



"...meeting community needs...enhancing quality of life."

Department of Utilities
Water Treatment Facility
2281 Manitowoc Road
Menasha, Wisconsin 54952 – 8924
920 – 997 – 4200 tel
920 – 997 – 3240 fax

TO: Chairperson Greg Dannecker and Members of the Utilities Committee
FROM: Chris Stempa, Utilities Deputy Director
DATE: March 28, 2018
RE: *2018 Water Treatment Facility Power Generation Test*

The Appleton Water Treatment Facility (AWTF) has completed an annual electrical test for WPPI Energy. The test occurred on March 14, 2018 after the water plant was dispatched by WPPI Energy to provide power under the existing contract for capacity agreement. The water plant successfully provided 3.594 megawatts of power for the two hour test.

Power production data from this test is used in calculating capacity credits and deriving the monthly payments from WPPI Energy over the next 12 months. The payments for capacity are based on two types of credits. The first credit is based on the previous month's peak demand and the annual test capacity results in kilowatts. The second credit is for generated power produced in excess of the previous month demand.

Below is an example of how to apply the most recent generator tested capacity of 3,594 kW to the February 2018 AWTF peak usage of 814 kW. The current WPPI contract formula pays a capacity demand credit of \$4.00 per kW and \$1.50 per kW credit for available emergency stand-by generator power (if called upon) in excess of the peak demand.

WPPI Fee Variables

Annual Tested Generator Capacity	3,594 kW
February Peak Demand	814 kW
Power Produced in Excess of Demand =	2,780 kW

WPPI Fee Constants under Existing Capacity Agreement

Capacity Credit Demand	\$4.00/kW
Capacity Credit for Excess Demand	\$1.50/kW

Capacity Credit for Demand = 814 kW x \$4.00/kW = \$3,256
Capacity Credit for Excess Demand = 2,780 kW x \$1.50/kW = \$4,170
Total Monthly Capacity Credit = \$7,426

In the case of the above example a \$7,426 total credit is paid to the city for having the electrical generation potential available. The total annual returns to the AWTF in 2017 as part of the program contract with WPPI Energy yielded \$93,574.

If you have any questions regarding the test please contact me.