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All wired up in Lewes

A house-owner in Lewes became one of the first in this area to use state-of-the-art lithium battery technology to store energy from solar PV panels. Jill Goulder, owner of an Eco House featured annually in the Lewes Eco Open Houses weekend (www.lewesecoopenhouses.org.uk), has installed a lithium battery storage system linked to her solar PV panels. These recharge during sunlight hours and provide power in the evenings – very useful for households who use most of their electricity outside sunlight hours. The system switches seamlessly between battery and mains supply as needed; a good system will cover a household's normal needs, though of course major appliances such as washing-machines and vacuum cleaners drain the batteries rapidly and will need mains top-up.

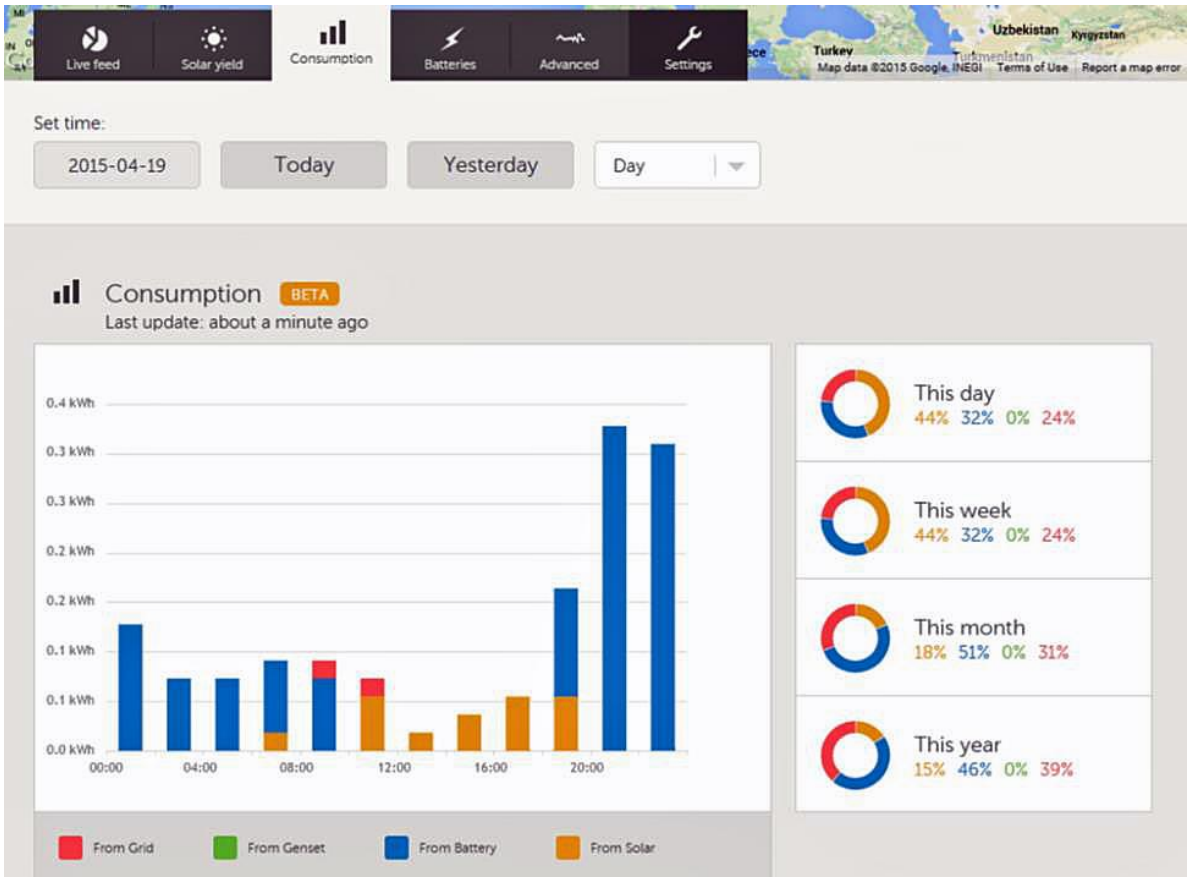
Jill says 'Lithium batteries are the new generation of energy storage, and they're decreasing in price. My electricity bills are already very low, but I liked the idea of using all the electricity that I generate with my solar PV panels; and it gives me supply security in case of the mains power-cuts that we increasingly get at times.' The system can be monitored online by the user on their own computer, with graphics showing consumption and battery usage throughout the day.

The system is housed in a blue metal box about the size of an airline carry-on bag, bolted to a wall, for example in an attic. The installed price for a small-to-medium system is likely to be **£3-6,000**, so it is not for everyone, though it's becoming a favoured investment for householders with solar PV panels who are looking to take the next energy-reduction step. A lithium battery storage system can be a price-enhancer for house-sellers – and it is forecast that sooner or later Britain will follow Germany's lead in providing a subsidy for householders investing in these systems.

Jill adds 'Do use a reputable supplier for your installation – there are cold-callers in this area offering quick-sign deals that are less good value than they seem; and check too that the system you buy will continue to work during a power-cut. Analyse your electricity use carefully beforehand: when are your peak times for using electricity each day, and can you install more energy-efficient appliances or LED lighting? And ask around for advice – the Transition Town Lewes Energy Group will be able to help you.'

Jill's installation is a **Victron EcoMulti Hub-4** (2.3kWh storage, 3kVA inverter), linked to her 1.29kWh solar PV system. It's maintained by **Sunstore of Worthing (www.sunstore.co.uk)**; more details on the EcoMulti are available on **https://www.victronenergy.com/inverters-chargers/ecomulti**.

Jill with her solar panel and lithium storage battery installations © Jill Goulder 2016



Online monitoring of the installation's performance