

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion, )  
to consider the smart metering tariff provisions )  
offered by the electric utilities subject to its ) Case No. U-15183  
jurisdiction in light of the requirements of the )  
Energy Policy Act of 2005. )  
\_\_\_\_\_ )

In the matter, on the Commission's own motion, )  
to direct **EDISON SAULT ELECTRIC COMPANY** )  
to file tariffs offering optional time-based rate ) Case No. U-15184  
schedules to its customers or show cause why it )  
should not be required to do so. )  
\_\_\_\_\_ )

In the matter, on the Commission's own motion, )  
to direct **MIDWEST ENERGY COOPERATIVE** to file )  
tariffs offering optional time-based rate schedules ) Case No. U-15185  
to its customers or show cause why it should not )  
be required to do so. )  
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At the January 30, 2007 meeting of the Michigan Public Service Commission in Lansing,  
Michigan.

PRESENT: Hon. J. Peter Lark, Chairman  
Hon. Laura Chappelle, Commissioner  
Hon. Monica Martinez, Commissioner

**ORDER**

The Energy Policy Act of 2005 (the Act), Public Law 109-58, requires each state regulatory  
authority to decide by February 8, 2007 whether to require certain electric utilities under its

jurisdiction to implement time-based rate schedules. Specifically, Section 1252 of the Act, 16 USC 2621(d)(14)(F), provides:

Notwithstanding subsections (b) and (c) of section 2622, each State regulatory authority shall, not later than 18 months after the date of enactment of this paragraph conduct an investigation in accordance with section 2625(i) and issue a decision whether it is appropriate to implement the standards set out in subparagraphs (A) and (C).

Subparagraphs (A) and (C) referenced in 16 USC 2621(d)(14)(F) concern time-based rate schedules, which are also known as “smart metering” tariff provisions. The Act includes non-exclusive examples of four types of tariffs that qualify, as follows:

(B) The types of time-based rate schedules that may be offered under the schedule referred to in subparagraph (A) include, among others--

(i) time-of-use pricing whereby electricity prices are set for a specific time period on an advance or forward basis, typically not changing more often than twice a year, based on the utility’s cost of generating and/or purchasing such electricity at the wholesale level for the benefit of the consumer. Prices paid for energy consumed during these periods shall be pre-established and known to consumers in advance of such consumption, allowing them to vary their demand and usage in response to such prices and manage their energy costs by shifting usage to a lower cost period or reducing their consumption overall;

(ii) critical peak pricing whereby time-of-use prices are in effect except for certain peak days, when prices may reflect the costs of generating and/or purchasing electricity at the wholesale level and when consumers may receive additional discounts for reducing peak period energy consumption;

(iii) real-time pricing whereby electricity prices are set for a specific time period on an advanced or forward basis, reflecting the utility’s cost of generating and/or purchasing electricity at the wholesale level, and may change as often as hourly; and

(iv) credits for consumers with large loads who enter into pre-established peak load reduction agreements that reduce a utility’s planned capacity obligations.

16 USC 2621(d)(14)(B).

The electric utilities subject to smart metering provisions are those with more than 500,000 megawatt-hours (MWh) of retail sales in a calendar year. 16 USC 2612(a). In 2005, this level was reached by the following Michigan utilities:

Electric Utility	MWh Sales
The Detroit Edison Company (Detroit Edison)	45,137,017
Consumers Energy Company (Consumers)	34,421,732
Indiana Michigan Power Company (I&M)	3,114,415
Wisconsin Electric Power Company (WEPCo)	3,037,536
Upper Peninsula Power Company (UPPCo)	740,817
Edison Sault Electric Company (Edison Sault)	672,500
Great Lakes Energy Cooperative (Great Lakes)	1,255,011
Midwest Energy Cooperative (Midwest)	522,300

The Commission Staff (Staff) has reviewed the time-based rate schedules currently offered by each of these utilities and submitted its report to the Commission. Appended to the Staff's report was a document, which is attached to this order as Exhibit A, that identifies: (1) the title or number of each rate schedule, (2) the class of customers eligible for the rate schedule, (3) the nature of the time-based offering, (4) the hours during which the time-of-use provisions are applicable, and (5) the type of offering based on the four categories listed above from the Act. The following table summarizes these tariff offerings and the categories<sup>1</sup> of the offerings:

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<sup>1</sup>Five tariffs were classified in more than one category. Four of them were interruptible tariffs (Type 4) with additional time-of-use provisions (Type 1). One tariff combined locational marginal pricing (Type 3) with interruptible service (Type 4).

Utility	Total	Type 1 Time-of-Use Pricing	Type 2 Critical Peak	Type 3 Real-Time Pricing	Type 4 Peak Load Reduction	Availability
Detroit Edison	25	11	0	5	9	All Classes
Consumers	14	13	0	0	1	All Classes
I&M	16	10	0	0	6	All Classes
WEPCo	10	7	0	0	5	All Classes
UPPCo	13	6	1	1	8	All Classes
Edison Sault	2	2	0	0	0	Limited
Great Lakes	10	2	1	0	7	All Classes
Midwest	4	0	0	0	4	Limited
Total	94	51	2	6	40	

As this table shows, six of the eight utilities offer a variety of tariffs with time-based rate provisions. These tariffs are available to all classes of customers and offer a diversity of rate provisions. The two exceptions are Edison Sault and Midwest.

Edison Sault has two applicable tariffs – one applies only to resort hotels within the City of Mackinac Island and the other only applies to the sale of energy and capacity to qualifying facilities. Neither one has any provisions that offer service to the general public. Similarly, Midwest has four applicable tariffs, but their use is limited to controlled water heating, interruptible service to dual source space heating and air conditioning, irrigation use, and outdoor protective lighting. None are available for general residential, commercial, or industrial use.

Based on the Staff’s investigation and report, the Commission finds that Detroit Edison, Consumers, I&M, WEPCo, UPPCo, and Great Lakes currently offer time-based rate schedules. The Commission also finds that Edison Sault and Midwest should be directed to file tariffs offering optional time-based rate schedules to their customers or show cause why they should not do so. Finally, the Commission reserves the right to revisit the topic of optional time-based rate schedules in future proceedings as the need for customers to make use of the advantages of smart metering provisions increases and as new developments in this area are achieved.

All documents filed in Case Nos. U-15184 and U-15185 shall be submitted electronically through the Commission's Electronic Case Filings Web site at: <https://efile.mpsc.cis.state.mi.us/cgi-bin/efile/login.pl> . Requirements and instructions for filing electronic documents can be found in the Electronic Case Filings Users Manual at: <http://efile.mpsc.cis.state.mi.us/efile/pdfs/usersmanual.pdf> .

The Commission FINDS that:

- a. Jurisdiction is pursuant to 1909 PA 106, as amended, MCL 460.551 *et seq.*; 1919 PA 419, as amended, MCL 460.51 *et seq.*; 1939 PA 3, as amended, MCL 460.1 *et seq.*; 1969 PA 306, as amended, MCL 24.201 *et seq.*; and the Commission's Rules of Practice and Procedure, as amended, 1999 AC, R 460.17101 *et seq.*
- b. Detroit Edison, Consumers, I&M, WEPCo, UPPCo, and Great Lakes currently offer time-based rate schedules.
- c. Edison Sault and Midwest should be directed to file tariffs offering optional time-based rate schedules to their customers or show cause why they should not do so.

THEREFORE, IT IS ORDERED that:

A Edison Sault Electric Company shall within 30 days file tariffs offering optional time-based rate schedules to their customers or show cause in Case No. U-15184 why it should not be required to do so.

B. Midwest Energy Cooperative shall within 30 days file tariffs offering optional time-based rate schedules to its customers or show cause in Case No. U-15185 why it should not be required to do so.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, pursuant to MCL 462.26.

MICHIGAN PUBLIC SERVICE COMMISSION

/s/ J. Peter Lark

Chairman

( S E A L )

/s/ Laura Chappelle

Commissioner

/s/ Monica Martinez

Commissioner

By its action of January 30, 2007.

/s/ Mary Jo Kunkle

Its Executive Secretary

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MICHIGAN PUBLIC SERVICE COMMISSION

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Chairman

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Commissioner

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Commissioner

By its action of January 30, 2007.

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Its Executive Secretary

Smart Metering Provisions

Michigan Utility Tariffs<sup>1</sup>

**The Detroit Edison Company**

Rate Schedule No. D1-1: Interruptible Space Conditioning Service Rate. Available to residential or commercial customers for central air conditioning or central heat pump use. Provides separate energy charges for June through October and November through May periods. (Type 1)

Rate Schedule No. D1-2: Residential Time-of-Day Service Rate. Available to residential customers whose use is 750 kilowatt-hours (kwh) per month or more. Provides separate rates for on-peak<sup>2</sup> and off-peak hours. (Type 1)

Rate Schedule No. D1-4: Optional Residential Service Rate. Available to customers for full-time farm and/or space heating use for individual single family dwellings or separately metered apartments. Provides separate rates for on-peak and off-peak hours. (Type 1)

Rate Schedule No. D1-7: Space Conditioning, Water Heating, Electric Vehicle Time-of-Day Rate. Available to up to 5,000 customers for space conditioning, water heating, or charging of licensed electric vehicles. Provides separate rates for on-peak (10 a.m. through 7 p.m. Monday through Friday) and off-peak hours. (Type 1)

Rate Schedule No. D2: Residential Space Heating Rate. Available to total electric space heating or electric heat assisted with renewable heat source in a single or double occupancy dwelling unit including farm buildings. Provides separate energy charges for June through October and November through May periods. (Type 1)

Rate Schedule No. D3.3: Interruptible General Service Rate. Available to no more than 100 customers who desire interruptible service in conjunction with service taken under the general service rate. Provides reduced rate subject to interruption by remote control signal. (Type 4)

Rate Schedule No. D3.4: Optional Time-of-Day General Service Rate. Available to customers who use 25,000 kwh per month or more. Provides separate charges for on-peak and off-peak hours. (Type 1)

Rate Schedule No. D5: Water Heating Service Rate. Available to customers using hot water for sanitary purposes, solar assisted hot water heaters, waste heat reclamation

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<sup>1</sup> Information is a summary only. Reference should be made to the actual tariff for specific provisions.

<sup>2</sup> Unless otherwise indicated, on-peak hours are between 11 a.m. and 7 p.m. Monday through Friday, except holidays. All other hours are off-peak.

systems, or heat pump water heaters. Provides three options for controlled service not to exceed four hours per day. (Type 4)

Rate Schedule No. D6: Primary Supply Rate. Available to primary, sub-transmission and transmission customers. Provides separate charges for on-peak and off-peak hours. (Type 1)

Rate Schedule No. D6.1: Alternative Primary Supply Service. Available to primary, sub-transmission and transmission customers with a capacity of 10,000 kilowatts (kw) or more. Provides separate charges for on-peak and off-peak hours. (Type 1)

Rate Schedule No. D8: Interruptible Supply Rate. Available to primary customers with an interruptible load not less than 50 kw. Provides separate charges for on-peak and off-peak hours. (Type 1)

Rate Schedule No. D9: Outdoor Protective Lighting. Available to customers desiring controlled service for outdoor protective lighting. Provides controlled service by photo-sensitive devices. (Type 4)

Rate Schedule No. D10: All-Electric School Building Service Rate. Available to primary school buildings of 50 kw or more where all or a substantial portion of the space heating and water heating is electric. Provides separate energy charges for June through October and November through May periods. (Type 1)

Rate Schedule No. E1: Municipal Street Lighting Rate. Available to governmental agencies for controlled night-time service for street lighting, public thoroughfares, parking lots, and other public areas. Provides controlled service by photo-sensitive devices. (Type 4)

Standard Contract Rider No. 1.1: Alternative Electric Metal Melting. Available to customers operating electric furnaces for metal melting or for the reduction of metallic ores. Provides interruptible service at reduced rate. (Type 4)

Standard Contract Rider No. 1.2: Electric Process Heat. Available to customers using electric heat as an integral part of a manufacturing process or electricity as an integral part of an anodizing, plating, or coating process. Provides interruptible service at a reduced rate. (Type 4)

Standard Contract Rider No. 3: Parallel Operation and Standby Service. Available to customers for standby service. Provides customer with option to pay based on locational marginal price. (Type 3)

Standard Contract Rider No. 5: Cogeneration. Available to customers who utilize cogeneration technology and sell power to utility. Rate for standby power sold to customer is based on utility's incremental energy cost. Also, power purchased by utility

is priced at the forecasted average incremental cost of energy recognizing time-of-day pricing variations based on a weekly forecast. (Type 3)

Standard Contract Rider No. 6: Small Power Producing Facilities. Available to customers who obtain qualifying status from the Federal Energy Regulatory Commission. Rate for standby power sold to customer is based on utility's incremental energy cost. Also, power purchased by utility is priced at the forecasted average incremental cost of energy recognizing time-of-day pricing variations based on a weekly forecast. (Type 3)

Standard Contract Rider No. 8: Commercial Space Heating. Available on an optional basis to customers for commercial space conditioning through separately metered circuits. Provides separate energy charges for June through October and November through May periods. (Type 1)

Standard Contract Rider No. 10: Interruptible Supply Rider. Available to customers on the Primary Supply Rate, Alternate Primary Supply Rate, or Transitional Primary Supply Rate, with not less than 50,000 kw at a single location, limited to a total of 650,000 kw. Rate varies based on hourly power supply cost. (Type 3)

Standard Contract Rider No. 12: Capacity Release. Available to customers willing to release capacity of not less than 250 kw at a single location. Provides payments to customers for load reductions. Payment terms reflect the type of service, including energy only, capacity, seasonal, hourly, daily, or monthly. (Type 4)

Standard Contract Rider No. 13: Dispersed Generation. Available to customers who have on-site generators that they are willing to operate at the request of the utility. Payment terms reflect the type of service, including energy only, capacity, seasonal, hourly, daily, or monthly. (Type 4)<sup>3</sup>

Standard Contract Rider DG: Distributed Generation. Available to customers with on-site distributed Generation. Provides for payments to the customer based upon the utility's top incremental cost of power. (Type 3)

Standard Contract Rider No. 14: Experimental Residential Load Management. Available to residential customers with central air conditioning and/or central heat pumps not served under Rate D1.1. Customers receive a credit for every day that a load management interruption occurs. (Type 4)

## **Consumers Energy Company**

Residential Secondary Service Rate A-1. Available for any residential use for single-family dwellings and other residential units served through a single meter. Provides separate energy charges for June through September and October through May periods. (Type 1)

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<sup>3</sup> For completeness, tariffs that provide time-based payments to customers are included in this summary.

Residential Time-of-Day Secondary Service Rate A-3. Available to residential customers using an average of 1000 kwh or more per month. Provides separate charges for on-peak and off-peak hours. (Type 1)

Residential Alternate Residence Secondary Service Rate A-4. Available and mandatory for any residential customer use at a dwelling which is not a principal, year-round residence. Provides separate energy charges for June through September and October through May periods. (Type 1)

Residential Farm Service and Life Support System Service Secondary Rate A-5. Available to residential customers for farm operations or life support systems. Provides reduced rate for consumption over 20 kwh per day during months of October through May. (Type 1)

General Service Primary Rate D. Available to a primary customer with a billing demand of 25 kw. Provides separate charges for on-peak and off-peak hours. (Type 1)

General Service High Load Factor Primary Rate F. Available to a primary customer with a billing demand of 100 kw or more. Provides separate charges for on-peak and off-peak hours. (Type 1)

General Service Electric Heating Secondary Rate GH. Available to a customer for electric space heating through a separate meter. Provides separate energy charges for June through September and October through May periods. (Type 1)

General Service Interruptible Primary Rate I. Available to a customer desiring interruptible service with a demand of 5,000 kw. Provides reduced rate for interruptible service as well as separate on-peak and off-peak rates. (Type 1 and Type 4)

General Service Electric Furnace Primary Rate J. Available to a customer for operation of electric furnaces for metal melting or the reduction of metallic ores, with a billing demand of 100 kw or more. Provides separate charges for on-peak and off-peak hours. (Type 1)

General Service Alternate Electric Metal Melting Primary Rate J-1. Available to a customer for operation of electric furnaces for metal melting or the reduction of metallic ores, with a billing demand of 100 kw or more. Provides separate energy charges for the first 100 hours use and for use in excess of 100 hours. (Type 1)

Cogeneration and Small Power Production Purchase Rate CG. Available to a qualifying facility generating installation employing cogeneration or small power production technology. Provides separate charges for on-peak and off-peak hours. (Type 1)

General Service Energy-Only Streetlighting Rate L-1. Available to political subdivisions and state agencies for streetlighting service. Provides separate rate for dusk-to-midnight service. (Type 1)

General Service Optional Public Pumping Primary Rate PS-3. Available to political subdivisions and state agencies for potable water pumping or waste water systems. Provides separate charges for on-peak and off-peak hours. (Type 1)

General Service Resale Primary Rate R-3. Available to primary customers for resale purposes with a demand of 25 kw or more. Provides separate charges for on-peak and off-peak hours. (Type 1)

### **Edison Sault Electric Company**

Rate LM Resort Hotel Service. Available to resort hotels within the City of Mackinac Island. Provides separate rates for summer season and balance of year. (Type 1)

Company Sales to Qualifying Cogeneration and Small Power Production Facilities. Available for the sale of energy and capacity to qualifying facilities. Provides separate on-peak rate, with on-peak being defined as 8 a.m. through 8 p.m. weekdays. (Type 1)

### **Great Lakes Energy Cooperative**

Controlled Heating (Schedule CH). Available for space heating loads, storage domestic water heating loads and associated air conditioning loads, which are controlled by the utility. Provides discounted rate for service during limited number of hours based on three options: (1) storage heating only between the hours of 11 p.m. to 7 a.m., (2) dual fuel heating limited controlled for a maximum of 400 hours per heating season and 8 hours per 24 hour period, and (3) air conditioning controlled for a maximum of 200 hours per cooling season. (Type 4)

Partial Controlled Heating Services (Schedule PCH). Available for space heating and associated air conditioning controlled by the utility during times of peak system demand or system emergency. Provides discounted rate for service with control limited to a maximum of 400 hours per heating season, 200 hours per cooling season, and 40 minutes per hour up to 6 hours per day. (Type 4)

Controlled Water Heater Service (Schedule CWH). Available for water heating service controlled by the utility. Provides discounted rate for service based on three options: (1) service controlled for a maximum of 3 hours per day, (2) service controlled for a maximum of 4 hours per day, and (3) service controlled for a maximum of 6 hours per day. (Type 4)

Outdoor Lighting Service (Schedule OL). Available for outdoor protective lighting service and for public street lighting by municipalities and public subdivisions. Service limited to dusk to dawn controlled by photo-sensitive devices. (Type 4)

Service for Commercial and Industrial Loads Automated Power Monitoring C-APM. Available to secondary commercial and industrial customers with a demand of 15 kw or more. Provides discounted rate for service electronically metered with capabilities for monitoring and reporting demand, energy, voltage levels, and power interruptions. (Type 1)

Service for Commercial and Industrial Loads Automated Power Monitoring D-APM. Available to primary commercial and industrial customers with a demand of 200 kw or more. Provides discounted rate for service electronically metered with capabilities for monitoring and reporting demand, energy, voltage levels, and power interruptions. (Type 1)

Interruptible Service for Commercial and Industrial Loads Automated Power Monitoring F-INT-APM. Available to secondary commercial and industrial customers with a demand of 100 kw or more. Provides discounted rate for interruptible service. (Type 4)

Commercial and Industrial Loads – On Site Generation Supplemental and Standby Service GS-APM. Available to commercial and industrial customers with on site generation. Standby power for maintenance purposes not available during months of July, August, November and December. (Type 4)

Primary Service Rate (Schedule PSDS). Available to primary commercial and industrial customers with a demand of 500 kw or more. Provides separate charge for service coincident with the system peak. (Type 2)

Member Consumer-Owned Backup Generation (Schedule CBG). Available to customers who own and operate generators with a capacity of 100 kw or more. Provides a credit for customers who agree to reduce load by operating their own generation. (Type 4)

## **Indiana Michigan Power Company (American Electric Power Company)<sup>4</sup>**

Tariff RS (Residential Electric Service). Provides reduced rate for customers who operate storage water-heating system or load management water-heating system that consumes electricity only (for the storage system) or primarily (for the load management system) during off-peak hours and stores hot water for use during on-peak hours.<sup>5</sup> These provisions are no longer available to new customers, but only to those taking service

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<sup>4</sup> Following discussion does not include tariffs that are still in effect, but that have been closed to new business for more than 10 years.

<sup>5</sup> Unless otherwise indicated, on-peak is from 7 a.m. to 9 p.m. Monday through Friday for Indiana Michigan tariffs.

prior to May 1, 1997 for the storage system or January 1, 2002 for the load management system. For new customers, see Tariff RS-LM-TOD. (Type 4)

Tariff RS-TOD (Residential Time-of-Day Service). Available to residential customers, including those engaged primarily in agriculture. Provides separate charges for on-peak and off-peak hours. (Type 1)

Tariff RS-LM-TOD (Residential Load Management Time-of-Day). Available to residential customers who use energy storage devices with time-differentiated load characteristics. Provides separate charges for on-peak and off-peak hours. Also includes a conservation and load management credit for off-peak use for the combination of an approved electrical thermal storage space-heating system and water heater. (Type 1)

Tariff RS-SC (Optional Residential Senior Citizen). Available to residential customers 65 years of age or older. As a condition of service, the customer must agree to permit the utility to control domestic appliances, such as central air conditioning, water heaters, dishwashers, and electric clothes dryers. Also includes storage water-heating and load management water heating provisions that are the same as Tariff RS. (Type 4)

Tariff SGS (Small General Service). Available to customers with demand less than 10 kw. Includes load management time-of-day provision that provides separate rates for on-peak and off-peak service. (Type 1)

Tariff MGS (Medium General Service). Available to customers with demand 10 kw or greater. Includes load management time-of-day provision that provides separate rates for on-peak and off-peak service. (Type 1)

Tariff MGS-TOD (Medium General Service Time-of-Day). Available to customers with demand greater than 10 kw but less than 100 kw. Provides separate charges for on-peak and off-peak hours. (Type 1)

Tariff LGS (Large General Service). Available to customers with demand greater than 100 kw. Provides separate charges for on-peak and off-peak hours. (Type 1)

Tariff QP (Quantity Power). Available to customers with demand not less than 100 kw. Provides separate charges for on-peak and off-peak hours. (Type 1)

Tariff LP (Large Power). Available to customers with demand not less than 2000 kw. Provides separate charges for on-peak and off-peak hours. Also contains off-peak hour provision to limit the effect of off-peak demand on billing. (Type 1)

Tariff WSS (Water and Sewage Service). Available to waterworks systems and sewage disposal systems. Includes optional time-of-day rate, for customers with demand of 100 kw or more, that provides separate charges for on-peak and off-peak hours. (Type 1)

Tariff OSL (Outdoor Security Lighting). Available for security lighting by community associations, real estate developers, and municipalities. Lights limited to use from one-half hour after sunset to one-half hour before sunrise. (Type 4)

Tariff SLC (Streetlighting – Customer Owned). Available to municipalities, counties, and other government subdivisions that own streetlighting systems. Lights limited to use from one-half hour after sunset to one-half hour before sunrise. (Type 4)

Tariff ECLS (Energy Conservation Lighting Service). Available to municipalities, counties, and other government subdivisions for new or rebuilt streetlighting systems. . Lights limited to use from one-half hour after sunset to one-half hour before sunrise. (Type 4)

Tariff SLCM (Streetlighting – Customer-Owned – Metered). Available to municipalities, counties, and other government subdivisions lighting on streets and highways ((including illuminated signs) and in parks and other public areas. Lights limited to use from sunset to sunrise. (Type 4)

Tariff COGEN/SPP (Cogeneration and/or Small Power Production Service). Available to qualifying facilities for cogeneration of small power production that have a capacity of 100 kw or less. At the option of the customer, separate metering and billing can be done for on-peak and off-peak periods.<sup>6</sup> (Type 1)

## **Midwest Energy Cooperative**

Schedule CWH Controlled Water Heating Service. Available to customers for controlled water heating service. Control of service limited to 5 hours per day, primarily between 3 p.m. and 8 p.m. (Type 4)

Schedule I Interruptible Service. Available to customers for interruptible service to dual source space heating or air conditioning loads. Interruption limited to a maximum of 400 hours per year and 8 hours per day. (Type 4)

Schedule IR Irrigation Service. Available for irrigation use where the connected load is 25 horsepower or greater. Provides a seasonal load management credit for customers who agree to control load for a maximum of 5 hours per day during peak periods. (Type 4)

Schedule OL Outdoor Lighting Service. Available for outdoor protective lighting service. Service available only dusk to dawn, controlled by photo-sensitive devices. (Type 4)

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<sup>6</sup> For this tariff, on-peak is defined as from 7 a.m. to 11 p.m. Monday through Friday.

## **Upper Peninsula Power Company**

Rate AH-1 – Residential Electric Heating Service – Urban and Rural. Available for electric space heating for residential and farm purposes. Provides separate rates for the periods of June through September and October through May. (Type 1)

Rate H-1 – Commercial Electric Heating Service. Available for electric space heating for commercial purposes. Provides separate rates for the periods of June through September and October through May. (Type 1)

Rate WP-1D – Large Light and Power. Available to any distribution customer with a demand over 200 kw. Provides separate charges for on-peak and off-peak hours.<sup>7</sup> (Type 1)

Rate WP-1T – Large Light and Power. Available to any transmission or sub-transmission customer with a demand over 200 kw. Provides separate charges for on-peak and off-peak hours. (Type 1)

Schedule A. Available to any paper mill with at least 15,000 kw of coal-fired steam generation. Provides discount for interruptible service and separate charges for on-peak and off-peak power. (Type 1 and Type 4)

Rate WP-3. Available to any transmission or sub-transmission customer with a demand over 5,000 kw and a minimum of 500 kw of on-site generation. Provides discount for interruptible service and separate charges for on-peak and off-peak power. (Type 1 and Type 4)

Commercial Power – Interruptible Rider “CP-I”. Available to any customer taking service under Schedule A or Rate WP-3. Provides interruptible service for emergency purposes or based on locational marginal price. (Type 3 and Type 4)

Rate “CP-IB” – Capacity Buyback Rider. Available for the sale or purchase of limited term capacity. Provides demand credits for interruptible load. (Type 4)

Rate “CP-RR” – Large Light and Power Response Rewards (Pilot). Available to any distribution customer with a demand over 200 kw. Provides separate charges for on-peak, off-peak, and critical peak hours. (Type 2)

On Line Power Exchange (OPE). Available to customers taking service under Schedule A, Rate WP-3, or special contract with a minimum of 500 kw of interruptible load. Provides compensation to customers for interrupting service during periods of peak use. (Type 4)

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<sup>7</sup> For Upper Peninsula Power, on-peak hours are defined as 7 a.m. to 11 p.m. Monday through Friday, except holidays.

Rate “SL-5” – Street Lighting Service. Available to any municipality owning its street lighting system. Service available only dusk to dawn. (Type 4)

Rate “SL-6” – Street Lighting Service. Available to any municipality with a utility-owned street lighting system. Service available only dusk to dawn. (Type 4)

Rate “Z-3” – Dusk to Dawn Outdoor Security Lighting. Available for outdoor security lighting. Service available only dusk to dawn. (Type 4)

## **Wisconsin Electric Power Company**

Residential Full Requirements Service – Time-of-Use – Rate Rg 2. Available to residential customers for full requirements service. Provides separate charges for on-peak and off-peak service.<sup>8</sup> (Type 1)

General Secondary Full Requirements Service – Time-of-Use – Rate Cg 3. Available to secondary customers for general commercial, industrial or governmental purposes, with consumption of 30,000 kwh or more per month. Provides separate charges for on-peak and off-peak use.<sup>9</sup> (Type 1)

Small Secondary Full Requirements Service – Time-of-Use – Rate Cg 5. Available to secondary customers for general commercial, industrial, governmental, or farm purposes. Provides separate charges for on-peak and off-peak use. (Type 1)

General Primary Full Requirements Service – Time-of-Use – Rate Cp 1. Available to any primary customer. Provides separate charges for on-peak and off-peak use.<sup>10</sup> (Type 1)

General Primary Full Requirements Service – Interruptible – Rate Cp 2. Available to any primary customer. Provides reduced rate for interruptible service and separate charges for on-peak and off-peak use. (Type 1 and Type 4)

General Primary Full Requirements Service – Curtailable – Rate Cp 3. Available to any primary customer. Provides demand credit for service subject to curtailment and separate charges for on-peak and off-peak use. (Type 1 and Type 4)

General Primary Full Requirements Service – Mandatory Standby – Rate Cp 4. Available to a primary customer with generation that normally operates in parallel with the utility’s system. Provides separate charges for on-peak and off-peak use. (Type 1)

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<sup>8</sup> Residential customers have a choice of four on-peak periods: (1) 7 a.m. to 7 p.m., (2) 8 a.m. to 8 p.m., (3) 9 a.m. to 9 p.m., and (4) 10 a.m. to 10 p.m.; all Monday through Friday, excluding holidays.

<sup>9</sup> Secondary on-peak hours are defined as 9 a.m. to 9 p.m. Monday through Friday, excluding holidays.

<sup>10</sup> Primary customers have a choice of two on-peak periods: 8 a.m. to 8 p.m. or 10 a.m. to 10 p.m. Monday through Friday, excluding holidays.

Standard Street Rate Ms 2. Available to municipalities and other governmental units for streetlighting purposes. Service automatically switched on 30 minutes after sunset and switched off 30 minutes before sunrise. (Type 4)

Non Standard Street and Area Lighting, Company-Owned – Rate Ms 2. Available to all customers for non standard lighting purposes. Service automatically switched on 30 minutes after sunset and switched off 30 minutes before sunrise. (Type 4)

Standard Area Lighting Service – Rate GI 1. Available to all customers for standard lighting purposes. Service automatically switched on 30 minutes after sunset and switched off 30 minutes before sunrise. (Type 4)