



Rochelle Municipal Utilities Business and Financial Analysis

Memo

To: Dave Plyman
From: Dan Westin
Date: October 21st 2015
Re: Skid Load 6 MW Total Generators – Project B

SUBJECT: Recommendation for Project on 6 MW Skid Load Generators

Recommended Action:

Consider Project Commitment on additional 6 MW Skid Load Generators.

Please include in council agenda October 27th

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). The capacity costs are measured in \$/MWDAY and are charged for the full planning year starting June 1st (energy costs of \$/kWh is a completely different measure).

The capacity charges for Planning Year 2018/2019 were identified in the PJM August auction as \$ 215/MWDAY. That is \$ 43,800 per MW per year.

RMU generator sets go back to vintages of 1947 and the maintainability of these units has gone down drastically. In addition these units were designed for continuous running – not peak shaving. Overall generator set availability has been down to as low as 40 % which does not provide enough capacity to drive down the summer capacity charges.

These additional generators will provide an additional 6 MW of highly reliable capacity which is another step in replacing the old generator sets.

As to timing of these investments, the capacity charges are already defined 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.

Discussion:

RMU staff and BHMG has created a project for these generators which includes a highly efficient integration into RMU's distribution network with a large amount of reuse of the initial skid load project.

The total project is estimated to be \$ 3,353,000. And operational by June 1st 2016. The project estimate is as follows:

General Site Work/Fuel System - \$450,000

Electrical/Controls - \$1,084,000

Permitting/Startup - \$70,000

Generator Purchase - \$1,749,000

Total Project - **\$3,353,000**

This includes the Rice-Neshap equipment as well as the automation of the units.

The cost per kW installed is \$ 559/kW which is very low for this industry.

In comparison the Bio-Gas plant was \$ 2,500/kW .

The ROI on this investment is 184 %.

The UAB formally recommended to approve the investment in these units at its meeting in September 2015.

Funds for the units are in the budget as part of the transmission line upgrade which is now moved out of FY16 and the rest coming from the DIE account.

Recommendation: Approve Project for 6 MW Skid Load Generators phase II