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Department of Utilities
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TO: Chairperson Meltzer and Members of the Utilities Committee
FROM: Chris Stempa, Utilities Deputy Director
DATE: April 8, 2021
RE: *2021 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 10, 2020 after the water plant was dispatched by WPPI Energy to provide power under the existing contract for capacity agreement. The generators successfully yielded 3.599 megawatts of power during the test.

Power production data from the test will be used in calculating capacity credits and deriving the monthly payments from WPPI Energy over the next twelve 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 3,599 kW to the most recent twelve-month average AWTF peak usage number of 992 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	3,599 kW
12-month Average Peak Demand	992 kW
Power Produced in Excess of Demand =	2,607 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 = 992 kW x \$4.00/kW = \$3,968
Capacity Credit for Excess Demand = 2,607 kW x \$1.50/kW = \$3,911
Total Monthly Capacity Credit = \$7,879

In the case of the above example a \$7,879 total credit would be paid each month to the city for having the electrical generation potential available. The total annual returns to the AWTF in 2020 as part of the program contract with WPPI Energy yielded \$96,103.

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