STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANA MICHIGAN POWER COMPANY (I&M), AN INDIANA CORPORATION, FOR APPROVAL OF AN ADJUSTMENT TO ITS RATES THROUGH ITS ENVIRONMENTAL COST RIDER (ECR) PURSUANT TO THE ONGOING REVIEW PROCESS APPROVED BY THE COMMISSION'S ORDER IN CAUSE NO. 44871 AND 45235.	)	**CAUSE NO. 44871 ECR 4**

SUBMISSION OF DIRECT TESTIMONY OF
FRANKLIN R. PIFER

Indiana Michigan Power Company, by counsel, hereby submits the direct testimony and attachments of Franklin R. Pifer.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing was served upon the following via electronic email, hand delivery or First Class, United States Mail, postage prepaid this 9th day of July, 2020 to:

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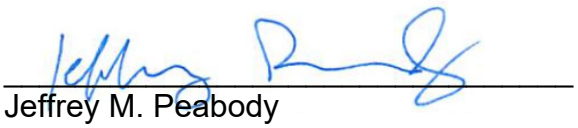

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I&M EXHIBIT __

INDIANA MICHIGAN POWER COMPANY

CAUSE NO. 44871 ECR 4

PRE-FILED VERIFIED DIRECT TESTIMONY

OF

FRANKLIN R. PIFER

PRE-FILED VERIFIED DIRECT TESTIMONY OF FRANKLIN R. PIFER
ON BEHALF OF
INDIANA MICHIGAN POWER COMPANY

Q. Please state your name and business address.

A. My name is Franklin (Frank) R. Pifer, and my business address is 1 Riverside Plaza, Columbus, Ohio 43215.

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

A. I am Vice President – Projects Controls and Construction for the American Electric Power Service Corporation (AEPSC). AEPSC supplies engineering, financing, accounting, project management and planning and advisory services to the subsidiaries of the American Electric Power Company, Inc. (AEP), including Indiana Michigan Power Company (I&M or Company).

Q. Please briefly describe your educational background and business experience.

A. I graduated from Fairmont State College in Fairmont, West Virginia in 1987 with a Bachelor of Science Degree in Mechanical Engineering Technology. I have over thirty-three years of experience in the electric utility industry. I joined American Electric Power in 1987 when I was hired into the Maintenance Department of the John E. Amos Plant located in St. Albans, West Virginia. At the Amos Plant I held various positions including Maintenance Engineer, Maintenance Supervisor, Outage Manager, and Operations Team Leader. In 1999, I transferred to the Kanawha River Plant as the Energy Production Manager and was later promoted to Plant Manager in 2000. In 2003, I became Plant Manager of the Philip Sporn plant in New Haven, West Virginia.

In 2005, I relocated to the AEP Headquarters in Columbus, Ohio and joined the Engineering Projects and Field Services (EP&FS) group. In EP&FS, I held various positions including Manager of Operations & Commissioning, Project Director, and Director of Construction. In 2013, I was promoted to Managing Director of Projects, where I was responsible for the overall execution of major projects for AEP. This included ensuring that these projects are completed safely, at or under cost, on schedule, and to the expected level of quality and operating effectively as designed. In 2016, I was promoted to my current position as Vice President – Projects Controls and Construction.

As Vice President – Projects Controls and Construction I am responsible for all aspects of project management, project controls, construction, start up and commissioning, and enabling capital excellence activities within AEP's Generation organization.

Q. Have you previously testified before any regulatory commissions?

A. Yes. I submitted testimony before this Commission on behalf of I&M in Cause Nos. 44331 ECR 2 through ECR 5, 44523 ECR 1 and ECR 2, and 44871 ECR 1 and ECR 3. I have also submitted written testimony on behalf of AEP subsidiary Southwestern Electric Power Company before the Arkansas Public Utilities Commission in Docket Nos. 06-120-U and 19-008-U and before the Public Utilities Commission of Texas in Docket Nos. 37364 and 46449.

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

A. The purpose of my testimony in this proceeding is to provide an updated capital cost estimate, including actual costs incurred through March 31, 2020, for the

Rockport Plant Clean Coal Technology Project to retrofit Rockport Unit 2 with SCR technology to reduce the plant's emissions of nitrogen oxides (NO_X), and provide a 2021 forecast for total Rockport Plant consumables and environmental emissions allowances. Throughout my testimony, the Unit 2 SCR project will be referred to as the "Rockport Unit 2 SCR Project" or the "Project".

Q. Are you sponsoring any attachments as a part of your testimony?

A. Yes, I am sponsoring the following Attachments:

Attachment FRP-1 – Rockport Unit 2 SCR Project: Actual Costs Incurred During Historical Period and Planned Expenditures for Forecasted Period

Attachment FRP-2 – Rockport Unit 2 SCR Project: Total Rockport Plant Estimated Project Capital Costs, Excluding AFUDC

Attachment FRP-3 – Total Rockport Plant: Forecast Period Consumables and Environmental Allowance Expenses

Q. Were these attachments prepared or assembled by your or under your direction and supervision?

A. Yes.

I. Rockport Unit 2 SCR Project

Q. Has the Commission previously approved this clean energy project?

A. Yes. By Order dated March 26, 2018, the Commission approved the cost of the Rockport Unit 2 SCR Project and granted I&M a Certificate of Public Convenience and Necessity in Cause No. 44871. In addition, by Order dated October 31, 2018 (Cause No. 44781 ECR 1), the Commission approved ongoing construction and associated cost for the Rockport Unit 2 SCR Project and the

initial Environmental Cost Rider (ECR) factors related to the Rockport Unit 2 SCR Project. Updated ECR factors related to the Project were subsequently approved by the Commission in Cause No. 44871 ECR 3.

Q. What costs were specifically approved by the Commission in Cause Nos. 44871 and 44871 ECR 1 and ECR 3?

A. As explained by Company Witness Guthrie, the Commission approved I&M to recover the capital investment and O&M expense associated with I&M's Ownership Share of the Rockport Unit 2 SCR Project in Cause No. 44871. The Order in Cause 44871 also allows for I&M to provide updates to its Rockport Unit 2 SCR Project and ECR on an annual basis.

In Cause Nos. 44871 ECR 1 and ECR 3, the Commission approved I&M's ongoing review for the Rockport Unit 2 SCR Project and the construction work and costs (including AFUDC). In addition, the Commission found that the construction costs for which I&M was seeking ratemaking treatment were appropriately included in the calculation of the ECR factors.

Q. How are the costs associated with this project represented in your testimony?

A. The costs that I describe in my testimony, except where specifically noted otherwise, represent the total cost to retrofit Rockport Unit 2 with SCR technology. This cost is reflective of the total investment necessary to construct the SCR system on Rockport Unit 2, which includes both the I&M and AEP Generating Company (AEG) lease shares (each company is a 50% leaseholder of Unit 2). In my role, these total Project costs are those for which I am

responsible. In Attachment FRP-1, I provide costs on an ownership share basis. However, throughout my testimony, I address the total costs to retrofit Rockport Unit 2 with SCR technology.

Q. What are the time periods that are relevant to the costs that you describe in your testimony?

A. The relevant time period that I will discuss is through December 31, 2021, which includes actuals through March 31, 2020, forecasted values through December 31, 2020 and the Forecast Period from January 1, 2021 to December 31, 2021.

Q. Please provide an update regarding the progress of the Rockport Unit 2 SCR Project.

A. The Rockport Unit 2 SCR Project commenced construction in August 2017. Over the Historical Period, the total capital expenditure incurred for the Rockport Unit 2 SCR Project, excluding AFUDC, was approximately $196.5 million. Within the reconciliation period of April 1, 2019 through March 31, 2020, total Project costs were approximately $99.8 million.

As of March 31, 2020, Project engineering and design was 98% complete and overall construction progress was 92% complete, consistent with the project plan.

Actual construction costs through March 31, 2020 plus estimated costs through December 31, 2020 are approximately $222.7 million (excluding AFUDC).

During the Forecast Period from January 1, 2021 through December 31, 2021, the Company anticipates approximately $2.2 million (excluding AFUDC) of capital costs for the Project related to project closeout and site restoration work.

Attachment FRP-1 contains a summary of the capital costs incurred for the Rockport Unit 2 SCR Project over the Historical and Forecast Periods, with detail shown for both ownership shares of the Rockport Plant. AFUDC amounts are shown separately in the attachment.

Q. How does the current forecasted Estimate at Completion (EAC) of total capital investment for the project compare with the estimated cost presented to this Commission in Cause No. 44871?

A. In Cause No. 44871, I&M estimated the total capital cost to be $274.2 million (excluding AFUDC), and as an integral function within project management I&M updates the Project estimate on a regular basis. The EAC for the Project as of March 31, 2020 is $224.9 million (excluding AFUDC), which is an approximate 13.7% reduction from the project's previous Phase II estimate and an approximate 12.6% reduction from the 44871 ECR 1 estimate. Attachment FRP-2 provides a comparative breakdown of the major cost components and their respective estimates at the end of Phase II and Phase III, as well as the current estimate at the Project's completion.

Q. Please provide a summary of the project phases, including the status of the Rockport Unit 2 SCR.

A. As described in my direct testimony in Cause No. 44871 before this Commission, I&M and AEPSC are executing this project using a phased approach. The

distinct phases create stage gates in the project where costs are reviewed for accuracy and to ensure that all aspects of the project are being studied. The Project will be executed in three phases and is currently in Phase III.

Q. Can you provide an explanation of the reduction in the EAC for the Rockport Unit 2 SCR project?

A. A significant portion of the reduction in EAC is the result of re-engineering the reinforcing steel required to support the new SCR. The updated design reduced the quantity of the reinforcing steel necessary for the project, which in turn lowered the material costs and the installation labor in comparison to the Rockport Unit 1 SCR, which was the basis for the Phase I estimate. Additionally, the largest single project contract, for Structural and Mechanical labor, was competitively bid in Spring 2018. The result was a firm price contract award that was at a cost to I&M significantly lower than our preliminary estimates. We attribute this result to market forces which produced a very competitive bid environment. Lastly, as the project nears completion, increased certainty and reduced risk have also contributed to the decrease in the project EAC shown in Attachment FRP-2.

Q. What is the current status of the Rockport Unit 2 SCR Project installation?

A. The Rockport Unit 2 SCR Project was completed and the unit was released to operations on May 29, 2020, concurrent with the end of the Unit 2 planned outage. The Project's completion date complies with the deadline to install an SCR system at Rockport Unit 2, which had been tolled until June 1, 2020

pursuant to a Motion To Toll Deadline In Consent Decree[1] approved on November 16, 2017. The original deadline to install an SCR system at Rockport Unit 2 was December 31, 2019. The unit and the new controls subsequently went through testing and commissioning activities to assure that all of the new equipment and systems were functioning properly. The unit was released to PJM for dispatch on June 5, 2020.

Q. Please describe the O&M expenses associated with the Rockport Unit 2 SCR project.

A. The O&M costs associated with the Rockport Unit 2 SCR Project include the operational costs and routine maintenance that is generally required for all major equipment on the Unit. This will also include variable O&M costs consisting of consumable purchases and environmental emissions allowances, which fluctuate with the level of the Unit's generation. As explained by Company Witness Guthrie, only consumable purchases and environmental emissions allowances are included for recovery through this filing.

Q. What consumables will be used in the Rockport Unit 2 SCR system?

A. Anhydrous ammonia will be used in the SCR process. Specifically, SCR technology uses ammonia as a reagent, which is injected into the flue gas stream, and then passes over a catalyst. The ammonia and NO_X react on the catalyst surface to form nitrogen gas and water vapor, thereby reducing NO_X in the flue gas stream.

[1] See I&M's November 21, 2017 Submission Of Additional Information Concerning Rockport Unit 2 Lease in Cause No. 44871 regarding the unopposed motion to toll the SCR installation deadline to June 1, 2020.

The forecasted anhydrous ammonia consumption for the SCR system on Rockport Unit 2 is based on preliminary engineering estimates and anticipated capacity factors. Actual consumption will vary based on the results of the performance testing and actual capacity factors.

II. Rockport Plant Consumable and Environmental Emissions Allowances

Q. What level of consumables and environmental emissions allowances are included in I&M's base rates?

A. Pursuant to the Commission's March 11, 2020 Order in Cause No. 45235, the level of consumables and environmental emissions allowances included in I&M's base rates is $21.8 million (total Company).

Q. What is I&M's share of the total Rockport Plant consumables and net environmental emissions allowances for the Forecast Period?

A. As shown in Attachment FRP-3, the Company's forecast includes $17.7 million (total Company) for Rockport Plant consumables and environmental emissions allowances, during the Forecast Period.

Q. Does this conclude your pre-filed testimony?

A. Yes, it does.

VERIFICATION

I, Franklin R. Pifer, Vice President – Projects Controls and Construction for the American Electric Power Service Corporation, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.

Date:

F. R. Pifer

Franklin R. Pifer

Rockport Unit 2 SCR Project
Actual Costs Incurred During Historical Period and Planned Expenditures for Forecast Period

	Rockport U2 I&M[1] Direct Ownership Share	Rockport U2 AEG[1] Ownership Share	Total Rockport Plant
Historical Period Project Cost[2]	$98,254,473	$98,254,238	$196,508,712
Historical Period AFUDC[2,3,5]	$3,181,720	$7,306,706	$10,488,426
Historical Period Total Cost Including AFUDC	$101,436,193	$105,560,945	$206,997,138
Forecast April 2020 thru December 2020 Project Cost	$13,106,596	$13,106,596	$26,213,192
Forecast April 2020 thru December 2020 AFUDC[3,5]	$803,512	$803,512	$1,607,023
Forecast April 2020 thru December 2020 Total Project Cost Including AFUDC	$13,910,108	$13,910,108	$27,820,215
Forecast Period Estimated Project Cost[4]	$1,087,450	$1,087,450	$2,174,900
Forecast Period Estimated AFUDC[3,5]			
Forecast Period Estimated Total Project Cost Including AFUDC	$1,087,450	$1,087,450	$2,174,900
Estimated Project Total Cost[6]	$112,448,520	$112,448,284	$224,896,804
Estimated Total AFUDC[3,5,6]	$3,985,231	$8,110,218	$12,095,449
Estimated Project Total Cost Including AFUDC	$116,433,751	$120,558,502	$236,992,253

1 - Total Cost for Rockport I&M & AEG projects is estimated at a 50% split

2 - Historical Period represents costs incurred through March 31, 2020

3 - Allowance for Funds Used During Construction (AFUDC)

4 - Forecast Period from January 1, 2021 through December 31, 2021

5 - For I&M's direct ownership share, effective January 2015, I&M records AFUDC on 100% of the FERC jurisdictional component

6 - Through end of Project (December 31, 2021)

Rockport Unit 2 SCR Project
Total Rockport Plant Estimated Capital Costs, Excluding AFUDC

		Phase II	Phase III	EAC	Delta (EAC vs Phase III)
SCR		$ 216,332,024	$ 192,152,242	$ 192,152,242	$ -
Subtotal - Direct Construction Cost		**$ 216,332,024**	**$ 192,152,242**	**$ 192,152,242**	$ -
PME&C		$ 15,600,000	$ 13,671,842	$ 13,671,842	$ -
	Subtotal	$ 231,932,024	$ 205,824,084	$ 205,824,084	$ -
Risk Allocation*		$ 12,605,111	$ 2,000,000	$ 2,000,000	$ -
	Total	$ 244,537,135	$ 207,824,084	$ 207,824,084	$ -
AEP Overhead Allocations		$ 16,202,679	$ 17,072,720	$ 17,072,720	$ -
	Grand Total	**$ 260,739,814**	**$ 224,896,804**	**$ 224,896,804**	**$ -**

* Phase II Risk = 5.43% @ P90
* Phase III Risk = 5.27% @ P90
* EAC includes Actuals thru March 31, 2020

EAC = Estimate at Completion
SCR = Selective Catalytic Reduction
PME&C = Project Management, Engineering & Construction Management
AFUDC is not included in the values above.

Total Rockport Plant
Forecast Period[1] Consumables and Environmental Allowance Expenses

	Total I&M Share
Environmental Allowances	$429,000
Anhydrous Ammonia	$575,907
Sodium Bicarbonate	$14,883,381
Activated Carbon	$1,831,533
Estimated Total[2]	**$17,719,821**

1 - Forecast Period is January 1, 2021 through December 31, 2021.

2 - I&M's Share of Total Rockport Plant Consumables and Environmental Allowance Expenses.