

Next2Sun concept empowers agricultural farms in Ireland by solar power

Freiburg, 20/11/2019

Two agro-photovoltaic open space plants with the Next2Sun concept have been constructed and put into operation in Waterford, Ireland. The PV-plants have an energy output of 25 and 27 kW peak and each are expected to produce 30 MWh per annum, covering the electrical power needs for two dairy farms. The company Sunstream Energy Ltd was responsible for both projects and in total 138 bifacial modules were installed. In total the main goals of the projects are: self-consumption, achieve about 35-40% savings on utility bills and a considerable reduction of carbon emissions.

The Next2Sun concept

The main idea behind the plant concept is the vertical installation of specific solar panels which can utilize light from both sides (“bifacial” modules). The two sides of the modules are facing East and West, leading to a peak in energy generation during mid-morning and in the evening. Next2Sun plants are feeding energy to the grid when other photovoltaic plants are producing on a low level. This relieve the electricity grids, especially those in lower voltage levels. The Next2Sun photovoltaic system benefits directly from the market situation: due to the electricity prices typically being lower at noon and higher in the morning and evening hours, our plants reach higher average revenues. Depending on the type of module used, 5 to 15% higher electricity yields per kW can be achieved.

Agro-photovoltaic open space plant for self-consumption

The Next2Sun concept has a range of applications, for instance, little “farm” agro photovoltaic systems for the self-production of operational electricity demand. Such an installation type was recently installed for two dairy farmers in Waterford (Ireland). Both farmers milk about 200 cows in the morning and the evening. Hence, their peak electrical loads occur perfectly coincide with the peak outputs from power plants using the Next2Sun mounting concept. With other words, Next2Sun plants are especially suitable for the operation of dairy farms, as it enables very high self-consumptions quotes. A large part of the operational electricity demand can be met by self-production without losing areas near to the farm for other usage. Through the vertical elevation of the bifacial solar modules, the value of the floor area is not affected. Furthermore, the space of at least 10 meters between the rows allows the use of conventional agricultural machinery. With the usual working widths, about 90% of the solar park area can be used for agricultural purposes such as pasture farming. Thus, the Next2Sun concept achieves a balance between agricultural usage and electricity generation of sun power.

First agro-photovoltaic plant in Austria

This double benefit is also illustrated by an agro photovoltaic plant that was recently installed in Guntramsdorf (Austria). The plant is the first agro photovoltaic plant in Austria using the Next2Sun vertical concept and has an energy output of 22,5 kW peak. The plant itself consist of two rows facing east and west and it supplies approx. 23,3 MWh of solar power per year. Responsible for the project is the Austrian supplier Wien Energie.



Caption: In the future, the agro-photovoltaic open space plants should cover the self-consumption of the farmers

Press release

Publication and reprint free of charge; a copy of the receipt is kindly to Next2Sun GmbH requested.

Particulars:

Next2Sun GmbH Office Freiburg
Christian Meyer
Am Rotschachen 10a
79110 Freiburg i. Br., Germany

Tel.: +49 (0)761 - 45893156

E-Mail: info@next2sun.de

Internet: www.next2sun.de

Next2Sun is a start-up company that has set itself the goal of solving already foreseeable problems, which the energy transition will bring. As long-standing players in the energy transition and experienced project developers, we are attracted by the wide range of different applications and the global applicability of our new concept. The basic principle of the concept is the vertical arrangement of solar modules, which can use sunlight from both the front and the back ("bifacial" solar modules). The two active sides are oriented east and west. We see the fascinating opportunity to establish an innovative concept as a new building block in the renewable energy mix of the future.