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I&M Exhibit:

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OFFICIAL EXHIBITS

INDIANA MICHIGAN POWER COMPANY

38702 FAC-92

PRE-FILED VERIFIED DIRECT TESTIMONY

OF

TODD A. JOHNSTON

DIRECT TESTIMONY OF TODD A. JOHNSTON ON BEHALF OF INDIANA MICHIGAN POWER COMPANY

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Q1.	Please state your name and business address.
	My name is Todd A. Johnston. My business address is 1 Riverside Plaza, Columbus, Ohio 43215.
Q2.	By whom are you employed and in what capacity?
	I am employed by American Electric Power Service Corporation (AEPSC) as a Regulatory Case Manager in Regulatory Service. AEPSC is a wholly owned subsidiary of American Electric Power Company, Inc. (AEP), the parent company of Indiana Michigan Power Company (I&M or the Company).
Q3.	Briefly describe your educational background and professional experience.
	I graduated from Gannon University with a Bachelor of Electrical Engineering in May 1988 with a major emphasis in electronics. I have participated in various management training and development programs, including the AEP Management Development Education program provided by The Ohio State University Fisher College of Business.
	In September 1988, I accepted a position at American Electric Power – Kammer / Mitchell Plants as a Performance Engineer monitoring, testing, and evaluating plant equipment for improvements, performance, and repairs. During the time from 1988 through 2006 I was promoted into various increasing responsibility roles at the plant, including I&C Supervisor, Plant Budget Coordinator, Team Leader, and Outage Manager.
	In November of 2007, I transferred to the AEP Service Corporation, Commercial Operations Department where I was responsible for the creation and implementation of day-ahead strategies for AEP generating units in the PJM, ERCOT and SPP markets. I was promoted to Production Optimization Manager leading the group of coordinators performing the DA functions. In 2014, during
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1 2 3 4		the deregulation of Ohio, I moved to the AEP deregulated Energy Supply Department performing the Day-Ahead function. In June 2023, I accepted my current position in Regulatory Services. I also earned and held NERC Reliability Coordinator Certification from December 2008 – December 2023.
5	Q4.	Please describe your current responsibilities.
6 7 8 9		My responsibilities include support of fuel and purchased power- related filings for the AEP System operating companies, supporting the AEPSC Fuel Procurement and AEPSC Commercial Operations organizations, and supporting traditional cost-of-service and rate design projects
10	Q5.	Are you sponsoring any attachments?
11	40.	Vos Lam sponsoring Confidential Attachment 1 C, the monthly Coal Burn and
12		Discussion presentations utilized in the monthly meetings discussed later in my
13		testimony.
14	Q6.	Was the attachment that you sponsor prepared by you or under your
15		direction?
16		Yes.
17	Q7.	What is the purpose of your testimony?
18		The purpose of my testimony is to discuss the Company's operations in PJM
19		and the state of PJM energy markets during the Review Period of June 2023
20		through November 2023. Also, I will discuss market related steps that the
21		Company could take to manage coal inventory.
	energe energy	Operating in PJM
22	Q8.	Please describe the Company's daily activities in the PJM energy markets.
23		Every day, the Company offers all its available generating resources and
24		purchases all its expected load in the PJM Day-Ahead energy market. The

25 offering of the Company's generation resources involves submitting a large

volume of data to PJM that includes unit commitment designation, offer curves 1 that cover per-unit costs for the range of output from economic minimum to 2 economic maximum, and market parameters. The market parameters include, 3 but are not limited to, a unit's startup cost, startup time in hours, how quickly a 4 unit can ramp-up energy production, and other characteristics defined in PJM 5 protocols. PJM protocols are established in various documents such as the PJM 6 tariff and the manuals published on www.pjm.com. This process involves a high 7 8 level of coordination among AEPSC Commercial Operations personnel, AEPSC Fuel Procurement personnel and the Company's management and generating 9 10 unit personnel located at the individual plant sites. The purpose of this process is to provide the most up-to-date and accurate information to PJM prior to the 11 market deadline. Commercial Operations relies on the generating unit 12 personnel to provide the most up-to-date information on each generating unit's 13 availability and capability. Commercial Operations relies on Fuel Procurement 14 to provide the most up-to-date information on fuel availability and pricing, 15 especially for natural gas which has prices that change on a daily basis. The 16 daily process concludes when Commercial Operations compiles and submits all 17 information required by PJM in advance of the Day Ahead market deadline. 18

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Q9. Who ultimately determines the level of output for a generating unit?

PJM, through its economic dispatch model, determines the ultimate level of 20 generation required to meet the load based on the units available in each hour 21 and the economics of those units. In basic terms, PJM uses the offer 22 information provided and arranges, or "stacks", the available units in economic 23 order from the least cost to the highest cost. PJM's model then instructs, or 24 25 dispatches, units to run by solving for the least cost solution to serve the level of 26 load while factoring in transmission constraints. The PJM model is continuously updated in the Real-Time market to adjust for changing conditions in order to 27 optimize the dispatch instructions that seek to provide the least cost solution to 28 meet the RTO's load. This is beneficial to customers because it ensures that the 29

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lowest cost units are prioritized to serve the load.

2 Q10. Does PJM place any obligations on the availability of generating units?

Yes. The first obligation is that any generating unit that is a capacity resource must offer its energy into the Day-Ahead energy market. Specifically, if a generating unit either sells its capacity through the PJM capacity auctions or supplies capacity through a Fixed Resource Requirement plan, it must offer its energy every day in the Day-Ahead energy market.

8 The second obligation is that all scheduled generating unit outages must be approved by PJM before the units are allowed to be taken out of service. This 9 includes taking units out of service for either a planned or a maintenance 10 11 outage. PJM also explicitly prohibits planned outages during PJM Peak Period 12 Maintenance Season, which runs from the 24th week through the 36th week of each year in order to ensure reliability during the summer season, when PJM 13 14 typically experiences its highest annual peaks. While not scheduled, forced outages at generating units must be report to PJM. 15

16 Q11. Please describe how I&M operates in PJM.

As stated above, I&M uses its generating resources to meet its capacity obligations under a Fixed Resource Requirement Plan and, therefore, offers all of its available generation into the PJM energy markets every day. In addition, it purchases all of its load each day. While the Company attempts to do this entirely through the Day-Ahead energy market, the PJM Real-Time energy market exists to accommodate any changes in either expected generation or in expected load.

24 Q12. How do these transactions result in sales to and purchase from PJM?

In every hour for a given period, the Company is buying and selling energy into
the PJM Day-Ahead and Real-Time energy markets. If the Company purchases
more energy than it sells, the result is a purchased power transaction that is
recovered through the Fuel Adjustment Clause (FAC).

II. The Status of the Market

1	Q13.	Please describe recent trends in the PJM energy markets.
2		Locational Marginal Pricing (LMP) spiked in December 2022 due to Winter
3		Storm Elliott. The overall trend shows a decrease in LMP's through November
4		2023 as shown in Chart TAJ-1. The mild weather and abundant natural gas
5		supply are the major factor in the lower LMP trend in the PJM market.
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7		Chart: TAJ - 1



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Q14. Please discuss the trend in prices in calendar year 2023.

10 Spring and fall are periods in which generators typically schedule their planned 11 outages. Prices typically do not rise in the spring or fall without a specific 12 weather-related incident and there were no weather-related incidents during the 13 review period. The spring and fall periods are chosen for planned outages

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because of lower demand during those months when the weather tends to be
 milder. The mild summer and fall of 2023 showed a return to a typical trend in
 LMP's as shown in Chart TAJ-2 along with the typical drop in PJM load.





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Q15. Has the fall in market prices created challenges for the Company?

Yes. The fall in prices has resulted in lower dispatch of the Company's Rockport Unit 1, which has resulted in challenges maintaining coal pile inventory below the maximum safe levels. The mild weather and abundance of natural gas has created a drop in LMPs which challenged the economical running of the coal units. The coal deliveries continued during this mild weather, causing an increase in inventory, which created challenges maintaining safe levels of 1inventory. Company witness Chilcote provides more detail on the coal2inventories and strategies.

3 Q16. How has the Company addressed these challenges?

The company continues to actively monitor all options for running the coal units and maintaining the coal pile at a safe level and provide the lowest cost electricity to the customers. The use of decremental price curve adjustments and self-committing Rockport 1 at its economic minimum are options the company has considered or utilized during this period. These options will be discussed further in the sections below.

III. Market Strategy Using Pricing and Commitment Status

10 **Q17.** Explain Market Options for coal inventory management.

When a coal-fired unit has concerns that it could reach maximum safe storage 11 12 pile levels for coal, it has a few options. The first is to self-commit the unit. Selfcommitted units, committed in PJM with a Must Run commitment status, are 13 committed into the Day Ahead market to run at their economic minimum. Even 14 though a unit is self-committed, PJM economic dispatch model can run them at 15 a level above their economic minimum. The use of self-commitment allows a 16 17 unit to remain online and consume coal. This is a benefit to the customers in saving the cost of additional startups and purchasing replacement energy from 18 the market while the unit is offline and allowing coal inventories to increase. 19 Another option for fuel management is the use of decrement pricing. The use of 20 a decrement pricing would lower the incremental cost of the unit's energy curve. 21 22 This would result in additional sales and additional coal consumption. Both 23 options are discussed during the monthly meeting (Attachment 1-G) and daily, 24 before market close, to ensure the most beneficial approach to the customers.

1Q18. Please explain the process for determining the use of decrement and self-2committing at economic minimum.

Each month, Members of AEPSC Commercial Operations, AEPSC Fuel 3 Procurement, various generation personnel, and AEPSC Regulatory Services 4 5 met to review fuel inventory levels at each coal-fired generating unit, the expected deliveries of coal, expected electricity demand, and market forward 6 7 prices, in order to forecast future operations. These meetings also included discussions of scheduled outages, scheduled equipment testing, and potential 8 market events, such as weather events or transmission outages. The final result 9 was the determination of a pricing decrement or must running as needed to 10 11 manage each unit's coal inventory based on the information available. This 12 process is consistent with the process used to determine pricing increments as 13 discussed in prior FAC cases.

Q19. Is the decision to self-committing only established in this monthly meeting?

16 No, the effects of self-committing Rockport 1 are reviewed daily and updated if 17 new information warrants a modification. There are many factors taken into consideration when determining unit commitment status including, short-term 18 19 economics, generating unit economics, startup costs, existing fuel inventories, scheduled deliveries of fuel, operational constraints, scheduled environmental 20 21 and capability testing, all while ensuring the safe operation of our generating 22 units. For example, if the Company had scheduled environmental testing and 23 arranged for the necessary Company staff and external parties to be on-site, it 24 may opt to self-commit to ensure it is generating energy on the day of testing.

Direct Testimony of Todd A. Johnston

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1 2	Q20.	Did the Company use Increment or Decrement Pricing during the Review Period?
3		No, the use of either increment or decrement pricing was not utilized.
4 5	Q21.	Was the Option to Self-Commit Rockport 1 utilized during the Review Period?
6 7 8 9 10		Yes, the unit was self-committed for coal pile management, testing and near term forecasted economics. PJM allows generating units to select a Must Run commitment status for the next operating day. This commitment status indicates to PJM the unit will remain online and not cycle off during low economic market conditions.
11	Q22.	How does this strategy benefit the customer?
12		The Company's approach benefits customers by ensuring, to the extent
13		reasonably possible, the Company is providing economic generation while
14		safely operating the generating units. As it is related to decrement pricing, the
15		Company must make a choice of when to maximize generation output. When
16		considering decrement pricing, the Company must make a reasonable decision
17		based on information available at that time. Hypothetically, if applying a \$5 per
18		ton discount to the market-based offer yields a price that is expected to get
19		selected for generation, the Company must ensure that this reduction in coal
20		price is the lowest cost of the options available. If the clearing price comes in
21		lower than expected, the unit(s) would not get selected for generation. As it is
22		related to self-committing the unit for coal pile management or near-term
23	I	economics, the Company must evaluate coal purchase and deliveries,
24		upcoming weather events and forecasted pricing to limit the startup expenses
25		and additional resources needed to bring a unit online. Once again,
26		hypothetically, if the Company self-commits the unit(s) at minimum load, the
27		option, as directed by PJM, of increasing generation due to a more favorable

energy market, remains and the customer benefits from the generation at a
 lower cost that the energy market.

3 Q23. Does this conclude your direct testimony?

4 **Yes**.

VERIFICATION

I, Todd A. Johnston, Regulatory Case Manager, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.

Date: 1/26/2024

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Todd A. Johnston