



SAINT LOUIS PUBLIC SCHOOL GATEWAY STEM SOLAR PANEL SYSTEM UPDATE

Presented To:

Special Administrative Board

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Clinton Global Initiative (CGI) Service Project

- Clinton Global Initiative (CGI) hosted a community service event on Sunday, April 7, 2013 at Gateway STEM High School.
- This was an opportunity for the Clinton Global Initiative volunteers to give back to the local St. Louis community.



- Saint Louis Public School (Gateway STEM Administration and Operation Team) suggested that a solar panel system could be used as an education tool.
- CGI worked with Brightergy Energy to install a solar panel system on the school's roof.
- The solar panels installation completed April, 2013 and the panels were activated in November, 2013.
- Project cost was \$95,000 (Ameren Solar Panel Rebate provided \$50,000 and \$45,000 donated by Brightergy).



Economics for Gateway STEM Solar Panel System

- Building uses 2,357,148 kwh per year
- 87 solar panels produces 32,400 kwh per year
- Year to date electrical cost is \$208,995 with solar panel generating a savings of \$1,692.
- The Solar panels generated 1.4% of the building's electrical use.



Gateway STEM Solar Panel System as a Educational Tool

- Sunny Portal Program ties the solar panel system to the academic curriculum
 - The program provides a dashboard that supplies weekly, monthly, annual energy and environmental data for classroom use.
- Sunny Portal is being used in: AP Physics, AP Environmental Science, and Engineering – Project Lead the Way
- Example of program use:
 - A physics teacher at Gateway STEM High School utilized the Sunny web portal and constructed a solar collector to teach students how a solar panel converts sunlight into electricity.





Sunny Web Portal Software – Monitors Energy, Cost and CO2 Avoidance

Date:
6/16/2014

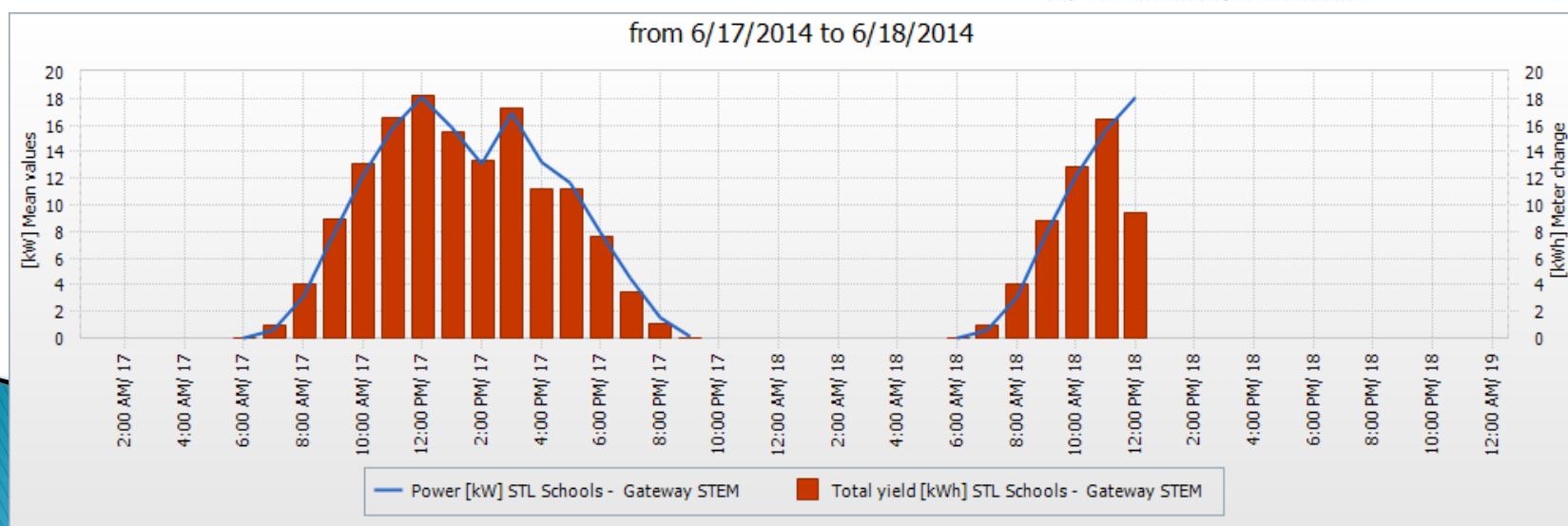
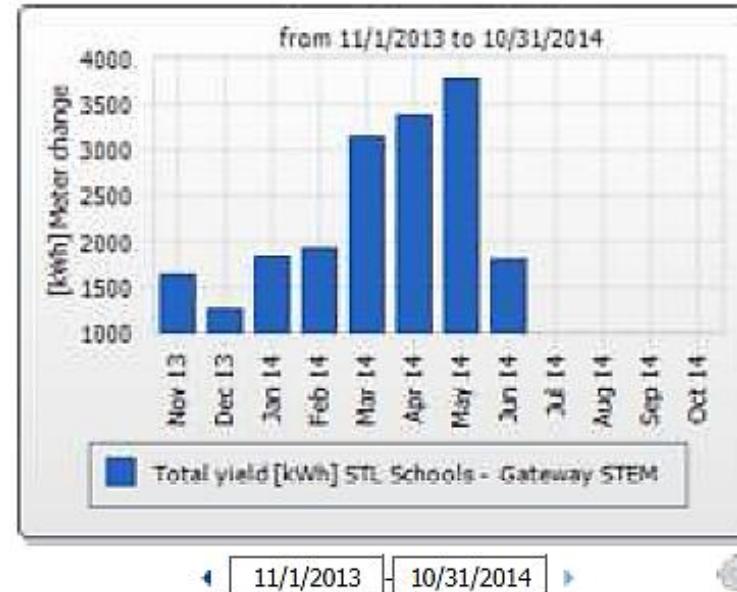
Energy:
18,798.37 kWh



CO2 avoided:
13,158.86 kg



Reimbursement:
\$ 1,691.85





Solar Panel System Project Summary

- The Solar panels generates 1.4% of the electrical power required to run Gateway STEM High School
- Based on this experience, solar power does not appear to be economically feasible at Gateway STEM High School.
- The system was installed for students and teachers to use as an education tool.