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.	)	IURC PETITIONER'S EXHIBIT NO. 1-S 4-13-17 AT DATE REPORTER **CAUSE NO. 44841**

PETITIONER'S SUBMISSION OF SETTLEMENT TESTIMONY OF <u>JON C. WALTER</u>

Indiana Michigan Power Company ("I&M"), by counsel, hereby submits the settlement testimony and attachments of Jon C. Walter.

Respectfully submitted,

Teresa Morton Nyhart (14044-49)
Jeffrey M. Peabody (28000-53)
Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204-3535
Nyhart Phone: (317) 231-7716
Peabody Phone: (317) 231-6465
Fax: (317) 231-7433
Nyhart Email: tnyhart@btlaw.com
Peabody Email: jpeabody@btlaw.com

Attorneys for Petitioner
Indiana Michigan Power Company

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 25th day of January, 2017 to:

Karol H. Krohn
Jeffrey Reed
Office of Utility Consumer Counselor
PNC Center
115 W. Washington Street
Suite 1500 South
Indianapolis, Indiana 46204
infomgt@oucc.in.gov
kkrohn@oucc.in.gov
jreed@oucc.in.gov

Peter H. Grills, Esq.
BINGHAM GREENEBAUM DOLL LLP
10 West Market Street
2700 Market Tower
Indianapolis, Indiana 46204
pgrills@bgdlegal.com

Joseph P. Rompala
LEWIS & KAPPES, P.C.
One American Square, Suite 2500
Indianapolis, Indiana 46282-0003
JRompala@Lewis-Kappes.com

Courtesy copy to:
ATyler@lewis-kappes.com
ETennant@lewis-kappes.com

Jennifer A. Washburn
Citizens Action Coalition of Indiana, Inc.
603 East Washington Street, Suite 502
Indianapolis, IN 46204
jwashburn@citact.org

Jeffrey M. Peabody

DMS 4628561v1

Exhibit I&M-_____

INDIANA MICHIGAN POWER COMPANY

Cause No. 44841

PRE-FILED VERIFIED SETTLEMENT TESTIMONY

OF

JON C. WALTER

PRE-FILED VERIFIED SETTLEMENT TESTIMONY OF JON C. WALTER
ON BEHALF OF
INDIANA MICHIGAN POWER COMPANY

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Jon C. Walter. My business address is Indiana Michigan Power Center, P.O. Box 60, Fort Wayne, Indiana 46801.

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

A. I am employed by Indiana Michigan Power Company (I&M or Company) as Manager of Regulatory Support.

Q. Are you the same Jon C. Walter who previously submitted direct and rebuttal testimony in this Cause?

A. Yes.

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

A. The purpose of my testimony is to present and support the Settlement Agreement between the Indiana Office of Utility Consumer Counselor (OUCC), I&M Industrial Group (IG), the City of Fort Wayne (City) and I&M (collectively, Settling Parties), as a reasonable resolution of the issues in this proceeding and as support for a Commission order adopting the terms of the Settlement Agreement. I also explain a clarification I&M is proposing to the Work Energy Management (W.E.M.) tariff.

Q. Are you sponsoring any attachments in this proceeding?

A. Yes. Together with OUCC witness Rutter, I co-sponsor Settling Parties'

Exhibit 1, which is a copy of the Settlement Agreement previously filed in this proceeding. I also sponsor Attachment JCW-1S, which is an illustration of the impact of different measure life caps on lost revenues.

In addition, I have revised certain attachments from my direct testimony to reflect the Settlement Agreement. For ease of reference, the attachments have the same numbering as in my direct testimony but include an "S" designator after the attachment number to reflect revision due to Settlement:

<u>Attachment JCW-2S</u>	DSM Plan Program Summary
<u>Attachment JCW-4S</u>	DSM Plan Program Tables
<u>Attachment JCW-5S</u>	DSM Plan Goals Versus IRP Summary
<u>Attachment JCW-6S</u>	DSM Plan Three Year Benefit Cost Analysis
<u>Attachment JCW-12S</u>	2017 Shared Savings Forecast
<u>Attachment JCW-13S</u>	2018 Shared Savings Forecast
<u>Attachment JCW-14S</u>	2019 Shared Savings Forecast
<u>Attachment JCW-15S</u>	DSM/EE Revenue Requirement
<u>Attachment JCW-27S</u>	Public Efficient Streetlighting Program Description
<u>Attachment JCW-36S</u>	Proposed Work Energy Management Tariff
<u>Attachment JCW-37S</u>	Proposed Tariffs E.C.L.S. (Energy Conservation Lighting Service) and S.L.S. (Streetlighting Service)

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

A. Yes.

Q. Please generally describe the Settlement Agreement.

A. The Settlement Agreement sets forth the Settling Parties' negotiated resolution of all issues in the proceeding. I discuss the terms of the Settlement Agreement below. While it is an agreement among less than all the parties, it is a fair and reasonable resolution of all the issues and the Settling Parties recommend that the Settlement Agreement be approved expeditiously.

Q. Please discuss Section I.

A. Section I of the Settlement Agreement clarifies that the Settling Parties agree to the approval of I&M's requested DSM Plan and associated accounting and ratemaking treatment, with the modifications outlined in the rest of the Settlement Agreement.

Q. Please discuss Section I A.1 – Lost Revenue.

A. Section I A.1, together with Section I A.2, presents a reasonable compromise of the treatment of lost revenues arising from the DSM Plan measures and thereby addresses one of the main issues raised by witnesses for OUCC, IG, and Citizens Action Coalition (CAC). Specifically, in Section I A.1, the Settling Parties propose a cap on lost revenue recovery through the DSM Rider for measures installed during the plan years (2017, 2018, and 2019). I&M originally proposed that lost revenue recovery be based on the full life of each measure. But under the compromise reflected in Section I A.1, a three-year cap is proposed, meaning that lost revenue recovery through the DSM Rider will be limited to the earlier of (a) three years, (b) the life of the measure, or (c) until new rates are implemented pursuant to a final order in I&M's next base rate case as set forth in Section I A.2, which I discuss below.

This three-year cap, applicable to the recovery of lost revenues for measures installed as part of the DSM Plan is a significant change from I&M's litigation position, which calculated lost revenues for 2017-2019 measures based on measure life but did not include any other cap (except for continuing the four year cap for 2016 plan measures established by the Commission's Order in Cause No. 43827 DSM 5). I would note that the three year cap aligns with the position advocated by non-settling party CAC testimony which reflects a preference for a three year limitation. See CAC Witness Kelly Direct Testimony, at 44.

Q. Have you developed an example of how the provisions of Section I A.1 – Lost Revenue would work?

A. Yes. Attachment JCW-1S provides a comparison of energy savings and the amount of lost revenue under a four year measure life cap and a three year measure life cap against what the same values would be without any cap imposed only for proxy measures installed during 2017, 2018, and 2019 and without the impacts from any legacy lost revenue for measures installed in prior years. In this way, Attachment JCW-1S provides an example of the likely impact of Section I A.1 of the Settlement.

Q. What does Attachment JCW-1S reveal about the potential impact of Section I A.1 of the Settlement?

A. Attachment JCW-1S estimates the likely impact of Section I A.1 by using actual lost revenue data from 2015 measures as a reasonable proxy for estimating net lost revenues for measures installed in plan years 2017-2019. This example depicts that, over the time period of 2020 through 2023, lost revenue under the three year cap proposed in the Settlement Agreement is approximately $29.6 million less than it would have been under the life-of-measure approach originally proposed by I&M, and $13.8 million less than it would have been if a four-year cap were applied.

Q. Please elaborate on why Attachment JCW-1S represents actual results as compared to a forecast of DSM Plan measures installed during 2017 through 2019.

A. There are three reasons why I&M developed Attachment JCW-1S using 2015 actual results instead of forecast DSM plan measures.

First, I&M developed the DSM Plan, in part, with an eye toward prior year program performance to inform program design and measure distribution across the programs. I&M has relied upon this process in past DSM plan filings as well. This process is reasonable because it provides a foundation upon which to predict program performance and actual measure uptake by customers. As such, DSM Plan forecast measures reflect prior year performance and therefore the DSM Plan is consistent with prior year actual results in this fashion.

Second, consistent with past practice the DSM Plan used a half year convention to estimate forecast energy savings and lost revenue for measures installed during a plan year. Column (3) in the case in chief Attachments JCW-9, JCW-10, and JCW-11 depict this half year convention. While the half year convention has been used in the past, for the purposes of JCW-1S, this convention lacks the granularity needed to compare energy savings and the amount of lost revenue under a four-year and three-year cap versus the same values without a cap. Because of how the half-year convention works, I&M would have had to create a forecast of measure installation for each month and year of the DSM Plan to assess the various cap scenarios. For purposes of illustrating the comparative reduction in the context of settlement, rather than create such a forecast, use of prior year actual results is reasonably representative of how measures get installed during an entire program year. To facilitate an understanding of the Settlement Agreement, I&M used 2015 actual results to more conservatively reflect the impact of cap scenarios for lost revenue.

The third reason follows from the first and second reasons described above. I&M's DSM program experience reflects an influx of actual measure installations at the end of each program year. Such actual activity reduces half year convention accuracy for purposes of the lost revenue comparison shown in Attachment JCW-1S because measures installed in December (annual savings multiplier of 0.042) get significantly less annualized savings weight than measures installed in June (annual savings multiplier of 0.542). Since I&M's lost revenue measure life tracking process begins with the month of installation, use of prior year actual results to predict future performance is a more appropriate analysis of lost revenue impact from measure life cap scenarios to illustrate the impact of the terms of the Settlement Agreement.

For the reasons described above, use of 2015 program year actual results as a proxy for the DSM Plan lost revenues to illustrate savings under the Settlement Agreement yields a more straightforward analysis of different cap scenarios for lost revenue impacts in 2020-2023 than simply estimating what those impacts might be using a plan forecast.

Q. Please discuss Section I A.2 – Lost Revenue.

A. Section I A.2 clarifies how I&M will treat lost revenues in its next base rate case. Specifically, Section I A.2 provides that all energy savings from "legacy" measures installed prior to the base case test year will be reflected in test year energy sales. As a result, once new base rates are implemented, net lost revenue recovery from these legacy measures will be eliminated from I&M's DSM Rider. As for DSM measures installed during the test year, Section I A.2 provides that fifty percent of the energy savings from these measures will be reflected in test year energy sales, and when new base rates are implemented, net lost revenue recovery from this fifty percent will be eliminated from the DSM Rider.

Q. Can you provide an example of how the provisions of Section I A2 – Lost Revenue would work in the context of a rate case?

A. Yes. For example, assuming a base rate case with a calendar year 2018 as the forward looking test year, the impact of all measures installed prior to January 1, 2018 would be reflected in test year energy sales. Further, on average 50% of all measures installed during 2018 would be reflected in test year energy sales. Once the new base rates from that case are implemented (e.g. July 1, 2018), there will be no Lost Revenue to recover through the DSM Rider for the remainder of 2018. Lost Revenue from the other 50% of the measures installed in 2018 then would be reflected in the DSM Rider beginning in 2019 (and subject to the three year cap and other provisions of Section I A.1). In addition, the DSM Rider will then reflect Lost Revenues from measures installed in 2019. It is again important to note under the Settlement Agreement that any measures installed and not addressed in the base rate case remain subject to three year cap and other provisions of Section I A.1.

Q. Will Sections I A.1 or I A.2 of the Settlement require I&M to change the proposed DSM Plan revenue requirement?

A. No, the DSM Plan revenue requirement forecast will not require changes to reflect these terms. For Section I A.1, the first year that the net lost revenue cap will apply is 2020 (i.e., three years after measures are 2017 measures are installed). The proposed revenue requirement forecast in this proceeding goes through 2019; therefore, the cap will be reflected in the forecast revenue requirement for I&M's next DSM plan.

For Section I A.2, any change to net lost revenue recovery resulting from a base rate case would be reflected in (a) new DSM Rider rates proposed in the base rate case and (b) the annual DSM Rider true-up filing following the implementation of new base rates.

Q. Please discuss Section I B.1 – Performance Incentives.

A. Section I B.1, together with Section I B.2, presents a reasonable compromise regarding the performance incentives and thereby addresses concerns raised by witnesses for OUCC, IG, and CAC. Specifically, under Section I B.1, for all three years of the plan (2017, 2018, and 2019), there will be a two-step process for calculating the Company's performance incentives. Under "step one," each individual sector's performance incentives for a given year will be calculated under the methodology proposed by the Company. That is, each individual sector's performance incentives will be calculated as the lower of (a) 15% of 90% of that individual sector's net benefits or (b) 15% of sector program costs. Then, as a "step two," Section I B.1 establishes a process that will consider the extent to which the Company met its annual energy savings goal for each sector. If I&M fails to achieve at least 85% of either sector energy savings goal in any program year, the amount of that sector's performance incentives calculated in "step one" will be reduced by 15%. At the same time, if I&M achieves 105% or more of either sector energy savings goal for a program year, that sector's performance incentives calculated in "step one" will be increased by 10%. This two-step process is shown in Attachments JCW-12S, JCW-13S, and JCW-14S.

Q. Does Section I B.1 represent a reasonable compromise on performance incentives?

A. Yes. As an initial matter, by using the Company's proposed performance incentive methodology in "step one," Section I B.1 relies on a Commission-approved basis for calculating performance incentives. That Commission-approved methodology provides incentives for the Company to administer programs cost-effectively by basing performance incentives on net benefits, but it also contains critical customer protections, particularly the 15% program cost cap. Section I B.1 then builds on the existing Commission-approved methodology by reflecting an extra layer of incentive in "step two" that is based on the Company's energy savings goals. Thus the Settlement Agreement reasonably addresses the concern that the financial incentive should be based on the Company achieving the overall goal. This concern is addressed within the existing financial mechanism and in a manner that continues to incent the Company to run its programs in a customer-focused and cost-effective manner.

Q. Does Section I B.1 – Performance Incentives require a change in the proposed DSM Plan revenue requirement?

A. No, the DSM Plan contemplated Shared Savings performance at 100% of the energy savings performance targets for each sector. Further, since the Shared Savings forecast earnings in the DSM Plan will be reconciled against final actual annual performance, an adjustment to the Shared Savings component revenue requirement is not necessary at this time.

Q. Please discuss Section I B.2 – Performance Incentives.

A. Section I B.2 sets forth three adjustments to the calculation of I&M's Shared Savings that are necessary for the Company to agree to Section I B.1:

a) As proposed in the Company's application, the Public Efficient Streetlighting (PES) Program was included in the Company's projected energy savings targets, but I&M did not request authority to earn Shared Savings on this program, and therefore it was not included in the net benefit calculation for 2017-2019. Under Section I B.2.a of the Settlement, the PES Program will be removed from the applicable sector energy savings goals used in the calculation established in Section I B.1., and the PES Program will remain excluded from the net benefit calculation as proposed by I&M.

b) As proposed in the Company's application, the Home Energy Management (HEM) Program was included in the Company's projected energy savings targets, and because the Company requested authority to earn Shared Savings on HEM, it was also included in the net benefit calculation. Section I B.2.b modifies this proposed treatment of HEM so that, for purposes of the performance incentive calculation in Section I B.1, the HEM Program will be removed from the energy savings goals and net benefits calculation in 2017 only. Consistent with the Company's original proposal, for 2018 and 2019, the HEM Program will be included in the applicable sector energy savings goals and Shared Savings net benefit and program cost cap calculations.

c) As proposed in the Company's application, the Work Energy Management (WEM) Program was included in the Company's projected energy savings goals, but I&M did not request authority to earn Shared Savings on this program, and therefore it was not included in the net benefit calculation for 2017-2019. Section I B.2.c modifies this proposed treatment so that for purposes of the performance incentive calculation in Section I B.1, the WEM Program will be removed from the energy savings goals in 2017 only.

Consistent with the Company's original proposal, the WEM Program will be included in the applicable sector energy savings goals for 2018 and 2019, but will not be included in the net benefit calculation.

From the Company's perspective, these adjustments are necessary to reflect the impact of other aspects of the negotiated Settlement package. The adjustment to the PES Program in Section I B.2.a is necessary to reflect the modifications to the PES Program agreed to in Section I C, which I discuss below. Because Section I C reduces the LED streetlighting incentive level, it is likely that participation in the PES Program will be lower than the Company projected when it set its energy savings targets. Therefore, it is appropriate to remove the PES Program from the energy savings target when calculating "step two" of the performance incentive structure proposed in Section I B.1 above.

The adjustments to the HEM and WEM Programs are necessary to reflect the fact that these are new programs that will just be getting off the ground in 2017. As proposed in I&M's case-in-chief, the Company's performance incentive calculation did not involve the "step two" calculation proposed in Section I B.1. With the inclusion of Section I B.1, it is reasonable to remove these programs from the Section I B.1 calculation because new programs often involve higher costs and lower participation as the programs are ramped up and the Company attempts to gain new customers. Accordingly, the HEM and WEM Programs are excluded from the Section I B.1 energy savings target and net benefits calculation for 2017 only, giving the Company one plan year to get those programs off the ground before they are included in the Section I B.1 calculation.

Q. Have you reflected the impact of Sections I B.1 and I B.2 in revised attachments?

A. Yes, Attachments JCW-12S, JCW-13S, and JCW-14S reflect the terms of both Sections I B.1 and I B.2. The changes stemming from Section I B.2 only require changes to the DSM Plan 2017 revenue requirement, and these changes are reflected in red typeface on Attachments JCW-12S and JCW-15S. As shown on Attachment JCW-15S, the revenue requirement for 2017 Shared Savings is now $998,930 as compared to the revenue requirement proposed in the Company's application of $1,464,499 (*i.e.*, a reduction of $465,569, or approximately 32%, from I&M's original proposal).

Q. Please discuss Section I C – LED Street Lights.

A. Section I C of the Settlement addresses specific concerns raised by the OUCC and IG regarding the rebate level included in the PES Program. More specifically, the proposed rebate levels will be reduced from 100% to 80% of the total LED fixture incremental measure costs. Section I C provides that customers participating in the PES Program will be required to make an up-front ten percent contribution to their respective LED fixture incremental measure costs. Section I C also requires the other ten percent of the LED fixture incremental measure costs to be reflected in updated LED tariff rates. Both of these terms require changes in the DSM Plan as contained in the Company's application and serve to reduce the cost shared by non-participating customers.

Q. Does Section I C – LED Streetlighting require any changes to I&M's filing?

A. Yes, it requires three changes. First, the ten percent up-front contribution and the ten percent inclusion in LED tariff rates require a change to the design of the PES Program, where the level of LED fixture incremental measure cost is decreased from one hundred percent to eighty percent. This change reduces the program operating cost for all three years of the plan, which correspondingly reduces the revenue requirement in all three years. These program operating cost changes are reflected in red font in Attachments JCW-2S, JCW-4S, JCW-5S, and JCW-15S. I&M also updated the PES Program work paper to reflect the change in program operating cost to eighty percent of the LED fixture incremental measure cost as compared to the one hundred percent level contained in the work paper program design in the Company's case-in-chief. Lowering the incentive from 100% to 80% of the incremental measure cost reduced the PES Program incentive cost by $1,067,444 (*i.e.*, from $5,337,221 to $4,269,777) and correspondingly decreased the total three year revenue requirement as shown in Attachment

JCW-15S by the same amount.

Second, the inclusion of ten percent of LED fixture incremental cost in the LED tariff rate requires a change to the ECLS and SLS tariffs contained in the Company's application. Tariff ECLS and SLS LED streetlight fixture rates will increase due to this change.

Third, lowering the incentive cost from 100% to 80% causes the benefit cost score for the PES program to improve. Attachment JCW-6S reflects this change in cost and as a result the PES program score under the TRC cost test and UCT cost test increased to 2.67 each. The RIM test score also improved to 0.56. These three test score increases reflect the $1,067,444 reduction in cost of the PES Program. Because the PES Program is part of the EE Portfolio and overall DSM Plan Portfolio, the EE portfolio and overall DSM Plan Portfolio scores for the TRC, UCT and RIM tests also improved, as shown on Attachment JCW-6S, with the overall DSM Plan Portfolio UCT score improving from 2.68 to 2.71 and the TRC score improving from 2.18 to 2.21. This improved cost benefit analysis further supports the reasonableness of the Settlement Agreement and the DSM Plan.

Q. Have you prepared revised tariff sheets to reflect Section 1 C of the Settlement Agreement?

A. Yes, as shown in Attachment JCW-37S, the change to the LED tariff rates increases the rates by $0.21 and $0.32 per month depending on the size of the LED fixture. The calculation for these monthly incremental rates is shown in work paper WP-JCW-S1. Attachment JCW-37S also contains language stipulating the requirement of the ten percent up-front contribution by participating customers. I have also updated the PES Program description as shown in Attachment JCW-27S.

Q. Please discuss the revised Oversight Board (OSB) voting procedures set forth in Section I D – OSB Voting Provisions.

A. The terms in Section I D regarding OSB voting provisions reasonably address concerns raised by the OUCC and the CAC in their direct testimony in this Cause. While the terms increase the likelihood of the need for an OSB vote during implementation of the programs contained within I&M's DSM Plan, they are not intended to impose undue or additional administrative burden to carry out the provisions. Two of the provisions reduce the applicable amount of transfer authority I&M has before an OSB vote is required, by ten percent in Section I D.2 (i.e., 25% down to 15%), and by five percent in Section I D.3 (i.e., 10% down to 5%). These changes reasonably address the concerns raised and should help facilitate improved interaction among the OSB voting members.

The final change in Section I D.3 stems from I&M's request in its case-in-chief to allow unencumbered funds from one program year to be used in the next program year as required by program implementation (i.e., "carry over") in pursuit of the energy savings targets contained within the DSM Plan. Section I D.(4 requires that any carry over funds be used in a subsequent program year before the Company transfers any current year funds to other programs or seeks to exceed the sector budget.

Q. Please discuss Section I E – Over-Under Recovery for Opt-Out Customers.

A. Section I E specifically responds to concerns raised by IG witness Gorman concerning the continued recovery of over/under reconciliation balances from opt-out customers. In Section I E, the Settling Parties recognize this issue and agree to work together to develop a mechanism to end the ongoing variance collection for opt-out customers in a timely manner..

Q. Please discuss Section I F – Rebuttal Testimony Issue.

A. Section I F reflects a compromise by the Company in which it will voluntarily withdraw the portions of rebuttal testimony at issue in the Consumer Parties' Joint Motion to Strike filed on December 22, 2016 in this proceeding. In so agreeing, the Company is not conceding the merits of the Motion to Strike but is merely agreeing to withdraw the testimony as part of the overall compromise reflected in the Settlement Agreement.

Q. Please discuss Section I G – City of Fort Wayne Concerns.

A. Section I G addresses the issues raised by City witness Fasick concerning potential opportunities for energy saving partnerships between the City and

I&M. In Section I G, I&M agrees to conduct a technical study of such opportunities with the City. To the extent potential projects identified do not fit within the Company's three-year DSM Plan, the Settlement Agreement sets forth for a process for a discussion with the OSB and potential filing with the Commission to amend the DSM Plan to accommodate the projects. The Company and City agree to explain any such plan amendment to interested members of the Settling Parties or OSB before filing. The Settlement Agreement also preserves the rights of the other Settling Parties to contest any such amendments.

Q. Please discuss the clarification to Rider W.E.M. you are sponsoring.

A. In my pre-filed direct testimony, I attached a proposed Rider W.E.M. to implement the new WEM Program being proposed as part of the 2017-2019 DSM Plan. As I&M has developed plans to administer the new WEM Program, it has identified a clarification that needs to be made to that proposed Rider W.E.M., and this clarification is reflected on Attachment JCW-36S to this testimony. Specifically, the revision clarifies that customers participating in the Company's existing emergency demand response program, Rider D.R.S.1, may switch to the WEM Program and service under Rider W.E.M on May 31 of each year, once their registration under Rider D.R.S.1 expires. As originally proposed, customers would only be able to participate in either Rider D.R.S.1 or Rider W.E.M., not both; this clarification allows customer to choose the best program for them. I&M believes this is a customer-focused clarification that will allow customers greater flexibility in choosing between energy curtailment programs. The clarification shown on Attachment JCW-36S has been shared with the Settlement Parties, and no Settling Party has objected to it.

Q. Please discuss Attachment JCW-15S.

A. Attachment JCW-15S provides the revised three-year revenue requirement (including legacy lost revenues) under the Settlement Agreement of $170,183,692 (which reflects a decrease of $1,533,013 compared to the Company's case-in-chief of $171,716,705) before the Gross Revenue Conversion Factor is applied. This decrease is detailed above and was provided to I&M Witness Smith, who used it to prepare revised DSM Rider factors.

Q. Does the Settlement Agreement change the EE and demand savings goals for the DSM Plan?

A. No. As shown on Attachment JCW-2S, the proposed plan is still designed to achieve gross energy savings of 456,407,441 kWh and gross demand savings of 133,003 kW over the three year period. While participation levels in the PES Program may be lower as a result of the Settlement Agreement, the DSM Plan goals remain reasonably achievable for the reasons set forth in my direct testimony. As I also explained in my direct testimony (at 16-17), these projections indicate how customer consumption is expected to change in 2017-2019 as a result of the Company's implementation of the DSM Plan.

Q. Does the DSM Plan as modified by the Settlement Agreement remain consistent with the state energy analysis and the Company's most recent long range integrated resource plan (IRP) submitted to the Commission?

A. Yes. As noted above, there is no change in the EE and demand savings goals for the DSM Plan, and it remains consistent with the state energy analysis and I&M's most recent IRP for the reasons set forth in my direct testimony (at 60-65 and 69-71).

Q. Does the Settlement Agreement modify the procedures for evaluation, measurement and verification (EM&V) set forth in the Company's case-in-chief?

A. No. I&M remains committed to an independent, outside EM&V review as discussed in my direct testimony (at 73-75).

Q. Does the Settlement Agreement result in any undue or unreasonable preference to any customer class?

A. No. I&M is not aware of any undue or unreasonable preference contained within the overall design of the DSM Plan as modified by the Settlement Agreement.

Q. What impact does the Settlement Agreement have on the effect, or potential effect, in both the long term and the short term, of the DSM Plan on the electric rates and bill of customers that participate in EE programs compared to the electric rates and bills of customers that do not participate in EE programs?

A. In my direct testimony (at 77-78), I explained this type of effect is directionally measured by the RIM test. As I noted above, the Settlement Agreement improves the cost benefit analysis of the DSM Plan. I&M witness Smith calculates the revised DSM Plan bill impact on the typical residential customer using 1,000 kWh per month and I&M's major tariff classes. She explains that the DSM Plan cost component factors have decreased due to the Settlement Agreement.

Q. What other provisions does the Settlement Agreement contain?

A. The Settlement Agreement provides that it is reflective of a negotiated settlement and that neither the making of the Settlement Agreement nor any of its provisions shall constitute an admission by any Party to the Settlement Agreement in this or any other litigation or proceeding. The Settlement Agreement is a compromise and settlement and will be null and void unless approved in its entirety without modification or further condition that is unacceptable to any Settling Party. The Settlement Agreement also includes provisions considering the substantial evidence in the record supporting approval of the Settlement Agreement.

Q. In your opinion, is Commission approval of the Settlement Agreement in the public interest?

A. Yes. After good faith efforts and the give and take of settlement negotiations, I&M, the OUCC, IG and the City were able to settle on a reasonable resolution that would reduce the time and resources of the Commission in litigating the contested issues to a conclusion. Settling disputed issues is a reasonable means of resolving controversy. The Settlement Agreement incorporates several substantial concessions by the Company and by the Settling Parties and reflects a reasonable compromise of all the issues raised in this proceeding, including lost revenue, performance incentives, LED streetlighting, and OSB oversight. The Settlement Agreement will allow I&M to offer many beneficial, cost effective energy efficiency and demand response programs to customers, but it also mitigates the impact on customer rates for electric service. Moreover, as noted above, while not all parties to this proceeding have joined the Settlement Agreement, the Settlement Agreement resolution is supported by substantial evidence, including the Company's rebuttal to the CAC and is a reasonable resolution of this Cause. I recommend the Commission conclude that the Settlement Agreement is in the public interest and approve it without modification.

Q. Does this conclude your pre-filed verified settlement direct testimony?

A. Yes.

VERIFICATION

I, Jon C. Walter, Manager of Regulatory Support for Indiana Michigan Power Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

Dated: January 25, 2017.

Jon C Walter

Jon C. Walter

Indiana Michigan Power Company - Indiana
DSM - 3 Year Plan
Settlement Term A1 Net Lost Revenue Measure Life Cap Scenario Impact Illustration*

		No Legacy Measure Impacts					New Measures Installed			Future Impact of 2017-2019 Measures Only			
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No Cap**	Res kWh	0	0	0	0	0	22,811,875	57,225,324	74,584,133	69,131,067	52,076,427	48,620,816	40,105,019
	C&I kWh	0	0	0	0	0	10,941,329	73,796,633	133,635,787	182,464,552	179,291,505	179,134,608	179,046,771
	Total kWh	0	0	0	0	0	33,753,204	131,021,957	208,219,920	251,595,619	231,367,932	227,755,424	219,151,790
	Res. $	$0	$0	0	0	$0	$1,545,733	$3,877,588	$5,053,821	$4,684,321	$3,528,699	$3,294,546	$2,717,516
	C&I $	$0	$0	0	0	$0	$626,719	$4,227,071	$7,654,658	$10,451,570	$10,269,817	$10,260,830	$10,255,799
	Total $	$0	$0	0	0	$0	$2,172,452	$8,104,659	$12,708,479	$15,135,891	$13,798,516	$13,555,377	$12,973,315
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
4 Year Cap***	Res kWh	0	0	0	0	0	22,811,875	57,225,324	74,584,133	69,131,067	44,719,226	27,360,417	10,001,608
	C&I kWh	0	0	0	0	0	10,941,329	73,796,633	133,635,787	182,464,552	169,947,033	110,107,879	50,337,785
	Total kWh	0	0	0	0	0	33,753,204	131,021,957	208,219,920	251,595,619	214,666,259	137,468,296	60,339,393
	Res. $	$0	$0	$0	$0	$0	$1,545,733	$3,877,588	$5,053,821	$4,684,321	$3,030,175	$1,853,942	$677,709
	C&I $	$0	$0	$0	$0	$0	$626,719	$4,227,071	$7,654,658	$10,451,570	$9,734,566	$6,306,979	$2,883,348
	Total $	$0	$0	$0	$0	$0	$2,172,452	$8,104,659	$12,708,479	$15,135,891	$12,764,741	$8,160,921	$3,561,057
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3 Year Cap****	Res. KWh	0	0	0	0	0	22,811,875	57,225,324	74,584,133	61,773,866	27,360,417	10,001,608	0
	C&I KWh	0	0	0	0	0	10,941,329	73,796,633	133,635,787	173,120,080	110,264,776	50,425,622	0
	Total kWh	0	0	0	0	0	33,753,204	131,021,957	208,219,920	234,893,946	137,625,193	60,427,230	0
	Res. $	$0	$0	$0	$0	$0	$1,545,733	$3,877,588	$5,053,821	$4,185,797	$1,853,942	$677,709	$0
	C&I $	$0	$0	$0	$0	$0	$626,719	$4,227,071	$7,654,658	$9,916,318	$6,315,966	$2,888,380	$0
	Total $	$0	$0	$0	$0	$0	$2,172,452	$8,104,659	$12,708,479	$14,102,115	$8,169,908	$3,566,089	$0

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total Impact (2020-2023)
4 Yr Cap to No Cap $ Difference	$0	$0	$0	$0	$0	$0	$0	$0	$0	($1,033,775)	($5,394,456)	($9,412,258)	($15,840,489)
3 Yr Cap to No Cap $ Difference	$0	$0	$0	$0	$0	$0	$0	$0	($1,033,775)	($5,628,608)	($9,989,288)	($12,973,315)	($29,624,987)
3 Yr Cap to 4 Yr Cap $ Difference	$0	$0	$0	$0	$0	$0	$0	$0	($1,033,775)	($4,594,833)	($4,594,833)	($3,561,057)	($13,784,498)

*The energy savings and lost revenue amounts presented are based upon I&M 2015 actual verified savings and measures installed according to each measure's respective effective useful life and month of installation for that program year. 2015 results were used as a proxy for 2017-2019 measure installations because 2015 are the most recent actual verified results and as such provide a reasonable representative of the energy savings and lost revenue based on measure life tracking but subject to the cap scenarios analyzed for the years in question.

**The no cap scenario represents I&M's original request in this Cause for full life of measure tracking but are proxy values subject to the footnote directly above.

***The 4 Year Cap scenario represents the cap ordered by the Commission in Cause No. 43827 DSM 5, I&M's 2016 DSM Plan, but are proxy values subject to the first footnote above.

****The 3 Year Cap scenario represents I&M's settlement concession scenario agreed upon by the Settling Parties, but are proxy values subject to the first footnote above.

Attachment JCW-2S
Cause No. 44841

Indiana Michigan Power Company - Indiana
DSM - 3 Year Plan
DSM Plan Program Summary

	DSM Plan Direct Program*	Program Description	2017 Program Operating Budget ($)	2017 Energy Savings (kWh)	2017 Demand Savings (kW)	2018 Program Operating Budget ($)	2018 Energy Savings (kWh)	2018 Demand Savings (kW)	2019 Program Operating Budget ($)	2019 Energy Savings (kWh)	2019 Demand Savings (kW)	Average Annual Cost of Conserved Energy ($/kwh)	Lifetime Cost of Conserved Energy ($/kwh)	3 Yr. Net Savings (kWh)	3 Yr. Program Operating Budget ($)	3 Yr. Gross Energy Savings (kWh)	3 Yr. Gross Demand Savings (kW)
EE Programs	Home Energy Products	Rebates for efficient residential lighting & other electro-technologies	1,863,726	13,132,892	1,965	1,635,506	10,796,000	1,628	1,383,572	8,901,438	1,354	0.15	0.01	19,371,252	4,882,804	32,830,330	4,947
EE Programs	Income Qualified Weatherproofing	Low Income home weatherization & efficiency	571,039	724,847	72	571,039	734,847	72	571,039	744,847	72	0.78	0.06	2,204,541	1,713,117	2,204,541	217
EE Programs	Schools Energy Education	Energy education for elementary age children with take home kits	662,354	3,179,000	880	662,354	3,179,000	880	662,354	3,179,000	880	0.21	0.02	6,580,530	1,987,062	9,537,000	2,640
EE Programs	Home Appliance Recycling	Rebates for pick up, and recycling of refrigerators and freezers	594,990	3,348,400	400	594,990	3,348,400	400	594,990	3,348,400	400	0.18	0.02	5,424,408	1,784,969	10,045,200	1,199
EE Programs	Home New Construction	Rebates for efficient new home construction	470,227	808,221	208	497,933	851,741	234	497,933	851,741	234	0.58	0.02	1,934,011	1,466,093	2,511,702	677
EE Programs	Home Weatherproofing	Walk through audit with rebates for home weatherization & efficiency	518,143	1,129,074	103	518,143	1,129,074	103	518,143	1,129,074	103	0.46	0.03	2,811,393	1,554,429	3,387,221	309
EE Programs	Home Energy Engagement	Home consumption comparison reports; online audit tool	2,175,592	40,900,405	4,514	2,240,418	41,190,745	4,562	2,382,110	41,629,375	4,619	0.05	0.05	121,657,120	6,798,120	123,720,525	13,695
EE Programs	Work Prescriptive Rebates	Rebates for efficient lighting, efficient motors, etc.	3,429,980	29,042,325	5,765	2,792,166	22,877,500	4,573	2,052,416	16,665,000	3,373	0.12	0.01	61,040,494	8,274,562	68,584,825	13,712
EE Programs	Work Custom Rebates	Rebates for custom C&I efficiency improvements	3,852,933	38,418,023	7,252	3,223,543	29,458,023	5,817	3,066,780	27,648,023	5,489	0.11	0.01	88,837,383	10,143,256	95,524,068	18,559
EE Programs	Work Direct Install	Online & Walk through audits plus direct install cost effective measures for small business	437,543	1,999,500	267	416,489	1,799,550	241	395,435	1,599,600	214	0.23	0.02	5,344,663	1,249,467	5,398,650	722
EE Programs	Public Efficient Streetlighting	Upgrade existing inefficient streetlighting with LED streetlighting	1,516,840	5,521,964	0	1,516,840	5,521,964	0	1,516,840	5,521,964	0	0.27	0.01	16,565,892	4,550,520	16,565,892	0
	EE Programs Total		16,093,367	138,204,650	21,428	14,669,421	120,886,843	18,509	13,641,611	111,218,461	16,739	0.12	0.01	331,771,688	44,404,399	370,309,954	56,675
DSM Programs	Home Energy Management	Active residential load management	2,495,536	2,389,500	5,974	2,016,096	4,400,500	11,001	1,720,377	6,411,500	16,029	0.47	0.03	7,788,885	6,232,009	13,201,500	33,004
DSM Programs	Work Energy Management	Active C&I load management	752,632	1,968,753	3,333	1,571,647	5,911,740	10,000	1,744,388	5,911,740	10,000	0.29	0.058	13,792,233	4,068,667	13,792,233	23,333
DSM Programs	Electric Energy Consumption Optimization (EECO)	Utility distribution voltage control program to optimize & reduce end use consumption	1,172,060	14,889,034	4,631	1,678,290	19,272,356	6,634	2,285,574	24,942,364	8,725	0.09	0.009	59,103,753	5,135,924	59,103,753	19,991
	DSM Programs Total		4,420,228	19,247,287	13,938	5,266,032	29,584,596	27,635	5,750,339	37,265,604	34,754	0.18	0.01	66,892,638	15,436,599	86,097,486	76,328
	Portfolio Totals		20,513,595	157,451,938	35,366	19,935,453	150,471,438	46,145	19,391,951	148,484,064	51,493	0.13	0.01	398,664,326	59,840,999	456,407,441	133,003

Non-Behavior Measure NTG 80%

All Measures NTG 87%

Portfolio Level Operating Costs (Indirect Operating Costs)			
DSM Database & IT Support	$200,000	$200,000	$200,000
Staff Development & Memberships	$45,000	$45,000	$45,000
Portfolio Marketing & Customer Awareness	$100,000	$100,000	$100,000
Planning & Analytic Support	$125,000	$125,000	$125,000
Program Development	$50,000	$50,000	$50,000
Administrative Support	$325,000	$325,000	$325,000
Customer Engagement Platforms (IM HOME, IM WORK)	$250,000	$400,000	$500,000
Customer Energy Information & Messaging	$150,000	$150,000	$150,000
Total Portfolio Level Operating Costs	$1,245,000	$1,395,000	$1,495,000
Total I&M Indiana DSM Plan Portfolio Operating Budget	$21,758,595	$21,330,453	$20,886,951
Count of Direct Programs	14	14	14
DSM Plan Energy Savings as % I&M IN Utility kWh Sales	0.92%	0.88%	0.87%
DSM Plan Operating Cost as % of I&M IN Utility Revenues**	1.75%	1.71%	1.68%
DSM Plan Program Operating Cost	$21,758,595	$21,330,453	$20,886,951
DSM Plan Energy Savings (kWh)	157,451,938	150,471,438	148,484,064
DSM Plan Operating Cost (cents/kwh saved)	$0.14	$0.14	$0.14
Residential	12,423,974	12,339,924	12,549,895
C&I	9,334,621	8,990,529	8,337,055
Check Total	0	0	0

* Costs shown in table reflect the Direct costs of the programs and EM&V costs; the indirect costs are summarized below the table and referred to as "Portfolio level" costs.
**I&M Indiana 2015 Forecast

Indiana Michigan Power Company - Indiana
DSM - 3 Year Plan
DSM Plan Program Tables

3 Year DSM Program Forecast Goals & Budgets

EE Programs

Work Prescriptive Rebates	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Support		$653,452	$514,744	$374,963
Implementation & Other Annual Cost		$40,645	$40,645	$40,645
Outreach & Coordination		$145,842	$145,842	$145,842
EM&V		$97,547	$97,547	$97,547
Rebate Processing		$34,575	$19,738	$17,872
Total Fixed		$972,061	$818,516	$676,889
Variable Program Operating Costs				
Customer Incentives	$0.08	$2,406,485	$1,933,134	$1,348,033
Delivery & Other	$0.0018	$51,434	$40,516	$29,514
Total Budget	$0.12	$3,429,980	$2,792,166	$2,052,416
Energy Savings (kWh)		29,042,325	22,877,500	16,665,000
Demand Savings (kW)		5,765	4,573	3,373
Participation		4,178	2,385	2,160

Work Direct Install	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Support		$132,000	$132,000	$132,000
Implementation & Other Annual Cost		$25,000	$25,000	$25,000
Outreach & Coordination		$30,000	$30,000	$30,000
EM&V		$40,000	$40,000	$40,000
Rebate Processing		$1,370	$1,233	$1,096
Total Fixed		$228,370	$228,233	$228,096
Variable Program Operating Costs				
Customer Incentives	$0.101	$201,175	$181,057	$160,940
Delivery & Other	$0.004	$7,998	$7,198	$6,398
Total Budget	$0.22	$437,543	$416,489	$395,435
Energy Savings (kWh)		1,999,500	1,799,550	1,599,600
Demand Savings (kW)		267	241	214
Participation		116	104	93

Work Custom Rebates	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Support		$700,000	$700,000	$700,000
Implementation & Other Annual Cost		$21,083	$21,083	$21,083
Outreach & Coordination		$194,408	$194,408	$194,408
EM&V		$100,000	$100,000	$100,000
Rebate Processing		$2,099	$1,478	$1,330
Total Fixed		$1,017,589	$1,016,969	$1,016,821
Variable Program Operating Costs				
Customer Incentives	$0.070	$2,700,881	$2,103,471	$1,953,191
Delivery & Other	$0.0035	$134,463	$103,103	$96,768
Total Budget	$0.10	$3,852,933	$3,223,543	$3,066,780
Energy Savings (kWh)		38,418,023	29,458,023	27,648,023
Demand Savings (kW)		7,252	5,817	5,489
Participation		355	250	225

Public Efficient Streetlighting	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$0	$0	$0
Impl & Other Annual		$10,000	$10,000	$10,000
Program Coordination		$48,000	$48,000	$48,000
EM&V		$35,581	$35,581	$35,581
Total Fixed		$93,581	$93,581	$93,581
Variable Program Operating Costs				
Customer Incentives	$0.26	$1,423,259	$1,423,259	$1,423,259
Delivery & Other	$0.00	$0	$0	$0
Total Budget	$0.27	$1,516,840	$1,516,840	$1,516,840
Energy Savings (kWh)		5,521,964	5,521,964	5,521,964
Demand Savings (kW)		0	0	0
Participants (# Streetlights)		10,369	10,369	10,369

Home Weatherproofing	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
I&M Marketing, Rebate Processing, Othe		$22,746	$22,746	$22,746
I&M Auditor		$82,231	$82,231	$82,231
Program Coordination		$40,238	$40,238	$40,238
EM&V		$38,000	$38,000	$38,000
Total Fixed		$183,214	$183,214	$183,214
Variable Program Operating Costs				
Customer Incentives	$0.26	$292,319	$292,319	$292,319
Delivery & Other	$0.18	$42,610	$42,610	$42,610
Total Budget	$0.46	$518,143	$518,143	$518,143
Energy Savings (kWh)		1,129,074	1,129,074	1,129,074
Demand Savings (kW)		103	103	103
Participation (# Audits)		350	350	350

Home New Construction	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$91,924	$91,924	$91,924
Rebate Processing & Other Annual Co:		$14,493	$14,493	$14,493
Program Coordination		$36,975	$36,975	$36,975
EM&V		$25,000	$25,000	$25,000
Total Fixed		$168,392	$168,392	$168,392
Variable Program Operating Costs				
Customer Incentives	$0.31	$216,164	$243,870	$243,870
Delivery & Other	$0.11	$85,671	$85,671	$85,671
Total Budget	$0.58	$470,227	$497,933	$497,933
Energy Savings (kWh)		808,221	851,741	851,741
Demand Savings (kW)		208	234	234
Participation (# of Homes)		447	445	445

Home Appliance Recycling	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$0	$0	$0
Rebate Processing & Other Annual Cost		$19,500	$19,500	$19,500
Program Coordination		$26,250	$26,250	$26,250
EM&V		$35,000	$35,000	$35,000
Total Fixed		$80,750	$80,750	$80,750
Variable Program Operating Costs				
Customer Incentives	$0.038	$128,560	$128,560	$128,560
Delivery & Other	$0.128	$385,680	$385,680	$385,680
Total Budget	$0.18	$594,990	$594,990	$594,990
Energy Savings (kWh)		3,348,400	3,348,400	3,348,400
Demand Savings (kW)		400	400	400
Participation (Total Units)		3,214	3,214	3,214

Income Qualified Weatherproofing	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
I&M Marketing, Rebate Processing, Ot		$46,556	$46,556	$46,556
I&M Auditor		$69,082	$69,082	$69,082
Program Coordination & Outreach		$77,200	$77,200	$77,200
EM&V		$70,000	$70,000	$70,000
Total Fixed		$262,839	$262,839	$262,839
Variable Program Operating Costs				
Customer Incentives	$0.43	0	0	0
Delivery & Other	$0.14	$308,200	$308,200	$308,200
Total Budget	$0.79	$571,039	$571,039	$571,039
Energy Savings (kWh)		724,847	734,847	744,847
Demand Savings (kW)		72	72	72
Participation		2,650	2,650	2,650

Home Energy Products- Products Component	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$0	$0	$0
Implementation & Other Annual Cost		$79,500	$79,500	$79,500
Program Coordination		$40,800	$40,800	$40,800
EM&V		$15,000	$15,000	$15,000
Total Fixed		$135,300	$135,300	$135,300
Variable Program Operating Costs				
Customer Incentives	$0.14	$188,025	$179,805	$179,805
Delivery & Other	$0.06	$43,712	$43,712	$43,712
Total Budget	$0.47	$367,037	$358,817	$358,817
Energy Savings (kWh)		774,354	774,354	774,354
Demand Savings (kW)		183	183	183
Participation (# Measures)		1,100	1,100	1,100

Home Energy Products-- Lighting Component	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$111,227	$111,227	$111,227
Implementation & Other Annual Cost		$39,500	$39,500	$39,500
Program Coordination		$20,400	$20,400	$20,400
EM&V		$50,000	$50,000	$50,000
Total Fixed		$221,127	$221,127	$221,127
Variable Program Operating Costs				
Customer Incentives	$0.0942	$1,164,335	$944,335	$692,402
Delivery & Other	$0.009	$111,227	$111,227	$111,227
Total Budget	$0.12	$1,496,689	$1,276,689	$1,024,755
Energy Savings (kWh)		12,358,538	10,021,646	8,127,084
Demand Savings (kW)		1,782	1,445	1,171
Participation (# Bulbs)		465,734	377,734	307,734

Home Energy Engagement	Per Unit Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$1,219,581	$1,333,167	$1,503,184
Implementation & Other Annual Cost		$20,000	$20,000	$20,000
Program Coordination		$75,000	$75,000	$75,000
EM&V		$80,000	$80,000	$80,000
Total Fixed		$1,394,581	$1,508,167	$1,678,184
Variable Program Operating Costs				
Customer Incentives	$0.000	$0	$0	$0
Delivery & Other	$0.018	$781,011	$732,251	$703,926
Total Budget	$0.05	$2,175,592	$2,240,418	$2,382,110
Energy Savings (kWh)		40,900,405	41,190,745	41,629,375
Demand Savings (kW)		4,514	4,562	4,619
Participants		233,738	232,825	232,368

Schools Energy Education	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$0	$0	$0
Implementation & Other Annual Cost		$19,304	$19,304	$19,304
Program Coordination		$18,000	$18,000	$18,000
EM&V		$25,000	$25,000	$25,000
Total Fixed		$62,304	$62,304	$62,304
Variable Program Operating Costs				
Customer Incentives	$0.10	$0	$0	$0
Delivery & Other	$0.06	$600,050	$600,050	$600,050
Total Budget	$0.21	$662,354	$662,354	$662,354
Energy Savings (kWh)		3,179,000	3,179,000	3,179,000
Demand Savings (kW)		880	880	880
Participation		11,000	11,000	11,000

DSM Programs

Work Energy Management	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed Capital Cost		$3,625,556	$3,324,444	$0
Return Of and On I&M Assets		$169,560	$862,270	$1,018,083
Program Coordination		$75,200	$75,200	$75,200
EM&V		$21,500	$22,145	$22,790
Total Fixed & Associated Costs		$266,260	$959,615	$1,116,073
Variable Program Operating Costs				
Customer Incentives	$0.03	$56,372	$169,132	$172,515
Delivery & Other	$0.10	$430,000	$442,900	$455,800
Total Budget	$0.29	$752,632	$1,571,647	$1,744,388
Energy Savings (kWh)		1,968,753	5,911,740	5,911,740
Demand Savings (kW)		3,333	10,000	10,000
Participants		19	57	57

Home Energy Management	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$0	$0	$0
Marketing		$13,384	$17,468	$8,168
Program Coordination		$100,000	$100,000	$100,000
EM&V		$50,000	$50,000	$50,000
Total Fixed		$163,384	$167,468	$158,168
Variable Program Operating Costs				
Customer Incentives	$0.13	$735,399	$494,093	$536,088
Delivery & Other	$0.30	$1,596,753	$1,354,535	$1,026,122
Total Budget	$0.47	$2,495,536	$2,016,096	$1,720,377
Energy Savings (kWh)		2,389,500	4,400,500	6,411,500
Demand Savings (kW)		5,974	11,001	16,029
Participants		4,779	8,801	12,823

EECO	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Fixed Capital Cost		$6,566,043	$4,501,665	$5,085,990
Return Of and On I&M Assets		$715,927	$1,158,457	$1,560,295
Program Coordinetion		$96,000	$96,000	$96,000
EM&V		$90,033	$105,958	$157,320
Total Fixed & Associated Costs		$901,960	$1,360,415	$1,813,615
Variable Program Operating Costs				
Customer Incentives	$0.00	$0	$0	$0
Delivery & Other	$0.02	$270,100	$317,874	$471,959
Total Budget	$0.09	$1,172,060	$1,678,290	$2,285,574
Energy Savings (kWh)		14,889,034	19,272,356	24,942,364
Demand Savings (kW)		4,631	6,634	8,725
Participants		45,847	60,542	80,939

Attachment JCW-5S
Cause No. 44841

Indiana Michigan Power Company - Indiana
DSM - 3 Year Plan
DSM Plan Goals Versus IRP Summary

	IRP		3 Year Plan EE Programs			3 Year Plan Other DSM Programs			3 Year DSM Plan Total		
	Gross Energy Savings (kWh)	Gross Demand Savings (kW)	Direct Program Cost ($)	Program Energy Savings (kWh)	Program Demand Savings (kW)	Direct Program Cost ($)	Program Energy Savings (kWh)	Program Demand Savings (kW)	Direct Program Cost ($)	Program Energy Savings (kWh)	Program Demand Savings (kW)
2017	148,253,286	23,489	16,093,367	138,204,650	21,428	4,420,228	19,247,287	13,938	20,513,595	157,451,938	35,366
2018	140,464,864	6,330	14,669,421	120,886,843	18,509	5,266,032	29,584,596	27,635	19,935,453	150,471,438	46,145
2019	140,382,396	6,327	13,641,611	111,218,461	16,739	5,750,339	37,265,604	34,754	19,391,951	148,484,064	51,493
Total	429,100,546	36,146	44,404,399	370,309,954	56,675	15,436,599	86,097,486	76,328	59,840,999	456,407,441	133,003

	DSM Plan Budget Summary ($)		
	Direct Operating Cost ($)	Indirect Operating Cost ($)	Total Operating Cost ($)
2017	20,513,595	1,245,000	21,758,595
2018	19,935,453	1,395,000	21,330,453
2019	19,391,951	1,495,000	20,886,951
Total	59,840,999	4,135,000	63,975,999

IRP Versus DSM Plan Summary		
	IRP Savings (% of I&M IN Retail Sales)	DSM Plan Savings (% of I&M IN Retail Sales)
2017	0.87%	0.92%
2018	0.82%	0.88%
2019	0.83%	0.87%
3 Year Average	0.84%	0.89%

Attachment JCW-6S
Cause No. 44841

Indiana Michigan Power Company - Indiana
DSM - 3 Year Plan
I&M DSM Plan - 3 Year Benefit Cost Analysis

Energy Efficiency (EE)	UCT	TRC	RIM	Participant	UCT Benefits	UCT Costs	UCT Net Benefits	TRC Benefits	TRC Costs	TRC Net Benefits	RIM Benefits	RIM Costs	RIM Net Benefits	Participant Benefits	Participant Costs	Participant Net Benefits
Residential																
Home Energy Products	2.44	1.89	0.58	3.99	$11,967,613	$4,913,823	$7,053,790	$11,967,613	$6,333,527	$5,634,086	$11,967,613	$20,667,656	($8,700,043)	$22,114,144	$5,545,505	$16,568,639
Income Qualified Weatherproofing	0.81	0.81	0.39	N/A	$1,380,423	$1,711,381	($330,958)	$1,380,423	$1,711,381	($330,958)	$1,380,423	$3,555,097	($2,174,674)	$1,159,263	$0	$1,159,263
School Education	2.37	2.37	0.68	N/A	$4,710,522	$1,989,196	$2,721,326	$4,710,522	$1,989,196	$2,721,326	$4,710,522	$6,918,330	($2,207,808)	$5,013,530	$0	$5,013,530
Home Appliance Recycling	1.31	1.31	0.47	N/A	$2,335,863	$1,789,829	$546,034	$2,335,863	$1,789,829	$546,034	$2,335,863	$4,941,886	($2,606,023)	$4,446,418	$0	$4,446,418
Home New Construction	1.65	1.21	0.62	1.85	$2,418,127	$1,467,462	$950,666	$2,418,127	$1,998,368	$419,760	$2,418,127	$3,900,087	($1,481,959)	$2,320,882	$1,255,337	$1,065,545
Home Weatherproofing	1.48	1.25	0.50	2.60	$2,307,780	$1,562,272	$745,508	$2,307,780	$1,852,569	$455,211	$2,307,780	$4,619,376	($2,311,596)	$2,731,108	$1,050,302	$1,680,806
Home Energy Engagement	3.34	3.34	0.69	N/A	$22,638,839	$6,781,188	$15,857,651	$22,638,839	$6,781,188	$15,857,651	$22,638,839	$32,731,739	($10,092,900)	$22,767,640	$0	$22,767,640
Residential Portfolio	**2.36**	**2.13**	**0.62**	**N/A**	**$47,759,168**	**$20,215,152**	**$27,544,016**	**$47,759,168**	**$22,456,059**	**$25,303,109**	**$47,759,168**	**$77,334,171**	**($29,575,004)**	**$60,552,986**	**$7,851,145**	**$52,701,842**
Commercial & Industrial																
Work Prescriptive Rebates	5.72	2.74	0.83	2.74	$47,784,071	$8,359,931	$39,424,140	$47,784,071	$17,421,541	$30,362,530	$47,784,071	$57,721,415	($9,937,344)	$40,491,447	$14,784,074	$25,707,373
Work Custom Rebates	4.87	2.97	0.82	3.49	$50,098,536	$10,282,779	$39,815,757	$50,098,536	$16,874,948	$33,223,588	$50,098,536	$61,141,227	($11,042,691)	$44,340,248	$12,707,548	$31,632,700
Work Direct Install	2.78	1.43	0.70	1.87	$3,469,235	$1,247,762	$2,221,473	$3,469,235	$2,419,701	$1,049,535	$3,469,235	$4,950,722	($1,481,487)	$2,978,071	$1,595,767	$1,382,304
C&I Portfolio	**5.10**	**2.76**	**0.82**	**3.02**	**$101,351,842**	**$19,890,472**	**$81,461,370**	**$101,351,842**	**$36,716,190**	**$64,635,652**	**$101,351,842**	**$123,813,364**	**($22,461,521)**	**$87,809,766**	**$29,087,389**	**$58,722,377**
Public																
Public Efficient Streetlighting	2.67	2.67	0.56	N/A	**$12,164,406**	$4,564,172	$7,600,234	**$12,164,406**	$4,564,172	$7,600,234	**$12,164,406**	$21,910,963	($9,746,557)	**$9,963,621**	**$0**	**$9,963,621**
EE Portfolio	3.61	2.53	0.72	**N/A**	**$161,275,416**	$44,669,796	$116,605,619	**$161,275,416**	$63,736,422	$97,538,994	**$161,275,416**	$223,058,498	($61,783,082)	**$158,326,374**	**$36,936,534**	**$121,387,840**
Demand Side Management (DSM)																
Home Energy Management	3.24	3.69	2.18	3.04	$23,681,059	$7,309,818	$16,371,241	$23,681,059	$6,426,293	$17,254,766	$23,681,059	$10,851,109	$12,829,950	$6,029,070	$1,980,580	$4,048,490
Work Energy Management	1.14	1.14	0.86	N/A	$15,486,016	$13,607,672	$1,878,344	$15,486,016	$13,607,672	$1,878,344	$15,486,016	$17,970,154	($2,484,139)	$2,830,595	$0	$2,830,595
Electric Energy Consumption Optimization	1.07	1.07	0.49	1.16	$14,522,958	$13,627,015	$895,943	$14,522,958	$13,627,015	$895,943	$14,522,958	$29,469,929	($14,946,971)	$15,842,914	$13,627,015	$2,215,899
DSM Portfolio	**1.55**	**1.60**	**0.92**	**1.58**	**$53,690,033**	**$34,544,505**	**$19,145,528**	**$53,690,033**	**$33,660,980**	**$20,029,053**	**$53,690,033**	**$58,291,192**	**($4,601,159)**	**$24,702,579**	**$15,607,595**	**$9,094,984**
DSM Plan Portfolio	2.71	2.21	0.76	**N/A**	**$ 214,965,449**	$79,214,302	$ 135,751,147	**$ 214,965,449**	$97,397,401	$ 117,568,048	**$214,965,448**	$281,349,689	($66,384,241)	**$183,028,953**	**$52,546,129**	**$130,482,824**

Attachment JCW-12S
Cause No. 44841

Indiana Michigan Power Company - Indiana
DSM - 3 Year DSM Plan
2017 Shared Savings Forecast

Program (1)	Utility Cost Test Net Benefit* (2)	90% of UCT Net Benefit (3)=(2) x 90%	15% Pre-Tax Shared Savings (4)=(3) x 15%	Program Operating Costs (5)	15% Sector Program Operating Cost Cap (6)=(5) x 15%	Capped Shared Savings (7)=min(4),(6)
Home Energy Products	$3,260,456			$1,970,726		
Schools Energy Education	$891,175			$705,154		
Home Appliance Recycling	$166,157			$627,090		
Home New Construction	$289,072			$502,327		
Home Weatherproofing	$112,153			$550,243		
Home Energy Engagement	$5,522,985			$2,303,992		
~~Home Energy Management~~	~~$5,729,248~~			~~$3,103,794~~		
Residential Sector Total	$10,241,998	$9,217,799	$1,382,670	$6,659,532	$998,930	$998,930
Work Prescriptive Rebates	$17,220,494			$3,632,947		
Work Custom Rebates	$17,265,177			$4,077,633		
Work Direct Install	$869,163			$458,943		
Commercial and Industrial Sector Total	$35,354,834	$31,819,351	$4,772,903	$8,169,524	$1,225,429	$1,225,429
Total at 100% Energy Savings Target Attainment	$45,596,833	$41,037,150	$6,155,573	$14,829,056	$2,224,358	$2,224,358

	(8) 2017 Savings Target	(9) = (8) * 85% 85% Threshold	(10) = (7) * 15% 15% Performance Impact
Residential Sector Energy Savings Target Attainment less than 85%	69,844,919	59,368,181	($149,839)
Commercial & Industrial Energy Savings Target Attainment less than 85%	77,726,802	66,067,782	($183,814)
Total Final Shared Savings Earnings with Downside Performance Impact (11) = (7) + (10)			$1,890,705

	(12) 2017 Savings Target	(13) = (12) * 105% 105% Threshold	(14) = (7) * 10% 10% Performance Impact
Residential Energy Savings Target Attainment >= 105%	69,844,919	73,337,165	$99,893
Commercial & Industrial Energy Savings Target Attainment >= 105%	77,726,802	81,613,142	$122,543
Total Final Shared Savings Earnings with Upside Performance Impact (15) = (7) + (14)			$2,446,794

* Source: Attachment JCW-6

Attachment JCW-13S
Cause No. 44841

Indiana Michigan Power Company - Indiana
DSM - 3 Year DSM Plan
2018 Shared Savings Forecast

Program	Utility Cost Test Net Benefit*	90% of UCT Net Benefit	15% Pre-Tax Shared Savings	Program Operating Costs	15% Sector Program Operating Cost Cap	Capped Shared Savings
(1)	(2)	(3)=(2) x 90%	(4)=(3) x 15%	(5)	(6)=(5) x 15%	(7)=min(4),(6)
Home Energy Products	$2,090,565			$1,638,036		
Schools Energy Education	$911,399			$662,812		
Home Appliance Recycling	$179,811			$600,027		
Home New Construction	$329,565			$498,197		
Home Weatherproofing	$123,907			$517,033		
Home Energy Engagement	$5,303,110			$2,235,940		
Home Energy Management	$5,105,596			$2,322,816		
Residential Sector Total	$14,043,953	$12,639,558	$1,895,934	$8,474,862	$1,271,229	$1,271,229
Work Prescriptive Rebates	$13,058,955			$2,795,344		
Work Custom Rebates	$12,024,492			$3,265,942		
Work Direct Install	$741,172			$410,919		
Commercial and Industrial Sector Total	$25,824,620	$23,242,158	$3,486,324	$6,472,204	$970,831	$970,831
Total at 100% Energy Savings Target Attainment	**$39,868,573**	**$35,881,716**	**$5,382,258**	**$14,947,066**	**$2,242,060**	**$2,242,060**

	(8) 2018 Savings Target	(9) = (8) * 85% 85% Threshold	(10) = (7) * 15% 15% Performance Impact
Residential Sector Energy Savings Target Attainment less than 85%	73,690,683	62,637,081	($190,684)
Commercial & Industrial Energy Savings Target Attainment less than 85%	71,258,791	60,569,973	($145,625)
Total Final Shared Savings Earnings with Downside Performance Impact (11) = (7) + (10)			$1,905,751

	(12) 2018 Savings Target	(13) = (12) * 105% 105% Threshold	(14) = (7) * 10% 10% Performance Impact
Residential Energy Savings Target Attainment >= 105%	73,690,683	77,375,217	$127,123
Commercial & Industrial Energy Savings Target Attainment >= 105%	71,258,791	74,821,731	$97,083
Total Final Shared Savings Earnings with Upside Performance Impact (15) = (7) + (14)			$2,466,266

* Source: Attachment JCW-6

Attachment JCW-14S
Cause No. 44841

Indiana Michigan Power Company - Indiana
DSM - 3 Year DSM Plan
2019 Shared Savings Forecast

Program (1)	Utility Cost Test Net Benefit* (2)	90% of UCT Net Benefit (3)=(2) x 90%	15% Pre-Tax Shared Savings (4)=(3) x 15%	Program Operating Costs (5)	15% Sector Program Operating Cost Cap (6)=(5) x 15%	Capped Shared Savings (7)=min(4),(6)
Home Energy Products	$1,697,762			$1,305,061		
Schools Energy Education	$918,751			$621,231		
Home Appliance Recycling	$200,066			$562,713		
Home New Construction	$332,029			$466,937		
Home Weatherproofing	$134,248			$484,493		
Home Energy Engagement	$5,031,555			$2,241,256		
Home Energy Management	$5,429,931			$1,878,594		
Residential Sector Total	$13,744,341	$12,369,907	$1,855,486	$7,560,286	$1,134,043	$1,134,043
Work Prescriptive Rebates	$9,134,255			$1,931,640		
Work Custom Rebates	$10,517,169			$2,939,204		
Work Direct Install	$610,049			$377,900		
Commercial and Industrial Sector Total	$20,261,473	$18,235,326	$2,735,299	$5,248,744	$787,312	$787,312
Total at 100% Energy Savings Target Attainment	**$34,005,814**	**$30,605,233**	**$4,590,785**	**$12,809,030**	**$1,921,355**	**$1,921,355**

	(8) 2019 Savings Target	(9) = (8) * 85% 85% Threshold	(10) = (7) * 15% 15% Performance Impact
Residential Sector Energy Savings Target Attainment less than 85%	76,605,471	65,114,650	($170,106)
Commercial & Industrial Energy Savings Target Attainment less than 85%	66,356,629	56,403,135	($118,097)
Total Final Shared Savings Earnings with Downside Performance Impact (11) = (7) + (10)			$1,633,152

	(12) 2019 Savings Target	(13) = (12) * 105% 105% Threshold	(14) = (7) * 10% 10% Performance Impact
Residential Sector Energy Savings Target Attainment less than 85%	76,605,471	80,435,745	$113,404
Commercial & Industrial Energy Savings Target Attainment less than 85%	66,356,629	69,674,460	$78,731
Total Final Shared Savings Earnings with Upside Performance Impact (15) = (7) + (14)			$2,113,490

* Source: Attachment JCW-6

Indiana Michigan Power Company - Indiana
DSM - 3 Year Plan
DSM/EE Revenue Requirement

Attachment JCW-15S
Cause No. 44841

	Residential	Commercial & Industrial	Total
2017 PY 8 Program Operating Cost	$12,423,974	$9,334,621	$21,758,595
2017 PY 8 DSM Plan Net Lost Revenue	$3,020,763	$2,015,289	$5,036,052
2017 PY 8 Legacy Net Lost Revenue	$7,270,711	$18,283,296	$25,554,007
2017 PY 8 Shared Savings	$998,930	$1,225,429	$2,224,358
2017 PY 8 Revenue Requirement	**$23,714,377**	**$30,858,635**	**$54,573,012**
2018 PY 9 Program Operating Cost	$12,339,924	$8,990,529	$21,330,453
2018 PY 9 DSM Plan Net Lost Revenue	$3,395,590	$1,862,562	$5,258,152
2018 PY 9 Legacy Net Lost Revenue	$6,875,947	$21,442,702	$28,318,648
2018 PY 9 Shared Savings	$1,271,229	$970,831	$2,242,060
2018 PY 9 Revenue Requirement	**$23,882,690**	**$33,266,624**	**$57,149,313**
2019 PY 10 Program Operating Cost	$12,549,895	$8,337,055	$20,886,951
2019 PY 10 DSM Plan Net Lost Revenue	$3,860,834	$1,692,709	$5,553,543
2019 PY 10 Legacy Net Lost Revenue	$6,371,107	$23,728,410	$30,099,518
2019 PY 10 Shared Savings	$1,134,043	$787,312	$1,921,355
2019 PY 10 Revenue Requirement	**$23,915,880**	**$34,545,487**	**$58,461,366**
3 Yr. Program Operating Cost	$37,313,793	$26,662,206	$63,975,999
3 Yr. DSM Plan Net Lost Revenue	$10,277,188	$5,570,560	$15,847,748
3 Yr. DSM Legacy Net Lost Revenue	$20,517,765	$63,454,408	$83,972,173
3 Yr. Shared Savings	$3,404,202	$2,983,571	$6,387,773
3 Yr. Revenue Requirement	**$71,512,947**	**$98,670,745**	**$170,183,692**
Total Revenue Requirement-Net of Gross Revenue Conversion	**$71,512,947**	**$98,670,745**	**$170,183,692**
Gross Revenue Conversion Factor (GRCF)		1.77%	
Gross Revenue Conversion--Required Revenue	$1,287,698	$1,776,715	$3,064,412
Total Revenue Requirement	**$72,800,645**	**$100,447,460**	**$173,248,104**

Public Efficient Streetlighting Program - Indiana

Objective:	The Public Efficient Streetlighting (PES) Program encourages energy efficiency by offering municipalities, counties, and other governmental subdivisions a cost effective option to upgrade I&M owned streetlighting to more efficient LED streetlighting. Participating governmental entities pay for streetlighting service through I&M's Streetlighting Service Tariff (Tariff S.L.S.) and Energy Conservation Lighting Service Tariff (Tariff E.C.L.S.). Streetlighting service through these tariffs consists of installation, ownership, and maintenance of I&M streetlighting assets (poles, wires, streetlight fixtures), and the provision of electricity service for the fixtures. The objectives of the PES Program are to: • Encourage current customers to convert to more efficient LED streetlighting. • Lower electrical energy consumption for public streetlighting
Target Market:	I&M Indiana municipalities, counties, and other governmental subdivisions enrolled in streetlighting service through I&M's Streetlighting Service Tariff (Tariff S.L.S.) and Energy Conservation Lighting Service Tariff (Tariff E.C.L.S.).
Program Duration:	The PES Program will be a program in I&M's 2017 - 2019 DSM/EE portfolio.
Program Description:	The Public Efficient Streetlighting (PES) Program encourages energy efficiency by offering municipalities, counties, and other governmental subdivisions a cost effective option to upgrade I&M owned streetlighting to more efficient LED streetlighting. Customers participating in the PES Program will agree to transition to a new LED ECLS Tariff category of streetlight. To further encourage the conversion to the more efficient technology, customers will pay a specific, but otherwise lower tariff rates for streetlighting service until such time as those rates are addressed in subsequent base rate filing with the IURC. The program will: • Comparably buy down 80% of the incremental cost of the more efficient LED streetlight fixture with a rebate paid by the PES Program; • Use the cost difference between a LED streetlight fixture and a comparable high pressure sodium fixture as the incremental measure cost of the more efficient lighting option; • Provide a rebate to offset this incremental cost in order to encourage and entice participating customers to convert to the LED streetlighting; and • Require participating customers to make an upfront contribution of 10% of the incremental cost for the LED fixture.

Incentive Strategy:	The incentive strategy for the PES Program is to apply 80% of the difference between the cost of and LED streetlight and a baseline high pressure sodium equivalent streetlight. PES rebates are calculated based on this cost differential and will offset I&M's capital cost of conversion (material and labor) of the LED streetlight fixture to the high pressure sodium streetlight fixture. As LED streetlight conversions occur, where LED streetlights are placed in-service, I&M will use the rebate from the PES program to offset the capital cost of conversion booked in I&M electric plant in-service streetlight accounts.
Eligible Measures:	Eligible measures for this program include the LED streetlight fixtures and connections to the existing streetlighting electricity source.
Implementation Strategy:	I&M has designed the PES Program on a three year conversion schedule for all existing I&M owned streetlights for flexibility to adequately serve all interested entities. I&M will engage with ECLS participating municipalities and governmental entities to inform them of the PES program, how it is structured, and the need to reach agreement on the number of streetlights converted. I&M will agree upon the conversion schedule, streetlight account update process, and other program requirements with each entity prior to the conversion work commencing. Each individual entity will need to provide written consent and/or other tariff required terms in advance of I&M undertaking the conversion process dictated by the PES program. The preference is to convert all I&M owned streetlights during the proposed three year period, however, I&M will work with participating entities based on need to allow for each entities' necessary budget planning/constraints. The design of the PES program is premised upon a one for one change out of existing streetlight fixtures where LED streetlight fixtures will be matched in terms of lumen output to the existing fixture lumen output at existing streetlight pole locations, electricity sources, and existing mounting configurations. Any requested deviations by participating governmental entities from a one-for-one change out will be subject to the terms set forth in Tariff ECLS relative to the nature of the requests and the costs associated that are determined to be beyond the rebate payment paid for by the PES program.
Marketing Strategy:	I&M will perform marketing and outreach for this program using internal company resources.
Evaluation, Measurement & Verification:	An independent third party program evaluation contractor will perform a impact evaluation to ensure that the program is effectively implemented, that the program is achieving the expected savings The impact evaluation is expected to determine the actual, verified energy reductions achieved by the program, and provide cost/benefit analyses of the program both on

	historical and prospective basis. I&M will capture participant information, perform energy reduction calculations, and provide detailed information, as specified to meet evaluation needs, to the independent third party evaluator. The evaluator is expected to work closely with the I&M and its implementation partner to ensure proper data collection, energy reduction calculation methodology, and reporting.
Estimated Participation and Impacts	Expected participation and associated estimated impacts for the program are provided in the table below.

Public Efficient Streetlighting	Per KWH Rate	2017	2018	2019
Fixed Program Operating Costs				
Vendor Fixed		$0	$0	$0
Impl & Other Annual		$10,000	$10,000	$10,000
Program Coordination		$48,000	$48,000	$48,000
EM&V		$35,581	$35,581	$35,581
Total Fixed		$93,581	$93,581	$93,581
Variable Program Operating Costs				
Customer Incentives	$0.26	$1,423,259	$1,423,259	$1,423,259
Delivery & Other	$0.00	$0	$0	$0
Total Budget	$0.27	$1,516,840	$1,516,840	$1,516,840
Energy Savings (kWh)		5,521,964	5,521,964	5,521,964
Demand Savings (kW)		0	0	0
Participants (# Streetlights)		10,369	10,369	10,369

Program Operating Budget	Anticipated operating budget associated with this program is outlined in the tables provided above.
Cost Effectiveness Test Results	

	Cost-Benefit Ratio
Utility Test	2.67
TRC Test	2.67

RIM Test	.56
Participant Test	NA

I.U.R.C. NO. 16 **ORIGINAL SHEET NO. X**
INDIANA MICHIGAN POWER COMPANY
STATE OF INDIANA

RIDER W.E.M.
(Work Energy Management Rider)

Availability of Service

Available on a voluntary basis to customers taking firm service from the Company under Tariffs G.S., G.S.-TOD, L.G.S., L.G.S.-TOD, I.P., C.S.-IRP, M.S., W.S.S., or E.H.G. who have the ability to reduce consumption under the provisions of this rider. The Company's Work Energy Management (W.E.M.) program provides participating customers an opportunity to voluntarily respond to locational marginal prices (LMP) by reducing consumption and receiving payment for such reduction during those times when LMP prices are high.

For non-owner occupied commercial and industrial buildings, the Company may require customers to obtain permission from the building owner to install the required load control equipment and, if necessary, auxiliary communicating devices such as remote sensors or additional control devices. Customers will not be eligible for this rider if the owner does not allow installation of such equipment or does not agree to program terms and requirements through a contractual agreement.

Customers participating in this rider are not eligible for enrollment in any other Company or PJM Interconnection, L.L.C. RTO (PJM) demand response program. Notwithstanding anything to the contrary in Rider D.R.S.1, customers currently served under Rider D.R.S.1 will be eligible to switch to service under Rider W.E.M. once their registration with PJM under Rider D.R.S.1 expires on May 31 of a given year, provided the customer provides written notice to the Company by May 1 of that year. This provision does not address the enforceability of any additional contractual obligation the customer may have to a Curtailment Service Provider (CSP) if the customer has elected to use the services of a CSP under Rider D.R.S.1.

Conditions of Service

(1) The Company reserves the right to make changes to this rider in order to continue effective program operation.
(2) An interval meter is required. The Company will provide this meter as part of the program to qualifying participants.
(3) The Company will inform the participant regarding the communication process and timing required to participate in this program and rider. The customer is ultimately responsible for receiving and acting upon notifications as part of this program and rider.
(4) Participants shall not receive credit for any curtailment periods to the extent that the customer's program managed load is already reduced due to a planned or unplanned outage as a result of vacation, renovation, repair, refurbishment force majeure, strike, economic conditions, or any event other than the Company's program that causes the customer's energy consumption to fall outside of that considered normal operating conditions.

Program Description

To participate, customers, or their authorized agents, must allow the Company and its authorized agents to install program compliant load control equipment, connect that equipment to Company owned communication equipment, and maintain both the load control equipment and associated communication equipment connections for the duration of the program.

(Cont'd on Sheet No. X)

RIDER W.E.M.
(Work Energy Management Rider)

(Cont'd from Sheet No. X)

Also, if necessary, the customer must allow the Company to install any program required auxiliary communicating devices to further facilitate the program's management and control of certain customer loads and/or customer sited electric power supply equipment as deemed necessary and appropriate for program operation. The program will initially, but not exclusively, focus on the customer's end-use lighting and HVAC unit(s) loads for program remote control and management. Load control equipment available to participate in the program will be jointly determined and agreed upon by the Company, the Company's authorized agents and the customer. All such devices shall be installed at a time that is consistent with the orderly and efficient deployment of this program. The load control equipment must comply with the Company's approved list of devices. The customer must allow the Company to interface both through software algorithms and hardware devices to existing customer end-use load and communication equipment. The Company and its authorized agents will perform an initial site survey in order to fully determine and assess the viability of customer end use load and electric energy usage and consumption patterns to validate customer participation and program effectiveness. The Company and its authorized agents will maintain all program equipment installed on customer premises for the duration of the customer's participation of the program. The Company and its authorized agent will provide customer access and use of program energy management and control software for the duration of the customer's participation in the program.

The Company will utilize an energy management software platform that will operate and control customer load control devices to reduce customer's demand and energy use. The Company's energy management platform will operate to optimize energy use through load shaping to achieve optimum and efficient customer use of electricity. Energy reductions will be coordinated during electric power system peak load periods determined at the sole discretion of the Company. Non-emergency energy management events can occur for up to 800 hours per year with no single event lasting more than six (6) consecutive hours. The Company plans to initially target energy management events for up to 487 hours per year but reserves the right to undertake energy management events up to 800 hours per year according to, and appropriate for, individual Customer load profiles and business operating conditions and requirements. The Company and its authorized agent may utilize a load shaping strategy; however, other strategies may be employed and evaluated to determine the strategy that optimizes energy reduction without significantly affecting predetermined customer business preferences, operating conditions, and requirements.

Energy management events will be called according to and in alignment with predetermined customer preferences and business requirements. Non-emergency energy management events shall not exceed 800 hours per year and depend upon individual customer load profile and energy use footprint.

The customer may opt out of a non-emergency energy management event through the program energy management system software platform or by contacting the Company and/or its authorized agent personnel. The Company's energy management software algorithm will facilitate and accept the event opt out. The Company will communicate events to customers through the energy management platform and via other means required by the customer. The method of event notification may change as determined by the Company and in conjunction with customers, to email or other electronic notification means.

(Cont'd on Sheet No. X)

I.U.R.C. NO. 16 **ORIGINAL SHEET NO. X**
INDIANA MICHIGAN POWER COMPANY
STATE OF INDIANA

RIDER W.E.M.
(Work Energy Management Rider)

(Cont'd from Sheet No. X)

Energy Management Credit

Customers will only receive either a monthly or annual payment, as mutually agreed upon by each customer and the Company, based on the Hourly Curtailed Energy and 90% of the applicable LMP (Day-Ahead) established by PJM (including congestion and marginal losses) . Energy Management Credits will vary based on market hourly energy prices and program effectiveness as determined by the Company and its authorized agent. No payment will be made to customers who opt out of energy management activity for the period of time that the customer opted out for. The Company may assess a penalty to customers who opt out of Company determined system emergency conditions at a penalty rate consistent with and based upon the Company's cost to provide such opt out energy during emergency conditions.

Equipment

The Company, and its authorized agent, will furnish and install load control equipment, and, as necessary, auxiliary communicating devices at the customer's premise. All equipment will be owned and maintained by the Company and its authorized agent until such time as the Work Energy Management Program is discontinued or the customer requests to be removed from the program after completing the initial period of three (3) years. At that time, the Company will cease both its energy management and control of the load control equipment and any auxiliary communicating devices, remove Company owned program equipment, and cease annual customer incentives paid by the program.

Should the customer lose, damage, or not allow the Company and its authorize agent to operate and maintain the required load control devices and auxiliary communicating equipment, the Company and its authorized agent will contact the customer in an attempt to re-instate program required equipment functionality. If such attempts by the Company do not facilitate reinstating the program required functionality, the Company will remove the customer from the program, remove Company owned equipment, and will cease the program customer incentive payments.

Contract

Participating customers must agree to participate for an initial period of not less than three (3) years and shall remain a participant thereafter until either party gives at least six months' written notice to the other of the intention to discontinue participation under the terms of this rider.

Curtailed Energy

For each curtailment period, Curtailed Energy shall be defined as the difference between the customer's Customer Baseline Load (CBL) calculation and the customer's actual energy used during each hour of the curtailment period.

(Cont'd on Sheet No. X)

RIDER W.E.M.
(Work Energy Management Rider)

(Cont'd from Sheet No. X)

Customer Baseline Load Calculation

The Company will utilize the energy management platform data and Company billing system data to determine a Customer Baseline Load (CBL) for each hour corresponding to each curtailment event hour in order to determine the amount of energy reduced for Energy Management Credit purposes. The CBL shall accurately reflect the customer's normal consumption profile, to the extent possible. The Company will provide to each WEM program customer how the CBL is determined.

Special Terms and Conditions

This rider is subject to the Company's Terms and Conditions of Service and all provisions of the tariff under which the customer takes service, including all payment provisions.

The Company shall not be required to offer the program to customers when the Company and its authorized agent cannot maintain the required functionality of the load control equipment, or if the continued operation of the program cannot be justified for reasons such as: customer preference, electric power market conditions, technological functionality and limitations, safety concerns, or abnormal customer premise conditions, including vacation or other limited occupancy residences.

The Company and its authorized agents shall be permitted access to the customer's premises during normal business hours to confirm installation and connectivity of the load control device(s). In the event the Company requires access to load control device(s), and the customer does not provide such access within 30 days of the request, the Company may discontinue the Energy Management Credit until such time as the Company is able to gain the required access. The Company shall not be responsible for the repair, maintenance or replacement of any customer-owned equipment.

The Company will collect data during the course of this energy management and control program. Customer-specific information will be held as confidential and data presented in any analysis will protect the identity of the individual customer.

I.U.R.C. NO. 16 **FIRST REVISED SHEET NO. 22**
INDIANA MICHIGAN POWER COMPANY **CANCELS ORIGINAL SHEET NO. 22**
STATE OF INDIANA

TARIFF E.C.L.S.
(Energy Conservation Lighting Service)

Availability of Service.

Available for streetlighting service to municipalities, counties, and other governmental subdivisions. The rates are applicable to new streetlights installed after April 6, 1981, and to 50,000 lumen high pressure sodium streetlights installed before that date. Only the lamps set forth below are available for such new service. Service rendered hereunder is predicated upon the execution by the customer of an agreement specifying the type, minimum number, and location of lamps to be served.

The Energy Policy Act of 2005 requires that mercury vapor lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing mercury vapor lamp installations in accordance with this Tariff.

Monthly Rate. (Tariff Code 530)

			Rate Per Lamp Per Month			
				On Metallic or Concrete Pole Installed Prior to April 6, 1981		
Nominal Lamp Wattage	Approx. Lamp Lumens	Type of Lamp	On Wood Pole With Overhead Circuitry	Overhead Circuitry	Under-Ground Circuitry	Post-top Lamp on Fiberglass Pole With Underground Circuitry
			$	$	$	$
70	5,800	HPS	7.05	16.00	16.35	--
100	9,500	HPS	7.85	16.75	17.55	14.40
200	22,000	HPS	11.90	18.45	20.00	--
400	50,000	HPS	15.85	21.50	23.05	--

The following rates apply to existing luminaires and are not available for new business.

175	7,000	MV	9.00
400	20,000	MV	14.60

Public Efficient Streetlighting Program

The Public Efficient Streetlighting Program (PES) is a program implemented under the Company's Demand-Side Management / Energy Efficiency Program, designed to encourage energy efficient streetlighting through the conversion of existing Company-owned streetlights to LED streetlights. The PES will be performed under the terms and conditions contained in the PES as approved by the Commission.

Participating municipalities and other participating customers will be required to make a one-time up-front contribution toward the LED fixture cost as follows:

Fixtures less than 20,000 Lumen	$14.52 per fixture
Fixtures 20,000 Lumen and greater	$21.82 per fixture

(Cont'd on Sheet No. 22.1)

ISSUED BY
PAUL CHODAK III
PRESIDENT
FORT WAYNE, INDIANA

EFFECTIVE FOR ELECTRIC SERVICE RENDERED ON AND AFTER

ISSUED UNDER AUTHORITY OF THE INDIANA UTILITY REGULATORY COMMISSION DATED
IN CAUSE NO.

TARIFF E.C.L.S.
(Energy Conservation Lighting Service)

(Cont'd From Sheet No. 22)

PES Monthly Rate. (Tariff Code xxx)

		Rate Per Lamp Per Month			
			On Metallic or Concrete Pole Installed Prior to April 6, 1981		
Approx. Lamp Lumens	PES Type of Lamp Conversion	On Wood Pole With Overhead Circuitry	Overhead Circuitry	Under-Ground Circuitry	Post-top Lamp on Fiberglass Pole With Underground Circuitry
		$	$	$	$
5,800	HPS > LED	~~7.05~~7.26	~~16.00~~16.21	~~16.35~~16.56	--
9,500	HPS > LED	~~7.85~~8.06	~~16.75~~16.96	~~17.55~~17.76	~~14.40~~14.61
22,000	HPS > LED	~~11.90~~12.22	~~18.45~~18.77	~~20.00~~20.32	--
50,000	HPS > LED	~~15.85~~16.17	~~21.50~~21.82	~~23.05~~23.37	--
7,000	MV > LED	~~9.00~~9.21			
20,000	MV > LED	~~14.60~~14.92			

The customer will be required to make a contribution-in-aid of construction calculated in accordance with the formula set forth below if the customer requests the installation of any facility other than a standard company luminaire and an upsweep arm not over 10 feet in length installed on a pole described in the above rate.

The contribution-in-aid-of-construction will equal the difference between estimated cost of the streetlighting system requested by the customer and the estimated cost of a streetlighting system using a lamp controlled by a photoelectric relay, a standard company luminaire, and an upsweep arm not over 10 feet in length installed on a wood pole with overhead circuitry of a span length not to exceed 150 feet. A customer paying a contribution-in-aid of construction will pay the above monthly rate for wood poles with overhead circuitry.

When underground facilities are requested by the customer, the estimated installed cost of the underground circuit will be $8.10 per foot plus any and all cost required to repair, replace, or push under sidewalks, pavements, or other obstacles.

Applicable Riders.

Monthly charges computed under this tariff shall be adjusted in accordance with the applicable Commission-approved rider(s) listed on Sheet No. 34.

(Cont'd on Sheet No. 22.2)

TARIFF E.C.L.S.
(Energy Conservation Lighting Service)

(Cont'd from Sheet No. 22.1)

Delayed Payment Charge.

All bills under this schedule shall be rendered and due monthly. If not paid within 17 days after the bill is mailed, there shall be added to bills of $3 or less, 10 percent of the amount of the bill; and to bills in excess of $3 there shall be added 10 percent of the first $3, plus 3 percent of the amount of the bill in excess of $3. Any governmental agency shall be allowed such additional period of time for payment of the net bill as the agency's normal fiscal operations require, not to exceed 30 days.

Streetlighting Facilities.

All facilities necessary for streetlighting service hereunder, including but not limited to, all poles, fixtures, streetlighting circuits, transformers, lamps, and other necessary facilities, shall be the property of the Company and may be removed if the Company so desires at the termination of any contract for service hereunder. The Company will maintain all such facilities; however, the Company will not be responsible for replacing or rebuilding obsolete, discontinued, decorative, or other facilities which in the opinion of the Company are too expensive or unusual to replace or rebuild. In such instances the customer may at its own expense replace or rebuild the facilities or may contract for new service under any applicable tariff.

Hours of Lighting.

Lamps shall burn from approximately one-half hour after sunset until approximately one-half hour before sunrise, every night, approximately 4,000 hours per annum.

Lamp Outages.

For all outages which are reported daily in writing to the Company by a proper representative of the customer, the customer may deduct from the total amount which would have been paid had no outage occurred 1/30 of such amount per day of outage beyond two working days after such notice.

Relocation and Removal of Lamps

Lamps may be relocated or removed when requested in writing by a proper representative of the Customer, subject, however to the following conditions:

Lamps will be relocated upon payment by the Customer of the estimated cost of doing the work.

Lamps will be removed upon payment by the Customer of the estimated cost of doing the work.

(Cont'd on Sheet No. 22.3)

TARIFF E.C.L.S.
(Energy Conservation Lighting Service)

(Cont'd from Sheet No. 22.2)

Upon completion of the work, billing for relocation or removal of lamps will be adjusted to reflect actual costs. Charges under this tariff will end when the lamp and/or facilities are removed.

The customer shall pay the ongoing cost of any existing facilities associated with the relocated or removed lamps which must remain in place for the sole purpose of supplying power to other lamps of the Customer. The ongoing cost shall be the cost as specified in Tariff O.L. for other new equipment. For any equipment not specified in Tariff O.L. the charge shall be based upon the Company's actual cost.

The Company will relocate or remove lamps as rapidly as labor conditions permit.

Terms of Contract.

Contracts under this tariff will ordinarily be made for an initial term of one year with self-renewal provisions for successive terms of one year each until either party shall give at least 60 days' notice to the other of the intention to discontinue at the end of any term. The Company will have the right to require contracts for periods of longer than one year.

Special Terms and Conditions.

This tariff is subject to the Company's Terms and Conditions of Service.

I.U.R.C. NO. 16
INDIANA MICHIGAN POWER COMPANY
STATE OF INDIANA

FIRST REVISED SHEET NO. 21
CANCELS ORIGINAL SHEET NO. 21

TARIFF S.L.S.
(Streetlighting Service)

Availability of Service.

This tariff is withdrawn except for existing streetlights or traffic control signals serving those municipalities, counties, and other governmental subdivisions having contracted for such service under this tariff, Tariff S.L.N. (Streetlighting-New and Rebuilt Systems), or a special contract prior to the first effective date of Tariff E.C.L.S. (Energy Conservation Lighting Service).

The Energy Policy Act of 2005 requires that mercury vapor lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the company has the necessary materials, the Company will continue to maintain existing mercury vapor lamp installations in accordance with this Tariff.

Monthly Rate. (Tariff Code 533)

		Price Per Lamp Per Month		
			On Metallic or Concrete Poles With	
Size of Lamp in Lumens	Type of Lamp	On Wood Poles With Overhead Circuitry	Overhead Circuitry	Underground Circuitry
1,000	Incandescent	--	--	12.15
2,500	Incandescent	--	--	17.20
4,000	Incandescent	--	--	24.55
7,000	Mercury Vapor	8.85	13.20	15.90
20,000	Mercury Vapor	13.50	18.80	21.75
50,000	Mercury Vapor	--	30.15	--
16,000	High Pressure Sodium	12.20	17.95	22.55
25,500	High Pressure Sodium	14.25	20.05	--

Public Efficient Streetlighting Program

The Public Efficient Streetlighting Program (PES) is a program implemented under the Company's Demand-Side Management / Energy Efficiency Program, designed to encourage energy efficient streetlighting through the conversion of existing Company-owned streetlights to LED streetlights. The PES will be performed under the terms and conditions contained in the PES as approved by the Commission.

Participating municipalities and other participating customers will be required to make a one-time up-front contribution toward the LED fixture cost as follows:

Fixtures less than 20,000 Lumen $14.52 per fixture
Fixtures 20,000 Lumen and greater $21.82 per fixture

(Cont'd on Sheet No. 21.1)

ISSUED BY
PAUL CHODAK III
PRESIDENT
FORT WAYNE, INDIANA

EFFECTIVE FOR ELECTRIC SERVICE RENDERED ON AND AFTER

ISSUED UNDER AUTHORITY OF THE INDIANA UTILITY REGULATORY COMMISSION DATED
IN CAUSE NO.

I.U.R.C. NO. 16
INDIANA MICHIGAN POWER COMPANY
STATE OF INDIANA

FIRST REVISED SHEET NO. 21.1
CANCELS ORIGINAL SHEET NO. 21.1

TARIFF S.L.S.
(Streetlighting Service)

(Cont'd from Sheet No. 21)

PES Monthly Rate. (Tariff Code xxx)

Size of Lamp in Lumens	PES Type of Lamp Conversion	Price Per Lamp Per Month: On Wood Poles With Overhead Circuitry	On Metallic or Concrete Poles With: Overhead Circuitry	On Metallic or Concrete Poles With: Underground Circuitry
1,000	Incandescent > LED	--	--	~~12.15~~12.36
2,500	Incandescent > LED	--	--	~~17.20~~17.41
4,000	Incandescent > LED	--	--	~~24.55~~24.76
7,000	Mercury Vapor > LED	~~8.85~~9.06	~~13.20~~13.41	~~15.90~~16.11
20,000	Mercury Vapor > LED	~~13.50~~13.82	~~18.80~~19.12	~~21.75~~22.07
50,000	Mercury Vapor > LED	--	~~30.15~~30.47	--
16,000	High Pressure Sodium > LED	~~12.20~~12.41	~~17.95~~18.16	~~22.55~~22.76
25,500	High Pressure Sodium > LED	~~14.25~~14.57	~~20.05~~20.37	--

Rate for Traffic Control Signals.

For post type traffic director units, which are supplied energy for their operation but owned and maintained by the customer, having normally one lamp of 69 watts or less capacity burning at the same time except during a change in signal when no more than two lamps are burning simultaneously for a period not to exceed 15 percent of the total time to complete an entire cycle of signal changes, $2.85/Month.

Applicable Riders.

Monthly charges computed under this tariff shall be adjusted in accordance with the applicable Commission-approved rider(s) listed on Sheet No. 34.

Delayed Payment Charge.

All bills under this schedule shall be rendered and due monthly. If not paid within 17 days after the bill is mailed, there shall be added to bills of $3 or less, 10 percent of the amount of the bill; and to bills in excess of $3, there shall be added 10 percent of the first $3, plus 3 percent of the amount of the bill in excess of $3. Any governmental agency shall be allowed such additional period of time for payment of the net bill as the agency's normal fiscal operations required, not to exceed 30 days.

(Cont'd on Sheet No. 21.2)

ISSUED BY
PAUL CHODAK III
PRESIDENT
FORT WAYNE, INDIANA

EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON AND AFTER

ISSUED UNDER AUTHORITY OF THE
INDIANA UTILITY REGULATORY COMMISSION
DATED
IN CAUSE NO.

TARIFF S.L.S.
(Streetlighting Service)

(Cont'd from Sheet No. 21.1)

Streetlighting Facilities.

All facilities necessary for streetlighting service hereunder, including but not limited to, all poles, fixtures, streetlighting circuits, transformers, lamps, and other necessary facilities, shall be the property of the Company and may be removed if the Company so desires at the termination of any contract for service hereunder. The Company will maintain all such facilities; however, the Company will not be responsible for replacing or rebuilding obsolete, discontinued, decorative, or other facilities which in the opinion of the Company are too expensive or unusual to replace or rebuild. In such instances the customer may at its own expense replace or rebuild the facilities or may contract for new service under any applicable tariff.

Hours of Lighting.

Streetlighting lamps shall burn from approximately one-half hour after sunset until approximately one-half hour before sunrise, every night, approximately 4,000 hours per annum. Traffic director units may operate 24 hours per day, every day, approximately 8,760 hours per annum.

Lamp Outages.

For all outages which shall be reported daily in writing to the Company by a proper representative of the customer, the customer may deduct from the total monthly amount 1/30 of the amount which would have been paid for any lamp had no outage occurred for each day of outage beyond two working days.

Terms of Contract.

Contracts under this tariff shall be made for a term of one year with self-renewal provisions for successive terms of one year each until either party shall give at least 60 days' notice to the other of the intention to discontinue at the end of the initial term or any yearly period. The Company will have the right to require contracts for periods longer than one year.