

Received On: February 28, 2013  
IURC 30-DAY Filing No.: 3142  
Indiana Utility Regulatory Commission

Indiana Michigan Power  
P.O. Box 60  
Fort Wayne, IN 46801  
IndianaMichiganPower.com



*A unit of American Electric Power*

Secretary of the Commission  
Indiana Utility Regulatory Commission  
PNC Center  
101 West Washington Street, Suite 1500 East  
Indianapolis, Indiana 46204

March 1, 2013

Dear Secretary:

Pursuant to 170 IAC 1-6, I&M submits this thirty-day filing requesting approval of amendments to I&M's Tariff COGEN/SPP (Cogeneration and/or Small Power Production Service) which is being submitted pursuant to 170 Ind. Admin. Code 4-4.1-10.

Enclosed for the Commission's review and approval, please find the following documents:

1. Original and three copies of Indiana Michigan Power Company's proposed updates to Tariff COGEN/SPP (Cogeneration and/or Small Power Production Service) in clean and redline format.
2. Supporting workpapers, and
3. Verified Statement of Publication.

I&M would also like to request that a long standing typo on sheet 27.1 be corrected and has reflected this correction in redline and clean format. In particular, I&M has corrected the spelling of the word "time".

If you have any questions regarding I&M's request please contact me at (260) 408-3503 or [wwhix@aep.com](mailto:wwhix@aep.com).

Sincerely,

A handwritten signature in blue ink that reads 'William W. Hix'.

William W. Hix  
Principal Regulatory Consultant

Enclosures

cc: Brad Borum-IURC  
David Stippler-OUCC

STATE OF INDIANA  
INDIANA UTILITY REGULATORY COMMISSION

VERIFIED STATEMENT OF PUBLICATION

William W. Hix, being duly sworn upon oath, deposes and says that:

1. I am a Principal Regulatory Consultant for Indiana Michigan Power Company (I&M).

2. Pursuant to 170 IAC 1-6-5(a), I affirm that affected customers have been notified of I&M's thirty-day filing of updated Tariff COGEN/SPP as required under 170 IAC 1-6-6.

3. Notification of the thirty-day filing of updated Tariff COGEN/SPP was made by publication of a Legal Notice in a newspaper of general circulation that has a circulation encompassing the highest number of I&M's customers, and posting the notice on I&M's website.

4. A true and correct copy of I&M's Legal Notice is attached hereto as Exhibit "A".

Date: 3-1-2013



William W. Hix  
Principal Regulatory Consultant  
Indiana Michigan Power Company

STATE OF INDIANA            )  
                                          ) ss:  
COUNTY OF ALLEN         )

Subscribed and sworn to before me, a Notary Public, in and for said County and State this 1st day of March 2013.



Regina M. Sistevaris, Notary Public

I am a resident of Allen County, Indiana.  
My commission expires: March 6, 2015

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Friday - March 1, 2013



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LEGAL NOTICE  
STATE OF INDIANA  
INDIANA UTILITY REGULATORY  
COMMISSION

Indiana Michigan Power Company, an Indiana corporation, gives notice that on or about February 28, 2013, it will submit for approval under the Indiana Utility Regulatory Commission's thirty-day filing process an updated Tariff COGEN/SPP and a standard form contract for purchase of energy and capacity at rates derived from the application of regulations. The referenced filing will consist of Indiana Michigan Power Company's proposed 2013 Tariff COGEN/SPP (Cogeneration and/or Small Power Production Service) and standard contract forms. Customers potentially affected by this filing include alternate energy production facilities, cogeneration facilities, or small hydrofacilities located in the Indiana Michigan Power Company service territory. Those customers may be affected by changes in metering charges related to special metering facilities, and by monthly credits or payments for energy and capacity deliveries. A decision on the 2013 Tariff COGEN/SPP filing is expected from the Indiana Utility Regulatory Commission on or before June 1, 2013. Please direct inquiries to:

Indiana Michigan Power Company  
Attn: Director of Regulatory Services  
P.O. Box 60  
Fort Wayne, IN 46801

Objections to this filing can be made to the following:

Indiana Utility Regulatory Commission  
Attn: Commission Secretary  
PNC Center  
101 West Washington Street  
Suite 1500 East  
Indianapolis, Indiana 46204  
Indiana Office of Utility Consumer Counselor  
PNC Center

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Indiana Utility Regulatory Commission  
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Suite 1500 South  
Indianapolis, Indiana 46204  
3--1 1045463

Ad Id: 5762080 (0001045463-01) originally listed in Fort Wayne Newspapers on 03/01/2013

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Dow	14054.49	-20.88
Nasdaq	3160.19	-2.07
S&P 500	1514.68	-1.31
AEP	46.79	0.00
Comcast	39.79	0.00
GE	23.22	0.00
ITT Exelis	10.32	0.00
LNC	29.54	0.00
Navistar	24.83	0.00
Raytheon	54.57	0.00
SDI	15.27	0.00
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**TARIFF COGEN/SPP  
(Cogeneration and/or Small Power Production Service)  
(Cont'd from Sheet No. 27)**

Monthly Charges for Delivery From the Company to the Customer.

(1) Supplemental Service

Available to the customer to supplement its COGEN/SPP source of power supply which will enable either or both sources of supply to be utilized for all or any part of the customer's total requirements.

Charges for energy, and demand where applicable, to serve the customer's net or total load shall be determined according to the rate schedule appropriate for the customer. Option 1 and Option 2 customers with COGEN/SPP facilities having a total design capacity of more than 10 kW shall be served under demand-metered rate schedules.

(2) Back-up and Maintenance Service

Option 1 and Option 2 customers with COGEN/SPP facilities having a total design capacity of more than 10 kW shall be required to purchase backup service to replace energy from COGEN/SPP facilities during maintenance and unscheduled outages of its COGEN/SPP facilities. Contracts for such service shall be executed on a special contract form for a minimum term of one year.

Option 3 customers purchasing their total energy requirements from the Company will not be considered as taking backup service. Customers having cogeneration and/or small power production facilities that operate intermittently during all months (i.e. wind or solar) such that the customer's monthly billing demands under the demand-metered rate schedule will be based upon the customer's maximum monthly demand which will occur at a time when the cogeneration and/or small power production facility is not in operation will also not be considered as taking backup service.

The backup capacity in kilowatts shall be initially established by mutual agreement for electrical capacity sufficient to meet the maximum backup requirements which the Company is expected to supply. Whenever the backup capacity so established is exceeded by the creation of a greater actual maximum demand, excluding firm load regularly supplied by the Company, then such greater demand becomes the new backup capacity.

A monthly service charge of \$1.359 per kilowatt of backup capacity shall be paid by customers served under demand-metered rate schedules. Whenever backup and maintenance capacity is used and the customer notifies the Company in writing prior to the meter reading date, the backup contract capacity shall be subtracted from the total metered demand during the period specified by the customer for billing demand purposes. After 1,900 hours of use during the contract year, the total metered demand shall be used as the billing demand each month until a new contract year is established. In lieu of the above monthly charge, customers may instead elect to have the monthly billing demand under the demand-metered rate schedules determined each month as the highest of the monthly billing demand for the current and previous two billing periods.

(Cont'd on Sheet No. 27.2)

**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  
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**TARIFF COGEN/SPP  
(Cogeneration and/or Small Power Production Service)**

(Cont'd from Sheet No. 27.1)

Additional Charges.

There shall be additional charges to cover the cost of special metering, safety equipment, and other local facilities installed by the Company due to COGEN/SPP facilities, as follows:

(1) Metering Charges

The additional charge for special metering facilities shall be as follows:

(a) Option 1

Where the customer does not sell electricity to the Company, a detent shall be used on the energy meter to prevent reverse rotation. The cost of such meter alteration shall be paid by the customer as part of the Local Facilities Charge.

(b) Options 2 & 3

Where energy meters are required to measure the excess energy and average on-peak capacity purchased by the Company or the total energy and average on-peak capacity produced by the customer's COGEN/SPP facilities, the cost of the additional metering facilities shall be paid by the customer as part of the Local Facilities Charge. In addition, a monthly metering charge shall be as follows to cover the cost of operation and maintenance of such additional facilities:

	<u>Single Phase</u>	<u>Polyphase</u>
Standard Measurement	\$0.85	\$1.10
TOD Measurement	\$0.90	\$1.10

-R

Under Option 3, when metering voltage for COGEN/SPP facilities is the same as the Company's delivery voltage, the customer shall, at his option, either route the COGEN/SPP totalized output leads through the metering point or make available at the metering point for the use of the Company and as specified by the Company metering current leads which will enable the Company to measure adequately the total electrical energy and average on-peak capacity produced by the qualifying COGEN/SPP facilities, as well as to measure the electrical energy consumption and capacity

(Cont'd on Sheet No. 27.3)

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(Cont'd from Sheet No. 27.2)

requirements of the customer's total load. When metering voltage for COGEN/SPP facilities is different from the Company's delivery voltage, metering requirements and charges shall be determined specifically for each case.

(2) Local Facilities Charge

Additional charges to cover the cost of special metering facilities, safety equipment, and other local facilities installed by the Company shall be determined by the Company for each case and collected from the customer. The customer shall make a one-time payment for such charges upon completion of the required additional facilities or, at the customer's option, 12 consecutive equal monthly payments reflecting an annual interest charge equal to the maximum rate permitted by law not to exceed the prime rate in effect at the first billing for such installments.

Monthly Credits or Payments for Energy and Capacity Deliveries.

(1) Energy Credit

The following credits or payments from the Company to the customer shall apply for the electrical energy delivered to the Company:

Standard Meter			
All kWh	2.28¢		R
TOD Meter			
On-peak kWh	2.34¢		R
Off-peak kWh	2.23¢		R

(2) Capacity Credit

If the customer contracts to deliver a specified average capacity during the on-peak monthly billing period (on-peak contract capacity), then the first-year monthly capacity credit or payment from the Company to the customer shall be \$8.56/kW times the lowest of:

- (a) monthly on-peak contract capacity, or
- (b) current month on-peak metered average capacity, i.e., on-peak kWh delivered to the Company divided by 305, or

(Cont'd on Sheet No. 27.4)

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A monthly service charge of ~~\$1.145~~\$1.359 per kilowatt of backup capacity shall be paid by customers served under demand-metered rate schedules. Whenever backup and maintenance capacity is used and the customer notifies the Company in writing prior to the meter reading date, the backup contract capacity shall be subtracted from the total metered demand during the period specified by the customer for billing demand purposes. After 1,900 hours of use during the contract year, the total metered demand shall be used as the billing demand each month until a new contract year is established. In lieu of the above monthly charge, customers may instead elect to have the monthly billing demand under the demand-metered rate schedules determined each month as the highest of the monthly billing demand for the current and previous two billing periods.

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(b) Options 2 & 3

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	<u>Single Phase</u>	<u>Polyphase</u>
Standard Measurement	\$0.85	\$1.10
TOD Measurement	\$0.90	<del>\$1.15</del> <u>\$1.10</u>

-R

Under Option 3, when metering voltage for COGEN/SPP facilities is the same as the Company's delivery voltage, the customer shall, at his option, either route the COGEN/SPP totalized output leads through the metering point or make available at the metering point for the use of the Company and as specified by the Company metering current leads which will enable the Company to measure adequately the total electrical energy and average on-peak capacity produced by the qualifying COGEN/SPP facilities, as well as to measure the electrical energy consumption and capacity

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(2) Local Facilities Charge

Additional charges to cover the cost of special metering facilities, safety equipment, and other local facilities installed by the Company shall be determined by the Company for each case and collected from the customer. The customer shall make a one-time payment for such charges upon completion of the required additional facilities or, at the customer's option, 12 consecutive equal monthly payments reflecting an annual interest charge equal to the maximum rate permitted by law not to exceed the prime rate in effect at the first billing for such installations.

Monthly Credits or Payments for Energy and Capacity Deliveries.

(1) Energy Credit

The following credits or payments from the Company to the customer shall apply for the electrical energy delivered to the Company:

Standard Meter			
All kWh		<del>2.55¢</del> <u>2.28¢</u>	R
TOD Meter			
On-peak kWh		<del>2.74¢</del> <u>2.34¢</u>	R
Off-peak kWh		<del>2.41¢</del> <u>2.23¢</u>	R

(2) Capacity Credit

If the customer contracts to deliver a specified average capacity during the on-peak monthly billing period (on-peak contract capacity), then the first-year monthly capacity credit or payment from the Company to the customer shall be ~~\$8.70~~ \$8.56/kW times the lowest of: | R

- (a) monthly on-peak contract capacity, or
- (b) current month on-peak metered average capacity, i.e., on-peak kWh delivered to the Company divided by 305, or

(Cont'd on Sheet No. 27.4)

**ISSUED BY  
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**III. Calculation of Unadjusted Monthly Avoided Cost of Capacity**

$$C = \left( \frac{1}{12} \right) \times \left[ \frac{\left( D \times V \times \frac{S1}{S2} \times S3 \right) + (S4 \times S5)}{S6} \right]$$

Where:

$$S1 = 1 - \frac{1 + IP}{1 + R}$$

$$S2 = 1 - \left( \frac{1 + IP}{1 + R} \right)^N$$

$$S3 = (1 + IP)^{(T-1)}$$

$$S4 = O \times \left( \frac{1 + IO}{1 + R} \right)$$

$$S5 = (1 + IO)^{(T-1)}$$

$$S6 = 1 - \frac{L}{2}$$

**Calculation for First Year**

T =	1		
S1 =	0.0581	S4 =	15.4385
S2 =	0.8337	S5 =	1.0000
S3 =	1.0000	S6 =	0.9690

$$C = \left( \frac{1}{12} \right) \times \left[ \frac{\left( 1.4523 \times 832 \times \frac{0.0581}{0.8337} \times 1 \right) + (15.4385 \times 1)}{0.9690} \right]$$

C = \$8.56

**Cost Calculations (Support Page 1, Assumptions A & D)**

**I. Fixed Operations & Maintenance Cost per kW (2013 Dollars)**

Fixed Operations & Maintenance Cost		9.72 mills/kWh
Hours per Year	x	8,760 hours
Unit Size	x	171,000 kW
Capacity Factor	x	10.00%
Total Fixed O&M Cost		\$1,456,017 /year
Unit Size	/	171,000 kW
Per Unit Fixed O&M Cost		\$8.51 /kW

**II. Variable Operations & Maintenance Cost per kW (2013 Dollars)**

Variable Operations & Maintenance Cost		9.00 mills/kWh
Hours per Year	x	8,760 hours
Unit Size	x	171,000 kW
Capacity Factor	x	10.00%
Total Variable O&M Cost		\$1,348,164 /year
Unit Size	/	171,000 kW
Per Unit Variable O&M Cost		\$7.88 /kW

**III. Total Operations & Maintenance Cost per kW (2013 Dollars)**

Fixed O&M Cost		\$8.51 /kW
Variable O&M Cost	+	7.88 /kW
Total O&M Cost (Page 1, Assumption D)		<b>\$16.39 /kW</b>

<b>I. <u>Calculation of Annual Carrying Charge Rate (Page 1, Assumption C)</u></b>	<b><u>Variable</u></b>	<b><u>Value</u></b>
Weighted Cost of Capital	R	8.18%
Property Tax Rate:		
Account 4081005 - State of Indiana, 12/12		16,778,641
Electric Plant in Service - State of Indiana, 12/12	/	3,817,849,575
Property Tax Rate	a	0.44%
Insurance Rate:		
Account 9240000, 12/12		4,407,050
Electric Plant in Service - Total Company, 12/12	/	6,877,598,788
Insurance Rate	p	0.06%
Depreciation Rate	d	1.67%
Composite Tax Rate	ct	39.51%
Book Depreciation	bd	3.33%
Rate on Debt Capital	b	6.00%
Debt Ratio from last filed rate case (IURC Cause No. 43306)	dr	47.47%

$$CCR = R + a + p + d + \left[ \left( \frac{ct}{1-ct} \right) \times (R + d - bd) \times \left( \frac{R - (b \times dr)}{R} \right) \right]$$

CCR = **13.12%**

**I. Energy Payment Calculation \***

	<u>On-Peak</u>	<u>Off-Peak</u>	<u>Non-TOD</u>
<b>A. <u>Potential Loss Savings</u></b>			
Primary Losses			5.60%
Divided by 2	/		2
Loss Adjustment (Potential Loss Savings)			2.80%
<b>B. <u>Time-of-Day Energy Payments</u></b>			
Avoided Energy Costs	2.27	2.17	¢/kWh
Divided by (1 - Loss Savings)	/	0.9720	0.9720
Time-of-Day Energy Payments	2.34	2.23	¢/kWh
<b>C. <u>Non-Time-of-Day Energy Payment</u></b>			
Time-of-Day Energy Payments	2.34	2.23	¢/kWh
Hours per Year	x	3,654	5,106
Weighted Average of Hourly TOD Payments	8,550	11,386	19,936
Hours Per Year			8,760
Non-Time-of-Day Energy Payment			2.28 ¢/kWh

\* On-Peak Period is 7am - 9pm, Monday through Friday  
Off-Peak Period is all other hours

**II. Demand and Energy Loss Calculations \*\***

<u>System</u>	<u>Demand</u>	<u>Energy</u>
Transmission	3.399%	2.794%
Subtransmission	0.478%	0.729%
Primary		
Transformer	0.622%	0.639%
Line	1.586%	1.302%
Compound Loss Factor	6.2%	5.6%

\*\* Assuming COGEN/SPP Service at Primary

<b>I. <u>Annual Carrying Charge Rates</u></b>	<b><u>Variable</u></b>	<b><u>Value</u></b>
Fixed Costs		0.0%
O&M		1.5%
Carrying Costs	<b>CC</b>	<b>1.5%</b>

<b>II. <u>Charges</u></b>		
Contingencies		5%
Stores Expense		18%
Total Charges on Material	<b>MC</b>	<b>23%</b>
Labor		65%
Transportation Expense		31%
Total Charges on Labor	<b>LC</b>	<b>96%</b>

<b>III. <u>Overheads</u></b>		
Company Construction Overheads	<b>OC</b>	19%

**IV. Monthly Charge on Incremental Material**

IM = Incremental Material Cost  
 IL = Incremental Labor Cost (50% of Material) = 0.5 x IM

$$Monthly\ Charge\ on\ IM = (1 + OC) \times [(1 + MC) \times IM + (1 + LC) \times IL] \times \frac{CC}{12}$$

Monthly Charge on IM = **0.33%** of Incremental Material Cost



V. **Monthly Meter Charges**

	<u>Incremental Material (IM)</u>	<u>Monthly Charge</u> 0.33%	<u>Average Charge</u>
<b>Standard Measurement</b>			
<u>Single Phase</u>			
Option 2-1 - Primary - Transformer Rated	391	\$1.29	
Option 2-3 - Secondary - Self-Contained	38	0.13	
Option 3-1 - Primary - Transformer Rated	391	1.29	
Option 3-3 - Secondary - Transformer Rated	391	1.29	
Option 3-5 - Secondary - Self Contained	38	0.13	
<b>Total</b>		\$ 4.13 / 5 =	\$0.83
		<b>Use:</b>	<b>\$0.85</b>
<u>Polyphase</u>			
Option 2-2 - Primary - Transformer Rated	391	\$1.29	
Option 2-4 - Secondary - Self-Contained	230	0.76	
Option 3-2 - Primary - Transformer Rated (or Sec. >200 Amps)	391	1.29	
Option 3-4 - Secondary - Transformer Rated (Below 200 Amps)	391	1.29	
Option 3-6 - Secondary - Self Contained (Below 200 Amps)	230	0.76	
<b>Total</b>		\$ 5.39 / 5 =	\$1.08
		<b>Use:</b>	<b>\$1.10</b>
<b>Time-of-Day Measurement</b>			
<u>Single Phase</u>			
Option 2-5 - Primary - Transformer Rated	400	\$1.32	
Option 2-7 - Secondary - Self-Contained	96	0.32	
Option 3-7 - Primary - Transformer Rated	400	1.32	
Option 3-9 - Secondary - Transformer Rated	400	1.32	
Option 3-11 - Secondary - Self Contained	38	0.13	
<b>Total</b>		\$ 4.41 / 5 =	\$0.88
		<b>Use:</b>	<b>\$0.90</b>
<u>Polyphase</u>			
Option 2-6 - Primary - Transformer Rated	400	\$1.32	
Option 2-8 - Secondary - Self-Contained	239	0.79	
Option 3-8 - Primary - Transformer Rated	400	1.32	
Option 3-10 - Secondary - Transformer Rated	400	1.32	
Option 3-12 - Secondary - Self Contained	239	0.79	
<b>Total</b>		\$ 5.54 / 5 =	\$1.11
		<b>Use:</b>	<b>\$1.10</b>

**I. Diversity Ratio Development \***

Annual Total MGS-Secondary Billing Demand	9,029,951 kW
Divided by 12	12 months
Average Monthly Billing Demand	752,496 kW
Average Monthly Coincident Peak Demand	390,036 kW
Diversity Ratio	<b>1.929</b>

\* Data from Rate Design & Cost-of-Service in IURC Cause No. 44075 (WP-DMR-17)

**II. Back-Up Service Rate Calculation**

Current MGS - Secondary Demand Charge	\$4.695 /kW
Diversity Ratio	1.929
Coincident Peak Demand Cost	\$9.057 /kW
Typical Unavailability Rate	15%
Back-Up Service Rate	<b>\$1.359 /kW</b>

Section 292.302(b)(1)

INDIANA MICHIGAN POWER COMPANY  
ESTIMATED "AVOIDED COSTS" OF ENERGY  
FOR ASSUMED LEVELS OF COGENERATION PURCHASES  
2013 - 2018  
(Cents Per Kilowatt-Hour)

	<u>ASSUMED COGENERATION PURCHASE LEVEL</u>			
	<u>First</u>		<u>Second</u>	
	<u>100-MW</u>	<u>Block</u>	<u>100-MW</u>	<u>Block</u>
	<u>Peak</u>	<u>Off-Peak</u>	<u>Peak</u>	<u>Off-Peak</u>
2013	2.27	2.17	2.30	2.16
2014	4.13	2.98	4.13	2.98
2015	4.22	3.08	4.22	3.08
2016	6.45	4.11	6.45	4.11
2017	6.44	4.29	6.44	4.29
2018	6.50	4.40	6.50	4.40

- Notes:
- A. The peak costing period is 0700 to 2100 local time Monday through Friday. All other hours comprise the off-peak costing period.
  - B. Energy costs are expressed in current-year dollars.
  - C. Avoided costs for 2013 reflect I&M in existing AEP East Pool. Beginning with 2014, avoided costs reflect I&M as standalone.