STATE OF INDIANA

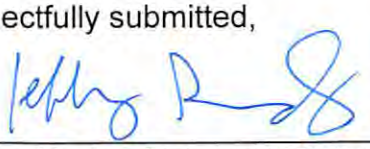
INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE VERIFIED PETITION OF INDIANA MICHIGAN POWER COMPANY FOR APPROVAL OF DEMAND SIDE MANAGEMENT (DSM) PLAN, INCLUDING ENERGY EFFICIENCY (EE) PROGRAMS, AND ASSOCIATED ACCOUNTING AND RATEMAKING TREATMENT, INCLUDING TIMELY RECOVERY THROUGH I&M'S DSM/EE PROGRAM COST RIDER OF ASSOCIATED COSTS, INCLUDING PROGRAM OPERATING COSTS, NET LOST REVENUE, FINANCIAL INCENTIVES, AND CARRYING CHARGES AND DEPRECIATION EXPENSE ON CAPITAL EXPENDITURES AND ASSOCIATED OPERATIONS AND MAINTENANCE EXPENSE.	)	CAUSE NO. 44841

PETITIONER'S SUBMISSION OF SETTLEMENT REBUTTAL TESTIMONY OF G. SCOTT FISHER

Indiana Michigan Power Company ("I&M"), by counsel, hereby submits the settlement rebuttal testimony of G. Scott Fisher.

Respectfully submitted,



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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing was served upon the following via electronic email, hand delivery or First Class, United States Mail, postage prepaid this 13th day of March, 2017 to:

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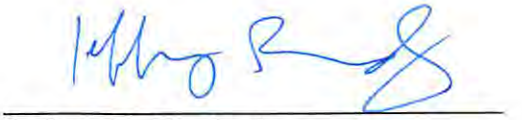

Jeffrey M. Peabody

Exhibit I&M-_____

INDIANA MICHIGAN POWER COMPANY

CAUSE NO. 44841

PRE-FILED VERIFIED SETTLEMENT REBUTTAL TESTIMONY

OF

G. SCOTT FISHER

PRE-FILED VERIFIED SETTLEMENT REBUTTAL TESTIMONY OF
G. SCOTT FISHER
ON BEHALF OF
INDIANA MICHIGAN POWER COMPANY

Q1. Please state your name and business address.

A1. My name is G. Scott Fisher and I am a Resource Planning Manager for American Electric Power Service Corporation (AEPSC). My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

Q2. Are you the same G. Scott Fisher that prefiled rebuttal testimony in this Cause on December 16, 2016, respectively?

A2. Yes.

Q3. What is the purpose of your settlement rebuttal testimony in this proceeding?

A3. My settlement rebuttal testimony addresses the issues raised by Citizens Action Coalition of Indiana, Inc. (CAC) witness Shawn Kelly regarding the consideration of DSM/EE in I&M's 2015 Indiana Integrated Resource Plan (IRP). Mr. Kelly raises the same general objections that he raised previously, none of which warrant rejection of the Settlement Agreement. I responded to many of his concerns in my rebuttal testimony. The absence of a specific response to Mr. Kelly's assertions should not be viewed to reflect the Company's agreement with the unaddressed point. In addressing Mr. Kelly's assertions regarding the Settlement Agreement, my overall response is as follows:

- The IRP is not flawed; it adequately assesses all new resource options, including demand side management and energy efficiency.

- The IRP's Preferred Plan is a reasonable path forward and is balanced with respect to the planned resource additions.

- The IRP provides I&M's DSM/EE planners a reasonable economic level of energy efficiency resources (savings) to be added over the planning period based on all of the inputs considered within an IRP.

Q4. Do you agree with Mr. Kelly's (pp. 4-5) assertion that the Company's 2015 IRP is "seriously flawed from the perspective of properly considering DSM as a resource"?

A4. No. The review of I&M's 2015 IRP presented by the IURC's Electricity Division Director, titled Final Report 2015-2016 Integrated Resource Plans submitted by Duke Energy, I&M and others, August 30, 2016 (Director's Report) did not conclude the Company's IRP report was flawed. In fact, the Director's Report at page 10, states:

> The Director also commends I&M for significant analytical and process improvements in this IRP as well as I&M's commitment to continual enhancements to their IRP stakeholder processes, development of scenarios and sensitivities with improved narratives, the use of state-of-the-art analytical tools such as PLEXOS, improved methodologies to treat DSM on as comparable a basis as possible to other resources, and I&M-specific databases.

Further, the Company allowed all resource options, including energy efficiency, to be modeled and selected based on each resource's characteristics, including initial cost, ongoing cost, variable cost, peak demand contribution and energy production/reduction contribution, *etc*. While the Director's Report (p. 14) urged

I&M, and all Indiana utilities, to continually reassess their methodology for future IRPs, I do not view this as suggesting I&M's IRP was "seriously flawed". I therefore disagree with Mr. Kelly's statement.

Additionally, the Company relied on both their knowledge of the energy efficiency space within their service territory and the Electric Power Research Institute's (EPRI) "2014 U.S. Energy Efficiency Potential Through 2035" report as explained in the IRP on pages 89 to 94. This comprehensive report served as the basic underpinning for the establishment of potential EE "bundles", developed for residential and commercial customers that were then introduced as resource options in the Plexos® optimization model. This report provides comprehensive and fairly detailed information on a multitude of current and anticipated end-use measures including measure costs, energy savings, market acceptance ratios and program implementation factors. I&M utilized this data to develop "bundles" of future EE programs for the IRP.

Further, AEPSC has relied on this approach in its other required IRP filings including: Appalachian Power Company's Virginia and West Virginia IRPs; Wheeling Power's West Virginia IRP; Kentucky Power's IRP; Public Service Company of Oklahoma's IRP and Southwestern Public Service Company's IRPs in Arkansas and Louisiana. This further demonstrates the reasonableness of I&M's approach.

Q5. Do you agree with Mr. Kelly's (p.5) assertion that the IRP is flawed because it only selected residential lighting?

A5. No. The Company's Preferred Plan recommended from the 2015 IRP process includes a balance of resources selected including energy efficiency, electric energy consumption optimization (EECO), combined heat and power, wind and both universal solar and private solar as viable low cost resources in its long-range IRP plan. While the IRP's EE selection was predominately Residential Lighting, this should be simply viewed as a proxy of cost and savings needed for any energy efficiency measure to be considered as a viable resource to be included in a DSM Program plan design. Similarly, if the Preferred Plan included a combustion turbine or combined cycle plant, it would simply be indicative of the type of a preferred supply-side resource, *i.e.* a peaker versus a base-load unit. In this instance a new combustion turbine or combined cycle plant would have further stakeholder review within the certificate of public convenience and necessity (CPCN) process. I must emphasize that the IRP is a planning document, not an implementation plan, while the DSM Program plan is based on analyses that identify the specific short-term details necessary to ensure a successful DSM Program implementation consistent with the IRP results.

Q6. Do you agree with Mr. Kelly's (pp. 5-6) suggestion that the IRP modeling of EE is flawed because the results of the IRP modeling process did not select varying types of EE?

A6. No. First, the model did select other EE bundles, including Residential Appliance and Residential Thermal Shell bundles. Second, as explained in the IRP at page 82, the objective of the IRP process is as follows:

> The IRP process aims to address the long-term "gap" between resource needs and current resources. Given the various assets and resources that can satisfy this expected long-term gap, a tool is needed to sort through the myriad of potential combinations and return an optimum solution–or portfolio–subject to constraints. Plexos® is the primary modeling application, used by I&M and AEP for identifying and ranking portfolios that address the gap between needs and current available resources. Given the cost and performance parameters around sets of potentially-available supply- and demand-side proxy resources and a scenario of economic conditions that include long-term fuel prices, capacity costs, energy costs, emission-based pricing proxies including CO_2, as well as projections of energy usage and peak demand, Plexos® will return the optimal suite of proxy resources (portfolio) that meet the resource need. Portfolios created under similar pricing scenarios may be ranked on the basis of cost, or the Cumulative Present Worth (CPW), of the resulting stream of revenue requirements. The least cost option is considered the "optimum" portfolio for that unique input parameter scenario.

In other words, the goal of the IRP is to develop an optimal suite of proxy resources that meet the long-term resource needs of the Company. The IRP is not intended to identify every specific resource characteristic that ultimately gets implemented or approach the level of granularity that Mr. Kelly is suggesting.

Third, energy efficiency is one of many resources the IRP model considers when developing a long-range resource plan for the Company. Regarding energy efficiency as a resource, the Company considered 42 Residential measures and 32 Commercial measures that are identified in Tables 10 and 11

of the IRP. From these 74 individual measures, ten Residential customer bundles and six Commercial customer bundles were created, as identified in Tables 12 and 13 of the IRP. These tables show the cost, savings and life of each bundle.

Based on the known inputs and assumptions included within the 2015 IRP, the model selected residential lighting bundle as a cost effective resource. Mr. Kelly is suggesting that at this point, the Company should have revisited its energy efficiency assumptions, so that a more diverse number of EE bundles would be selected. The Company disagrees with this suggestion for several reasons. First, the model and Preferred Plan include a diverse and balanced level of resource additions. Second, the IRP process includes analyses that consider alternative futures and these results did vary from the Preferred Plan and at the same time supported the Preferred Plan's resource additions, this is shown in Tables 19, 20 and 21 on pages 116, 117 and 118 in the IRP. The IRP identified economical resource additions based on all of the assumptions within the IRP, not just the EE bundle assumptions. Finally, the IRP development process included numerous stakeholder meetings that provided stakeholders opportunities to review and comment on IRP inputs and assumptions. The concerns Mr. Kelly raises are better suited for consideration during the IRP stakeholder process, rather than this DSM Plan case, and in any event do not undermine the reasonableness of the Settlement Agreement.

Q7. On page 7, Mr. Kelly suggests that the Residential Heating/Cooling Bundle should have been divided up into its individual measures so the lower cost measures could be selected and not be handicapped by higher cost measures. Do you agree with this suggestion?

A7. No. It is a reasonable assumption to include multiple measures within the creation of a bundle for resource modeling purposes. First, it is reasonable to group together measures that are complementary and impact similar usage patterns, which is what the Company did. Second, the bundling of measures improves the performance of the IRP model. Further, the Heating/Cooling Bundle includes three measures: a SEER 15 Heat Pump; AC Maintenance and Reflective Roofing and the estimated cost per measure is approximately the same on a per kWh basis ($2.90, $2.74, and $2.91 per kWh, respectively).[1] Therefore, the elimination of any of the measures within the Heating/Cooling bundle would not materially change the cost of the bundle and would be highly unlikely to change the bundle selection results.

Q8. On page 7, Mr. Kelly also states that to determine consistency between an IRP and a DSM plan, one should consider the levelized cost of programs. Do you agree that levelized cost comparisons are a reasonable measure of consistency between an IRP and a DSM plan?

[1] See CAC 1-11 IN Energy Efficiency Bundle Analysis.xls (provided with JI's workpapers), tab 'Residential Bundles', column BM, rows 79-81.

A8. No. Mr. Walter has stated in his testimony the measure of consistency the Company believes is most reasonable is the amount of EE resources selected in the IRP as compared to the amount of EE savings identified in the DSM Plan. This is based on the fact that the IRP is a planning document, not an implementation plan like the DSM Plan. Further, the IRP includes resource characteristics that should and are considered to be proxies for resources that may be implemented in the future. In other words, the resources identified in an IRP are general in nature and guide the Company to further pursue the merits of each resource identified within the IRP's Preferred Plan. The IRP does not guide the Company to pursue all of the specific characteristics of each resource identified in the Preferred Plan. The simple comparison of levelized costs that Mr. Kelly recommends is not a meaningful determinant of whether the IRP and DSM Plan are consistent. Mr. Walter further discusses the apples-to-oranges nature of Mr. Kelly's comparison in his settlement rebuttal testimony.

Q9. Assuming that a comparison of levelized costs between the DSM Plan and the IRP was appropriate, does such a comparison support the reasonableness of the energy savings goal?

A9. Yes. Mr. Kelly argues (Direct at 10-11, Settlement at 4, 7) that the costs for at least some of the bundles modeled in the IRP were "too high", based on his comparison to the levelized costs in the DSM Plan, and thus the IRP is flawed. Again, as I just discussed, levelized cost comparison are not a reasonable

measure of consistency between an IRP and a DSM Plan. However, the actual bundles selected in the IRP (namely residential lighting – achievable and residential lighting - high achievable) had a lower levelized cost than the programs in I&M's DSM Plan.[2] In other words, even if one had performed the IRP analysis to include the programs and levelized costs from I&M's DSM Plan along with the bundles originally modeled, all other things being equal the IRP would have still selected the residential lighting bundles first from a levelized cost perspective. Thus I would expect the energy savings target for 2018 and 2019 to be the same or comparable. I would note that the IRP did not select the next least expensive energy efficiency bundle until 2025, well beyond the DSM Plan years. The wide range of levelized costs considered in the IRP allowed for a diverse set of energy efficiency measures over the 15-year IRP planning period. This range reasonably bounds the programs included in the DSM Plan. Mr. Kelly's comparisons between the levelized costs in the DSM Plan and IRP thus do not clearly demonstrate that the level of energy savings identified in the IRP is somehow flawed or unreasonable.

Q10. Do you agree with Mr. Kelly's (pp. 9-10) assertion that the Settlement is not "consistent with [an] IRP and designed to achieve an optimal balance of energy resources in its service territory" because "an optimal balance can

[2] Levelized costs of $9.38/MWh and $14.07/MWh, respectively, compared to the lowest levelized cost DSM Plan bundle (Work Prescriptive Rebates) of $18.99/MWh. *See* CAC Workpapers for Figures 1 – 3-11-23-16.xlsx, tab 'Figures 1 & 2', column D.

only result from a well-developed and reasoned IRP that evaluates the appropriate balance of new supply-side and demand-side resources taking account of risks and uncertainty"?

A10. No. While Mr. Kelly may prefer a different approach, he has not shown that I&M's IRP modeling is unreasonable. His contention is inconsistent with the Final Report of the Commission's Electricity Division Director which commended I&M efforts in its IRP modeling to treat DSM on as comparable a basis as possible to other resources and I&M-specific databases. See Fisher Rebuttal, at 4-5, also 14-15. I&M's IRP adequately assessed all new resources options, including energy efficiency, and provides a reasonable economic level of energy efficiency resources to be added over the IRP planning period based on all of the inputs considered within an IRP. I&M's DSM Plan builds on, and is consistent with, the IRP results. Accordingly, the Commission should approve the Settlement Agreement.

Q11. Does this conclude your pre-filed settlement rebuttal testimony?

A11. Yes it does.

VERIFICATION

I, G. Scott Fisher, Resource Planning Manager American Electric Power Service Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

Dated: March 13, 2017.

G. Scott Fisher