



Service station Expo 2020

Introduction

The official gas station of the Expo 2020 in Dubai has been equipped with a BIPV canopy. It is the first LEED Platinum-certified service station in the world.

([Sunovation](#))

Aesthetic integration

The BIPV modules are part of a ghaif tree shaped canopy, an architecturally unique construction complemented by an energy-producing e-tree. They were developed in 3 different sizes in order to fit with the structure.

Energy integration

The high-efficiency BIPV modules are sloped installed to increase their production. In the canopy structure, LED are also integrated for illumination.

Technology integration

The 210 glass-glass BIPV modules ([eFORM clear](#)) were individually made by SUNOVATION. They are based on the PERC photovoltaic technology. They are integrated on the EFTE Cushion structure of the canopy.

Decision making

ENOC Group, the Official Integrated Energy Partner of Expo 2020 Dubai, decided to incorporate solar PV panels to power its service-station network, aligned with the Dubai Integrated Energy Strategy 2030 and Dubai Clean Energy Strategy 2050 goals.

PROJECT DATA

Project type	new construction
Building use	infrastructure
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]	74
System area [m²]	476
Modules orientation	South

BIPV SYSTEM COSTS

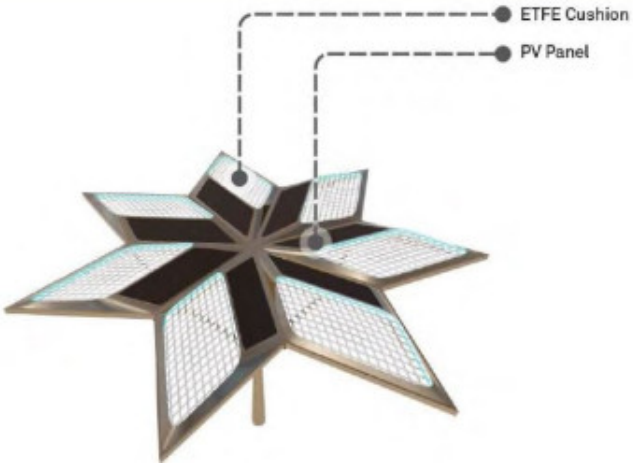
Stakeholders

Main building designer

Aedas

BIPV components producer

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