### **Mauritius**

Green Electricity Generation from Solar Energy

## C Klimalnvest Green Concepts

### THE PROJECT IN A NUTSHELL

In the course of the project in the west of Mauritius, a total of 25 solar modules were installed which generate and feed regenerative energy into the power grid. In addition to large CO<sub>2</sub> savings, the project offers further ecological and social benefits. Thanks to the project, people gain access to green electricity. Hence, Mauritius is becoming less dependent on fossil fuels and energy imports which until now have been the main source of energy. Besides other benefits, this leads to an improved air quality benefitting both people and the environment. The project helps to meet the population's growing energy needs reliably and in an environmentally friendly manner. At the same time, the local economy is strengthened as new jobs are created through the construction and operation of the plants. In addition, roads are built, improving connections to towns as well as villages and thus strengthening the infrastructure.

### SOLAR ENERGIES/ RENEWABLE ENERGIES



#### **PROJECT DESCRIPTION**

In a barren area with a few shrubs and bushes, a solar energy plant was built with great consideration for the flora and fauna, feeding clean electricity into the Mauritian grid. So far, electricity has been generated mainly from coal and imported oil which cause many climate-damaging emissions as well as hazards to people and nature: In 2020, an oil tanker broke apart off the coast of Mauritius. 1,000 tons of crude oil spilled into the sea. This catastrophe demonstrates how important it is to be self-sufficient in energy production instead of being dependent on energy imports. Without the project, energy would have continued to be imported or generated conventionally. Thus, a renewable energy source serves as an energy supplier and contributes to saving over 20,000 tons of CO2 emissions each year. The Mauritian government also supports the project, as it has set the goal of including 35 percent renewable energy in the Mauritian electricity mix by 2025.

#### **VERIFIED CARBON STANDARD**

The Verified Carbon Standard (VCS) was established by numerous environmental organizations, including the World Business Council for Sustainable Development, the Climate Group as well as other business organizations. Its declared goal is to promote and monitor climate protection and review the standards set for CO<sub>2</sub> reduction projects in line with the Kyoto Protocol. Each Verified Carbon Standard project must act in accordance with the strict guidelines of the United Nations Climate Change Secretariat (UNFCCC). In addition to improving the climate and the environment, the acquisition of a CO<sub>2</sub> reduction right thus supports the economy in the project country and improves the social situation of the population at the project site.

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### **PROJECT COUNTRY**

About 1,800 km from the African continent, the island and state of Mauritius is located in the middle of the Indian Ocean. In addition to the eponymous main island, there are numerous smaller islands that belong to the state of Mauritius, some of which are designated as nature reserves. Mauritius thrills not only with dreamlike white sandy beaches, but also with other spectacular natural beauties. In the southwest of the island, the Black River Gorges National Park offers an impression of the original Mauritius which was once covered by dense rainforest. This last contiguous forest area has become a retreat for many rare native bird species such as the pink pigeon and the Mauritius falcon. Probably the most fascinating landscape of the state is the "Seven Colored Earths", an area of small hills that presents itself in orange, violet, green or blue in different light incidence.



#### THE POWER OF THE SUN

In just a few hours, the sun provides enough energy to meet the energy needs of all people worldwide for a year. The potential of solar energy is thus greater than that of all other renewable energies combined. In sunny regions, this naturally occurring potential is used to generate thermal energy and electricity from solar radiation. Since solar energy does not use any fossil fuels or nuclear fuel rods, it produces neither CO<sub>2</sub> emissions nor nuclear waste. Thus, solar energy is one of the cleanest forms of energy and an important contribution to climate protection.

### **CO<sub>2</sub> COMPENSATION**

CO<sub>2</sub> compensation of greenhouse gases such as methane and carbon dioxide seeks to avoid and offset climate-damaging emissions through developing and supporting international climate protection projects. These worldwide projects are financed by the Western industrial countries and signatories of the Kyoto Protocol. As a guiding principle of CO<sub>2</sub> compensation, it is irrelevant in which part of the world CO<sub>2</sub> and other greenhouse gas emissions are being avoided. Every climate action matters because climate is global and does not stop at national borders. Therefore, climate protection can be implemented where it is most feasible.

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### SUSTAINABLE DEVELOPMENT GOALS

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the United Nations officially came into force. The goals for sustainable development are political objectives where social, economic, and ecological aspects are on the agenda.

One important finding is that the eradication of poverty must be accompanied by policies supporting economic growth as well as addressing a range of social needs. This includes education, health, social protection, and employment opportunities, while tack-ling climate change and protecting the environment at the same time.





GOOD HEALTH AND WELLBEING Reducing the use of fossil fuels leads to an improved air quality, which benefits people and the environment.



**DECENT WORK AND ECONOMIC GROWTH** During construction and in ongoing operation, many temporary jobs as well as permanent jobs were created, thereby strengthening the local economy.



CLIMATE ACTION Electricity generated from solar energy does not produce any emissions and at the same time, it replaces energy generated from fossil fuels. In this way, the projects help to reduce CO<sub>2</sub> emissions and thus also actively contributes to climate protection.





By using solar energy systems instead of exclusively fossil energy sources, part of the energy demand is covered in an environmentally friendly way.



SUSTAINABLE CITIES AND COMMUNI-TIES The project helps to develop and promote a technology for the production

promote a technology for the production of renewable energy. Contracts are awarded locally, thus supporting the sustainable development of cities and communities.