



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

Department of Utilities
Appleton Water Treatment Facility
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 ph
920-832-5949 fax

TO: Chairperson Joe Martin and Members of the Utilities Committee
FROM: Chris Stempa, Utilities Deputy Director
DATE: April 3, 2015
RE: *2015 Water Treatment Facility Generation Test*

The Appleton Water Treatment Facility has completed an annual electrical test for WPPI Energy. The test occurred on March 18, 2015 after the water plant was dispatched by WPPI Energy to provide power under the existing contract for capacity agreement. The water plant successfully provided 3.223 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 3,233 kW to the February 2015 water plant peak usage of 1,032 kW. The WPPI contract formula pays a \$3.00 per kW for demand consumed and \$1.50 per kW that is generated in excess of the peak demand.

WPPI Fee Variables

Annual Tested Generator Capacity	3,233 kW
February Peak Demand	1,032 kW
Power Produced in Excess of Demand =	2,201 kW

WPPI Fee Constants under Existing Capacity Agreement

Capacity Credit Demand	\$3.00/kW
Capacity Credit for Excess Demand	\$1.50/kW

Capacity Credit for Demand = 1,032 kW x \$3.00/kW = \$3,096
Capacity Credit for Excess Demand = 2,201 kW x \$1.50/kW = \$3,302
Total Monthly Capacity Credit = \$6,398

In the case of the above example a \$6,398 total credit is paid to the city for having the electrical generation potential available. The program contract with WPPI Energy has demonstrated annual returns in excess of \$80,000.

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