

How solar plants and animals match together

meeco to set PV plants in harmony with surroundings

Sustainable development has been established since long as a priority goal of governments, businesses but also of private investors. As a recently published report of the [International Renewable Energy Agency \(IRENA\)](#) emphasises, solar energy will continue to contribute to this goal: From today's 2% share of global electricity generated by solar systems, it is supposed to increase to 13 % by 2030. The meeco Group as a leading clean energy provider fosters worldwide this development with its projects – even in extremely remote areas.

While pushing forward the growth of the solar sector towards a greener and highly competitive economy, it is also important to take the environmental aspects around the installations into account. In his [Biodiversity Guidance for Solar Developments \(2014\)](#), the BRE National Solar Centre defines solar plants as “excellent opportunity for biodiversity”. The guideline informs about opportunities to combine solar systems and the enhancement of biodiversity in order to integrate the environment while pursuing the main aim – generating solar power. The BRE guidance presents several opportunities to increase the biodiversity value of a site whereas it also clarifies, that all measures taken depend on the local conditions and no universal approach can be found. “meeco follows the general intention of the directive by maintaining different natural habitats like hedgerows and field margins and promoting natural diversity through self-seeding plants”, states Thomas Beindorf, Chief Technical Officer of the solar energy company. Moreover, solar plants and animals can even benefit from each other as the installation at the V.C. Bird International Airport Antigua, constructed by meeco's joint venture [PV Energy Ltd.](#), showcases. In order to keep the grass around the plant short and in good order, sheep have been deployed. While the natural “lawn mowers” ensure the grassland managing, the animals can benefit from food and water and the shade the modules provide. In contrast to potential threats by goats, which would be chewing cables and climbing on the installation or cows

that would be rubbing their backs, sheep are perfectly suitable for maintaining the ground, which surrounds the installation. Apparently, the sheep are feeling well since already more than 10 lambs have joined the flock in the course of the last months.

However, some animals still represent a threat to solar plants. Several animal species can pose problems for a smooth operation of the installations. Rats and mice can cut cables in cable tubes or pigs and razorbacks can dig and destroy cables. In order to protect the installations but also the animals, numerous measures have to be taken into consideration. Security fences, grass strips and tree plantings shall prevent bigger mammals, like elephants in Africa or Asia, from approaching the plants. According to special laws fences are constructed including passages for small animals, ratites and amphibians.

While ensuring smooth operations of the solar power plants, security fences can at the same time offer a surface for growing climbers and provide good nectar sources.

All in all, the development and further utilisation of solar energy towards sustainability should progress in harmony with the local surroundings. The maintenance of biodiversity and the protection of environmental conditions is an important aspect during the construction phase. Therefore, meeco is consulting and works closely with biologists in order to look for rare species and save them if necessary by adapting the area. The meeco Group aims to adapt its clean and sustainable energy generating products to the territory and to the natural environment, trying to set both in harmony.