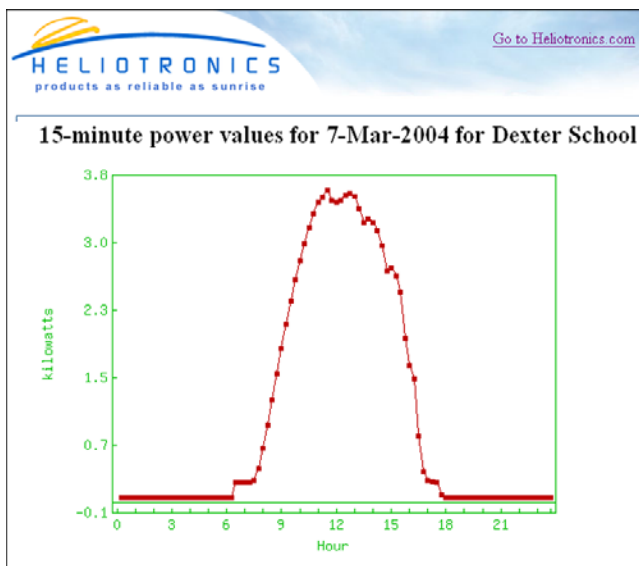


SunViewer.net™ Web Enabled Data Monitoring

SunViewer.net™ is a powerful, interactive tool that enables you to view the performance of your distributed generation systems over the Internet. In addition to graphing a variety of quantities of interest, *SunViewer.net*™ allows users to download data in a spreadsheet compatible format for further analysis.



Along with *Epiphany*™ series data monitoring systems, Heliotronics can provide a branded web portal for your solar project. This portal allows you to seamlessly integrate a solar data display into your existing website. We've addressed all of the details so you don't have to.

Go to www.SunViewer.net for an example of live data online.

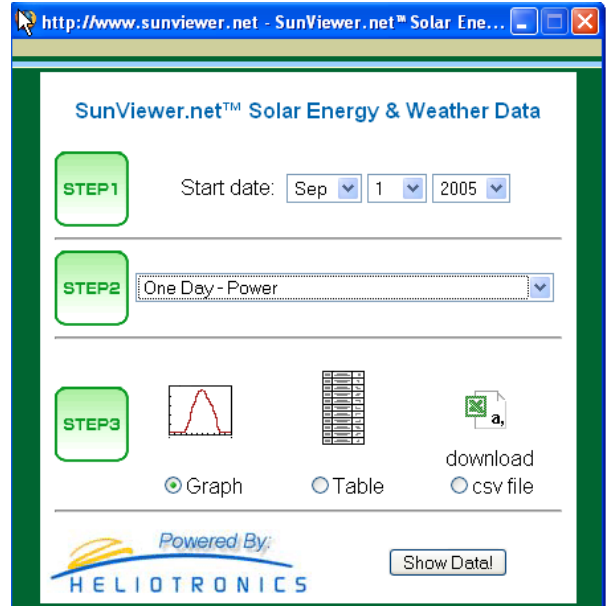
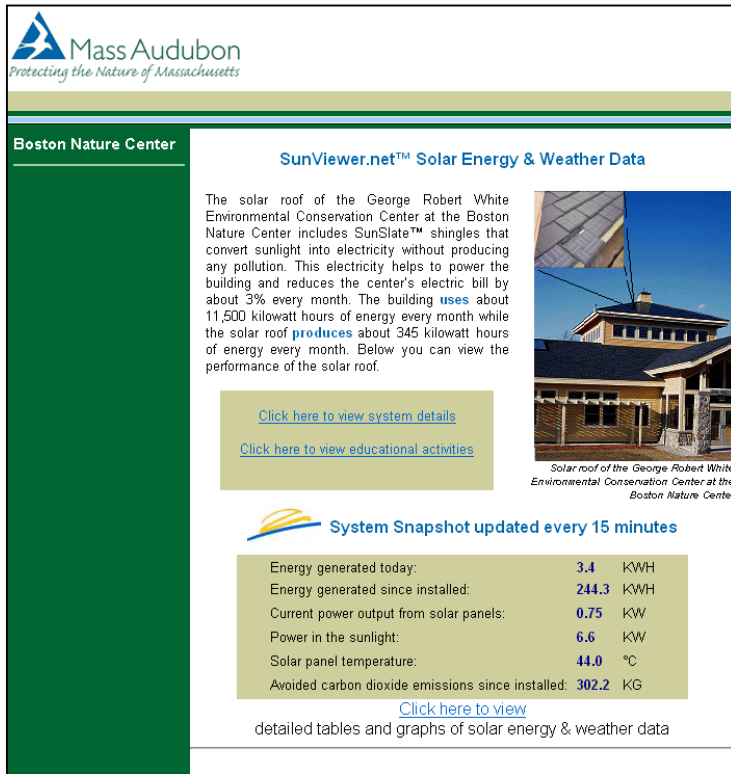
For larger programs with multiple installations, we also offer an aggregated data viewing capability. In addition to viewing data from individual sites, the database is able to

aggregate multiple systems into one output. For example, if your state had 50 schools, *SunViewer.net* would allow users to answer questions such as, how much pollution was avoided due to the renewable energy production of all 50 schools in one particular day.

The system can store power and energy data as well as meteorological data from any site that has an Internet connection and a compatible data acquisition system. Heliotronics offers their *Epiphany*™ series data acquisition systems for this purpose. The screenshots on the back of this page illustrate what data is available and the simplicity of making powerful queries to the database.

SunViewer.net™ enables schools and other institutions to provide national access to data from their renewable energy system. *SunViewer.net*™ is a powerful education and research tool that provides data, processed in fun and informative ways.

For more information, visit www.Heliotronics.com or contact us at 508-435-3032 or info@heliotronics.com.



Example of SunViewer.net™ web portal. The portal is customized to match the customer's website so that it can be linked seamlessly. Aggregated data for multiple installations is also available.

Data Available

- ❖ Current Data Display (updated every 15 minutes) - a numerical display console that displays the following:
 - Power
 - Module temperature
 - Avoided emissions since system was installed(based upon parameter input at site)
 - Energy: for that day and cumulative since system commissioning
 - Irradiance
 - Aggregate system wide energy production since energy production began.
- ❖ Individual Sites
 - 15 min average plots over any one day of the following: Power, Irradiance, Module temperature
 - Daily values or totals plotted over specified months: Energy, Peak Power, Peak Module temperature, Irradiance
 - Monthly: Energy produced, Incident Energy, Avoided emissions (CO2, NOX, SOX)
- ❖ Aggregate data plotting. Include a numerical total for each on its respective plot. The total will be over the time period of the plot. See special note on daily plot for power.
 - 15 minute average plots of the following over selected day (Daily): System wide energy production, System wide power (Numerical display on this plot will be for the most recent data point), System average incident energy, Avoided emissions
 - Daily totals (energy) plotted over selected months. (Monthly): Energy, Aggregate solar energy, Avoided Emissions
 - Monthly values plotted over 1 year intervals (Annual): Energy, Aggregate solar energy, Avoided emissions