



## Memo

**To: Dave Plyman**  
**From: Dan Westin**  
**Date: October 22nd 2013**  
**Re: Council Recommendation for Application for Solar Plant Grant**

RMU has been made aware of a Large Solar Power Plant grant possibility with Illinois Department of Commerce and Economic Development (DCEO).

This grant opportunity would cover \$ 250,000 of a solar plant. The grant application is due no later than November 7<sup>th</sup> and is a competitive process.

RMU has gathered all information required for the grant application and has created a business case analysis.

The purpose of a Solar Plant at the Treatment Plant is to use Solar Power as an alternative energy source. This fits very efficiently into the RMU energy mix given its high correlation with the summer peak demands that are so important for us to manage.

Treatment plants are an increasing share of a utilities power use and overall treatment plants use 2 % of all of the nation's energy. Per the USEPA energy efficiency bulletin, energy for water and wastewater accounts for about 3-4% of energy use in the US, resulting in 45 million tons of green house gas emissions. The average monthly bill at the POTW is \$15,100.

Many municipalities have made great efforts in making treatment plants energy independent. E.g. Rockford is using a bio-gas operation from the plants gas production to create electrical energy. Galena received a \$ 900,000 grant from Illinois Clean Energy Community Foundation to build a 360 kW solar plant which was put in operation this summer.

The value of the plant would be:

1. To provide electrical energy to the Treatment Plant.
2. To create for a Rochelle promotion of a residential/commercial program with solar power to add renewable energy into RMU's power mix. Currently RMU's power mix is heavily concentrated on one source.
3. To provide for essential learning about solar power as a long term investment into Rochelle's technology base and recognition of its proactive approach.

The enclosed business case shows that the plant would come at no cost to the city and in fact would produce a small (\$10,000/year) net gain.

The 10 year period is conservative. Most of these systems last 20 years.