

Sustainable energy for Lowlands festival



Lowlands is one of the oldest festivals in Dutch history. On August 15-17 2014, the 22nd edition of Lowlands took place in Biddinghuizen, Flevoland. Here are a few facts to give you a flavour of the festival: 55,000 visitors, 8 music stages, 4 cultural stages, a supermarket and 7 campsites for tents and vans.





The organizers of Lowlands ensure the festival is as sustainable as possible, by paying particular attention to energy supply, water management, sanitation facilities and waste management. All measures are aiming at minimizing the environmental impact. One example is the use of vacuum toilets. These use around 1 litre of water, instead of the 6 litres normally used, with conventional festival facilities. Within the area of energy supply though there is still a lot to be done, as electricity is not only used for stage lights, fridges and musical equipment. Now there is also an increasing demand from visitors, to charge camera batteries and mobile phones.

Pluggo

Pluggo is an organisation meeting that demand. They operate at most of the main festivals in The Netherlands, providing mobile phone and camera chargers. Visitors pay a deposit and receive a small battery pack with matching cable. This battery pack takes little space and easily fits in the pocket of a coat or jeans. Visitors can immediately start charging their phone while they continue dancing or hanging out with friends. The Pluggo facility to achieve this requires a power supply for around 3,200 chargers simultaneously. This is a power requirement of approximately 16 kW, which is provided via a 32A connection. A diesel generator is used at Lowlands for this supply, as it is a remote location without a grid connection. This is clearly not ideal, as a diesel generator is not particularly environmental friendly due to the noise and pollution it creates.

Sustainable energy

In order to meet the greener requirements of the Lowlands organizers, for a more environmentally friendly solution, Pluggo contacted VolopZon. This is a company whose vision is that sustainable energy should be available for all. In solving the challenge they came up with a sustainable energy solution, that is a perfect match for all concerned and within the challenging timeframe of just two weeks.

A complete solution

Using a 10ft. container with solar panels inclined and orientated using a hydraulic ram, the facility harvests more solar power than if the panels were laid flat. It also provides an excellent orientation point. Inside the container, Victron Energy's EasySolar has been installed. This is an all-in-one solar power solution, combining a MPPT solar charge controller, an inverter/charger and AC distribution in one enclosure. VolopZon selected the EasySolar, because it is a complete solution which is easy to install and perfectly met their power requirements. The complete system can deliver a total of 1000Wp; enough to charge at least 10 percent of the chargers, which reduces generator run time. All solar power harvested, will be used directly to charge the battery packs. In case not enough solar energy can be harvested, additional power can be provided by the generator.

The EasySolar fits perfectly within the container as it only needs little space.

A requirement from sponsor Greenchoice was that the energy harvest should be visible for visitors. To complete the system a large display, with a digital counter, shows the amount of energy that is harvested per festival. This helps visitors become aware of what can be achieved with silent solar power. Festivals like Lowlands can increase this awareness and spread the sustainability message. EasySolar is the all-in-one solar power solution helping Lowlands to achieve this.





Victron Energy offers complete power solutions all over the world.



victron energy
BLUE POWER

Energy. Anytime. Anywhere.