

**Service Station, Expo 2020**



## Aesthetic integration

The BIPV modules are part of a ghaf 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.

## Lesson learnt

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### PROJECT DATA

<b>Project type</b>	New construction
<b>Building function</b>	Other function
<b>Integration system</b>	Semi-transparent tilted roof
<b>Location</b>	Dubai, United Arab Emirates

### BIPV SYSTEM DATA

<b>Module type</b>	Custom made modules
<b>Solar technology</b>	Crystalline Silicon
<b>Nominal power [kWp]</b>	74
<b>System size [m<sup>2</sup>]</b>	476
<b>Module size [mm]</b>	-

<b>Orientation</b>	South
<b>Tilt [°]</b>	-

#### **BIPV SYSTEM COSTS**

<b>Total cost [€]</b>	-
<b>€/m<sup>2</sup></b>	-
<b>€/kWp</b>	-

#### **PRODUCER DATA**

<b>Producer</b>	Sunovation GmbH
<b>Address</b>	Glanzstoffstraße 21, Elsenfeld, Germany
<b>Contact</b>	info@sunovation.de +49(0) 6022 / 26573-0
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1. BIPV canopy of Service Station, Expo2020 © Sunovation
2. DEtail of the BIPV canopy structure