

## Renewable Energy Annual Report

Electric Provider:

Reporting Period (Calendar year):

- Section 51(1) of 2008 PA 295 requires the filing of this document with the Michigan Public Service Commission.
- Many of the requested figures are available from MIRECS reports; names of which are noted within this template. If your figures agree with those within MIRECS, you may submit the MIRECS report as an attachment to this annual report. If your figures differ from those within MIRECS, please explain any discrepancies. Staff from the MPSC and MIRECS Administrator, NYSE Blue, Inc., are available to help reconcile.

### **Section 51(1).**

Within this section, list and describe actions taken by the electric provider to comply with the renewable energy standards.

a. Filings to the Commission (case numbers)

Fowler Ridge Wind Phase I PPA, Cause U-15361  
Fowler Ridge Wind Phase II PPA, Cause U-15808  
Wildcat Wind PPA, Cause U-16584 ex-parte

b. Summary of actions taken during reporting period

2011 REP Plan, Cause U-16584, approved by MPSC  
Wildcat Wind PPA approved by MPSC in Cause U-16584 ex-parte  
Began transfer of vintage RECs from PJM GATS to MIRECs for 2012 compliance

**Section 51(2)(a).**

Within this section, list the type of and number of energy credits (either renewable energy credits or incentive renewable energy credits) obtained and the MWh of electricity generated or otherwise acquired during the reporting period. Distinguish between different vintage (years) obtained.

<b>Credits From</b>	<b>Renewable Energy Credits</b>	<b>Incentive Credits</b>	<b>MWh Electricity Generated/Acquired</b>
<b>Existing, Co. Owned, pre PA 295</b>	15,533	0	15,533
<b>Built, Co. Owned (post PA 295)</b>	NA	NA	NA
<b>Contracted (credits only)</b>	NA	NA	NA
<b>Contracted (energy and credits)</b>	57,624	0	57,624
<b>Total Credits acquired</b>	73,157	0	73,157

This data may be found in MIRECS reports titled: My Generation Report and My Credit Transfers.

Explain any differences between total credits acquired and the sum of the first four rows above.

The above totals differ from the amount transferred to MIRECS due to the use of a preliminary allocation factor. The amounts will be trued up in MIRECS to reflect the actual 2011 I&M Michigan allocation factor.

Within this section, list the type of and number of energy credits (either renewable energy credits or incentive renewable energy credits) sold, traded or otherwise transferred during the reporting period.

<b>Credit no longer owned</b>	<b>Renewable Energy Credits</b>	<b>Incentive Credits</b>	<b>List sub-account name (indicate compliance year)</b>
<b>Sold, traded or otherwise transferred</b>	0	0	NA
<b>Expired (not in compliance sub-account)</b>	0	0	NA
<b>Moved to compliance sub-account<sup>1</sup></b>	52,062	0	2012 I&M Michigan Compliance

<sup>1</sup>Report separate compliance sub-accounts on different rows.

This data may be found in MIRECS reports titled: My Sub-Accounts (filtered by Michigan eligibility and its end date) and My Credit Transfers.

Within this section, report the total inventory of energy credits at the end of the reporting period. Inventory shall be reported by vintage year and not include credits within the current reporting year compliance sub-account.

<b>Renewable Energy Credits</b>	<b>Incentive Credits</b>	<b>Advanced Cleaner Energy Credits</b>
<b>2010 = 75,348*</b>	0	0
<b>2011 = 69,878*</b>		

This data may be found in the MIRECS report titled: My Credit Breakdown.

**\*These amounts will be trued up in MIRECS to the actual I&M Michigan allocation factor.**

**Section 51(2)(b).**

Within this section, list the number of advanced cleaner energy credits obtained and the MWh of advanced cleaner energy generated or otherwise acquired during this reporting period.

<b>Credits From</b>	<b>Advanced Cleaner Energy Credits</b>	<b>MWh Electricity Generated/Acquired</b>
<b>Existing, Co. Owned, pre PA 295</b>	0	0
<b>Built, Co. Owned (post PA 295)</b>	0	0
<b>Contracted (credits only)</b>	0	0
<b>Contracted (energy and credits)</b>	0	0
<b>Total Credits acquired</b>	0	0

This data may be found in MIRECS reports titled: My Generation Report and My Credit Transfers.

Did the percentage limits in Section 27(7) affect development of advanced cleaner energy by the electric provider? How so?

No
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**Section 51(2)(c).**

Within this section, list each renewable energy system (RES) and advanced cleaner energy system (ACES) owned, operated or controlled by the electric provider. List the capacity of each system, the amount of electricity generated by each system and the percentage of electricity which was generated from renewable energy (RE) or advanced cleaner energy (ACE).

System Name <sup>1</sup>	System Type (RES or ACES)	Nameplate Capacity (MW)	Electricity Generated (MWh)*	% of Electricity generated by RE/ACE
Berrien Springs – Berrien Springs 1A	RES	7.2	5,379	100
Buchanan – Buchanan 1	RES	4.1	2,183	100
Constantine – Constantine 1	RES	1.85	892	100
Elkhart – Elkhart - 1	RES	5.19	2,102	100
Mottville – Mottville 1	RES	1.68	901	100
Twin Branch – Twin Branch 1	RES	4.8	4,076	100

<sup>1</sup>System name should agree with the project name listed within MIRECS.

This data may be found in the Project Management module within MIRECS.

**\*I&M Michigan allocated generation amount. These amounts will be trued up in MIRECS to the actual I&M Michigan allocation factor.**

Within this section, list the renewable energy system (RES) and advanced cleaner energy systems (ACES) the electric provider is purchasing energy credits from. These include purchase power agreements. However, unbundled (credit only) purchases do not need to be listed here. Projects (generators) serving multijurisdictional electric providers should be listed here.

System Name	System Type (RES or ACES)	Electricity Purchased (MWh)*	Energy Credits Purchased <sup>1</sup>	Allocation Factor and Method
Fowler Ridge – Fowler Ridge 1B	RES	37,032		14.77%-System Load
Fowler Ridge Phase 2 – AEP	RES	20,592		14.77%-System Load

<b>Fowler Ridge 2-2</b>				

<sup>1</sup>Distinguish between different types of credits.

Allocation Factor and Method: For use if 100% of system output is not purchased. For instance, a system selling to multiple parties: list how the energy and credits are allocated – if by percentage, list the percentage as well.

Allocation Factor and Method: If used by multijurisdictional electric providers please include which percentage of energy and credits are to be distributed to Michigan (list allocation method as well, for example: system load).

**\*I&M Michigan allocated generation amount. These amounts will be trued up in MIRECS to the actual I&M Michigan allocation factor.**

**Section 51(2)(d).**

Within this section, list whether, during the reporting period, the electric provider entered into a contract for, began construction on, continued construction of, acquired, or placed into operation a renewable energy (RE) system or advanced cleaner energy (ACE) system.

System Name <sup>1</sup>	Resource (technology, RE/ACE)		Nameplate Capacity (MW)	Construction start date or acquisition date	Commercial operation date	Owned by electric provider?
Wildcat Wind	RE		100	8/25/2011 (MPSC approval date)	10/1/2012	No

<sup>1</sup>System name should agree with the project name listed within MIRECS.

Dates may be forecast.

**Section 51(2)(e).**

Within this section, list the total expenditures incurred during the reporting period to comply with the renewable energy standards. Also, electric providers with an approved or planned renewable energy surcharge (as per Section 45), list the incremental cost of compliance (ICC) incurred during the reporting period.

<b>Total Transfer Cost</b>	<b>Total ICC for the Reporting Period</b>
<b>0</b>	<b>0</b>

Transfer Cost: The component of renewable energy and capacity revenue recovered from PSCR clause.

<b>Capital Expenditures for the Reporting Period</b>
\$0

Capital Expenditure: An investment in a renewable energy capital asset.

List the forecasted total expenditures for the remaining plan period. Also, electric providers with an approved or planned renewable energy surcharge (as per Section 45), list the forecasted incremental cost of compliance (ICC) for the remaining plan period.

<b>Forecast Expenditures for the remaining plan period</b>	<b>Forecast ICC for the remaining plan period</b>
0*	0*

<b>Forecast Capital Expenditures for the remaining plan period</b>
\$0*

**\*Reporting Period ended December 31, 2011, no forecast applicable with plan period expired.**

**Section 51(2)(f).**

Within this section, list the method and the retail sales in MWh for the reporting period.

List the Method: either average of 2009-2011 retail sales or the 2011 weather normalized retail sales.

2011 weather normalized retail sales
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The method chosen should be consistent with the method approved in the initial plan case from 2009. All sales are retail (net of wholesale).

(A) List the sales in MWh based on the method selected above. Please show the calculation of this figure (including listing the sales of each year if the three year average method is used).

2,839,271
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(B) List the energy credits available to use for compliance. This number may differ from the inventory figure given in **Section 51(2)(a)** above. Take into account green pricing program credits and energy optimization or advanced cleaner energy credit substitutions and limits on use. List the green pricing program, energy optimization and advanced cleaner energy credits separately only if used for RPS compliance.

73,157
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Calculate the estimated renewable energy compliance calculation. Figure above divided by sales in MWh above (B divided by A).

2.6%
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(C) As in (B) above, list the energy credits available to use for compliance. Take into account green pricing program credits and energy optimization or advanced cleaner energy credit substitutions and limits on use. List the green pricing program, energy optimization and advanced cleaner energy credits separately only if used for RPS compliance.

List credits from energy generated during the reporting period (C)
0

Calculate the estimated renewable energy compliance calculation. Figure above (C) divided by sales in MWh above (A).

Compliance based on current year (C divided by A)
NA

*The information below will be requested only during compliance years (beginning with reporting period 2012):*

(D) List the energy credits used for compliance in this reporting year. This number should agree with the compliance percentage calculated in the reporting year compliance subaccount in MIRECS. Take into account any energy optimization or advanced cleaner energy credit substitutions and limits on use.

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Calculate the estimated renewable energy compliance calculation. Figure above divided by sales in MWh above (D divided by A).

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Does the “energy credits used for compliance in this reporting year” figure above include any credits representing energy generated within 120 days after the start of the next calendar year? Yes/No.

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If yes, how many credits from the next calendar year are included?

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<b>I&amp;M Michigan Allocated Purchase Power Expense</b>			
<b>Resource Name</b>	<b>Contract Expense</b>		
Fowler Ridge 1&2	\$3,667,453		
<b>I&amp;M Michigan Allocated Hydro Plant O&amp;M Expense</b>			
<b>Resource Name</b>	<b>Operation</b>	<b>Maintenance</b>	<b>Total</b>
Berrien Springs	\$55,513	\$36,109	\$91,622
Buchanan	\$36,208	\$132,747	\$168,955
Constantine	\$13,551	\$19,969	\$33,520
Elkhart	\$32,635	\$36,959	\$69,594
Mottville	\$19,338	\$33,436	\$52,774
Twin Branch	\$40,933	\$25,329	\$66,261
<b>Total 2011 Expenditure, Purchase &amp; Hydro Allocated</b>			<b>\$4,150,179</b>

DIRECT TESTIMONY OF JOHN F. TORPEY  
ON BEHALF OF  
INDIANA MICHIGAN POWER COMPANY  
CASE NO. U-16658

1 **Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?**

2 A. My name is John F. Torpey, and my business address is 1 Riverside Plaza,  
3 Columbus, Ohio 43215.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the American Electric Power Service Corporation (AEPSC) as  
6 Director-Integrated Resource Planning. AEPSC supplies engineering, financing,  
7 accounting and similar planning and advisory services to the eleven electric  
8 operating companies of the American Electric Power System (collectively, AEP),  
9 including Indiana Michigan Power Company (I&M or Company).

10 **Q. WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND**  
11 **PROFESSIONAL BACKGROUND?**

12 A. I received a Bachelor of Engineering from The Cooper Union for the  
13 Advancement of Science and Art (New York) in 1979, and a Master of Business  
14 Administration from Saint John's University (New York) in 1984. In addition, in  
15 1995 I completed the American Electric Power System Management  
16 Development Program at The Ohio State University and in 2000 I completed The  
17 Darden Partnership Program at the Darden Graduate School of Business  
18 Administration, University of Virginia.

19 I was employed by AEPSC in 1979 as a Design Engineer in the Structural  
20 Design Department. In 1985 I became the Project Controls Engineer for the

1 Zimmer Conversion Project and then for the Gavin FGD Retrofit Project. In 1994  
2 I was named Manager of the Controls Services Department with responsibility for  
3 capital and expense budgeting for the generation plants and maintenance outage  
4 planning. I held various managerial positions in the Generation organization  
5 related to planning, budgeting and cost control and in 2004 was named Director  
6 of Corporate Budgeting in the Corporate Planning and Budgeting Department. I  
7 assumed my current position in April 2007.

8 I am a Professional Engineer registered in the State of Ohio and a  
9 Certified Management Accountant.

10 **Q. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR-INTEGRATED**  
11 **RESOURCE PLANNING?**

12 A. I am responsible for the supervision and administration of long-term generation  
13 resource planning. In such capacity, I coordinate the use of short-term and long-  
14 term generation production costing and other resource planning models used in  
15 the ultimate development of operating and capital budget forecasts for I&M and  
16 its parent, AEP, and review the preparation of forecasted information for use in  
17 regulatory proceedings.

18 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE REGULATORY**  
19 **COMMISSIONS?**

20 A. Yes. I provided testimony on behalf of I&M for the Michigan Public Service  
21 Commission in Case Nos. U-15808, U-16308, U-16309, U-16584 and U-17026. I  
22 provided testimony before the Public Service Commission of West Virginia in  
23 Case No. 10-1914 E-CP. I also testified before the Indiana Utility Regulatory

1 Commission in Cause Nos. 43306, 44075 and 44182 and the Virginia State  
2 Corporation Commission in Case No. PUE-2009-00097.

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

4 A. My testimony supports I&M's annual renewable energy report which provides  
5 information relating to the actions taken by I&M to comply with the renewable  
6 energy standards as set forth in the "Clean, Renewable, and Efficient Energy  
7 Act" 2008 PA 295 (the Act). In addition, I provide I&M's net cost to meet the  
8 renewable energy standards in 2011 and provide I&M's plans to meet the  
9 renewable standards going forward.

10 **Q. ARE YOU SPONSORING ANY EXHIBITS IN THIS PROCEEDING?**

11 A. Yes, I am jointly sponsoring Exhibit I&M-1 with Company witness Walter. Exhibit  
12 I&M-1 is an annual report setting forth the information required by MCL §  
13 460.1051. I am also sponsoring Exhibit I&M-3 (JFT-1) which shows the 2011 net  
14 cost of complying with the renewable energy standard.

15 **Q. HOW HAS I&M MET THE RENEWABLE ENERGY STANDARDS?**

16 A. As shown in Exhibit I&M-1, I&M's annual Renewable Energy Plan report, I&M  
17 has complied with the renewable energy standards. The annual REP report  
18 shows that, during 2011, I&M purchased wind resources and utilized its existing  
19 hydro power resources, as planned and presented in Case No U-15808. In  
20 addition, Exhibit I&M-1 details the Renewable Energy Credits (RECs) that I&M is  
21 claiming from both wind purchased power agreements (PPAs) and existing hydro  
22 generation resources for energy generated and allocated to I&M's Michigan  
23 jurisdiction during 2011.

1 **Q. HOW DOES I&M PLAN TO MEET THE RENEWABLE ENERGY STANDARDS**  
2 **GOING FORWARD?**

3 A. I&M plans to continue to comply with the renewable energy standards of Act 295  
4 through its existing hydro generation and PPAs for wind generation.

5 **Q. HAS I&M CALCULATED THE INCREMENTAL COST OF COMPLIANCE WITH**  
6 **THE RENEWABLE STANDARDS FOR 2011?**

7 A. Yes. I&M evaluated its net cost both with and without the wind PPAs. The  
8 difference in these evaluations represents the incremental costs associated with  
9 complying with the standard and is shown in Exhibit I&M-3 (JFT-1). I&M plans to  
10 continue to recover the costs of power supply provided by its portfolio wind  
11 generation sources in the Power Supply Cost Recovery (PSCR) clause.  
12 Recovery of the power supply costs of the wind generation through the PSCR  
13 clause eliminates the need for a surcharge approved by the Commission under  
14 Act 295.

15 **Q. HOW IS I&M RECOVERING THE COSTS RELATED TO HYDRO POWER**  
16 **GENERATION?**

17 A. Costs associated with I&M's run-of-river hydros are not included in this  
18 proceeding or the PSCR clause as there are no fuel costs associated with these  
19 generating units. The non-fuel operating and maintenance costs for I&M's run-  
20 of-river hydros are included in the Company's base costs of generation.

21 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

22 A. Yes.

**I&M - Total Company & Michigan Jurisdictional  
Relative Change in Annual Revenue Requirement Due to Fowler Ridge I & II PPAs  
2011  
(Thousands of Dollars)**

A	B	C	D	E	F	G	H
Year	PPA Cost (\$000)	Pool Energy Settlements (\$000)	PJM Revenues (\$000)	Capacity Settlement (\$000)	Net Revenue Requirement Change (\$000)	Net Revenue Requirement Change <sup>(1)</sup> (¢/kWh)	Michigan Jurisdictional Net Cost <sup>(2)</sup> (\$000)
2011	24,830.4	(7,335.6)	(2,308.5)	(8,623.8)	6,562.6	0.0253	969.1

(1) Based on total I&M annual internal load.

(2) Based on a 14.77% I&M Retail allocation factor.