Radicepura greenhouse-convention centre

Operazione co-finanziata dall’Unione Europea, Fondo Europeo di Sviluppo Regionale, dallo Stato Italiano, dalla Confederazione elvetica e dai Cantoni nell’ambito del Programma di Cooperazione Interreg V-A Italia-Svizzera. (Codice progetto 603882)

Introduction

On the east coast of Sicily, the Serra-Congressi is located within an extensive area of land belonging to the Faro family (founders of the Radicepura Foundation), which contains period buildings from the 19th century and a botanical garden, a centre of excellence for international floriculture in which a wide range of plants are studied and cultivated. The greenhouse itself, which has a BIPV roof, is home to Mediterranean and tropical plants and provides an elegant and sophisticated environment that is often used for events, as it has a capacity of almost one thousand people.

Design approach

The Serra-Congressi was built as part of a requalification project involving the property. The works, managed by the architect Giuseppe Scannella, were aimed at creating a congress and cultural centre while conserving the original buildings.

Aesthetic integration

The greenhouse, situated towards the end of the botanical garden, is a glass building perfectly integrated into the surrounding natural landscape. The BIPV system is integrated into the greenhouse roof, guaranteeing an uninterrupted view of the system from both inside and out.

Energy integration

The BIPV system powers the heating and cooling of the structure, as well as the high-efficiency LED lighting system.

Technology integration

The BIPV system is made up of 610 semi-transparent glass-glass modules that serve as a sunscreen for the area below. The modules (Scheuten Multisol, 168.8 Wp) are mounted on the steel structure of the roof and inclined in order to maximise electricity production.

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PROJECT DATA

Project type	new construction
Building use	multifunctional
Heritage constraint	conservation area
Building construction technique	postwar
Building address	Via Fogazzaro 19, Giarre (CT), Italy

BIPV systems

BIPV SYSTEM DATA

Architectural system	Skylight
Module transparency	semi-transparent
Module technology	glass-glass, recognizable PV, standard modules
System power [kWp]	103
System area [m²]	1,005
Module dimensions [mm]	1,650 x 998
Modules orientation	South
Modules tilt [°]	30

BIPV SYSTEM COSTS

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Stakeholders

Main building designer

Arch. Nadir Guemida

BIPV components producer

Scheuten Solar Systems BV (closed)
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-
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Case study author:

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