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**TO:** Chairperson Greg Dannecker and Members of the Utilities Committee  
**FROM:** Chris Stempa, Utilities Deputy Director  
**DATE:** June 15, 2016  
**RE:** *2016 Water Treatment Facility Power Generation Test*

The Appleton Water Treatment Facility has completed an annual electrical test for WPPI Energy. The test occurred on June 7, 2016 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 May 2016 water plant peak usage of 1,032 kW. The recently amended WPPI contract (post generator emissions compliant equipment installation) formula pays a \$4.00 per kW (formerly \$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
May Peak Demand	1,135 kW
Power Produced in Excess of Demand =	2,098 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 = 1,135 kW x \$4.00/kW = \$4,540

Capacity Credit for Excess Demand = 2,098 kW x \$1.50/kW = \$3,147

Total Monthly Capacity Credit = \$7,687

In the case of the above example a \$7,687 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.