



LOWLANDS FESTIVAL

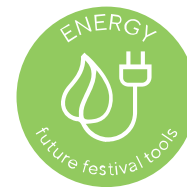


Photo by Bart Heemsker



CITY, COUNTRY

Biddinghuizen, the Netherlands

DAILY CAPACITY

60,000

SITE

Evenemententerrein Walibi,
Holland

CAMPING

Yes

NUMBER OF DAYS

3

ESTABLISHED IN

1993

GENRE

Bands, DJs and Electronic Music of
the alternative genre; theatre, art,
literature, film, debate

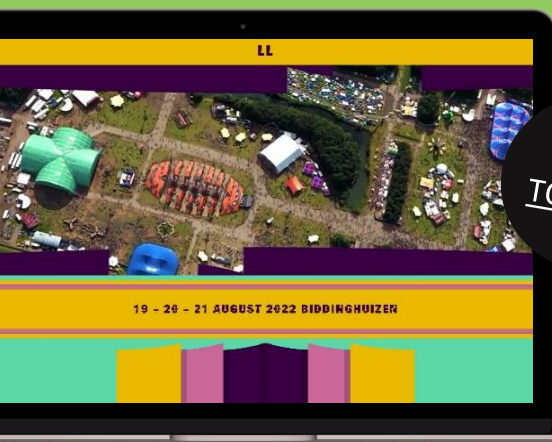
CHALLENGE & SOLUTION

Changing from diesel to renewable
energy by building a giant carport
solar park

For three days in August, a town with 60,000 inhabitants arises in the middle of the Netherlands: Lowlands Festival, also called A Campingflight to Lowlands Paradise. It hosts twelve stages in three areas (among them a cinema and theatre), about 250 acts, dozens of restaurants from all corners of the earth, a large market with everything from clothes and CD stores to a barber's shop, sports facilities, a sauna/hot tub area, its own currency, a local radio station, a daily newspaper and seven luxury campsites. The festival regularly sells out in less than a day.

Lowlands Festival has been making serious efforts to create a more

sustainable event since 2006. Back then, they wrote a report, together with a consultancy agency, that focused on five key areas: waste management, mobility/transport, energy, water/sewage systems, and food and beverage. "We have been working on all subjects, year after year, and improved our operations bit by bit," says Festival Director Eric van Eerdenburg. "We work in accordance with Dutch environmental laws and often perform even better than what they require. Where no laws are in place, we use common sense and perform with respect to nature and environment."



THE MOST ADVENTUROUS CULTURAL OUTDOOR EVENT OF HOLLAND

REMOVING ALL DIESEL GENERATORS

Lowlands Festival wanted to run their operations more sustainably and identified electricity as the biggest polluter. “We’ve been investigating how to improve our electrical power situation since 2007,” says van Eerdenburg. The festival used to rely on 103 power generators which demanded 180,000 litres of diesel each edition.

A better alternative was to connect to the local power grid and receive renewable energy through a green tariff. “We’ve been trying to get on the grid since 2007. It was impossible because the infrastructure is insufficient for our power needs and nobody wanted to share the capacity of the infrastructure that was available,” van Eerdenburg criticises. So, the team tried to get involved with solar and wind parks in the area – again without success. “Nobody wanted to let us participate. Dutch laws are also not cooperative in that sense. After five serious attempts to change from diesel to the grid, we thought it was impossible or too expensive.”

The situation changed in 2015, when the solar park developer [Solarfields](#) asked the team if they wanted a solar park at their site. Luckily, the festival owns the land that houses its campsites and parking spaces.

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BUILDING 90,000 SOLAR PANELS AS CARPORTS

Because Lowlands didn't want to give up their 35-hectare parking lot, which fits 15,000 cars, the festival suggested to build a carport solar park. After 2 years of investigating and negotiating, they reached an agreement on finance and workflow with Solarfields (SF). "SF had the knowledge and influence to cooperate with all parties and challenges involved: government, owners of the private power grid, Giga Storage batteries, the main national grid and the financing," van Eerdenburg says.

The build-up was finished in 2021; the solar park has been in use since 2022. Lowlands now co-owns a Solar Carport Park that consists of 90,000 solar panels and produces 35 million kilowatt-hours per year, equivalent to 100 festival weekends or about 10,000 households. "It's the largest Solar Carport Parking in the world."

The generated power goes into a private-owned smart grid to which several wind and solar parks in the area are connected and that leads into a Giga Storage battery. These batteries are produced by the company of the same name, which is known for its powerful, solid and large-scale battery storage systems. The Giga Storage battery is

used to store and balance the energy before it leads into the main national grid, van Eerdenburg explains.

With this, Phase 1, as the festival director calls it, is finished. Phase 2 starts in September 2022 with the construction of a private grid on the Lowlands festival site – then the battery can be connected to it. "We will take about 1% of the total annual production of our co-owned Carport Solar Park. The other 99% is sold to a private energy company."

In total, the construction cost about €40 million. Still, van Eerdenburg says: "We expect it to be both an environmental and a financial success for all parties involved. We consider it our moral duty to do what we can to make the festival operations as sustainable as possible. Also, audiences and sponsors nowadays demand a sustainable festival operation, and the solar carport, plus our future investment in the new power grid, makes Lowlands future-proof and opens the festival up to new sponsors."

PHASE 2 – CONNECTING TO THE GRID

Van Eerdenburg is proud of this achievement, but criticises how unnecessarily long the process was. “The laws for producing and consuming electricity from the grid are very old-fashioned and don’t acknowledge that changing into a sustainable future should be a lot faster. We are idiots to have been working on this for 16 years. Most companies do not do that. They start reacting when laws force them to do so.” According to him, the Dutch law makes it almost impossible for 3-day festivals to

create solutions like Lowlands did, because the festivals would have to pay for energy peaks during the whole year, even if they only need energy for 3 days, and even when they transport it through their own private smart grids.

Nevertheless, van Eerdenburg says that, in theory, a project like this could be created at any festival and that Lowlands is open to advising other events about the process.

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WHAT’S NEXT?

In 2023, the Lowlands team wants to finish Phase 2 and connect to the grid. Another big issue they will focus on is waste avoidance and management.