



SUSTAINABILITY PAVILION DUBAI DUBAI, UAE

Expected to welcome 25 million visitors from hundreds of countries over its six month duration, Expo 2020 Dubai will celebrate human ingenuity. Collaborating with Grimshaw, BuroHappold Engineering is providing multidisciplinary engineering services for the Sustainability Pavilion, one of three pavilions that will play a central role in the world event.

Designed to create an immersive educational experience, the Sustainability Pavilion will promote ecology, sustainable technologies and design. The Pavilion's core building features an 86,000 ft² exhibition space that includes an auditorium, courtyard and reservoir. The buildings will contain solar energy, water harvesting and innovative materials in a context that is unique to the region.

The large roof of the pavilion will not only provide shade, but also generate power using photovoltaic (PV) panels that will draw energy from the sun to power the site.

A series of 'energy trees' will also act as solar panels to absorb the sun's energy. These 'trees' will also have the ability to generate water from the atmosphere.

Looking to the future, this permanent structure is expected to serve as a science 'Exploratorium' after the expo's closure in 2021.

CLIENT
Expo 2020 Dubai

ARCHITECT
Grimshaw

PROJECT VALUE
Confidential

DURATION
Completion expected in 2020

SERVICES PROVIDED BY BUROHAPPOLD
MEP engineering, structural engineering, facade engineering, lighting design, ground engineering, fire and life safety, sustainability and analytics