Sustainability Pavilion Expo 2020

Introduction

The PV is integrated in a series of satellite dish-shaped structures located at Exibition City, Dubai. The centerpiece for Expo's green theme, the pavilion will exceed LEED Platinum standards.

(Sunovation)

Aesthetic integration

The BIPV modules completely cover the circular roof thanks to the different 330 special trapezoidal geometries designed for the specific application.

Energy integration

The integrated power generating surface is estimated to produce around 4 GWh per year. This energy production was fundamental to achieve the desired LEED certification. The glass is designed for highest power generation.

Technology integration

The 5,080 integrated glass-glass BIPV modules (eFORM clear) were individually designed by SUNOVATION. The structure is walkable for cleaning and maintenance and characterized by a long-term stability of the glass compound.

PROJECT DATA

Project type	new construction
Building use	urban furniture
Building address	Dubai, United Arab Emirates

BIPV systems

BIPV SYSTEM DATA

Architectural system	canopy
Integration year	2020
Active material	crystalline silicon
Module transparency	opaque
Module technology	glass-glass, recognizable PV, customized modules
System power [kWp]	2,100
System area [m²]	12,600
Annual FV production [kWh]	4000000

BIPV SYSTEM COSTS

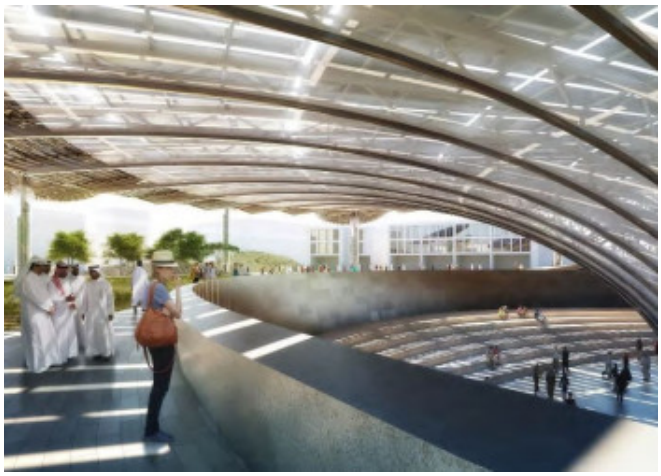
Stakeholders

Main building designer

Grimshaw Architects

BIPV components producer

Sunovation GmbH
Glanzstoffstraße 21, Elsenfeld, Germany
info@sunovation.de +49(0) 6022 / 26573-0
https://sunovation.de/en/



Case study author: