



# Rochelle Municipal Utilities Business and Financial Analysis

Memo

**To: Dave Plyman**  
**From: Dan Westin**  
**Date: June 3rd 2014**  
**Re: Skid Load 6 MW Generator – Project**

**SUBJECT:** Recommendation for Project on 6 MW Skid Load Generators

## **Recommended Action:**

Consider Project Commitment on 6 MW Skid Load Generators

## **History and Facts:**

Peak shaving means running RMU 's own generation capacity when market prices for energy are high which happens especially in a hot summer. Peak shaving is critical for RMU given the capacity cost increases in PJM (which is the Energy region RMU participates in). This summer the capacity price is up five times from last summer. The capacity costs are measured in \$/MW/Day and are charged for the full planning year starting June 1<sup>st</sup> (energy costs of \$/kWh is a completely different measure).

The capacity charges for Planning Year 2017/2018 were identified in the auction that finished a week ago as \$ 120/MW/Day. That is \$ 43,800 per MW and one year.

RMU generator sets go back to vintages of 1940 and the maintainability of these units has gone down drastically. In addition these units were designed for continuous running – not peak shaving. Last year's overall generator set availability was down to 40 % which did not provide enough capacity to drive down this summer's capacity charges. (It's measured the summer before). The difference of 10 MW created a capacity charge of \$ 438,000 which has to be covered by rates.

These additional generators will provide 6 MW of capacity which is a first step to replace the old generator sets, two of which are not going back in production and will be dismantled this winter. Unit 1 and 5.

As to timing of these investments, the capacity charges are already defined as being between 120-136 \$/MW/Day for the next three planning seasons so any delay in these investments would just create more rate increases due to the half million \$ charges that would occur.

The most recent time Rochelle invested in generation was 2005, an experimental 3.5 MW unit. That was an addition, not a replacement unit.

**Discussion:**

RMU staff has created a project for these generators which includes a highly efficient integration into RMU's distribution network led by Joe Orlikowski and BHMG Consultants. The combined integration has created a capability of black-starting a non-protected area with 9 MW of power. Black starting means there is no power from the regional grid and RMU can start these units by itself.

The total project is estimated to be \$ 2,040,000. And operational in August-September time frame 2014.

The cost per kW installed is \$ 333 which is unprecedented in this industry (being very low). In comparison the Bio-Gas plant was \$ 2,500/kW .

The UAB formally recommended to approve the investment in these units at its meeting in December 2013.

**Recommendation:** Approve Project for 6 MW Skid Load Generators