developing "Local Resource Zones" ("LRZs") based on criteria including electrical boundaries, state boundaries, transmission interconnections and geographic boundaries. 4 Tr 792. As Witness Burgdorf explained:

There are ten LRZs within MISO and the Company's service territory is in LRZ 7, which is comprised of most of the lower peninsula of Michigan. As part of MISO's annual LOLE study, the Capacity Import Limits (CIL) and Capacity Export Limits (CEL) of each LRZ are determined along with the Local Clearing Requirement (LCR), which is the minimum amount of unforced capacity (the amount of capacity assigned to a resource utilizing historic availability) that must be physically located within a LRZ. Simply stated, to reliably serve load a minimum amount of capacity must be located near the load due to the limitations of the transmission system to import additional capacity. When conducting the PRA, MISO enforces the LCRs, CILs and CELs using a multi-zone optimization methodology and commits capacity up to the PRM requirements of all LSEs. Because both the LCR and PRMR must be enforced in the PRA to ensure a reliability of 1 day per 10 years LOLE, the actual amount of capacity that a LRZ can import can be constrained further than the CIL resulting in an effective CIL (ECIL), which is calculated by the following formula: ECIL = PRMR - LCR. This ensures that sufficient existing resources are committed, if available, in each LRZ to reliably serve load. The PRA Auction Clearing Price (ACP) is procedurally set to the maximum clearing price of the Cost of New Entry (CONE) when there is insufficient capacity to meet the LCR of a zone, or the total PRMR for the MISO footprint. CONE is an industry wide term used to indicate the current, annualized, capital cost of constructing a hypothetical advanced combustion turbine (CT).

4 Tr 792-793.

Energy Michigan Witness Alex Zakem also gave a detailed explanation of MISO's resource adequacy construct, including how MISO determines more specialized LCR and how PRMRs are set for individual LSEs. 7 Tr 2960-2965.

Regarding MISO's Planning Resource Auction ("PRA"), DTE Electric Witness Burgdorf stated that:

MISO's PRA does not guarantee the availability of capacity. In fact, a capacity shortage situation could arise because MISO's PRA is for a term of only one Planning Year and it is performed only a few months prior to that Planning Year, whereas the planning and construction of new generating capacity can take several years. When LSEs properly plan for the long-term capacity needs of their customers, the PRA works as a balancing auction for the upcoming Planning Year by providing a means to buy and sell small amounts of capacity needed because of normal variances in load and generation.

4 Tr. 791-792.

Although MISO's PRA includes all the capacity in the MISO region, Michigan utilities, such as DTE Electric, have long utilized MISO's PRA to "supplement" generation capacity needs – meaning to pay MISO to satisfy capacity requirements beyond what the utilities own. In this regard, the Company states that it "plans to procure capacity through the MISO PRA to address the small one-year capacity shortfall for the 2019 Planning Year as a result of the St. Clair Unit 1 retirement, effective March 27, 2019." 4 Tr 792.

In its discussion of resource adequacy requirements and the current assumptions impacting those requirements made by MISO, DTE Electric raised concerns with one aspect, in particular, of MISO's resource adequacy construct – the capacity import limit ("CIL"), or what DTE Electric refers to as the "Effective Capacity Import Limit" ("ECIL"), that will potentially

affect the amount of generation resources needed in DTE's service territory – Zone 7 – which are needed for reliability. 4 Tr 793-794.

Energy Michigan Witness Alex Zakem shared DTE Electric's concern with an apparent shrinking of the CIL for Zone 7, as more fully described below.

#### **B.** Transmission Planning

#### 1. Background of MISO CIL/DTE Electric ECIL

When an LSE, such as DTE Electric, buys and sells capacity from/to MISO's PRA, it must ensure that the capacity can be properly delivered to – or exported from – the applicable Local Resource Zone. This is determined by the actual physical capability of the transmission system to import or export resources into or from a LRZ. MISO terms the import limit the "capacity import limit," or "CIL." 7 Tr 2952. The CIL for Zone 7 is an important consideration in DTE Electric's IRP, since the Commission will be examining the amounts and types of potential resources that would be needed to meet state statutory and resource adequacy requirements over the next several years. 7 Tr 2952.

Witness Zakem stated the definition of CIL in the MISO tariff:

Capacity Import Limit (CIL): The amount of Planning Resources in MWs for an LRZ determined by the Transmission Provider that can be reliably imported into that LRZ.

7 Tr 2960. Per Mr. Zakem, MISO determines the CIL for each zone by power flow modeling, as explained in its Planning Year 2019-2020 Loss of Load Expectation Study Report. *Id.* Module E of MISO's tariff uses the CIL for a zone as part of a calculation of the zone's Local Clearing Requirement, defined as:

<sup>&</sup>lt;sup>1</sup>MISO, "Planning Year 2019-2020 Loss of Load Expectation Study Report." https://cdn.misoenergy.org/2019%20LOLE%20Study%20Report285051.pdf

**Local Clearing Requirement (LCR):** The minimum amount of Unforced Capacity for an LRZ that is required to meet its LOLE while fully using the Zonal Import Ability for such LRZ and accounting for controllable exports.<sup>2</sup>

where Zonal Import Ability is defined as:

**Zonal Import Ability:** The ability of an LRZ to import capacity from areas outside of that LRZ. Equal to an LRZ's base interchange plus the LRZ's incremental ability to import generation.<sup>3</sup>

For the MISO Planning Year 2019-2020, the CIL for Zone 7 is 3,211 MW.<sup>4</sup> 7 Tr 2960-2961. However, due to the manner in which the MISO tariff defines the Local Capacity Requirement, only 164 MWs of capacity – approximately only 5% - were able to be imported to Zone 7 in order to satisfy the Zone 7s PRMR. 7 Tr 2961.

Similarly, Witness Burgdorf explained the MISO's expected Planning Year 2019/2020 for Zone 7, utilizing the Company's defined use of an "ECIL" as follows:

The Zone 7 ECIL is expected to be 164 MW (ECIL = PRMR – LCR = 21,976 –21,812 = 164 MW using MISO preliminary PRA data published 3/22/19) for Planning Year (PY) 2019/20.

4 Tr 793. Given the manner in which DTE defines the ECIL, DTE Electric expressed concern that the amount of "imported" capacity for meeting MISO's reliability requirements is small. Thus, Witness Bergdorf states that:

... the actual amount of capacity that a LRZ [Local Resource Zone] can import can be constrained further than the CIL resulting in an effective CIL (ECIL), which is calculated by the following formula: ECIL = PRMR – LCR. This ensures that sufficient existing resources are committed, if available, in each LRZ to reliably serve load.

<sup>&</sup>lt;sup>2</sup> MISO Module A- Common Tariff Provisions, Definitions. Emphasis added.

<sup>&</sup>lt;sup>3</sup> *Id*.

<sup>&</sup>lt;sup>4</sup> For simplicity purposes, Mr. Zakem referenced only "CIL," since the ZIA equaled the CIL for Michigan zones. Citing MISO "2019/2020 Planning Resource Auction (PRA) Results," April 12, 2019, p. 7. <a href="https://cdn.misoenergy.org/20190412\_PRA\_Results\_Posting336165.pdf">https://cdn.misoenergy.org/20190412\_PRA\_Results\_Posting336165.pdf</a>

... The Zone 7 ECIL is expected to be 164 MW (ECIL = PRMR – LCR = 21,976 – 21,812 = 164 MW using MISO preliminary PRA data published 3/22/19) for Planning Year (PY) 2019/20. This means that for PRA purposes only 164 MW can be imported from outside LRZ7 to meet PRMR requirements without violating the LCR constraint.

7 Tr 2953, citing 4 Tr 810-811.

#### 2. Concerns Regarding Michigan Zone 7's Declining ECIL.

The limited ECIL under MISO's current requirements constrains options that might be useful and economic in an IRP. In DTE Electric's opinion, "it would be unwise to plan on using imports external to Zone 7 to meet long-term resource adequacy requirements. Not only is there uncertainty around the future CIL and LRR values as previously discussed, it is also uncertain if other load serving entities (LSEs) in Zone 7 intend to rely on capacity external to Zone 7, utilizing the effective capacity import limit (ECIL) to meet their resource adequacy requirements." 4 Tr 807. As DTE Electric Burgdorf testified, even if the CIL remains constant, MISO is assuming an increase in the LRR. "This means even less imports can be relied upon to meet Zone 7 resource adequacy reliability requirements. Even taking into account the possible future increases in CIL highlighted by [Michigan Environmental Council, National Resources Defense Council, and Sierra Club] Witnesses Fagan and Osborn, any increases in LRR may eclipse any gains achieved by increasing CIL." 4 Tr 807.

The Commission, itself, has expressed concerns with the ECIL for Zone 7. As Mr. Zakem stated, these concerns were extensively discussed in the Commission's initial Statewide Energy Assessment Report that was issued on July 1, 2019 ("SEA"). 7 Tr 2952-2953. In its Final SEA, issued on September 11, 2019 ("Final SEA"),<sup>5</sup> the Commission provided more

<sup>&</sup>lt;sup>5</sup>https://www.michigan.gov/documents/mpsc/2019-09-11\_SEA\_Final\_Report\_with\_Appendices\_665546\_7.pdf

background and analysis of the CIL for Zone 7 than it initially did in its interim SEA, concluding in part, that: "When compared to the last several years, the amount of allowable capacity imports into zone 7, Michigan's Lower Peninsula, decreased significantly, almost to zero, hampering the state's ability to more fully realize the benefits of being part of a large market." Final SEA, p. 37. Furthermore, the Commission noted that:

The Lower Peninsula's ability to rely on imported capacity to meet MISO's resource adequacy requirements has recently been reduced, resulting in an increased probability of higher capacity prices and potentially resulting in an increased probability of a loss-of-load event (curtailments) occurring due to a lack of supply.

Figure 3-20 MISO Zone 7 (Lower Peninsula) Resource Adequacy 2014 - 2019

Source	PRMR	LRR	CIL	LCR	LCR / PRMR	Total Offers*
PRA Results 2014/2015 <sup>81</sup>	22,998	25,177	3,884	21,293	92.6%	23,639
PRA Results 2015/201682	22,678	25,254	3,812	21,442	94.5%	23,559
PRA Results 2016/201783	22,406	24,372	3,521	20,851	93.1%	21,615
PRA Results 2017/2018 <sup>84</sup>	22,295	24,429	3,320	21,109	94.7%	22,031
PRA Results 2018/201985	22,121	24,413	3,785	20,628	93.3%	22,036
PRA Results 2019/202086	21,976	25,023	3,211	21,812	99.3%	22,063

<sup>\*</sup>Total Offers is the amount of zonal resource credits offered into the PRA in Zone 7.

Source: MISO Planning Resource Auction Results

For planning year 2019/2020, which runs from June 1, 2019 through May 31, 2020, a decreased CIL and an increased LRR led to over 99% of the resources required to be physically located within the zone, meaning that the Lower Peninsula portion of MISO could only plan to import 0.7% of its resources required at peak. Even though the CIL for the Lower Peninsula was 3,211 MW, the amount of capacity that the Lower Peninsula could plan to import at peak under the MISO resource adequacy requirements was effectively limited to 164 MW, the difference between the PRMR and the LCR. All other things being equal, increasing the CIL would result in a lower LCR, improving the available resource options to meet the resource adequacy requirements. The increased optionality would likely add downward pressure on capacity prices, improve the ability to meet resource adequacy requirements, and reduce the likelihood of loss of-load events from occurring. An increase in the import capability will increase the resilience of the electric system in Michigan and provide assurance that customers will be served as more extreme weather events

are experienced as well as in the event of fuel shortages, or to fill in the gaps that may be left by intermittent resources.

Final SEA, pp. 69-71 (citations omitted). Based upon the Commission's findings with reduction in CIL for Zone 7, the Commission recommended the following:

Integrated electricity system planning – The Commission recommends Michigan electric utilities and electric transmission owners better integrate the planning processes for electric generation, distribution, and transmission to optimize system reliability improvements and ensure a holistic review of alternatives. In the near term, this should include examining options to increase Michigan's ability to import additional electric generation capacity from out of state, thereby providing additional reliability and improved resilience amidst a major shift in our power supplies.

Final SEA, p. iii (emphasis added).

On September 11, 2019, Governor Gretchen Whitmer and Chairman Sally Talberg sent a letter to MISO CEO John Bear informing him of the release of the Final SEA and making several recommendations to MISO, including the following:

Michigan's two peninsulas – as well as its position bordering the neighboring regional transmission organization, PJM – creates unique challenges with importing capacity under MISO rules. We recommend MISO work with Commission staff and stakeholders on solutions to increase Michigan's import capability in the near term and develop an appropriate cost recovery approach for these types of projects. <sup>6</sup>

Energy Michigan Witness Alex Zakem shares DTE Electric's and the Commission's concerns regarding the diminishing CIL for Zone 7. In fact, Mr. Zakem noted that while all MISO zones are affected by the CIL, Michigan's Zone 2 and 7 are affected the most. *See* Exhibit EM-2 (AJZ-2), which shows the percentage of ECIL compared to the physical CIL for

11

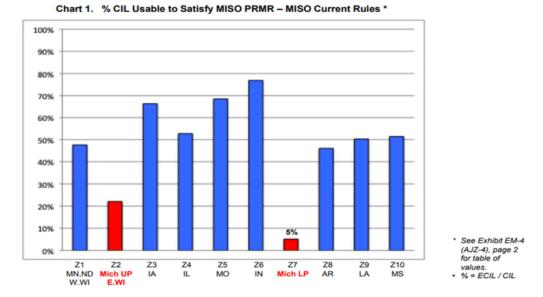
<sup>6</sup> file://vm-profiles/Liquidware/HomeShare/lachappelle/Desktop/2019-09-11 SEA Final Report with Appendices 665546 7.pdf

all zones. All Zones are well under 100%. But Michigan's Zone 7 is the lowest, at only 5%, and

the Inefficient Use Of CIL

Case No. U-20471 Exhibit EM-2 (AJZ-2) Page 1 of 1

Only a <u>fraction</u> of a zone's <u>physical Capacity Import Limit</u> (CIL) can be used for meeting a zone's Planning Reserve Margin Requirement (PRMR), under MISO's current rules.



#### **Observations**

- 100% of CIL is available at the time of the MISO forecast peak the specified time for determining PRMR obligations.
- But the current LCR process does not allow any zone to use 100% of its CIL to satisfy MISO's PRMR.
- Zone 7 Michigan Lower Peninsula is an <u>outlier</u> among the zones. <u>Michigan is disadvantaged</u> by the current LCR process.

MI/WI Zone 2 is about 22%.

Per Mr. Zakem, "Michigan Zone 7 at 5% is an obvious 'outlier' among the zones, being disadvantaged by the MISO rules to a much greater degree than any of the other zones." 7 Tr 2952.

## 3. Analysis Shows That MISO's Definition Of LCR Contains Errors And Inconsistencies That Should Be Corrected.

As stated by DTE, ECIL = PRMR – LCR, where LCR is the zone's Local Capacity Requirement. 4 Tr 793. LCR is a construction of the MISO tariff, not a physically measured or engineering modeled quantity. In fact, MISO has changed the tariff calculation of LCR previously. Mr. Zakem's extensive analysis and explanations show that the current method of determining the LCR contains errors and inconsistencies at odds with the MISO resource

adequacy standard. In short, the current method results in an excessively high LCR, and consequently the current ECIL (= PRMR – LCR) is excessively low, only 164 MW as previously stated.

In his testimony and exhibits, Mr. Zakem explains the deficiencies of MISO's current method of determining LCR. 7 Tr 2910-2922 and Exhibit EM-3 (AJZ-3), pp. 6-9. There are two underlying factors: 1) an error in the use of Planning Reserve Margin for a zone compared to that for the MISO region; and 2) an inconsistency in how MISO applies the resource adequacy standard to a separate, individual zone compared to the MISO region as a whole. 7 Tr 2922.

The current determination of LCR is inconsistent with the current MISO resource adequacy standard, as explained by Mr. Zakem. 7 Tr 2913-2916; Exhibit EM-3 (AJZ-3), pp 2-5. In just one of several examples, if Michigan Zone 7 were able to import *all* the capacity to meet the MISO obligations of Michigan utilities, MISO's current LCR method would still require over 3,000 MW of additional capacity in Zone 7, which in Mr. Zakem's expert opinion, is illogical. Exhibit EM-3 (AJZ-3), p.6.

Energy Michigan submits that there is no question that there are errors and inconsistencies in MISO's current method of determining LCR that should be corrected, in order to be consistent with MISO's resource adequacy standard.

# 4. The Commission Should Open a Proceeding to Consider a Change in MISO's Tariff to Address Zone 7's Disproportionate ECIL.

In Witness Zakem's opinion, MISO's current tariff does not fully and efficiently allow the CIL to be fully utilized in order to satisfy resource adequacy obligations. Therefore, he recommends an improved LCR method that:

a. uses the full capability of the CIL in fulfilling the zonal PRMR,

b. supports the MISO resource adequacy standard, and

c. still <u>recognizes</u> that resources within a zone may require a separate PRM %.

7 Tr 2973. As shown in Exhibit EM-3 (ALZ-3), attached, the proposal has two components and sets the LCR in two steps:

First, a portion equal to the CIL (3,211 MW for Zone 7) of the zonal PRMR can be imported, using the MISO PRM %. The zonal PRMR is the PRMR set by the MISO method, using the forecast at the time of the MISO peak.

Second, the remaining portion of the PRMR for the zone is supplied from local resources using the zonal PRM%.

7 Tr 2973. Exhibit EM-3 (AJZ-3), page 11, a schematic of the proposal, illustrates how the imports and in-zone resources combine to determine how much capacity must be located with the zone, the LCR. *Id*.

Exhibit EM-3 (AJZ-3), page 10, shows an example of how the proposed amended tariff would operate for Zone 7. Per Mr. Zakem:

The PRMR for Zone 7 is 21,976 MW. Of this, in step 1, up to 3,211 can be imported, leaving 18,765 MW.

Second, the remaining 18,765 MW of PRMR includes a MISO PRM %. This has to be changed to a zonal PRM %. This is done by backing out the MISO PRM % to get to the underlying forecast number, then adding in the zonal PRM %:

$$LCR = [18,765 / 1.079] \times 1.172 = 20,282 \text{ MW}.$$

So Zone 7 can import up to 3,211 MW, and must have resources of 20,282 MW within the zone.

The proposed LCR of 20,382 MW is a decrease of 1,430 MW compared to the current LCR method with an LCR of 21,812 MW. Correspondingly, the usable portion of the CIL – the new ECIL – increases by 1,430 MW from 164 MW to 1,594 MW.

7 Tr 2974.

In addressing an example of only 1,000 MW of imports to Zone 7 clearing in the MISO

PRA, compared to an actual CIL of 3,211 MW, Mr. Zakem stated that under his proposal:

The LCR would remain the same at 20,282 MW. As noted previously, the physical CIL (Capacity Import Limit) is <u>still 3,211 MW</u>, and consequently 3,211 MW of power flow can be imported into Zone 7 at the time of the MISO annual peak hour to meet the MISO resource adequacy standard, regardless of what has cleared for which zones in the 23 auction.

For resource adequacy purposes, who owns which resources where does not affect reliability and does not affect the MISO auction clearing price. MISO uses all resources in aggregate to serve all load in aggregate. MISO does not use a particular owner's resources to serve that particular owner's load. Thus, capacity is not actually being "imported" in a casual meaning. Rather, the purpose of the current LCR method and the MISO annual auction is to provide price signals for where additional capacity might be needed.

Ownership is not relevant to MISO's resource adequacy standard. For example, if LSE A in Zone 7 owns 6,000 MW in Zone 5 and LSE B in Zone 5 owns 6,000 MW in Zone 7, that situation is completely valid – both in the MISO auction and operationally – even if the CIL – the physical import limit – in each zone is less than 6,000. LSE A and LSE B may say they are "importing" capacity, but to MISO there is no physical importing.

In assessing the IRP, the Commission may find it useful to distinguish between the ECIL as representing financial risk of not satisfying MISO's resource adequacy requirements and the physical CIL as representing reliability risk. Increasing the ECIL can reduce financial risk without affecting reliability risk.

7 Tr 2974-2975 (emphasis in original).

Mr. Zakem stated that the proposed tariff amendment would eliminate the current inconsistencies in MISO's tariff:

The proposed method is consistent with the MISO resource adequacy standard because it is based on the resource adequacy standard. When the conditions match the conditions of the resource adequacy standard, the results are the same: if a zone has the same PRM% as the MISO-wide PRM% and there are no transmission constraints into the zone (that is, the CIL = the PRMR) then the Local Capacity Requirement is zero, as it

should be. Another way of looking at this is if a zone can import all its capacity requirements to meet MISO's resource adequacy obligations (PRMR), then there is no need for "local" capacity within the zone. The current LCR method does not produce either of these outcomes, but rather requires additional capacity beyond that needed to meet the MISO PRMR obligations.

7 Tr 2976.

Importantly, Mr. Zakem noted that the proposed tariff change would result in an increased percent of CIL that can be used to satisfy the MISO PRMR (i.e., the new ECIL) for a zone increases for all zones:

The Michigan zones – Zone 7 for Lower Peninsula and Zone 2 for Upper Peninsula and east Wisconsin – are significantly improved. Although they are still less than other zones, they no longer appear as outliers. The new, higher ECIL may provide DTE and the Commission options for imports that would not be feasible under the current ECIL.

Where the usable CIL is somewhat less than 100%, the underlying cause is the PRM% for the zone being greater than the MISO PRM%. Under the proposal, if the PRM% for the zone is the same as the PRM% for MISO, then the usable portion of the CIL would be equal to 100% of the CIL, as one would expect. This is not true with the current LCR method. In my opinion, MISO resource adequacy is better served by recognizing that there are transmission constraints into a zone, Constraints imply that the portfolio of resources within a zone that cannot be substituted for via capacity imports may require a higher reserve margin – determined from MISO modeling – than that required for MISO as a whole. Such recognition and requirement has to be designed in a reasonable and realistic way, a way that is consistent with the MISO resource adequacy standard.

7 Tr 2976-2977. Exhibit EM-4 (AJZ-4).

Finally, Mr. Zakem notes that the proposed tariff change, that seeks to revise the MISO Module E-1 tariff to change the way that the LCR for a zone is determined, would: 1) not change the way MISO performs its statistical analysis or power flow modeling; 2) not change the way LSEs and Electric Distribution Companies submit forecast data to MISO; 3) not change the way PRMR obligations are determined for LSEs; and 4) not change the options that LSEs have for

meeting their PRMR obligations. 7 Tr 2977. At the same time, the proposed tariff change is consistent with the MISO resource adequacy standard because it is based on the resource adequacy standard. 7 Tr 2976.

If the proposed tariff went into effect, it would result in an <u>increase</u> in Zone 7's ability to import capacity to satisfy MISO resource obligations from 164 MW to 1,594 MW, as shown on Exhibit EM-4 (AJZ-4), p. 2, columns D and I. This is an increase in 1,430 MW. This increase could affect the Commission's assessment of workable options in DTE Electric's IRP. 7 Tr 2978.

Energy Michigan supports Mr. Zakem's recommended MISO tariff change and the suggestion for the Commission to "lead the effort" to take the suggested change to MISO. MISO has, in fact, previously amended Module E-1 in 2013 by seeking to change the forecast for determining the LCR from the MISO annual peak time to the individual zonal peak times. The Federal Energy Regulatory Commission ("FERC") approved this requested change on October 29, 2013 in FERC Docket No. ER13-2298.

While Energy Michigan appreciates the Commission's review of the CIL issue in its Final Statewide Energy Report, and its recommendation to MISO to work with Commission Staff and interested parties in seeking solutions to increase import capabilities, potential options in an IRP are being limited by the deficiencies of MISO's current determination of LCR and the consequent restriction on ECIL. These deficiencies can be corrected and must be corrected if Michigan is to develop optimal IRPs. Energy Michigan submits that due to the importance of this issue for planning and reliability purposes, the Commission could open its own docket to seek input and feedback from interested parties on potential solutions, such as Energy Michigan's, to rectify the disproportionate impacts of MISO's CIL/ECIL on Zone 7.

#### V. CONCLUSION AND PRAYER FOR RELIEF

For all of the reasons stated herein, Energy Michigan respectfully requests that the Commission consider the comments herein, and institute a proceeding with interested stakeholders to consider suggested revisions to MISO's Module E-1 tariff as it relates to the CIL/ECIL.

Respectfully submitted,

Varnum LLP Attorneys for Energy Michigan, Inc.

October 29, 2019

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#### **STATE OF MICHIGAN**

#### BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the Application of DTE ELECTRIC COMPANY for approval of its Integrated Resource Plan pursuant to MCL 460.6t, and for other relief.	) ) Case No. U-20471 )
PROC	OF OF SERVICE
STATE OF MICHIGAN ) ) ss. COUNTY OF INGHAM )	
Sarah E. Jackinchuk, the undersigned, b	being first duly sworn, deposes and says that she is a Legal
Secretary at Varnum LLP and that on the 29th of	day of October, 2019 she served a letter stating that
Energy Michigan, Inc. filed an Initial Brief, an	nd Proof of Service upon those individuals listed on the
attached Service List via email.	
	Sarah E. Jackinchuk

#### MPSC Case No. U-20471

#### Administrative Law Judge

Hon. Sally Wallace Administrative Law Judge Michigan Public Service Comm. 7109 W. Saginaw Hwy., 3rd Floor Lansing, MI 48917 Wallaces2@michigan.gov

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