

## WISCONSIN ELECTRIC POWER COMPANY

Volume 19 – Electric Rates

Revision 0 Sheet 71.1

Amendment No. 680

Effective In All Areas Served In Wisconsin

Rate Schedule Cp 1R2

### GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING

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#### AVAILABILITY

For customers contracting for three-phase, 60 hertz power service at approximately 3,810 volts or higher for periods of one year or more that have been on the CP1 rate schedule for at least 12 months immediately before going on this rate (necessary to establish baseline consumption). Each customer account must have an average monthly on-peak measured demand greater than or equal to 500 kW.

This experimental rate is available to Wisconsin Electric's customers who meet the specified criteria on a signed contract first come, first served basis. The maximum total demand for the pilot (based on average monthly on-peak demand) is 300,000 kW.

This pilot tariff design will be offered for two years from the effective date of this tariff. The tariff will be limited to 15 customer accounts. The Company reserves the right to expand this tariff subject to annual assessment of the tariff's success. Based on the results of on-going analysis, or lack of participation in the program, Wisconsin Electric reserves the right to cancel and/or redesign the tariff prior to the end of the two-year period, subject to PSCW approval. Contracts outstanding at the time of any tariff redesign will be honored and unaffected unless both parties agree to proposed changes.

A customer subscribing to this tariff shall sign a contract for a term equal to the remaining duration of the tariff offering, but no less than one year in term.

Participants will start on the real time pricing tariff at the start of the billing period after a contract is signed and price communication software is installed and functioning.

Customers new to Wisconsin Electric's service territory will not be allowed to participate on this rate until they have established baseline consumption, including On-Peak Billed Demand and Customer Maximum Demand for at least 12 months on the CP1 rate.

Non-firm service will not be initially available under this tariff. Wisconsin Electric reserves the right to modify this tariff to incorporate a non-firm option in the future, given Commission approval.

#### PRICING METHODOLOGY

The pricing of this offering follows a two-part design. The first part of the Cp 1R2 pricing design applies to the customer's historic electricity consumption pattern. The customer will be billed for expected demand and energy consumption or Customer Baseline Load (CBL) at current Cp1 rates for on-peak demand, customer maximum demand, and on-peak and off-peak energy, including applicable cost of fuel adjustment charges, transmission surcharge adjustments as well as a facilities charge any other charges which may be applicable pursuant to future regulatory proceedings. CBL is based on the customer's hourly historic consumption as further defined in the CUSTOMER BASELINE LOAD section of this tariff.

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Rate Schedule Cp 1R2

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(Continued from Sheet No. 71.1)

PRICING METHODOLOGY (continued)

The second part of the Cp 1R2 pricing design applies to the *incremental*, or *decremental* consumption in any given hour. In other words, the hourly deviations from the CBL for that specific hour. This incremental, or decremental consumption is priced at a per kWh charge based on the hourly real-time prices (RTPs) provided by the Company. A customer will be charged at these real-time prices for consumption *above* their CBL for any given hour or credited at these prices for any consumption *below* their CBL for the hour – as explained further in the RATES SUMMARY section of this tariff.

RATE SUMMARY

Facilities Charge	\$525.00 per month
Program Administration Fee	+ <u>\$195.00 per month</u>
<u>Total Monthly Fixed Charge</u>	\$720.00 per month

The program administration fee covers the cost of billing and administrative costs, as well as the cost of day-ahead price communication to program participants

Demand Charges

Billed demand charges apply only to the baseline consumption. Billed demand is based on the expected on-peak maximum measured demand in the Customer Baseline Billing Determinants (CBBB), adjusted using the *current* power factor as measured for the *current* billing month. This is further explained in the DETERMINATION OF DEMAND and CONDITIONS OF DELIVERY sections of this tariff. CBBB is further defined in the Customer Baseline Billing Determinants section of this tariff.

Customer Maximum Demand charges also apply only to the baseline consumption and are priced according to the CP1 tariff.

See CP1 tariff, RATE section for specific rates that apply to the customer’s demand charges.

CBBB Energy Charge

See CP1 tariff for energy charges that apply to the customer’s CBBB usage.

CBBB Adjustment for Cost of Fuel

See sheets Nos. 19 and 20 for fuel adjustment charges that apply to CBBB energy and demand only.

CBBB Transmission Adjustment

See sheet No. 20.1 for transmission adjustment charges that apply to CBBB energy and demand only.

Point Beach Sale Credit

See Sheet No. 20.2

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**GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING**

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RATE SUMMARY (continued)

RTP Consumption Charge

The monthly RTP consumption charge (or credit) applies to consumption above or below the CBL level in all hours of the billing period. It is a per kWh charge that represents the hourly marginal cost of energy, hourly marginal generation capacity cost based on loss of load probability, marginal transmission cost, loss factors for capacity and energy, gross receipts tax and an adder for program risk and allowed return that will not exceed 3 mill / kWh.

The monthly RTP Consumption Charge (or credit) is computed as follows:

$$\text{RTP Consumption Charge}_{\text{MO.}} = \sum ( \text{Price}_{\text{Hr.}} \times [ \text{Load}_{\text{Hr.}} - \text{CBL}_{\text{Hr.}} ] )$$

Where:

- $\Sigma$  = Sum over all hours of the monthly billing period.
- $\text{Price}_{\text{Hr.}}$  = Hourly real-time price based on marginal costs.
- $\text{Load}_{\text{Hr}}$  = Customer's actual load in an hour.
- $\text{CBL}_{\text{Hr}}$  = Customer Baseline Load on an hourly basis.

MINIMUM CHARGE

The monthly minimum charge shall be the facilities charge, *plus* the Program Administration Fee, plus either the charge for the greater of 500 kilowatts of billed on-peak demand or the minimum on-peak demand charge as stated in the contract, plus the customer maximum demand charge.

LATE PAYMENT CHARGE

A one percent (1%) per month late payment charge will be applied to outstanding charges past due.

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**GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING****N**

(Continued from Sheet No. 71.3)

**CUSTOMER BASELINE LOAD (CBL)**

The Customer Baseline Load (CBL), as used in determining incremental or decremental consumption, is developed using a 12-month history of either customer-specific hourly firm load data (kW) or monthly billing determinant data, unadjusted for power factor. This CBL represents the electricity consumption pattern and level agreed to by the customer and Wisconsin Electric Power Company as typical of this customer's operation for billing under their conventional tariff and from which to measure changes in consumption for Cp 1R2 Billing. The original level of the CBL is subject to the approval of the Administrator of the Energy Division of the Public Service Commission of Wisconsin. The CBL will not change during the duration of the customer's contract under this rate, with the following exception.

Mid contract revisions to the CBL may be mutually agreed to between the customer and the company given a substantive and continuing change in the level of expected consumption per the following guidelines. Such changes require the approval of the Administrator of the Energy Division of the Public Service Commission of Wisconsin.

- 1) If a subscriber's annual total energy increases from their CBL annualized total energy level by more than 25%, as measured at the end of each contract year, and is expected to continue at this level for the upcoming year, the Company will adjust the CBL energy billing determinants to reflect expected consumption, with PSCW approval as noted.
- 2) If a subscriber's annual total energy decreases from their CBL annualized total energy level by more than 10%, as measured at the end of each contract year, and is expected to continue at this level for the upcoming year, the Company will, upon the customer's request and PSCW approval, adjust the CBL energy billing determinants proportionally."

**CUSTOMER BASELINE BILLING DETERMINANTS (CBBB)**

The Customer Baseline Billing Determinants (CBBB) are developed using the hourly historic kWh and kW consumption. However, the Billed On-Peak Demand is adjusted using current month, not historic power factor measurements as described in the RATE SUMMARY and CONDITIONS OF DELIVERY sections of this tariff. Customer maximum demand charges are based on the historic maximum 15-minute load for the twelve months prior to the customer's subscription to this rate. Any of the CBBB's may be modified from historic levels, by mutual agreement of the customer and company, if it can be demonstrated that historic consumption is not expected to reflect forward-going consumption.

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**GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING**

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(Continued from Sheet No. 71.4)

DETERMINATION OF DEMAND

(1) Measured Demands

- (a) Measured demand shall be the average rate at which energy is used for a period of 15 consecutive minutes as ascertained by a watt-hour meter and an associated electronic recorder or other standard measuring device.
- (b) Measured on-peak demand shall be the maximum measured demand established during on-peak hours within a billing period. On-peak hours shall be either from 8:00 a.m. to 8:00 p.m. or from 10:00 a.m. to 10:00 p.m., prevailing time, Monday through Friday, excluding those days designated as legal holidays for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. Note that the selection of the on-peak hours will reflect the historic selection made by the customer for the months used to determine the customer baseline billing determinants at the beginning of the customer contract. Customers may change their on-peak hours selection only in the case of a mid-term change in their CBL.
- (c) Expected measured on-peak demand shall be the expected value of measured on-peak demand for the billing month as reflected in the customer's CBL and established at the beginning of the customer contract.
- (d) Billed demand shall be the expected measured on-peak demand, adjusted for the current billing month power factor. Billed demand will apply only to baseline (CBBB) consumption.
- (e) Customer maximum demand shall be the expected value of maximum measured demand, not adjusted for power factor, as reflected in the customer's CBL and established at the beginning of the customer contract.

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**GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING****N**

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DETERMINATION OF DEMAND (continued)(2) Billed On-Peak Demands

The demand charges herein are based on a standard power factor of 85 percent. Billed on-peak demand shall be determined by the following formula.

- (a) For power factors at 85%

Billed on-peak demand = expected measured on-peak demand

- (b) For power factors below 85%

Billed on-peak demand =  
(expected measured on-peak demand) [1 + (0.65)(0.85 – peak power factor)]

- (c) For power factors above 85%

Billed on-peak demand =  
(expected measured on-peak demand) [1 – (0.5) (peak power factor – 0.85)]

The peak power factor shall be calculated from the kilowatt hours “A”, as obtained from the watt-hour meter, and the use of lagging kilovolt-ampere reactive hours “B”, as obtained from a ratcheted reactive component meter, which are used during the same 15 minute period in which the maximum measured demand occurs by the following formula:

Peak power factor = A divided by square root of (A<sup>2</sup> + B<sup>2</sup>)

RTP ENERGY PRICE SPECIAL PROVISIONS

Wisconsin Electric will make hourly prices available to participating customers by 4:00 p.m. applicable for the following day. Normally the prices for Saturday through Monday will be available on the preceding Friday. Multiple day-ahead pricing may also be used for previously defined holidays. Wisconsin Electric reserves the right to update prices on a one-day-ahead basis, even if those prices had been previously provided.

Wisconsin Electric is not responsible for a participant's failure to receive and act upon the hourly energy prices. If a participant does not receive these prices, it is the participant's responsibility to inform the Company so that the prices may be supplied.

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**GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING**

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(Continued from Sheet No. 71.6)

CONDITIONS OF DELIVERY

- (1) A customer must execute a contract to take service under this rate schedule for up to a two year period which specifies that the customer will notify the Company at least 60 days before the period ends of whether the customer wishes to continue under this rate schedule or be served under another of the Company's applicable rate schedules. If the Company chooses to extend the program beyond the two year pilot, the Contract could be renewed at that time. Those customers previously served under one of the Company's non-firm rate schedules requiring a three-year contract, who prematurely terminate said contract in order to participate in the real time pricing pilot, will be required to return to their previous rate schedule if it is still open. If the customer returns to take service under a non-firm rate schedule, their non-firm load must be the same or greater than as stated in their original non-firm contract with the Company.
- (2) If the customer terminates the contract described in No. 1 above, prior to the date of termination as set forth in said contract, the customer will pay to the Company a cancellation charge of the Program Administration Fee times the number of remaining months in the aforementioned contract.
- (3) Participants for the real time pricing pilot will provide and maintain their own computer, with an internet connection and e-mail box, that can reliably operate the software (provided by Wisconsin Electric) for receipt of hourly prices. Alternate communication channels, such as FAX, may be used if the electronic channel is temporarily not working.
- (4) The Company will furnish three-phase 60 hertz power service at its most conveniently available primary voltage but in no case less than approximately 3,810 volts at some one convenient point on the premises of the customer nearest the lines of the Company. The supply voltage will depend upon the location of the customer and the size and characteristics of the load. At the option of the Company, a customer receiving service under this rate at more than one voltage on the same premises may be billed on a conjunctive basis if the customer was required to change voltage due to limitations of the Company's distribution system. If the customer elects to serve additional load at a higher voltage and the Company has distribution facilities at the existing voltage adequate to serve the additional load, then the Company shall bill the customer separately at each voltage.
- (5) Service under this rate is primarily for customers who use it in manufacturing and industrial operations. Any customer receiving service under this rate who requires lighting regulation shall furnish, install, operate and maintain the necessary regulating equipment at their expense.

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**GENERAL PRIMARY SERVICE -- EXPERIMENTAL TWO-PART REAL TIME PRICING**

(Continued from Sheet No. 71.7)

CONDITIONS OF DELIVERY (continued)

- (6) The customer shall, at their expense, install all apparatus and materials necessary for the proper utilization of the power furnished by the Company. All such apparatus shall conform to the Company's rules and regulations pertaining to primary substation installation and shall at all times be kept suitable for operation by the power furnished.
- (7) If the customer's total actual demand exceeds the CBL demand to the extent that the installation of additional facilities are required, then the customer shall pay for such additional facilities.
- (8) Should the customer, because of fire, strike, demonstrations, casualties, civil or military authority, insurrection or riot, the actions of the elements, or any other like causes beyond his control, be prevented from utilizing the power service contracted for, the Company will waive the monthly Minimum charges for such period; provided, however, that the period of time of such suspension of use of power shall be added to the period of the contract; and further; provided that the customer notifies the Company in writing within six days of the customer's inability to use said power service, specifying the reasons therefore.
- (9) The Company shall use reasonable diligence in furnishing an uninterrupted and regular supply of power, but it shall not be liable for interruptions, deficiencies, or imperfections in service.
- (10) Service under this rate shall be furnished only in accordance with the Electric Service Rules and Regulations of the Company.
- (11) Energy furnished under this rate shall not be resold, except as provided in the Electric Service Rules and Regulations of the Company.
- (12) The Company shall not be required to provide service as standby for other types of energy or fuel.
- (13) The Company shall have the right at any reasonable time to enter the customer's premises for the purpose of installation, inspection, repair, replacement or removal of software, computers, modems, printers, alarm equipment and/or any other equipment provided by the Company for this rate. The customer shall bear all risk of loss, damage, theft, or destruction of such equipment.
- (14) Title to equipment provided by the Company shall remain in the Company and such equipment shall not become a part of the realty or a fixture, but at all times shall be and remain in the personal property of the Company regardless of the manner of installation in or attachment to the premises. The Company shall have the right, but not the obligation, to remove such equipment if the customer is no longer served under this rate.

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