1ST GREEN SOLUTIONS - GUAM LLC
ENERGY SAVING SYSTEMS

SMITHBRIDGE QUARRY - GUAM USES SYSTEM PERFORMANCE SUMMATION FROM RECORDINGS Dated 04-11-14

DM II Pro Data Logger recorded graphs Timed Interval Samplings results on April 11, 2014 with (19) XL 480 volt USES units in operation at 9:25 AM to 10:04 AM (See individual graphs calculations for averages)

GRAPH TITLE	USES OFF (per averaged calcs)	USES ON (per averaged calcs)	Change/Savings
REAL POWER (Watts)	497,960	460,000	- 37,500 Watts (37.5 KW)
APPARENT POWER (VA)	800,000	520,000	- 280,000 VA (280 KVA)
CURRENT (Amps per phase)	1,000	630	- 370 Amps per phase
REACTIVE POWER (VAR)	630,000	220,000	- 410,000 Var (410 Kvar)
VOLTAGE	267	274.5	+ 7.5 Volts
TRUE POWER FACTOR	.62	.90	+ 28 Points

SAVINGS CALCULATIONS PER PROPOSAL FORMULA

QUARRY REDUCTIONS

KW 37.5 / 2 = 18.75

KVA 280 / 2 = 140.0

KVA adjust* - 65.0

TOTAL 93.75 = 93.75 kWh x 14 hours x 24 days = 31,500 kWh per month

93.75 / 19 USES units = 4.93 kWh reduction per each USES unit.

TOTAL 31,500 kWh per month x .344 per kWh = $10,836.00 monthly savings **

(Proposal was for 25,200 kWh monthly reductions for $9,365.53 monthly savings **)

*** KVA adjustment made due to ratio of KW being more than 4 times of KVA. (37.5 KW x 4 = 150/2 =75) 140 KVA -75 = 65 adjustment**

****All above is based on full load operations at 14 hours per day per information provided to 1GSG at time of proposal. Should full operations be more hours per month then reductions will occur for more hours per month, should full operations be fewer hours per month, then less reductions will occur per month. All reductions are based on the total number of USES units in operation x number of hours each USES unit is operating x approx 4.93 kWh reduction per each USES unit operating.**

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