

BLOOM

Energy infrastructure as an ecosystem catalyst in a dry land.

Canopy main unit

The canopy form arose from a hexagonal form twisted from below to the upper surface. The form will create a twisting base that can reduce wind-blocking and dynamic form. The structure consists of main waffle structures, plywood claddings, and bracing cables. The waffle structure has been chosen following its ability to shape a single structural form without a supporting column and make a rigid share wall. Woods will become the main material considered as a natural-made material which suitable for insects and living organisms to live on it. With the implementation of Hydro panel PV and organic PV on translucent membrane on the 63m² surface on top of the canopy, the main unit has the ability to generate **9685 kWh of electricity per device annually. For the application in 10 Ha land cover with 690 canopies, the energy field can produce up to 6682 MWh annually.** Besides the electricity, the canopy main unit can produce 2,5 litre of water per day per device during a hot summer climate.

