

Installation Case Study: 001

Energy Storage System, Urunga, NSW

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In January 2012, Si Clean Energy Pty Ltd designed, supplied and installed a large residential Energy Storage (ES) system to a residential location at Urunga, NSW. The ES system is a 3 Phase configuration and an Allsolus energy monitoring system was installed to provide an energy management tool with a Web Portal display for the client. The Web Portal allows energy monitoring via PC, smart phone or tablet. The system included:

Allolus Access Web Portal
Allsolus LiveBASE
Allsolus MeterLINK with external meterbox antenna
Allsolus EnviroLINK
Bi-directional Wattmeter

Installation completed January 2012



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The Allsolus energy monitoring system was installed as a tool with which to control energy costs. After the solar system was installed the Allsolus Web Portal data clearly displays how energy flows occur to the household loads and in and out of the NET metered connection to the grid.

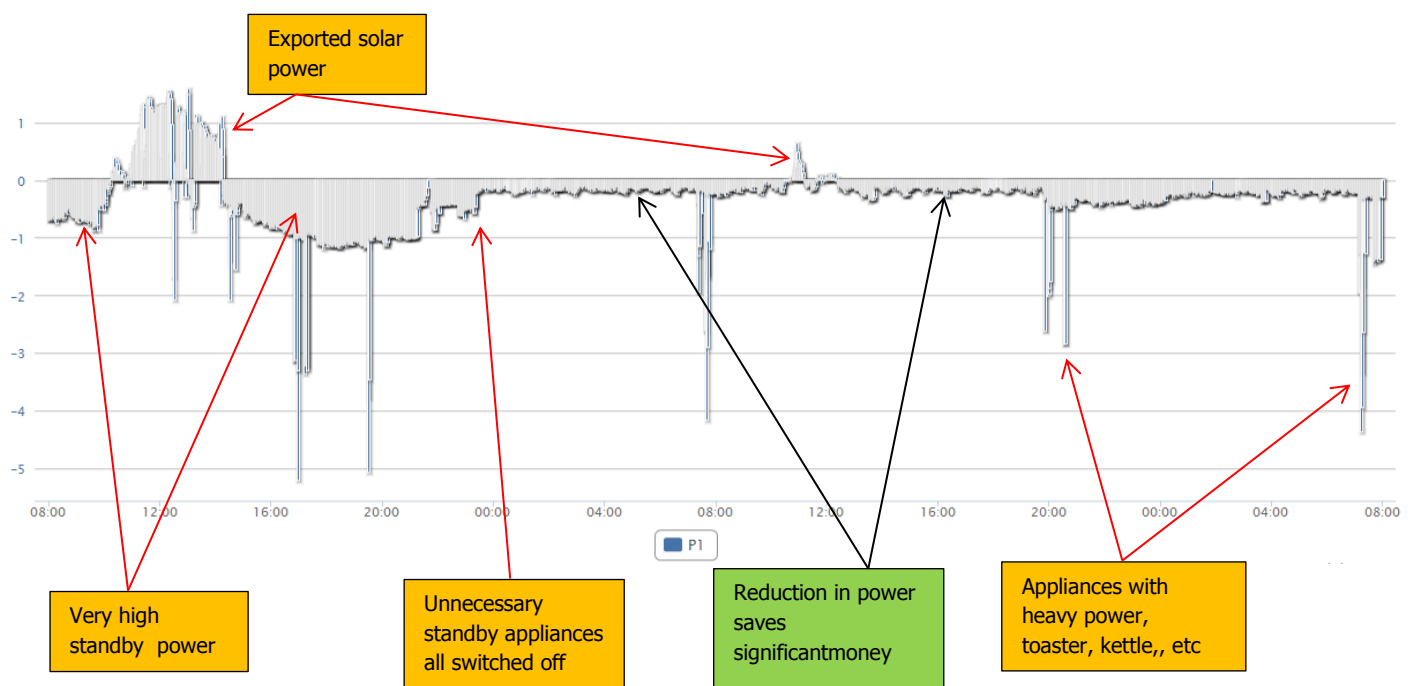


Figure 2. Allsolus web portal screenshot

In Figure 2 above, an Allsolus internet screenshot, it can be seen how the visual display of energy allows the system owner to understand and manage consumption. The immediate effect is to locate and control the inefficiencies, reduce waste and thereby save money. In the above case very significant cash savings are made due to a dramatic reduction in wasted power. In this case, 24kWh (\$8.16) per day reduced down to 8 kWh (\$2.72) per day, represents an annual saving of 67%.

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Figure 3 below shows the Si Clean Energy solar system installed in the customers garage. The Allsolus energy monitoring system provides a visual display of the system energy flows.



Figure 3. Residential 3 Phase Energy Storage System



Figure 4. Customer's meterbox

Allsolus
MeterLINK

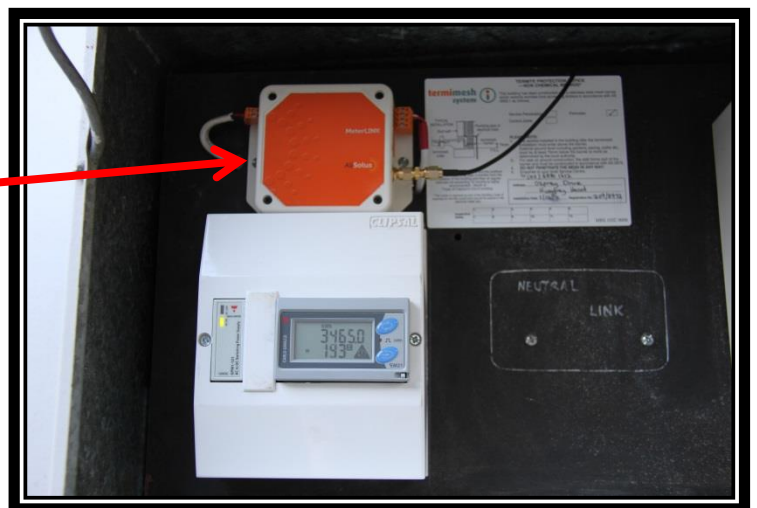


Figure 5. Allsolus MeterLINK inside meterbox

Allsolus systems are configured and installed to suit the customer's needs.

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The below chart in Figure 6 shows how the solar system was fine tuned to limit export power to 1kW, so as to focus the available solar energy into battery recharging. Since the utility was only paying 6c/kWh for exported electricity, energy management is greatly improved by directing it where it provides greatest financial return to the customer. In this case it is the storage of energy into the batteries for later use at the required times.

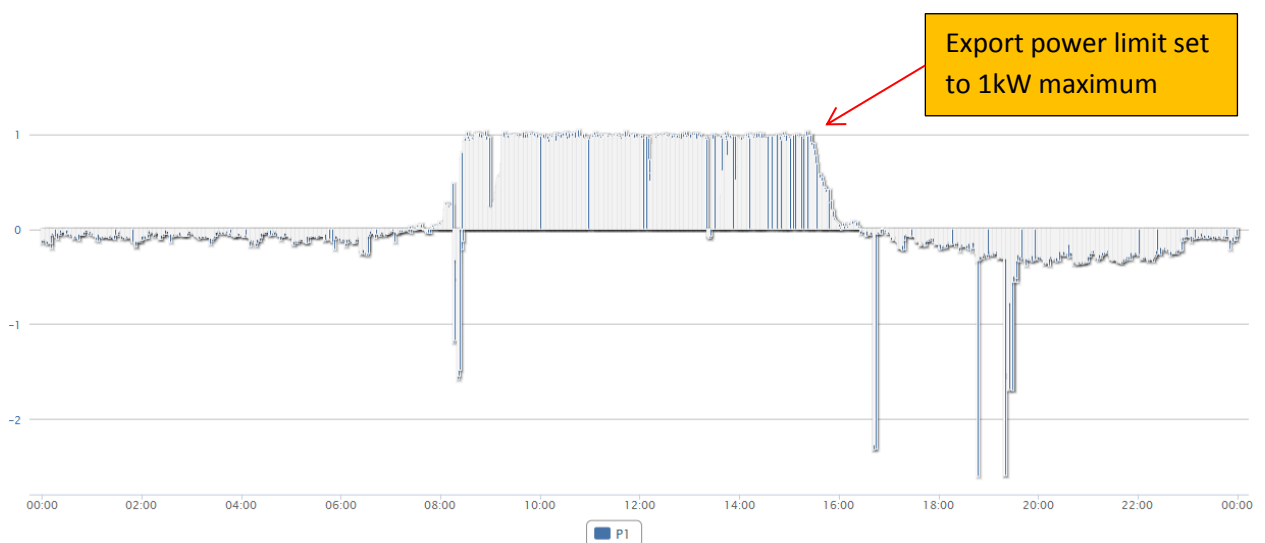


Figure 6. Allsolus internet screenshot displaying solar export power control



Figure 7. Allsolus LiveBASE

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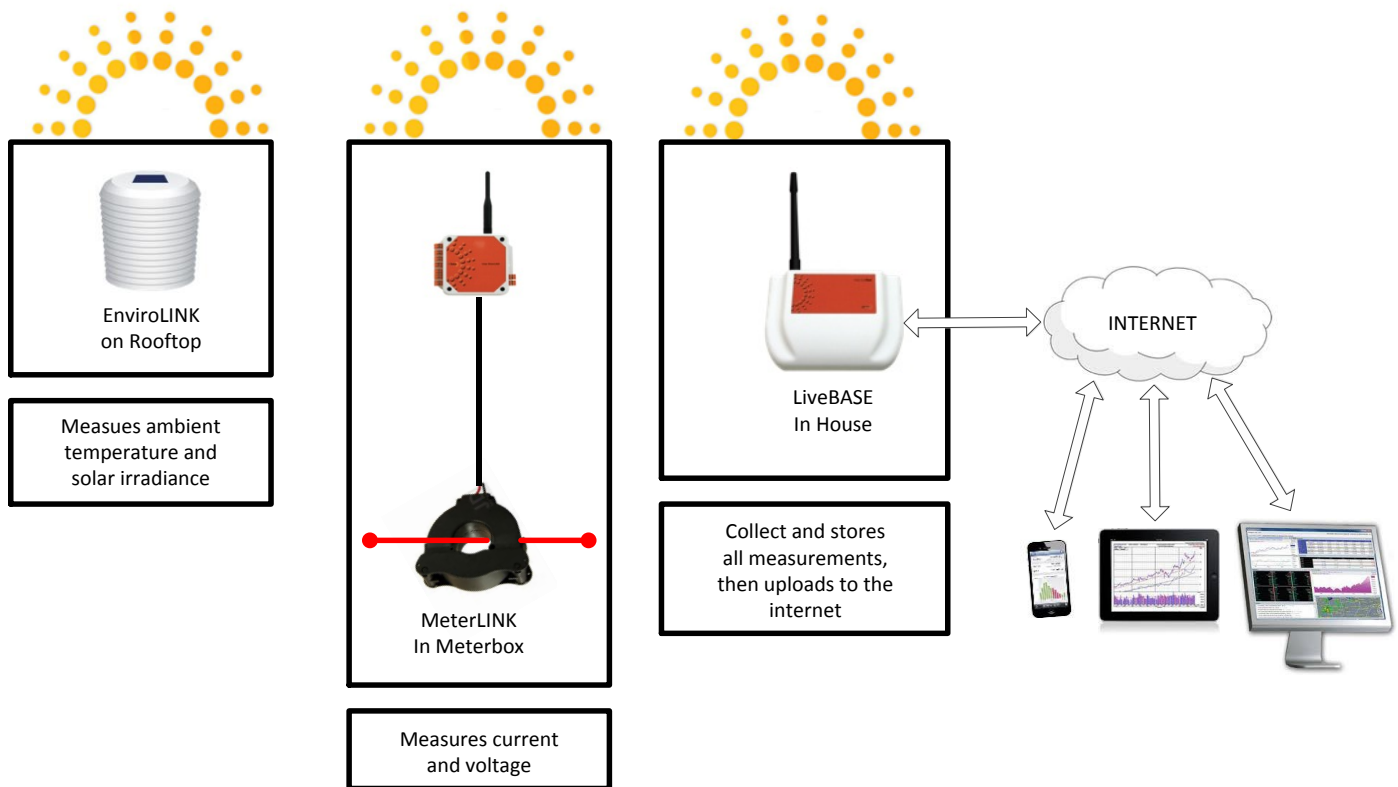


Figure 8. Allsolus system components and operation

Conclusion

The Allsolus energy monitoring system allows at any time, the internet display of energy flow and site weather information on smart phones, tablets and computers. This enables you to manage your energy consumption to greatest advantage. In this way significant cost savings can be realised. The Allsolus energy monitoring system therefore provides a significant return on investment by providing the tools to reduce electricity bills and give you control over your energy costs.

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