Cachelan

SolarVu™

Energy Portal

USES

- Monitor power, energy, status
- Verify revenue payments, calculate payback
- Receive maintenance alarms & status by email
- See energy equivalents, trends, site photos
- Learn about solar energy, share results
- Web access, no software to install

APPLICATIONS

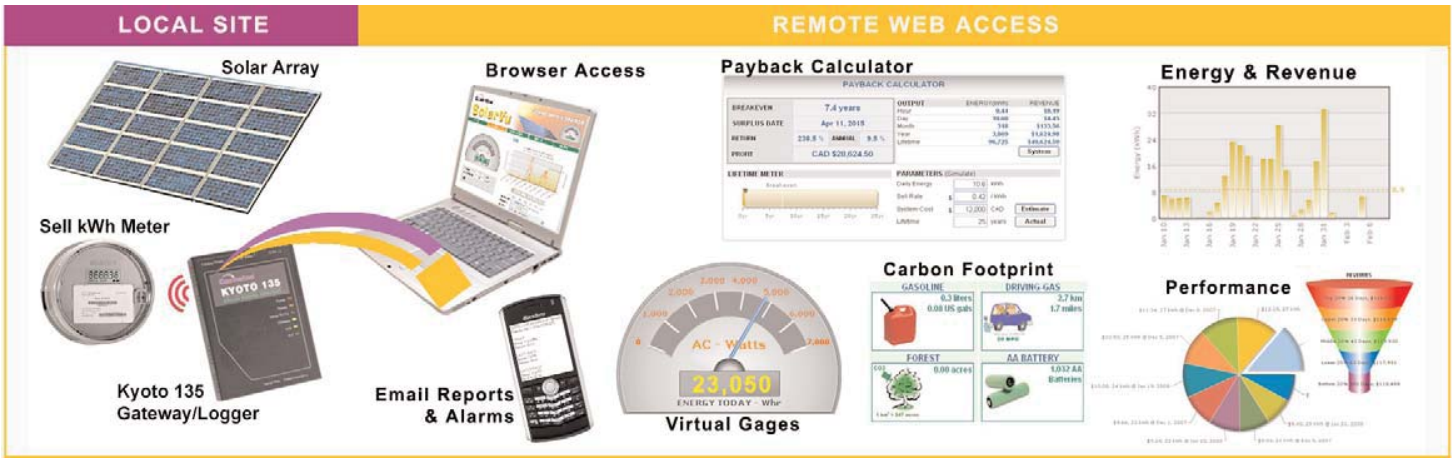
- Manage solar PV distributed generation sites
- Conservation - reduce carbon footprint
- Billing for PPA (power purchase agreements)
- ROI analysis with payback calculator
- Public relations, website & lobby displays
- Performance analysis - maximize output

Why SolarVu

Add the SolarVu web monitoring system to your solar PV installation and get detailed information that a simple kWh meter cannot provide. SolarVu builds a lifetime database of the solar array performance then uses simple graphics to display live power, energy, status and trends. Receive a daily email report of revenues earned from your solar generation system. Check your carbon footprint reduction and learn about energy equivalents. Use the greenergy meter to find the % of total energy used offset by green sources. Get an alarm message if problems occur to speed up troubleshooting using detailed inverter measurements. Calculate expected ROI with the payback calculator before installation then compare to actual results after startup.

Isn't a kWh Meter Enough?

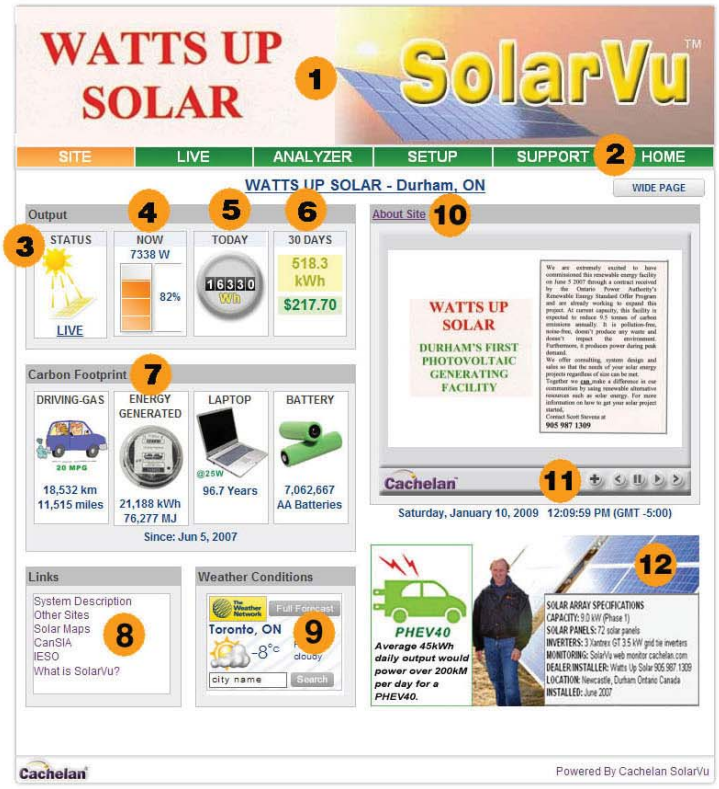
A solar PV generating system is a big investment with a typical 25 year life. Unless you regularly read the energy meter and manually plot the output, it will be difficult to determine how well the system is working. If a problem occurs, the first indication may be a low utility payment, months later. By communicating daily through your computer or mobile device, you will always know how your system is performing. Get a good understanding of solar energy while ensuring maximum return on your IPP (independent power producer) investment.



SolarVu™ HELP

SITE

For continuous display the SITE screen can be viewed in 4:3 computer monitor format or 16:9 wide screen TV for lobby view by clicking the WIDE PAGE button under the HOME tab. Each site can be customized; screens may appear differently.



Click WIDE PAGE button for wide screen TV view

1 **BANNER** Custom banner uploaded in Setup

2 **TABS** Select from SITE summary, LIVE gages and graphs, ANALYZER for performance and troubleshooting, SETUP to customize SolarVu, SUPPORT for dealer link and HOME to the owners homepage. Links to SUPPORT and HOME can be programmed in SETUP.

3 **Output STATUS** When power is being generated the sun and solar panel will flash yellow. If the system is shut down due to insufficient insolation, the panel will be dark with a moon symbol. Click the LIVE link to go directly to the LIVE screen

4 **Output NOW** This bargraph indicates how close is the energy output to full capacity as programmed in SETUP. Above the bargraph is the total power being generated on the site from all inverters at the present time.

5 **Output - TODAY** Digits on the wattmeter show the total energy generated so far today.

6 **Output 30 DAYS** Monthly output energy and revenue is shown in this panel

7 **Carbon Footprint** Energy equivalents to the total green energy generated since startup are shown. The installation date is shown below the footprint items. A more detailed carbon footprint calculator is available in the ANALYZER screen.

8 **Links** Default links to other sites include: System Description as entered in setup, Other Sites-other live SolarVu sites and the SolarVu.net homepage, Solar maps to estimate expected output for your location, a video describing SolarVu features. These can be changed to custom links in SETUP.

9 **Weather Conditions** Weather for this location must be set up when the site is created. Contact vendor listed under the SUPPORT tab if this needs to be changed.

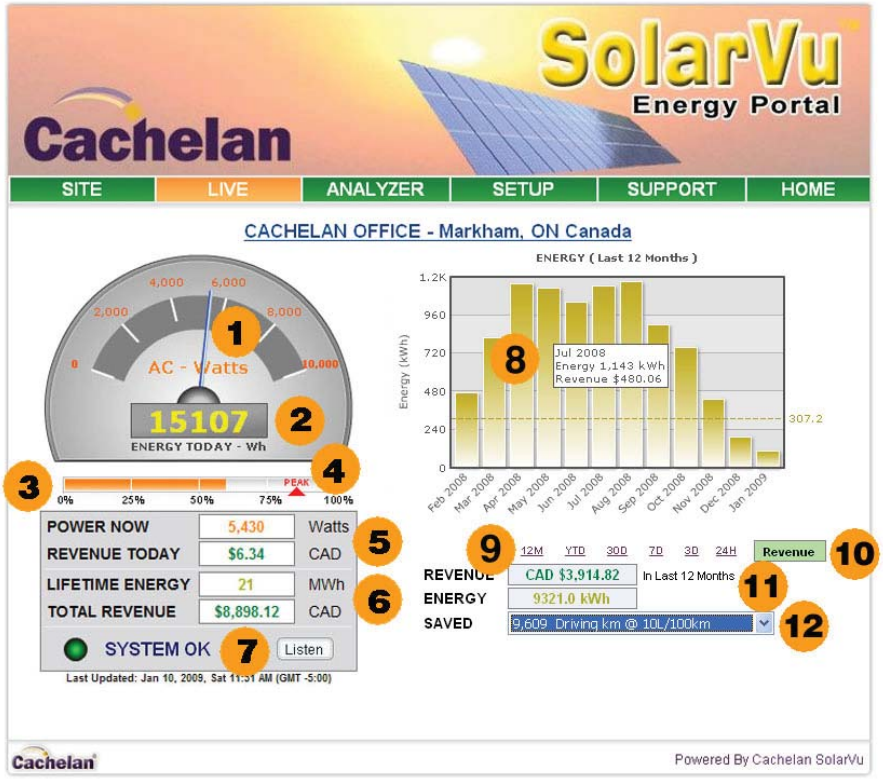
10 **About Site** Click this link and a site description as entered in SETUP will appear in a popup window.

11 **Slideshow** A custom slideshow can be created using site photos, presentations and other graphics. This is managed in SETUP - Site Setup. Use the navigator buttons to override the automatic settings including the + button for a larger view with captions.

12 **Information panel** Upload a custom graphic in SETUP - Site Setup to display here.

LIVE

Actual site conditions are updated every 15 minutes and displayed on the LIVE screen. Use this view to determine current power output and energy generated over any time period since startup.



1 **POWER** Power being generated from the site. If more than one inverter is monitored this is the total output of all monitored devices. If the sun is not shining, it is night time or there is no communication from the site, the meter will read zero

2 **ENERGY TODAY** Total energy in Wh or kWh generated from the site since sunrise. This is the net output supplied to the grid.

3 **CAPACITY GAGE** Actual output power compared to the peak capacity of the site as entered in SETUP is displayed by this gage.

4 **PEAK RECORDER** Scroll over the PEAK indicator for a popup showing the time and % of maximum output today. This gage can determine how close to full capacity the system is performing on a sunny day.

5 **POWER & REVENUE TODAY** The AC sell power being delivered to the grid is displayed digitally, which is the same value as the meter dial above. Revenue today is calculated by multiplying the total energy today as shown on the meter, by the sell rate entered in SETUP.

6 **LIFETIME ENERGY & TOTAL REVENUE** Total energy since startup is shown. Since the equipment at the site continuously updates the lifetime energy internally, if communication is temporarily lost from the site, this value will still be correct when new values are received. Total revenue is calculated by multiplying the lifetime energy by the sell rate entered in SETUP.

7 **STATUS** A green, orange or red indicator with corresponding status message will show if any alarm conditions are detected. Click the LISTEN button with sound on for a voice message describing the problem and corrective action required. For normal operation, the Last Updated time message should be no more than 15 minutes ago.

8 **ENERGY / REVENUE GRAPH** Select the time period (9) to display energy or revenue (10) to see trends. Roll over each bar for a popup with more details. Graphs automatically scale with appropriate units and average for the interval on the right.

9 **TIME PERIOD** Select time period of interest up to the startup day.

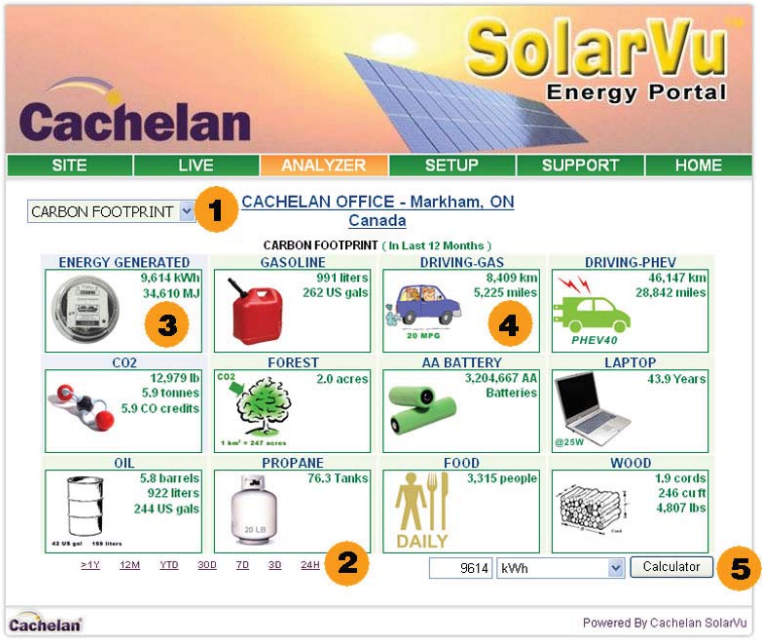
10 **REVENUE** Display either energy or revenue for the selected time period. Revenue is calculated by multiplying the energy value times the sell rate entered in SETUP.

11 **ENERGY / REVENUE** Digital display of energy and revenue over the selected time period.

12 **SAVED** Use the pulldown menu to see energy equivalents of the green energy generated for the selected time period to determine the carbon footprint energy savings.

ANALYZER

CARBON FOOTPRINT For more details of system performance or troubleshooting problems, use the ANALYZER screens. Available options may vary depending on the equipment installed at the site.



1 **ANALYZER MODE** Select CARBON FOOTPRINT to see the carbon impact of energy generated for any time period including energy equivalents of common fossil fuel sources and energy consuming devices. By default, the actual measured energy for the selected time period (2) is used, however, a value can be manually entered using the calculator button (5) This is a useful learning tool to obtain a better understanding of the value of solar energy.

2 **TIME INTERVAL** Select the time of interest by clicking on one of the intervals or >1Y (greater than 1 year) to use lifetime energy. The time selected is displayed next to the date for clarity if cutting and pasting the view into a report.

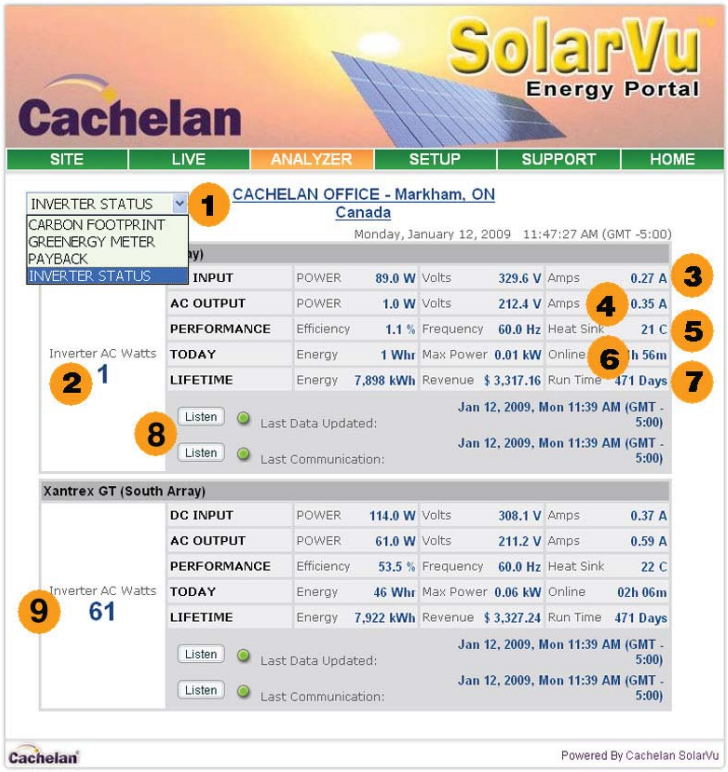
3 **ENERGY** The kWh meter panel shows the energy being converted into carbon equivalents in the other panels. Alternative units are shown displaying equivalent amounts in different measuring systems (e.g. 1kWh = 3,600kJ)

4 **ENERGY EQUIVALENTS** For the renewable energy generated over the selected time period, each panel shows the equivalent consumption required to operate a device or fossil fuel needed for the same amount of output.

5 **CALCULATOR** Temporarily override the measured energy output by manually entering a value, selecting the parameter of interest and clicking the calculator button. Experiment with the calculator to learn about relative energy amounts and estimate potential savings from a specific solar installation.

ANALYZER

INVERTER STATUS For more details of system performance or troubleshooting problems, use the ANALYZER screens. Available options may vary depending on the equipment installed at the site.



1 **ANALYZER MODE** Use the pulldown box to select what type of detailed information is required. For this example of a Xantrex GT series inverter, select INVERTER STATUS to see values measured by the site equipment. Readings displayed are from the last update, typically every 15 minutes. Unlike energy values, consecutive readings are not saved.

2 **INVERTER AC WATTS** Output power from the inverter to the grid is shown here same as AC OUTPUT POWER (4) but larger for better visibility.

3 **DC INPUT** If sufficient sunlight is striking the solar panels, DC volts, DC amps and DC input power to the inverter are displayed.

4 **AC OUTPUT** Once sufficient power is being generated and the inverter is synchronized to the grid, it should begin exporting energy as shown by the AC volts, AC Amps and AC output power.

5 **PERFORMANCE**
Efficiency = AC Output Power / DC Input Power. Use this to determine how closely the inverter meets specifications. Typically this will be 90-95% under peak sunlight conditions.
Frequency Output voltage frequency should closely match the grid line frequency typically within 0.5 Hz.
Heat Sink Temperature - Measured temperature of the inverter heatsink should be below recommended maximum.

6 **TODAY** Cumulative energy and maximum power values are calculated by the inverter from sunrise indicated by the online time. This resets to zero at the end of each day.

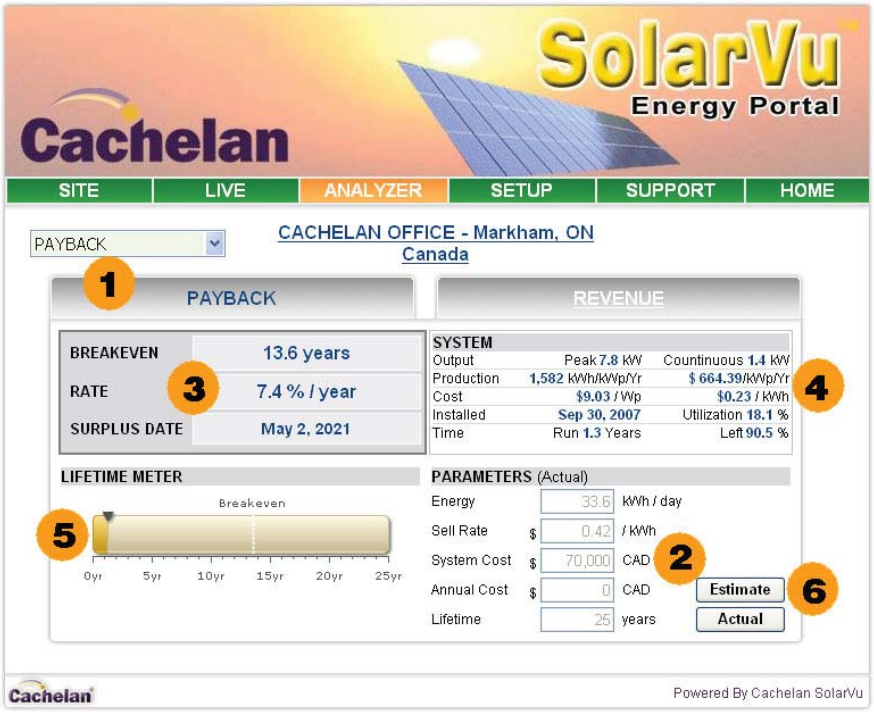
7 **LIFETIME** Total energy the inverter has recorded since reset is displayed. If the inverter is replaced or has a residual value on installation, an offset can be added to all displayed energy values in the SITE and LIVE screens using the *Lifetime kWh Offset* parameter in SETUP to compensate for this. Revenue is calculated by multiplying lifetime energy by the *Sell Rate* in SETUP. Run Time is determined by the *Installation Date* entered in SETUP

8 **STATUS INDICATORS**
Last Communication Shows the last time a data message was received from the site. Use this indicator to determine if the gateway has established an internet connection which will be green even if not connected to the inverter.
Last Data Update Once the gateway is successfully sending data, this indicator will show if the data is valid. For normal operation, both indicators are green. If one is red, click the LISTEN button to determine the cause.

9 **ADDITIONAL DEVICES** If more than one inverter is installed, its corresponding values will be displayed in additional panels which can be labelled in SETUP for easy identification. Lifetime Energy displayed in LIVE and SITE screens is the sum of all inverter energy values (2) which is the total energy for the site.

ANALYZER

PAYBACK CALCULATOR -PAYBACK Use the Payback Calculator to estimate how long it will take to recover the initial capital investment and how well the system is performing. Compare with other systems to check relative performance.



1 **ANALYZER MODE** Use the pulldown box to select PAYBACK and click on the PAYBACK tab.

2 **PARAMETERS** System parameters must first be entered in SETUP-Account for the calculations to be valid. This includes *Sell Rate, System Cost, Annual Cost* and *Lifetime*. Interest rate, time value of money and other variables are not considered to simplify use. It also takes several weeks after initial startup for the actual measured energy generated to reflect the average the system puts out since the Payback values are initially affected by daily variations.

3 **PAYBACK TIME** Based on the average daily energy output and the entered parameters, the calculator estimates how long it will be before the capital outlay is returned, the average return per year and what date the original outlay will be fully paid back.

4 **SYSTEM**

Output - Peak The rated system capacity for 100% output as specified in SETUP-Account

Output - Continuous Daily energy kWh / 24h = equivalent continuous power supplied by the system

Production Energy Actual annual output per kWp of installed capacity. This is a measure of the system efficiency.

Production Revenue Actual revenue per kWp of installed capacity. Measures return on assets installed.

Cost per installed watt Total system cost per kWp of capacity as entered in SETUP.

Cost per kWh Produced Measures the actual cost per kWh produced. This should be lower than the Sell price.

Installed The date of installation as entered in SETUP-Account, used for lifetime calculations

Utilization Shows what percentage of total capacity is actually utilized. (100% = 24 hour sunlight)

Run Time How long the system has been running since initial installation

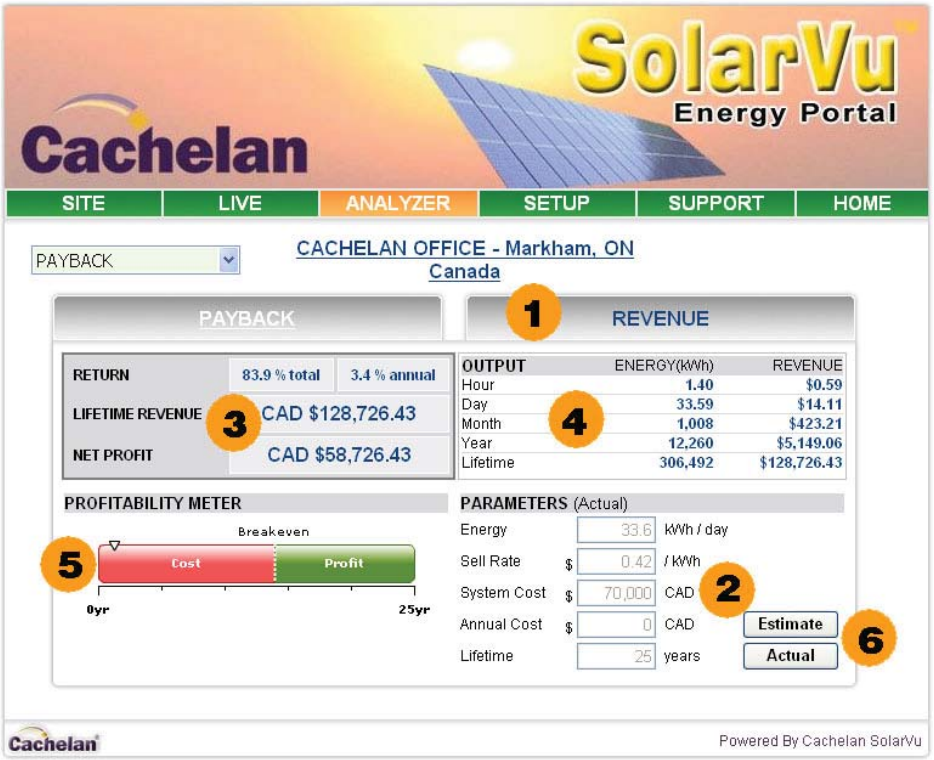
Time Left How much useful life remains based on lifetime entered in SETUP-Account and the actual run time

5 **BREAKEVEN** This gage shows how long the system has been operating, its rated total life and when it is expected to reach break even of cost to initial capital outlay.

6 **ESTIMATE** Although the calculator defaults to use actual measured values and parameters stored in SETUP, it is possible to manually override these values for estimating “what if” possibilities. Click the ESTIMATE button and enter different values to see the effect of changing parameters such as lower cost, more insolation or a higher sell rate. Click the ACTUAL button to return to real values.

ANALYZER

PAYBACK CALCULATOR - REVENUE Use the Payback Calculator to estimate how long it will take to recover the initial capital investment and how well the system is performing. Compare with other systems to check relative performance.



1 **ANALYZER MODE** Use the pulldown box to select PAYBACK and click on the REVENUE tab.

2 **PARAMETERS** System parameters must first be entered in SETUP-Account for the calculations to be valid. This includes *Sell Rate, System Cost, Annual Cost* and *Lifetime*. Interest rate, time value of money and other variables are not considered to simplify use. It also takes several weeks after initial startup for the actual measured energy generated to reflect the average the system puts out since the Payback values are initially affected by daily variations.

3 **PAYBACK RETURN** Based on the average daily energy output and the entered parameters, the calculator estimates the total revenues expected, the net profit and the simple, non compounded annual rate of return for comparison with other investment alternatives.

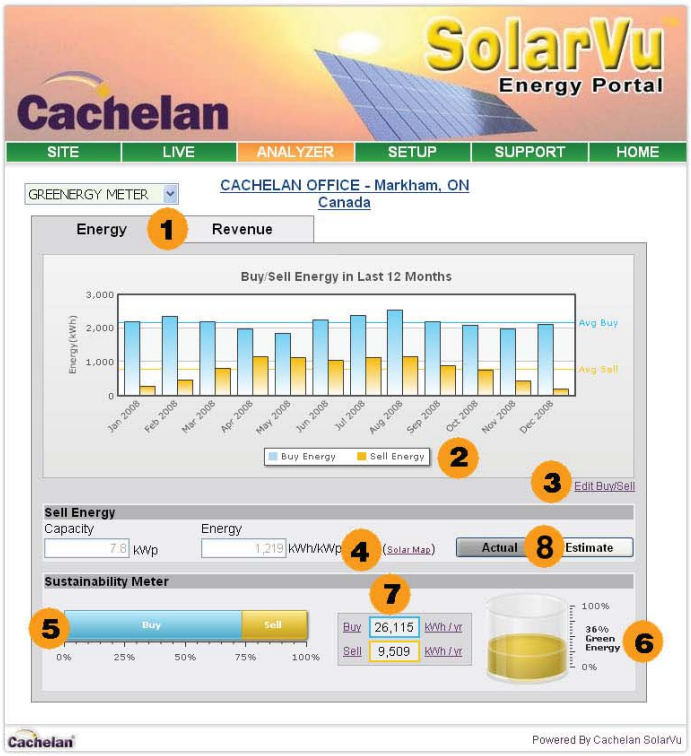
4 **OUTPUT** The calculator continuously estimates the output power and revenue for different time periods based on measured energy and the sell rate entered in SETUP - Account. This assists in projecting expected returns.

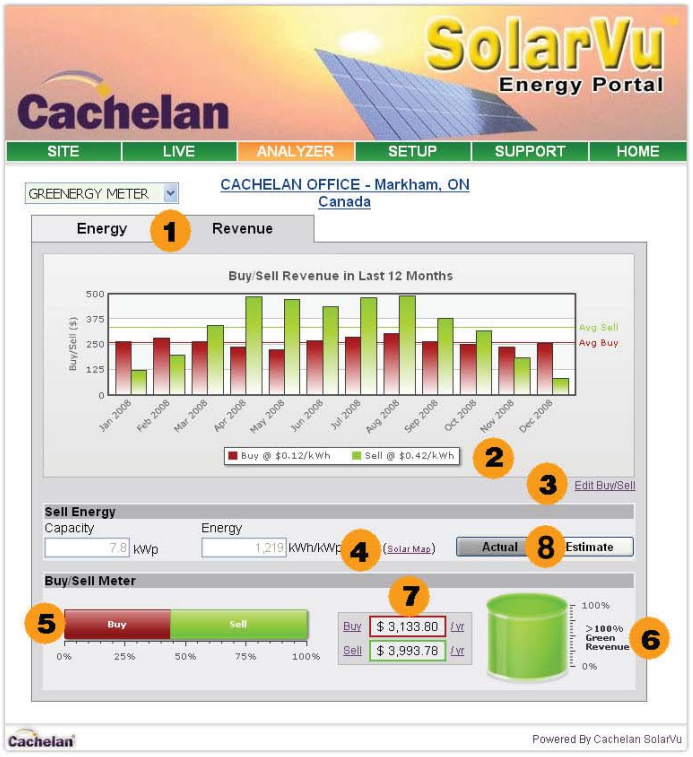
5 **PROFITABILITY METER** Shows the time at which the capital will be returned based on rated life and calculated revenues

6 **ESTIMATE** Although the calculator defaults to use actual measured values and parameters stored in SETUP, it is possible to manually override these values for estimating “what if” possibilities. Click the ESTIMATE button and enter different values to see the effect of changing parameters such as lower cost, more insolation or a higher sell rate. Click the ACTUAL button to return to real values.

ANALYZER

Greenergy Meter - Energy & Revenue Use the Greenergy Meter to determine how much of the total energy use is from renewable sources and what proportion of the utility bill is offset by green energy.





1 **ANALYZER MODE** Select GREENERGY METER in the ANALYZER pulldown then click the Energy tab to determine what proportion of total energy use comes from renewable sources. Click the Revenue tab to find out how much of the utility bill is offset by green energy.

2 **BUY / SELL GRAPH** **C**ompare the monthly buy (import/consume/green) energy and revenue to the monthly sell (export/generate/black) energy and revenue. Scroll your mouse across individual bars for more details in the pop-up. On the right side the average buy/sell energy and revenue for the total period is displayed. If there is no buy (consume) energy monitoring at the site it must be entered manually from the utility bill (3)

3 **EDIT BUY / SELL** Missing monthly values from utility bills or paper records can be manually entered in SETUP - Edit Energy by clicking this link.

4 **SELL ENERGY** Using the system capacity entered in SETUP - Account, the annual energy per kWp of installed capacity is calculated. This should approximately agree with the expected value for the site location shown by clicking the Solar Map link at the site location. To determine how big a system is needed for 100% green energy or revenue, click the ESTIMATE button (8) and enter different values.

5 **SUSTAINABILITY METER** This bargraph show what proportion of the total energy used is bought. Use the ESTIMATE button 8 to enter different values (4) to determine how big a system is needed for 100% green power.
BUY / SELL METER Power is sold at a higher rate than purchased under a feed-in tariff agreement. Using the *Sell Rate* entered in SETUP- Account This graph shows what proportion of total revenues are for buy and sell energy.

6 **GREEN GAGE** How much energy or revenue is from green generation is displayed on this gage.

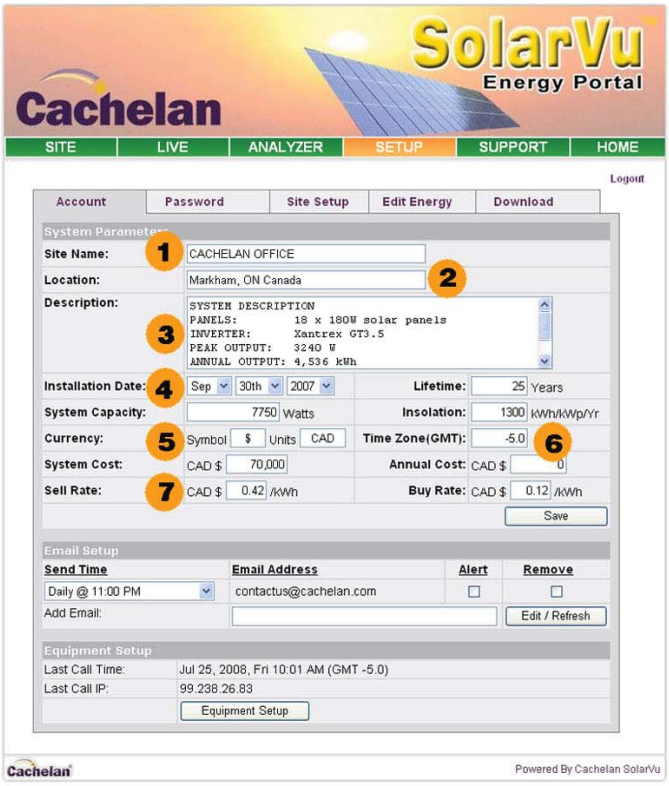
7 **ANNUAL ENERGY / REVENUE** The total annual energy that is bought (consumed) or sold (generated) is shown. This is multiplied by the different Buy Rate and Sell Rate entered in SETUP-Account to convert to revenue. If less than a full year of data is available, these values are estimated. Click the units to convert between day/month/year values.

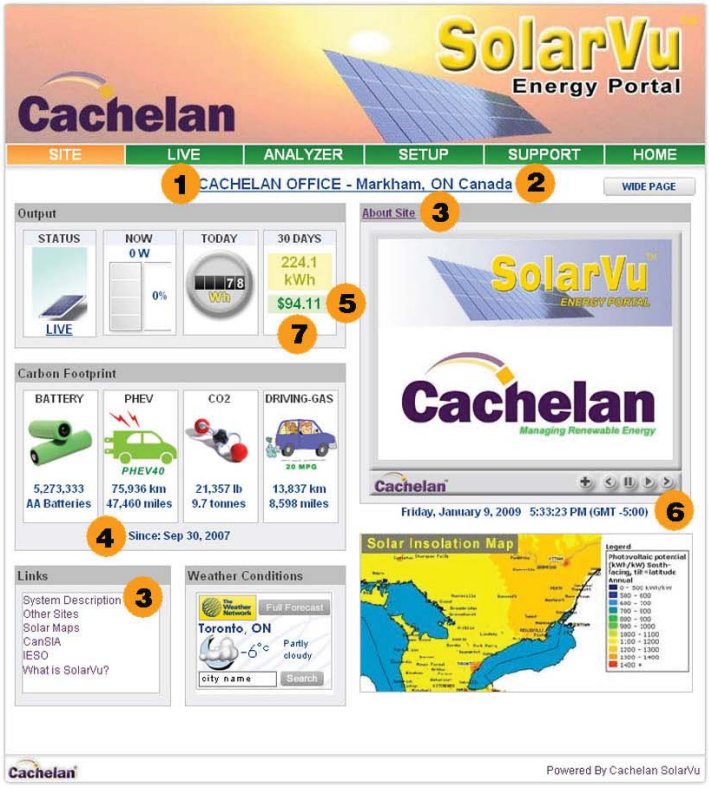
8 **ESTIMATOR** To determine how big a solar PV system is required to fully offset energy consumed, click the ESTIMATE button (8) and enter in different capacity or insolation values (4) until the gages show the desired performance.

SETUP

Account - Site Screen Setup

Enter these parameters to customize the SITE screen. Matching numbers show how the SETUP entry affects the display on the SITE screen.





1 **SITE NAME** Name of the site

2 **LOCATION** Where the site it located

3 **SYSTEM DESCRIPTION** Details of site. HTML tags can be embedded to format the text. This description will pop up when the Site Details title or the System Description link is clicked.

4 **INSTALLATION DATE** Appears under the Carbon Footprint. This parameter also affects the Payback Calculator and appears in the Inverter Status Analyzer screen.

5 **CURRENCY** Local country currency symbol and units to appear next to all revenue numbers.

6 **TIME ZONE (GMT)** Enter the GMT offset for the site location so all clock date/times will be in the correct local time. Find your local time zone at www.greenwichmeantime.com

7 **SELL RATE** Enter the value the utility pays for generated power if a feed-in tariff applies. If net metering, use the amount utility charges for purchased energy. This value will be used to calculate all displayed revenue amounts in the local currency.

OTHER PARAMETERS These entered values affect the calculations used in the Payback Calculator, SITE, LIVE and ANALYZER views.

LIFETIME Estimate the total expected system life.

INSOLATION Expected average annual insolation for this location. Consult a solar map from the ANALYSER-Greenergy Meter screen if unsure of this value.

SYSTEM CAPACITY Enter the manufacturer's rated power output of all the solar panels installed. This is the expected output under full sun conditions.

BUY RATE Use the current rate paid to the local utility for energy consumed. If this varies then divide utility bill by total energy for the period to obtain an average rate. This is used for the Greenergy Meter.

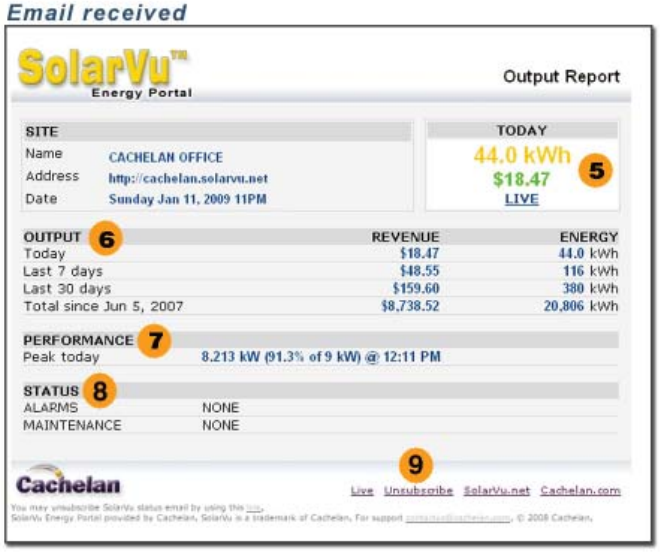
SETUP

Account - Email

Reports and alarms can be automatically sent by email to multiple addresses at user selectable intervals.

Setup > Account > Email Setup screen

Email received



1. **ADD EMAIL** Enter the email address of an additional name to receive regular emails and click the Edit/Refresh button to save it.
2. **SEND TIME** From the dropdown box select how often the email report is to be sent to this address. Emails are sent at the end of the day at 11 PM except hourly which is generally used during testing.
3. **ALERT** When this box is checked only alarms are sent to this email recipient, usually the dealer or maintenance staff. If this box is unchecked, only scheduled reports are sent. If both scheduled reports and alarms are to be received by the same person, enter the email address twice and check the alert box for one of them.
4. **REMOVE** To delete an email, check the remove box next to the address and click the Edit / Refresh button
5. **EMAIL - TODAY** A summary of total energy generated and revenue earned for the current day is shown. Click the LIVE link to go to the site for further details.
6. **EMAIL - OUTPUT** Energy and revenue for various time periods including lifetime since startup are included to keep track of performance without having to visit the site. Revenue is energy multiplied by the *Sell Rate* entered in SETUP.
7. **EMAIL - PERFORMANCE** Peak output and time of maximum power are shown. If the day was sunny, this value should be close to the *System Capacity* value entered in SETUP. A low value on a sunny day indicates a potential problem like snow coverage or shading from foliage.
8. **EMAIL - STATUS** If alarms are detected, a message will be displayed describing the problem. If the Alert box (3) was checked, a separate alarm message is sent.
9. **EMAIL - UNSUSCRIBE** When the U*nsubscribe* link is clicked by the email recipient, their email address is removed to reduce undesired email. It can only be added back in SETUP by the site owner.

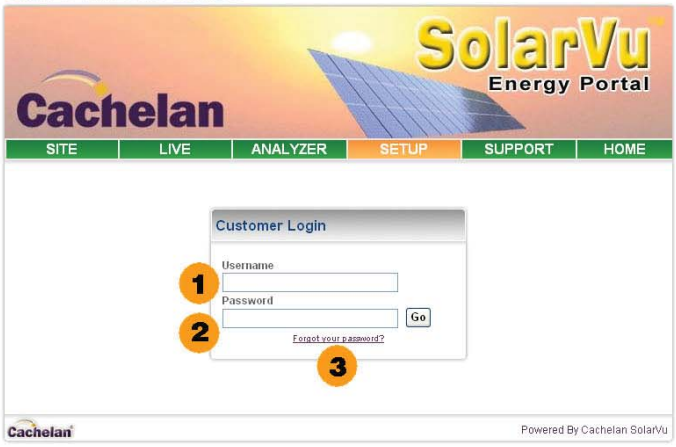
SETUP

Account - Password

A user name and password is supplied with the initial site setup. Configuration settings for customizing the site can only be modified after login with a valid user name and password. Contact the vendor shown in the SUPPORT tab if the user name and password are not known. It is recommended that the default password be changed and an administrator email be registered to receive the password if it is forgotten.

Change password and register email in SETUP

Login to make site changes



1 **USERNAME** The username is supplied when the site is set up and is not programmable. Consult the vendor listed from the SUPPORT tab if this needs to be changed.

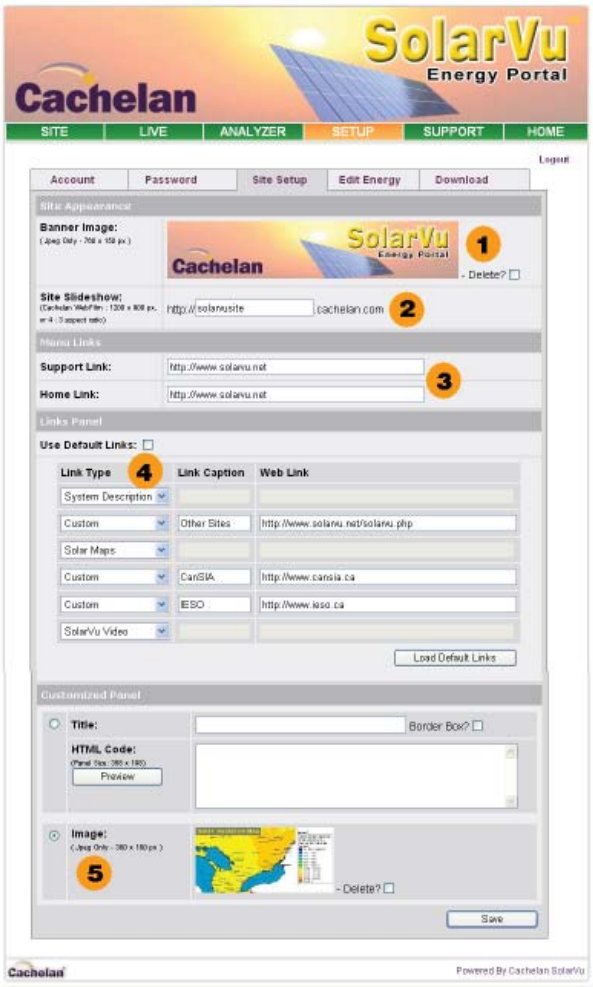
2 **PASSWORD** It is recommended that the default password be changed.

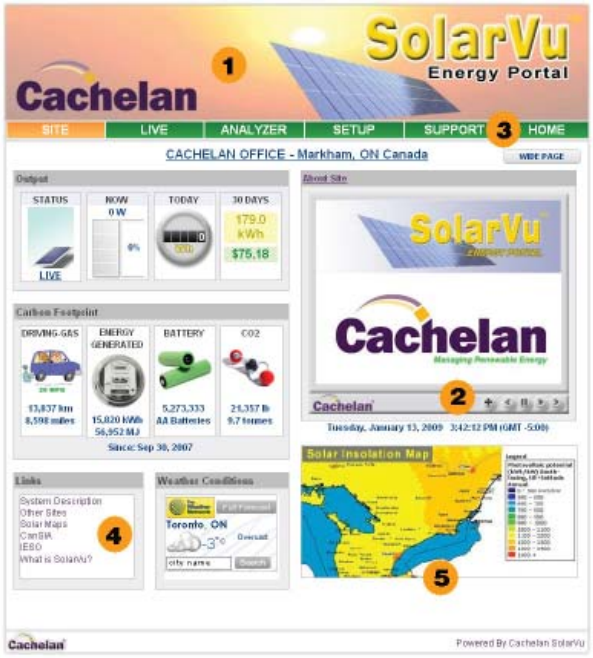
3 **FORGOT PASSWORD?** Register a site administrator email to receive the password by email automatically if it is forgotten.

SETUP

Site Setup

Customize the banner, slideshow, tabs and links in SETUP-Site Setup. Graphics need to be prepared and uploaded to implement these changes which appear immediately on the SolarVu site.





1 **BANNER** To replace the default banner, first create a graphic that is 780x150 pixels in jpeg format. Browse to the file on your computer and upload it.

2 **SLIDESHOW** A slideshow consisting of photos and graphics can be uploaded and changed any time to show site details or communicate a corporate message. This is first prepared using Cachelan WebFilm available from www.cachelan.com with the album name entered here. Any changes made to the WebFilm album will immediately appear on the SolarVu site. For best results, size all images in a 4:3 ratio at 1200x900 pixels. WebFilm also supports captions, full screen views, downloadable documents and links for adding additional detail if desired.

3 **SUPPORT & HOME LINKS** Enter the website address of the administrator in the SUPPORT box and the owner in the HOME box for seamless integration with other websites. The standard format is *http://www.sitename.com*

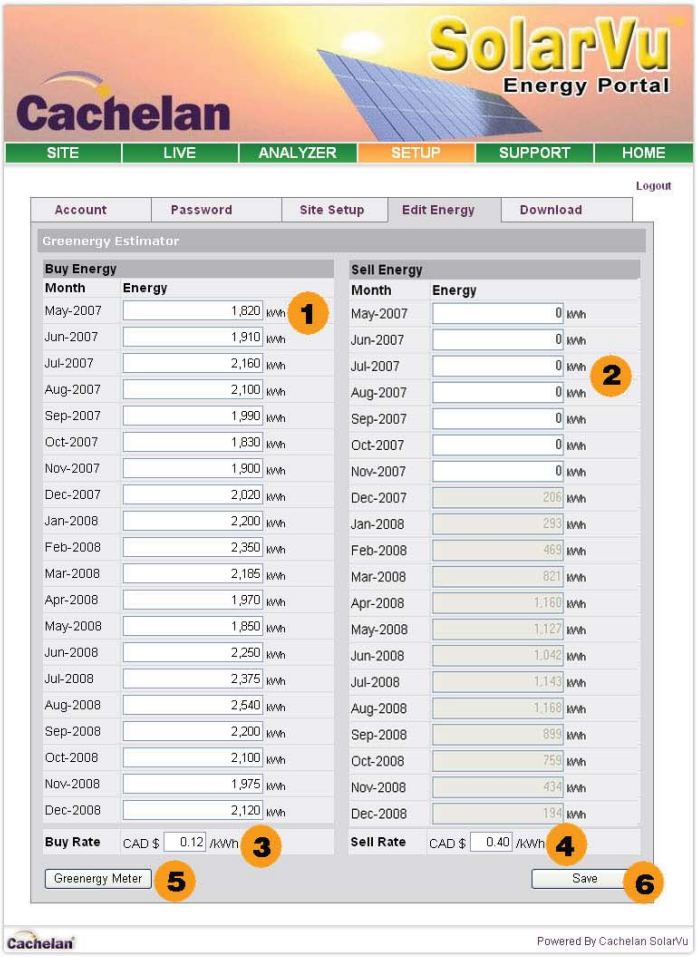
4 **LINKS** Useful default links are provided in the SITE - Links box. Some or all of these can be changed by unchecking the Use Default Links box and entering new web links with captions. After saving, check that the links and captions work correctly in the SITE - Links box.

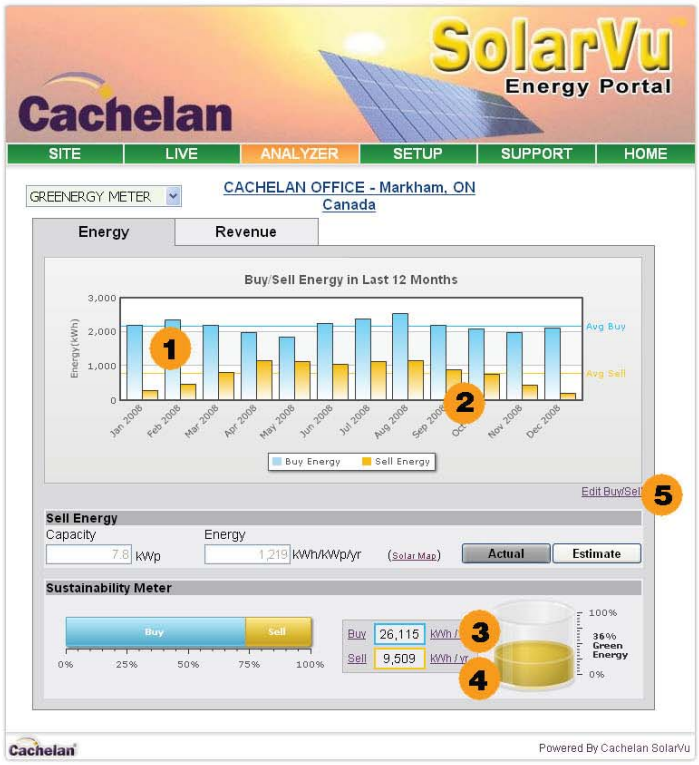
5 **CUSTOMIZED PANEL** The area that appears under the slideshow on the SITE screen can be customized either as a simple graphic or as text. For a graphic, create a create a jpeg image 380x180 pixels and upload it. Alternatively, enter text into the box provided either with a border and title or without. This is useful for adding information about the site. Click the Preview button to verify how it looks before saving. Advanced users can insert HTML tags for additional formatting control.

SETUP

Edit Energy

Use the Greenergy Meter to determine how much of total energy consumption and revenue is from green power. If a consumption (buy) monitor connection is not available or if data is incomplete for the time period, it can be manually updated from paper records or utility bills in SETUP - Edit Energy.





1 **BUY ENERGY** Enter monthly energy consumption from utility bills in each box. These monthly buy energy values appear as blue bars in the Greenergy meter.

2 **SELL ENERGY** Any months for which sell energy from the site has been collected by the gateway will display dimmed. These values can not be over written. Missing values can be added for cases where SolarVu is added to an existing site. This ensures records are complete for the total period. Monthly sell energy values appears as gold bars in the Greenergy meter.

3 **BUY RATE** The amount the utility charges for energy is normally entered in SETUP - Account. If it is entered here it will over write the value shown in SETUP - Account. This is used for calculating Buy (consume) costs.

4 **SELL RATE** The amount that energy is sold for is normally entered in SETUP - Account. If it is entered here it will over write the value shown in SETUP - Account. This is used for calculating Sell (generate) revenue.

5 **GREENERGY METER - EDIT BUY / SELL LINKS** To see the effect of changing values and quickly alternate between the edit and Greenergy screens, use these links.

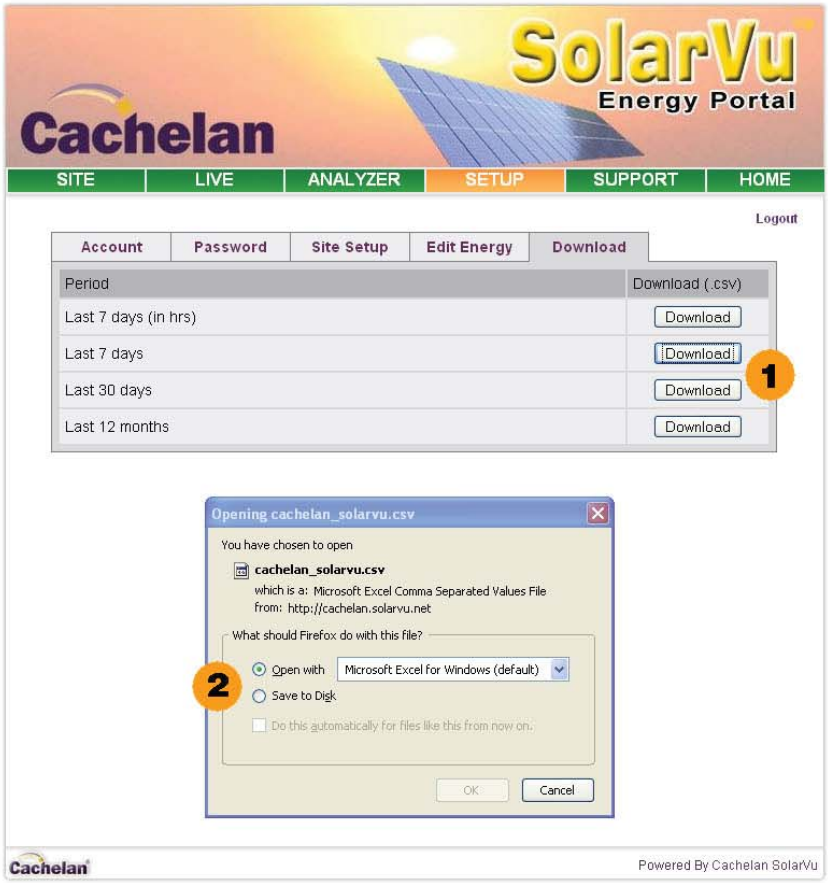
6 **SAVE** Save changes before exiting.

SETUP

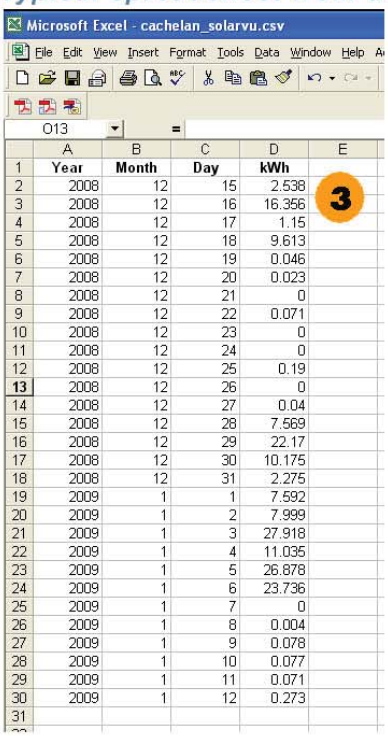
Download

Actual measured values for any time period can be downloaded in .csv file format for opening in a spreadsheet like Excel. This allows further custom analysis and report creation.

SETUP - Download



Typical spreadsheet from download



	A	B	C	D	E
1	Year	Month	Day	kWh	
2	2008	12	15	2.538	
3	2008	12	16	16.356	
4	2008	12	17	1.15	
5	2008	12	18	9.613	
6	2008	12	19	0.046	
7	2008	12	20	0.023	
8	2008	12	21	0	
9	2008	12	22	0.071	
10	2008	12	23	0	
11	2008	12	24	0	
12	2008	12	25	0.19	
13	2008	12	26	0	
14	2008	12	27	0.04	
15	2008	12	28	7.569	
16	2008	12	29	22.17	
17	2008	12	30	10.175	
18	2008	12	31	2.275	
19	2009	1	1	7.592	
20	2009	1	2	7.999	
21	2009	1	3	27.918	
22	2009	1	4	11.035	
23	2009	1	5	26.878	
24	2009	1	6	23.736	
25	2009	1	7	0	
26	2009	1	8	0.004	
27	2009	1	9	0.078	
28	2009	1	10	0.077	
29	2009	1	11	0.071	
30	2009	1	12	0.273	
31					

1 **DOWNLOAD** Select the time interval of interest and click the matching button. Values will be hourly for <7 days and daily for >7days up to the total lifetime of the system.

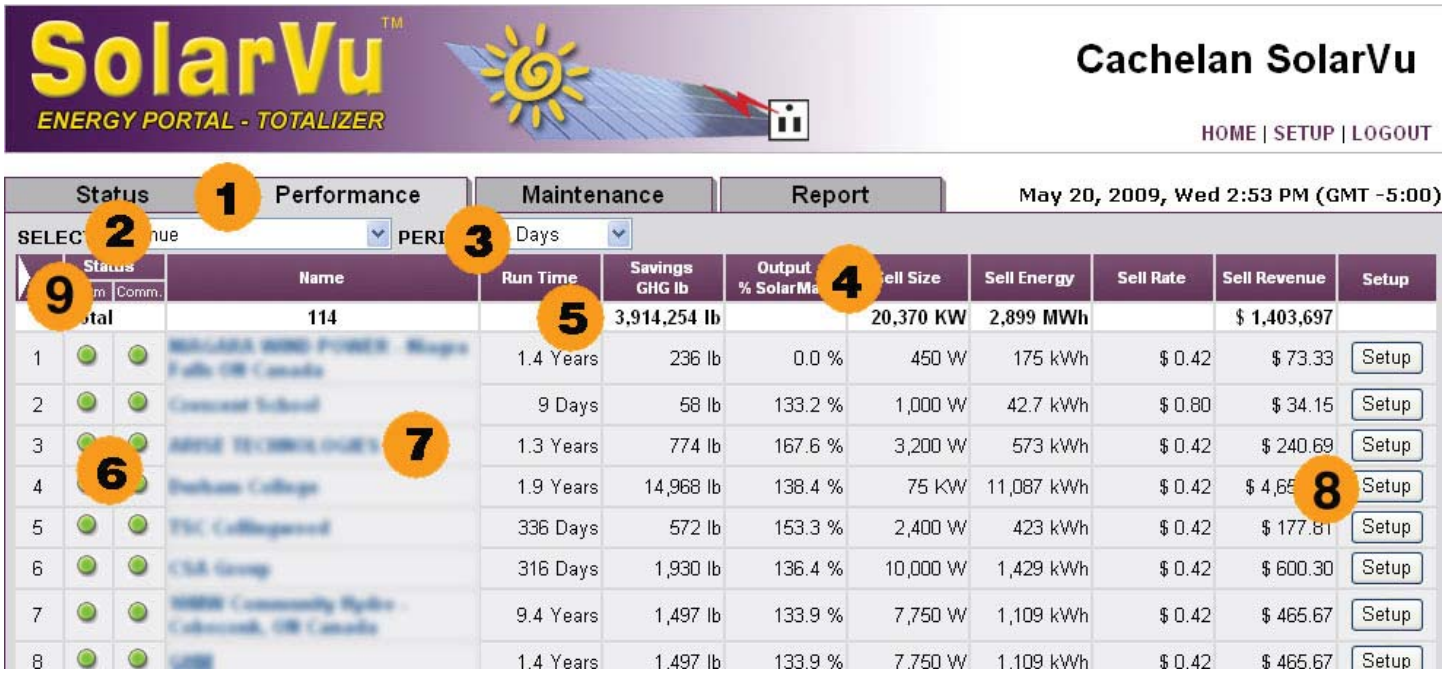
2 **OPEN / SAVE FILE** Depending on the time interval it may take some time to generate the file which is in csv format, suitable for opening with a spreadsheet program like Excel. Save the file to disk or open immediately if appropriate software is loaded on the computer.

3 **SPREADSHEET** Energy values for the interval will be arranged as hourly or daily records timestamped and sorted in ascending order. Energy generation can then be analyzed using conventional spreadsheet commands.

TOTALIZER

Performance

Multiple sites can be grouped for access with a single login using the SolarVu Enterprise Totalizer view. Apply to contactus@cachelan.com to set up an account. From a single screen, view status of all sites, sort by different parameters, compare performance for any time period, print PDF reports, download CSV data files for analysis or jump directly to any site.



1 **INFORMATION TAB** Select type of information for display.
Status- Conditions now such as online status, alarms, power output, revenue today
Performance- View parameters ❷❹over any time period ❸ including energy, GHG savings, revenue, % of solar map
Maintenance- Set up each remote measuring device
Report- Create a PDF report for any displayed view. Download raw data in CSV format for spreadsheet analysis

2 **SELECT PROFILE** Choose the group of related parameters for display and reports. Create and name new profiles ❾ as needed.

3 **PERIOD** Choose a time period. The values will automatically be added to cover that interval. If site data is missing for the time period an asterik will appear in the left column. Totals will not be valid for such sites.

4 **PARAMETER** Create a profile with the required parameters for display. Click on the parameter of interest to sort sites in ascending order. Click again for descending order. To find sites alphabetically, click on the Name header.

5 **TOTAL** For the selected time period ❸ the total or average of all sites appears in the Total row. If an asterick appears in the left column for any site, the data is incomplete and the totals are not accurate for the selected time period ❸

6 **COMMUNICATION STATUS** If communication from devices at the site has not been received for more than an hour, the Comm light is red. If the Alarm light is red, then invalid data is being received. Green indicates normal operation. Click on the Alarm or Comm heading to sort sites by those that have a problem. Click on the site name ❼ to go directly to the LIVE view for more details.

7 **SITE NAME** Click the site name to go directly to the site energy portal LIVE view.

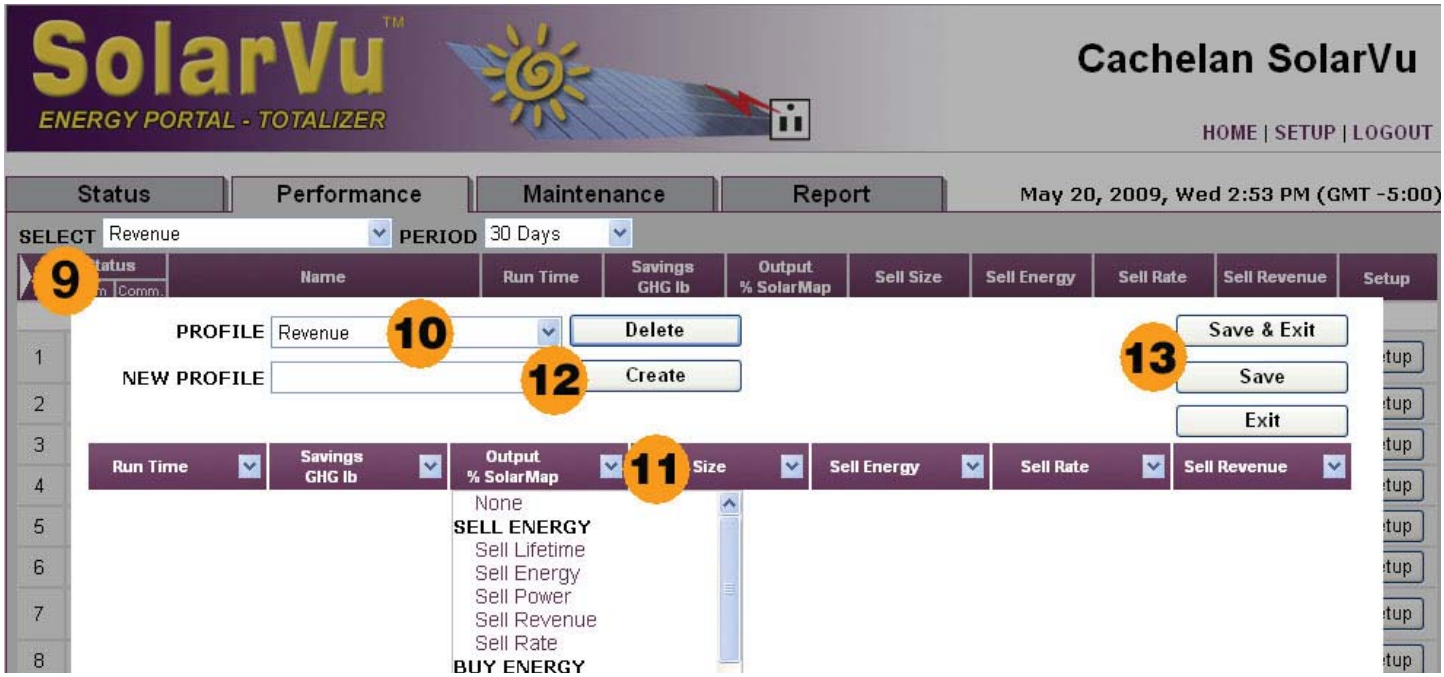
8 **SETUP** To change settings for a site, click the Setup button. This button will only appear if the account has administrator priviledges. Visitor priviledges only allow looking at the site but not changing settings.

9 **CREATE PROFILE** To edit an existing profile or create a new named group of parameters for display, click the white arrow. This is only available to accounts with administator priviledges.

TOTALIZER

PROFILE

Group related parameters together for different reports such as revenues, green power, savings, buy/sell, performance. After creating and sorting for the desired display, use the report tab to download a printable PDF version.



9 **CREATE/EDIT PROFILE** Click the white arrow to access the Profile pop up screen. Use this to edit an existing group of parameters or create and name a new one. This is only available to accounts with administrator priviledges.

10 **SELECT PROFILE** Select an existing profile for editing or click Delete if no longer required.

11 **CHOOSE PARAMETER** Using the pulldown button, for each column, select the desired parameter to display. Select None for a blank column to provide better ledgability in a printed report.

12 **NEW PROFILE** Once all parameters are selected, click Save to update the current profile ❿ or enter a new profile name and click the Create button.

13 **SAVE** When done, click Save to start another profile or Save & Exit to return to the main view.