

STATE OF INDIANA

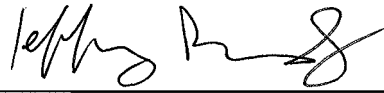
INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANA MICHIGAN)
POWER COMPANY (I&M), AN INDIANA)
CORPORATION, FOR APPROVAL OF A CLEAN)
ENERGY SOLAR PILOT PROJECT (CESPP);)
FOR DECLINATION OF JURISDICTION OR)
ISSUANCE OF A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY FOR CESPP;)
FOR APPROVAL OF ACCOUNTING AND)
RATEMAKING, INCLUDING TIMELY)
RECOVERY OF COSTS INCURRED DURING) CAUSE NO. 44511
CONSTRUCTION AND OPERATION OF CESPP)
THROUGH A SOLAR POWER RIDER; FOR)
APPROVAL OF CESPP DEPRECIATION)
PROPOSAL; FOR AUTHORITY TO DEFER)
CESPP COSTS UNTIL SUCH COSTS ARE)
REFLECTED IN THE SOLAR POWER RIDER OR)
OTHERWISE REFLECTED IN I&M'S BASIC)
RATES AND CHARGES; AND FOR APPROVAL)
OF A GREEN POWER RIDER.)

**SUBMISSION OF INDIANA MICHIGAN POWER COMPANY'S
REBUTTAL TESTIMONY AND EXHIBITS**

Petitioner, Indiana Michigan Power Company (I&M), by counsel, respectfully submits the rebuttal testimony and exhibits of Paul Chodak III, Joseph A. Karrasch, and Christopher M. Halsey in this Cause.

Respectfully submitted,



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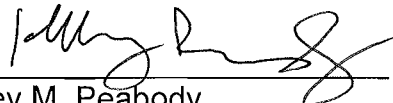
CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing was served this 30th day of September, 2014, via email transmission to:

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INDIANA MICHIGAN POWER COMPANY

PRE-FILED VERIFIED REBUTTAL TESTIMONY

CAUSE NO. 44511

OF

PAUL CHODAK III

Filed September 30, 2014

**PREFILED VERIFIED REBUTTAL TESTIMONY OF
PAUL CHODAK III
ON BEHALF OF
INDIANA MICHIGAN POWER COMPANY**

1 **Q. Please state your name and business address.**

2 A. My name is Paul Chodak III. My business address is One Summit Square,
3 P.O. Box 60, Fort Wayne, Indiana 46801.

4 **Q. Are you the same Paul Chodak III that prefiled direct testimony in this**
5 **Cause on July 7, 2014?**

6 A. Yes.

7 **Q. What is the purpose of your testimony?**

8 A. My rebuttal testimony is filed on behalf of Indiana Michigan Power Company
9 (I&M) to respond to the direct testimony filed in this Cause on behalf of the
10 I&M Industrial Group (IG) and the Indiana Office of Utility Consumer
11 Counselor (OUCC) regarding I&M's request for a Clean Energy Solar Pilot
12 Project (CESPP) and proposed Solar Power Rider (SPR) and Green Power
13 Rider (GPR).

14 **Q. Please generally respond to the recommendations of the I&M**
15 **Industrial Group.**

16 A. The IG does not oppose I&M's proposal to construct and operate the
17 CESPP, but it does recommend, among other things, caps on the recovery
18 of I&M's investment and that I&M actively market the GPR.

19 First, the IG recommends that the estimated cost of the project be

1 capped at the \$38 million cost estimate provided by I&M. While I&M intends
2 to complete the project on time at the cost estimated, it is possible that the
3 project cost could exceed the estimate and I&M should not be totally
4 foreclosed from demonstrating that the costs in excess of the estimate are
5 reasonable and beneficial to customers. It is unreasonable to set an
6 absolute ceiling based on the proposed cost estimate because those
7 incremental costs could, in fact, be worth incurring. Adopting a cost cap
8 would be bad public policy because it could drive utilities to inflate their cost
9 estimates or enter into more costly fixed price contracts to guard against
10 exceeding the hard cap proposed by the IG. I&M's cost estimate is based
11 on indicative pricing from experienced developers and was provided as the
12 best estimate of what the actual costs will be based on the most reliable
13 information available. If the actual costs are less than the estimate, I&M will
14 only recover the actual costs. Conversely, if the costs reasonably exceed
15 the estimate, I&M should have the opportunity to demonstrate in the SPR
16 filing that the costs were reasonably incurred, and the IG will have a
17 reasonable opportunity to question the recovery of those costs.

18 Second, the IG proposes that I&M only be allowed to recover its
19 investment up to the level of I&M's avoided cost. I&M has been clear from
20 the beginning that the CESPP will provide energy at a cost higher than the
21 avoided cost and that there are significant benefits to be achieved through
22 the CESPP. The IG does not object to the benefits that will be provided, but
23 does object to I&M's recovery of the costs of producing the benefits. This is

1 contrary to the Commission's policy, which recognizes that renewable
2 energy sources like solar or wind provide real benefits to customers through
3 generation portfolio diversification and that such benefits are attained at a
4 price premium. Reasonable investments made by I&M on behalf of
5 customers should be allowed to be fully recovered and not limited or taken
6 away. I&M should not be penalized for taking reasonable steps to prepare
7 for the future.

8 Third, we agree with the IG that the GPR, which is the tariff proposed
9 to allow customers to subscribe to blocks of solar renewable energy credits
10 (SRECs) created by the CESPP, can provide valuable revenues to offset
11 the revenue requirement of the CESPP. I&M does intend to actively market
12 the GPR using both internal and external marketing campaigns that would
13 be reasonably and cost-consciously structured. The results of that
14 marketing are not knowable at this time so I&M has reasonably proposed to
15 set the cost recovery factor under the SPR to reconcile the actual results
16 once known, which will lower the factor from the level at which it would have
17 otherwise been set. While we expect there to be interest among our
18 customers in the GPR, there is no need at this time to try to precisely predict
19 the rate impact because the actual results will be used for purposes of
20 setting the factor.

21 **Q. Please generally respond to the recommendations of the OUCC.**

22 A. The OUCC supports the approval of the CESPP and recommends that I&M
23 be required to make certain tariff modifications and file certain progress

1 reports regarding the CESPP. I&M finds the recommendations of the
2 OUCC to generally be acceptable and I&M rebuttal witness Halsey will
3 provide some suggested modifications to the OUCC's recommendations in
4 his rebuttal testimony.

5 **CLEAN ENERGY SOLAR PILOT PROJECT (CESPP)**

6 **Q. Please specifically respond to IG witness Pollock's statement (pp.**
7 **10-11) that if the cost of the CESPP is higher than \$38 million, I&M**
8 **should not be allowed to recover the higher cost in the proposed**
9 **Solar Power Rider.**

10 A. Mr. Pollock suggests that allowing I&M to use a higher cost estimate "would
11 not be consistent with prior Commission orders" and that the Commission
12 has "rejected utility requests to increase [their] cost estimates in future
13 tracker proceedings." While I am not an attorney it is my understanding that
14 the Commission's orders in the two cases cited by Mr. Pollock (Cause Nos.
15 44242 and 44182) did not reject the possibility of an increase in the cost
16 estimates for the projects approved in those cases. Rather, it appears the
17 Commission determined that any increase in the cost estimates would be
18 reviewed and approved in a separate proceeding. This is consistent with
19 I&M's proposal in this case.

20 As explained in I&M's direct testimony, I&M has established a cost
21 estimate of approximately \$38 million for the CESPP, which will be further
22 refined upon receipt of final PJM studies and the completion of the EPC
23 request for proposals (RFP). I&M will provide revised cost estimates to the

1 Commission and the parties as soon as they become available and make
2 any revisions necessary through the annual Solar Power Rider filings. In
3 fact, I&M has accelerated the plans to issue the RFP and expects to have
4 selected bids in the beginning of 2015, as discussed by I&M rebuttal
5 witness Karrasch.

6 The \$38 million is a reasonable estimate of the capital cost given the
7 scope and scale of the project, but the actual cost may vary and could
8 reasonably exceed the total cost estimate. I&M accepts the responsibility to
9 complete the CESPP within its proposed cost estimate and expects to be
10 required to justify cost recovery for any cost overruns. To require I&M to
11 simply forfeit costs reasonably incurred for the benefit of customers
12 because they exceed the cost estimate, without any opportunity to explain
13 the reasons, is unreasonable and bad public policy. Accordingly, it would
14 not be appropriate to cap the capital cost of the project at \$38 million.

15 **Q. IG witness Pollock suggests (p. 13) that I&M is proposing to**
16 **circumvent the process used for approving new generation. Do you**
17 **agree?**

18 A. No. I&M's request is consistent with the process used for approving new
19 generation. I&M has come to the Commission with a detailed proposal to
20 construct and operate solar powered resources and explained its reasons
21 for doing so and the benefits to be achieved. I&M has been open about the
22 CESPP and is clearly not trying to evade regulatory review. However, the
23 CESPP is a small, 16 MW renewable energy project that is more like an

1 alternative energy production facility than a 600 MW base load power plant.
2 The Commission should have the ability to use the flexibility provided to it by
3 the Legislature when considering the merits of the CESPP and not be
4 constrained by the requirements of a statute directed at 600 MW base load
5 plants.

6 I&M recognizes that its proposed use in this Cause of the Utility
7 Generation and Clean Coal Technology Statute (IC 8-1-8.8) does not
8 relieve I&M of the duty to obtain a certificate required under the Powerplant
9 Construction Act (IC 8-1-8.5). However, the Commission continues to have
10 the discretion under the Alternative Utility Regulation Statute (IC 8-1-2.5-5)
11 to decide that a certificate is not required. Therefore, I&M is requesting that
12 the Commission decline to exercise its jurisdiction with regard to granting a
13 certificate, as contemplated by the statute.

14 I&M's case-in-chief explained that the CESPP is a small renewable
15 project similar to an alternative energy production facility that is exempt
16 from the Powerplant Construction Act. Declining jurisdiction under this
17 statute is administratively efficient and would otherwise benefit I&M, its
18 customers, and the State by reasonably advancing the integration of solar
19 power as an energy resource. However, even if Mr. Pollock's argument had
20 merit, I&M has requested, in the alternative, that the Commission grant a
21 certificate for the CESPP and shown that the public convenience and
22 necessity requires, or will require, the construction of the CESPP.

1 **Q. Please respond to IG witness Pollock's (p. 10) concern about**
2 **pressure on customer rates.**

3 A. No one has a greater concern about the pressure being placed on I&M's
4 rates than I do. I&M is dedicated to providing quality service at an
5 affordable price. We are working hard to meet the needs of our customers,
6 comply with environmental regulations, and keep our rates economical
7 despite flat to declining sales. Based on our relative position in the
8 Commission's latest rate comparison, I believe we are doing a good job, but
9 we must strive to remain competitively priced.

10 As we make decisions about investments like the CESPP, we do so
11 knowing we need to prepare to integrate solar technology into our portfolio
12 and be ready for solar to play an increasing role in meeting our customers'
13 needs. The CESPP is a balanced approach that allows I&M to evaluate
14 emerging technologies and meet customers' evolving needs with a diverse
15 generation portfolio that deploys the most reasonable combination of
16 resources from a variety of options. Rather than wait and learn by starting
17 with a large project, we are moving forward with a small pilot project that will
18 provide a solid foundation for us to grow and learn. As shown in I&M's
19 direct testimony, the CESPP will have a modest effect on customer bills
20 because the estimated overall impact to customers rates is 0.3% in the first
21 year (and that conservatively assumes there is no offsetting participation in
22 the GPR).

1 **Q. Should the Commission limit the cost recovery of the CESPP to I&M's**
2 **avoided costs as argued by IG witness Pollock (pp. 15-16)?**

3 A. No. The Industrial Group's position fails to recognize the full scope of this
4 pilot project and makes a recommendation that ignores the need to better
5 understand solar options for our system and customers. The investment
6 I&M is making with this solar project is not an energy only approach and the
7 greater understanding and experience for I&M personnel and our
8 customers at each stage is an important aspect that cannot be distilled
9 down to an avoided cost analysis. The pilot program's focus on solar
10 renewable power will ensure that I&M has done the advance work so that its
11 long term and larger solar options are poised to succeed. Simply put, we
12 must learn to walk before we can run.

13 With solar resources being a factor going forward in I&M's integrated
14 resource plan (IRP), I&M can gain the necessary experience and
15 understanding to begin integrating solar renewable generation in its
16 operations. Mr. Pollock includes a list of some of the benefits at page 11 of
17 his testimony:

- 18 1) experience gained from the engineering, procurement and
19 construction process,
20 2) generation forecasting, scheduling and operations experience,
21 3) operational insight into how utility scale solar facilities will impact
22 the energy delivery systems, and
23 4) technical evaluation of different inverter and solar panel

1 manufacturers and technology.

2 These are important benefits that can be achieved by I&M's proposal, but
3 which will be lost if I&M cannot move forward because it is not allowed to
4 fully recover its costs.

5 **Q. Mr. Pollock (p. 10) compares the proposed CESPP to the avoided cost
6 shown in I&M's 2013 IRP. Is this comparison appropriate?**

7 A. No, it is misleading. First, the cost that Mr. Pollock refers to will continue to
8 increase over time, where the CESPP costs are based on a one-time
9 installation cost. In addition, the evaluation of a resource addition must take
10 into account non-cost factors and the CESPP will reduce the risk associated
11 with cost volatility and add an incremental degree of fuel diversity to I&M's
12 resource mix. As stated in the same I&M 2013 IRP referenced in Mr.
13 Pollock's testimony:

14 The addition of energy efficiency and solar generation,
15 both distributed and utility scale, work to reduce the
16 risk or revenue requirement volatility." (I&M 2013 IRP,
17 page 188).

18 **Q. Mr. Pollock states (p. 12) the CESPP is not supported in I&M's 2013
19 IRP. Do you agree?**

20 A. No. Solar energy was a central topic during the stakeholder meetings held
21 by I&M as part of its IRP process. The addition of utility owned solar is
22 consistent with I&M's 2013 IRP, which reflects the addition of 50 MW
23 (nameplate) of solar capacity per year beginning in 2020 and totaling 700
24 MW by 2033. Moving forward with the CESPP allows I&M to be in a better

1 position to more effectively execute these future solar installations.
2 Furthermore, the timing and estimated cost of the CESPP is reasonable
3 given the operational benefits that will be gained ahead of the forecasted
4 additions in I&M's 2013 IRP. In addition, the 2013 IRP projection of utility
5 scale solar becoming an economic resource beginning in 2020 requires
6 I&M to begin the development process much earlier, which includes the
7 identification of land (~350 acres for 50 MW) and initiating the PJM
8 interconnection process by 2018.

9 **Q. Will adding solar resources slightly ahead of the timeframe in the IRP
10 provide benefits to I&M's customers?**

11 A. Yes. I&M's request recognizes that the electric utility industry is rapidly
12 changing as evidenced by the growth of utility-scale and distributed
13 renewable resources, as well as the increased emphasis on energy
14 efficiency. To evolve in this ever changing environment, I&M recognizes
15 the need for integration of new and more environmentally conscious
16 resources and technologies. My direct testimony also sets forth several
17 factors which support the addition of utility-scale solar at this time including:

- 18 • increased efficacy of solar
- 19 • solar will be part of the energy equation going forward
- 20 • I&M's interest in integrating solar into its generation portfolio on a
21 utility scale and distributed generation level
- 22 • diversity of I&M's generation portfolio
- 23 • EPA proposed carbon regulations on carbon emissions
24 contemplates a substantial expansion of renewable energy as a
25 potential compliance measure

- 1 • customer interest in renewable energy
- 2 • hedge for potential regulation of greenhouse gases (GHG) by the
- 3 EPA
- 4 • consistent with Indiana's energy policy

5 **Q. Mr. Pollock (p. 12) suggests that I&M's customers are not the sole**
6 **beneficiary of the CESPP. Please respond.**

7 A. One of the benefits of being a member of the AEP System is the experience
8 and expertise available to the operating subsidiaries like I&M. All
9 customers benefit from AEP's scope and scale regardless of which AEP
10 operating company provides their service. For example, I&M has benefitted
11 from AEP Ohio's solar experience and I&M's experience may provide some
12 benefit to Appalachian Power as it moves forward with their solar
13 generation projects. However, I&M is a stand-alone utility and makes
14 investments to serve the needs of its customers. The experience I&M is
15 seeking to gain as a result of this project is how I&M can best locate,
16 integrate, operate, maintain solar technology on the I&M system and how to
17 select the appropriate solar technology prior to large scale deployment.
18 Furthermore, the estimated cost of the solar projects is related to the
19 generation assets themselves that will serve I&M customers. Importantly,
20 the experience gained with regard to integrating solar generation into I&M's
21 resource portfolio is qualitative, meaning it has not increased the estimated
22 cost of the solar projects.

1 **GREEN POWER RIDER**

2 **Q. Did the OUCC and IG express interest in having I&M effectively**
3 **market the GPR?**

4 A. Yes. I&M is likewise interested in making sure that the GPR is effectively
5 marketed so that it makes a positive contribution toward the revenue
6 requirement of the CESPP. The GPR is proposed as an offering to all I&M
7 customers for voluntary and specific support of I&M's solar generation
8 projects. While all customers will support the CESPP through the SPR, the
9 GPR provides a separate mechanism for customers to further support the
10 CESPP. The subscription rate of this tariff will provide valuable insight into
11 customer preference for solar energy.

12 I&M is developing a structured marketing plan for the GPR that will
13 be implemented coincident with the construction of the initial sites, if the
14 CESPP is approved. I&M's intent is to optimize customer participation in
15 the GPR and ultimately offset the revenue requirement of the SPR so it is
16 important to balance the cost of the marketing plan with the expected
17 increase in revenue.

18 To that end, I&M is developing a plan that will cost-consciously
19 market the GPR with a combination of internal resources (e.g. websites,
20 press releases, bill inserts, speaker service, customer account
21 representatives) and external resources (e.g. advertising campaign using
22 radio, bill boards, social media, direct mailing). I&M is working with outside
23 experts to develop the messaging and the media that will effectively

1 increase customer participation. This approach is intended to be a
2 cost-conscious strategy that will effectively inform and alert customers
3 about the GPR while at the same time allow the marketing expense to
4 remain low.

5 **Q. What is the expected cost of the marketing campaign?**

6 A. At this point in the development of the marketing plan, I&M anticipates that
7 the initial cost may be approximately \$200,000, which mostly consists of
8 content development and media buys. The costs incurred for marketing is
9 expected to increase customer awareness and penetration or “subscription”
10 to the GPR. Accordingly, the marketing costs associated with I&M’s GPR
11 will be a cost of service and subject to review by the Commission, the
12 OUCC and intervenors in SPR proceedings. I&M also intends to provide
13 the details of the marketing plan in the initial SPR filing so that the
14 Commission, the OUCC and intervenors have an opportunity to review it.

15 **Q. IG witness Pollock (pp. 18-19) recommends expanding the Green**
16 **Power Rider to include other renewable energy sources such as wind.**
17 **How do you respond to this proposed expansion of I&M’s proposal?**

18 A. Mr. Pollock’s suggestion is somewhat short-sighted and shows a
19 misunderstanding of the relationship between the CESPP and the GPR.
20 Solar energy appears poised to play a significant and unique role in the
21 future generation of energy and is different from wind energy in several
22 respects. The CESPP is a pilot program that will provide I&M with a better
23 understanding of the solar renewable resource and the GPR is intended to

1 gauge customer's interest in and support for solar energy. While I&M is
2 aware that there is support for solar energy among our customers, it will be
3 instructive to analyze the depth and breadth of that support. An effective
4 marketing campaign will provide significant data that can be a valuable
5 resource for that analysis. The value of that data is diminished if it is not
6 clear if the support could be viewed as being for solar, wind or biomass, or
7 all renewables. The GPR is intentionally tied to the CESPP as a means to
8 support that specific pilot project and to test the support for solar in general
9 and those points would be missed if it was unduly expanded.

10 Moreover, selling off I&M's existing wind renewable energy credits
11 (RECs) for short-term gains may be unwise in the face of the potential
12 value of these RECs going forward in a world of carbon regulations and
13 mandatory Renewable Portfolio Standards (RPS). At this time, it appears
14 that Indiana may need to rely on renewables and energy efficiency if the
15 Environmental Protection Agency's proposed regulation of carbon
16 emissions is adopted as proposed. Selling off RECs now could prove to be
17 more costly to customers if more expensive RECs have to be purchased for
18 compliance purposes in the future.

19 Last, there is already in place a means for returning the value of wind
20 RECs to I&M's customers under the Commission orders approving I&M's
21 wind Power Purchase Agreements (PPAs). If I&M monetizes the wind
22 RECs, the revenues will be flowed back to customers in the FAC
23 proceeding. I&M and AEP monitor the REC market with an eye for

1 opportunities to sell RECs. The REC market has improved lately, so it is
2 conceivable that I&M may harvest some RECs and flow the revenues back
3 to customers under the FAC process.

4 There may be a day when the GPR tariff is expanded to consider
5 other renewable offerings, but that is not a proposal that makes sense at
6 this time. For now, I&M and its customers are better off gauging the interest
7 in solar energy and guarding against pending EPA carbon regulations and
8 potential mandatory Renewable Portfolio Standards by keeping the GPR
9 focused on SRECs and the CESPP.


10 **Q. Does this conclude your pre-filed verified rebuttal testimony?**

11 A. Yes.

VERIFICATION

I, Paul Chodak III, President and Chief Operating Officer of 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.

Date: 9/30/14



Paul Chodak III

INDIANA MICHIGAN POWER COMPANY

PRE-FILED VERIFIED REBUTTAL TESTIMONY

CAUSE NO. 44511

OF

JOSEPH A. KARRASCH

Filed September 30, 2014

**PREFILED VERIFIED REBUTTAL TESTIMONY OF
ON BEHALF OF JOSEPH A. KARRASCH
INDIANA MICHIGAN POWER COMPANY**

1 **Q. Please state your name and business address.**

2 A. My name is Joseph A. Karrasch. My business address is One Riverside
3 Plaza, Columbus, OH 43215.

4 **Q. Are you the same Joseph A. Karrasch that prefilled direct testimony
5 in this Cause on July 7, 2014?**

6 A. Yes.

7 **Q. What is the purpose of your testimony?**

8 A. My rebuttal testimony is filed on behalf of Indiana Michigan Power Company
9 (I&M) to respond to the direct testimony filed in this Cause on behalf of the
10 Indiana Office of Utility Consumer Counselor (OUCC) and the I&M
11 Industrial Group (IG) regarding I&M's request for a Clean Energy Solar Pilot
12 Project (CESPP) and proposed Solar Power Rider (SPR) and Green Power
13 Rider (GPR). Specifically, I respond to 1) the IG's concerns regarding the
14 cost estimate of the CESPP and when the final costs will be known and 2)
15 the OUCC's request for an annual report on the CESPP generation output.

16 **CLEAN ENERGY SOLAR PILOT PROJECT (CESPP)**

17 **Q. Mr. Pollock states (p. 9) that the \$38 million estimate is merely
18 indicative and that "for now, the total all-in cost of the proposed
19 CESPP is unknown." What is I&M's confidence level in the \$38 million
20 estimate?**

1 A. I&M recognizes that the \$38 million is indicative, however, I&M is confident
2 that the \$38 million is a reasonable cost estimate of the CESPP given that it
3 is based on indicative pricing provided by three experienced and reputable
4 Engineering, Procurement and Construction (EPC) contractors.

5 **Q. Has the RFP process been accelerated?**

6 A. Yes. In Exhibit JAK-2 of my direct testimony, the request for proposal (RFP)
7 was scheduled to be issued in May 2015. I&M has recently elected to
8 accelerate this process and issue the RFP in November 2014. This will
9 result in the receipt of proposals in January 2015. The following Table 2R is
10 a revision to the high level milestone schedule (Table 2) in my direct
11 testimony. The significant changes in the milestone schedule is 1) the
12 acceleration of the issuance of the RFP which will result in the acceleration
13 of the understanding of the cost of the CESPP and 2) the moving forward of
14 the schedules for two of the smaller projects (Deer Creek and Twin Branch)
15 resulting in a revised commercial operation target of December 2015.

Table 2R-CESPP Schedule

Activity	Target Date
Site Short-List Developed	Q2-2014 (completed)
PJM Interconnection Applications	Q2-2014 (completed)
Regulatory Filing	Q3-2014 (completed)
Begin Qualified Bidder Selection Process	Q3-2014
Develop Solar Panel & Inverter Approved List	Q3-2014
Regulatory Approval	Q4-2014
Qualified Bidders Notified	Q4-2014
EPC RFP Issuance to Qualified Bidders	Q4-2014
Proposal Submittal Due Date	Q1-2015
EPC Contract(s) Awarded	Q2-2015
Construction Start (Deer Creek & Twin Branch)	Q3-2015
Commercial Operation (Deer Creek & Twin Branch)	Q4-2015
Construction Start (Watervliet, Olive, tbd site)	Q1-2016
Commercial Operation (Watervliet, Olive, tbd site)	Q3-2016

1 **Q. Will I&M know the final cost estimate prior to filing its initial Solar**
2 **Power Rider?**

3 A. Yes. I&M anticipates filing a rider request approximately six months after
4 approval of the CESPP by the Commission. This date would be
5 subsequent to the date upon which the final project cost estimates would be
6 known. I&M would use the final project cost estimate, which would in turn
7 be trued up to actual numbers once the projects are in-service using
8 over/under accounting. To the extent the final cost estimate were to exceed

1 \$38 million, I&M would request recovery of those additional costs as part of
2 its SPR filings, subject to Commission review and approval.

3 **Q. OUCC witness Keen (pp. 7-8) recommends several reporting**
4 **requirements related to the construction and operation of the solar**
5 **generation facilities. Is the information related to the generation**
6 **output by each of the facilities confidential?**

7 A. Yes. As explained by Company witness Halsey's rebuttal testimony, I&M is
8 agreeable to providing an annual report for the CESPP generation output
9 information for a period 5 years, similar to I&M's wind generation reporting.
10 I&M is already subject to reporting actual wind generation information
11 related to the approved REPAs between I&M and the Fowler Ridge Wind
12 Farm (Cause Nos. 43750 and 43328), Wildcat Wind Farm (Cause No.
13 44034) and Headwaters Wind (Cause No. 44362). In these wind purchase
14 power cases, the Commission has also recognized the confidential nature
15 of the information being reported. As discussed below, the requested
16 generation output information is confidential.

17 **Q. Please explain the confidential nature of the generation output**
18 **information to be included in the annual report.**

19 A. I&M considers information on actual utility generation, including solar
20 energy output, to be competitively sensitive and trade secret. The
21 information derives actual and potential independent economic value from
22 being neither generally known to, nor readily ascertainable by proper

1 means by other persons who could obtain economic value from its
2 disclosure or use. Such information is not readily ascertainable on a
3 non-confidential basis by third parties by proper means. I&M takes efforts
4 to protect the information from public disclosure. I&M restricts access of
5 such information only to employees, officers and representatives of I&M
6 and AEPSC who have a need to know about such information due to their
7 job and management responsibilities. I&M and AEPSC limit public access
8 to buildings housing confidential information by use of security guards and
9 by restricting access to the files of I&M and AEPSC. Moreover, as noted
10 above, it is my understanding that the Commission has consistently found
11 that such reports should be submitted on a confidential basis in other
12 proceedings.

13 **Q. Does this conclude your pre-filed verified rebuttal testimony?**

14 A. Yes.

VERIFICATION

I, Joseph A. Karrasch, Manager - Asset Investments / Renewables by American Electric Power Service Corporation (AEPSC), affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.

Date: 9/30/14



Joseph A. Karrasch

INDIANA MICHIGAN POWER COMPANY

CAUSE NO. 44511

PRE-FILED VERIFIED REBUTTAL TESTIMONY

OF

CHRISTOPHER M. HALSEY

**PRE-FILED VERIFIED REBUTTAL TESTIMONY
OF
CHRISTOPHER M. HALSEY
ON BEHALF OF
INDIANA MICHIGAN POWER COMPANY**

1 **Q. Would you please state your name and business address?**

2 A. My name is Christopher M. Halsey and my business address is One Summit
3 Square, P.O. Box 60, Fort Wayne, Indiana 46801.

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

5 A. I am employed by Indiana Michigan Power Company (I&M or Company) as a
6 Senior Regulatory Consultant in the Regulatory Services Department.

7 **Q. Are you the same Christopher M. Halsey who previously filed testimony in
8 this proceeding?**

9 A. Yes.

10 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

11 A. The purpose of my rebuttal testimony on behalf of Indiana Michigan Power
12 Company (I&M) is to respond to the direct testimony filed in this Cause by witness
13 Ronald L. Keen on behalf of the Indiana Office of Utility Consumer Counselor
14 (OUCC) and by witness Jeffry Pollock on behalf of the I&M Industrial Group (IG)
15 regarding I&M's request for approval of the Clean Energy Solar Pilot Project
16 (CESPP), the Solar Power Rider (SPR), and the Green Power Rider (GPR).

17 **Q. What specific areas or concerns are you be rebutting?**

18 A. The specific areas I will rebut include:

- 19 • I&M's SPR 20 year forecast of levelized kilowatt hour costs
- 20 • Tariff language considerations and SPR cost allocations
- 21 • 30 day filing requirements

- 1 • GPR annual reporting

2 **Q. Are you sponsoring any attachments with your rebuttal filing?**

3 A. Yes. I am sponsoring Attachment CMH-R1, which is a calculation of the levelized
4 cost per kWh of the CESPP, Attachment CMH-R2, is the proposed Solar Power
5 Rider tariff page updated to reflect witness Pollock's suggestion to include the GPR
6 credit, and Attachment CMH-R3, the proposed Green Power Rider reflecting
7 witness Keen's suggestion to include clarifying language to the GPR tariff page.

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

10 A. Yes.

11 **Q. Is IG Witness Pollock (p. 10) correct that the CESPP would generate
12 electricity at an average cost of 20.2¢ per kilowatt hour (kWh)?**

13 A. No, the 20.2¢ per kWh is only representative of the cost in the first year. The
14 average levelized costs of the CESPP over its' 20-year life is 14.3¢ per kWh as
15 shown on Attachment CMH-R1. The average levelized cost is more appropriate
16 because the revenue requirement will decline each year as the electric plant in
17 service depreciates resulting in a lower required pre-tax return.

18 **Q. IG Witness Pollock (p.15) requests that the SPR tariff show the GPR revenue
19 offset. Do you agree with this suggestion?**

20 A. Yes, I&M agrees to clarify the SPR Tariff by adding the GPR credit as a line item to
21 the revenue requirement calculation as shown on Attachment-CMH R2.

22 **Q. IG Witness Pollock (p.15) assumes GPR revenue in his calculation for the
23 SPR rate impact. Does I&M agree with this assumption?**

1 A. I&M agrees that revenues collected through the GPR will be used as a revenue
2 credit used to establish SPR rates. For purposes of this filing I&M did not assume
3 a certain level of subscription to the GPR and then reflect that revenue assumption
4 as a credit to the solar project revenue requirement. This decision was made to
5 provide transparency to the cost of the solar project on a stand-alone basis.
6 Furthermore, the overall first-year rate impact of the CESPP upon I&M customers
7 on a stand-alone basis is estimated to be 0.3% as shown on Exhibit CMH-1, which
8 can only decline with subscriptions to the GRP. Also, both the forecasted SPR
9 costs and forecasted GPR revenues will both be reconciled to actual accounting
10 book revenues and book costs through the annual reconciliation of the accounting
11 over/under recovery process. As such I&M would not recommend including an
12 estimated GPR revenue amount in the initial SPR calculation.

13 **Q. OUCC Witness Keen (pp. 5-6) suggests clarifying language to be added to**
14 **I&M's Green Power Rider. Please respond.**

15 A. I&M has no objection to the additional GPR tariff language proposed by the OUCC
16 and has incorporated the proposed language in Attachment-CMH R3.

17 **Q. Does I&M agree with IG Witness Pollock (p.15) regarding the allocation and**
18 **collection of the Solar Power Rider revenue requirement?**

19 A. I&M agrees that the Solar Power Rider costs are fixed costs and as such should be
20 allocated to the customer classes based on class coincident peak demands.
21 Further, I&M agrees that actual Green Power Rider revenues will be used to offset
22 Solar Power Rider costs. However, I&M has proposed that the allocated Solar

1 Power Rider costs be collected on a rate per kWh for each class similar to the
2 method used in the LCM rider.

3 **Q. OUCC Witness Keen (p.10) objects to I&M's proposal to update the GPR**
4 **through the 30-day filing process. Please respond.**

5 A. To be clear, I&M's proposal is to use the 30-day filing process solely to update the
6 fixed block rate in the GPR tariff on an annual basis (the 30-day filing process is not
7 proposed to be used for updating the SPR). No party objected to using the
8 Pennsylvania (PA) SREC as published by SNL Energy Power Daily or other
9 equivalent source as the basis for establishing the fixed block rate in the GPR.
10 Thus the annual update to the fixed block rate should not be controversial. The
11 Commission's 30-day filing rule recognizes that certain requests by a utility for
12 changes in its rates, charges, rules and/or regulations can be accomplished in an
13 administratively efficient manner without the need for a formal docketed
14 proceeding. Given the narrow scope of I&M's proposal and the lack of objection to
15 the tariff adjustment itself, I&M believes it would be administratively efficient to
16 update the fixed block rate through the Commission's 30-day filing process. The
17 OUCC's concerns regarding customer transparency and marketing of the solar
18 project can be addressed as part of the SPR annual reconciliation filings where I&M
19 will seek recovery of these costs.

20 **Q. Does I&M agree to file a GPR annual report as recommended by the OUCC?**

21 A. Yes. I&M is agreeable to including the following information as requested by
22 OUCC witness Keen, but in I&M's annual SPR reconciliation filings:

23 • I&M's marketing and communication of the GPR;

- 1 • Number of customers enrolled in the GPR per month, including a breakdown of
2 residential and C&I customers;
3 • If I&M decides to change the reference market for setting the price of the SREC
4 blocks
5 • The name of the SREC market providing the basis of I&M's updated SREC
6 block price
7 • The market prices of the SREC for each month of the reporting period.
8

9 I&M will also provide information regarding any other approved costs included in
10 annual SPR rider filings. Administrative costs are currently not being requested for
11 recovery by I&M and therefore does not see a need to report these costs.

12 **Q. OUCC Witness Keen (pp.7-8) recommends several reporting requirements**
13 **related to the construction and operation of the solar generation facilities.**

14 **Do you recommend the commission adopt these reporting requirements?**

15 A. Yes, with some slight modifications. I&M is agreeable to providing the initial report
16 information, subject to confidential information discussed by Company witness
17 Karrasch. Thereafter, I&M will continue to provide an annual report for the
18 generation output information for a period of 5 years similar to I&M's wind
19 generation reporting. I&M is already subject to reporting actual wind generation
20 information related to the REPAs between I&M and Fowler Ridge Wind Farm
21 approved in Cause Nos. 43750 and 43328, I&M and Wildcat Wind Farm in Cause
22 No. 44034 and I&M and Headwaters Wind approved in Cause No. 44362. In these
23 wind purchase power cases, the Commission has also recognized the confidential
24 nature of the information being reported.

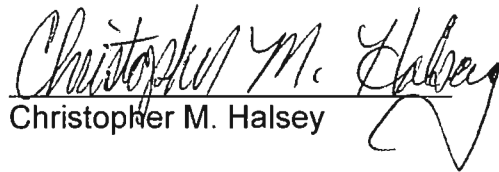
25 **Q. Does this conclude your prefiled verified rebuttal testimony?**

26 A. Yes.

VERIFICATION

I, Christopher M. Halsey, Senior Regulatory Consultant of Regulatory Services 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.

Date: September 30, 2014


Christopher M. Halsey

Forecast	X
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Clean Energy Solar Pilot Project	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	
Orig Total Cost @ 15.7 MWs	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016	
Non-Qualified for ITC	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)	
Qualified for ITC	36,772,766	36,772,766	36,772,766	36,772,766	36,772,766	
Capital	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016	
Depreciation	(1,904,951)	(3,809,902)	(5,714,852)	(7,619,803)	(9,524,754)	
Rate Base	36,194,065	34,289,114	32,384,164	30,479,213	28,574,262	
Annual Depreciation - Capital Investment	1,904,951	1,904,951	1,904,951	1,904,951	1,904,951	
Pretax Return @ 9.35%	3,473,202	3,295,089	3,116,976	2,938,863	2,760,750	
O&M	236,000	236,000	236,000	236,000	236,000	
Estimated Property Tax	400,000	400,000	400,000	400,000	400,000	
Net Impact of 30% ITC Amortization	(733,255)	(733,255)	(733,255)	(733,255)	(733,255)	
Utility Receipts Tax & IURC Fees	80,956	78,226	75,495	72,765	70,034	
Annual Revenue Requirement	5,361,853	5,181,010	5,000,167	4,819,323	4,638,480	
	Average Levelized Rate Impact					
Assumed Production	25,278	26,500	26,368	26,236	26,104	25,974
\$/MWh	\$ 143.08	\$ 202.33	\$ 196.49	\$ 190.59	\$ 184.62	\$ 178.58
¢/kWh	14.3¢	20.2¢	19.6¢	19.1¢	18.5¢	17.9¢

Forecast	X
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Clean Energy Solar Pilot Project	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Orig Total Cost @ 15.7 MWs	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016
Non-Qualified for ITC	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)
Qualified for ITC	36,772,766	36,772,766	36,772,766	36,772,766	36,772,766
Capital	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016
Depreciation	(11,429,705)	(13,334,656)	(15,239,606)	(17,144,557)	(19,049,508)
Rate Base	26,669,311	24,764,360	22,859,410	20,954,459	19,049,508
Annual Depreciation - Capital Investment	1,904,951	1,904,951	1,904,951	1,904,951	1,904,951
Pretax Return @ 9.35%	2,582,637	2,404,524	2,226,411	2,048,298	1,870,185
O&M	236,000	236,000	236,000	236,000	236,000
Estimated Property Tax	400,000	400,000	400,000	400,000	400,000
Net Impact of 30% ITC Amortization	(733,255)	(733,255)	(733,255)	(733,255)	(733,255)
Utility Receipts Tax & IURC Fees	67,304	64,573	61,843	59,112	56,382
Annual Revenue Requirement	4,457,637	4,276,793	4,095,950	3,915,106	3,734,263
Assumed Production	25,844	25,715	25,586	25,458	25,331
\$/MWh	\$ 172.48	\$ 166.32	\$ 160.08	\$ 153.78	\$ 147.42
¢/kWh	17.2¢	16.6¢	16.0¢	15.4¢	14.7¢

Forecast	X
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Clean Energy Solar Pilot Project	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15
Orig Total Cost @ 15.7 MWs	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016
Non-Qualified for ITC	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)
Qualified for ITC	36,772,766	36,772,766	36,772,766	36,772,766	36,772,766
Capital	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016
Depreciation	(20,954,459)	(22,859,410)	(24,764,360)	(26,669,311)	(28,574,262)
Rate Base	17,144,557	15,239,606	13,334,656	11,429,705	9,524,754
Annual Depreciation - Capital Investment	1,904,951	1,904,951	1,904,951	1,904,951	1,904,951
Pretax Return @ 9.35%	1,692,073	1,513,960	1,335,847	1,157,734	979,621
O&M	236,000	236,000	236,000	236,000	236,000
Estimated Property Tax	400,000	400,000	400,000	400,000	400,000
Net Impact of 30% ITC Amortization	(733,255)	(733,255)	(733,255)	(733,255)	(733,255)
Utility Receipts Tax & IURC Fees	53,651	50,921	48,191	45,460	42,730
Annual Revenue Requirement	3,553,420	3,372,576	3,191,733	3,010,890	2,830,046
Assumed Production	25,204	25,078	24,953	24,828	24,704
\$/MWh	\$ 140.98	\$ 134.48	\$ 127.91	\$ 121.27	\$ 114.56
¢/kWh	14.1¢	13.4¢	12.8¢	12.1¢	11.5¢

Forecast	X
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Clean Energy Solar Pilot Project	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20
Orig Total Cost @ 15.7 MWs	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016
Non-Qualified for ITC	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)	(1,326,250)
Qualified for ITC	36,772,766	36,772,766	36,772,766	36,772,766	36,772,766
Capital	38,099,016	38,099,016	38,099,016	38,099,016	38,099,016
Depreciation	(30,479,213)	(32,384,164)	(34,289,114)	(36,194,065)	(38,099,016)
Rate Base	7,619,803	5,714,852	3,809,902	1,904,951	-
Annual Depreciation - Capital Investment	1,904,951	1,904,951	1,904,951	1,904,951	1,904,951
Pretax Return @ 9.35%	801,508	623,395	445,282	267,169	89,056
O&M	236,000	236,000	236,000	236,000	236,000
Estimated Property Tax	400,000	400,000	400,000	400,000	400,000
Net Impact of 30% ITC Amortization	(733,255)	(733,255)	(733,255)	(733,255)	(733,255)
Utility Receipts Tax & IURC Fees	39,999	37,269	34,538	31,808	29,077
Annual Revenue Requirement	2,649,203	2,468,360	2,287,516	2,106,673	1,925,829
Assumed Production	24,581	24,458	24,335	24,214	24,093
\$/MWh	\$ 107.78	\$ 100.92	\$ 94.00	\$ 87.00	\$ 79.93
¢/kWh	10.8¢	10.1¢	9.4¢	8.7¢	8.0¢

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

ORIGINAL SHEET NO. XX

SOLAR POWER RIDER (SPR)

In addition to the rates and charges set forth in the above mentioned rates, a Solar Power Rider (SPR), applicable until superseded by a subsequent factor, shall be applied in accordance with the following provisions:

The SPR adjustment per kilowatt-hour (kWh) shall be calculated by multiplying the kWh billed by an adjustment factor established according to the following formula:

$$\text{SPR} = \frac{\text{RR}}{\text{S}} \quad (\text{For each rate class})$$

where:

RR is the revenue requirement calculated as follows:

- (a) The revenue requirement for SPR investment; plus
- (b) Depreciation expense on in-service SPR property; plus
- (c) Operation & maintenance expenses on SPR property; plus
- (d) ITC Amortization Credit; plus
- (e) Associated Taxes including Property Tax; plus
- (f) Green Power Rider Credit

S is the estimate of kWh sales for the same estimated period set forth in RR.

The adjustment factor to be effective for all bills for electric service rendered will be:

Tariff Class	¢/kWh
RS, RS-TOD, RS-TOD2 and RS-OPES	0.0000
GS, GS-TOD and GS-TOD2	0.0000
LGS and LGS-TOD	0.0000
IP and CS-IRP2	0.0000
MS	0.0000
WSS	0.0000
IS	0.0000
EHG	0.0000
OL	0.0000
SLS, ECLS, SLC, SLCM AND FW-SL	0.0000

**ISSUED BY
PAUL CHODAK III
PRESIDENT
FORT WAYNE, INDIANA**

**COMMENCING WITH THE FIRST BILLING CYCLE
OF THE MONTH OF _____**

**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**

ORIGINAL SHEET NO. XX

GREEN POWER RIDER (GPR)

Availability of Service.

Available on a voluntary basis to customers who are in good standing and desire to purchase renewable energy credits from the Company's owned solar resources. Participation under this Rider shall be limited by the availability of Solar Renewable Energy Certificates (SRECs). If the annual total of all kWh under this Rider equals or exceeds 90% of the Company's Indiana retail jurisdictional share of projected SRECs to be produced by the CESPP, the Company shall suspend the availability of this Rider to new participants.

Conditions of Service.

Customers who wish to additionally support the development of electricity generated by I&M's solar resources may voluntarily subscribe to purchase each month a specific number of fixed SREC blocks in increments of 50 kWh per block. The Company will retire the SRECs associated with the energy purchased by participating customers on an annual basis upon receipt of payment from the customer. The proceeds of this rider will be used toward offsetting the cost of the Solar Power Rider (SPR) for all customers.

Monthly Rate.

In addition to the monthly charges determined according to the Company's rate schedule under which the customer takes service, the customer shall participate in the Green Power Rider by subscribing to a specific number of fixed blocks at a rate of:

\$X.XX for each 50 kWh block subscribed.

The Company will update the fixed block rate on an annual basis, based on the most appropriate vintage of Pennsylvania Solar REC, as published by SNLEnergy in its Power Daily Newsletter RECs Index. If the SREC product index is no longer available or the state of Indiana adopts a Renewable Portfolio Standard that includes solar, the Company will select a replacement SREC product as the basis for establishing the monthly rate.

Terms of Service.

This is a voluntary program. Customers eligible for this Rider may participate by applying to the Company for service under this Rider. Once approved for service under this Rider, service will begin within a minimum of fifteen (15) days of the customer's regular scheduled meter reading date. Customers may terminate service under this Rider by notifying the Company with at least thirty (30) days notice prior to the customer's regular scheduled meter reading date.

**ISSUED BY
PAUL CHODAK III
PRESIDENT
FORT WAYNE, INDIANA**

**EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON AND AFTER XXXX**

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

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

ORIGINAL SHEET NO. XX

GREEN POWER RIDER (GPR)
(Cont'd on Sheet No. XX.1)

(Cont'd from Sheet No. XX)

Special Terms and Conditions.

Customer specific information, including, but not limited to the specific number of fixed SREC blocks purchased under this Rider, shall remain confidential.

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

Service under this Rider provides for the generation of renewable solar energy by the Company, but not for actual physical delivery to customers receiving service under this Rider.

**ISSUED BY
PAUL CHODAK III
PRESIDENT
FORT WAYNE, INDIANA**

**EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON AND AFTER XXXX**

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