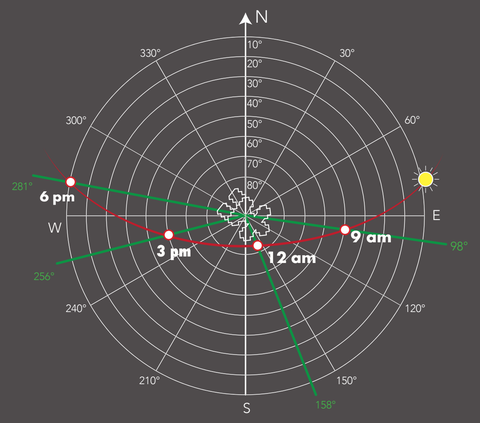
INCIDENCE OF THE SUN RAYS (Abu Dhabi 20/04/2019)

		m² Area
9 am		~1600 m²
12 am		~1400 m²
3 pm		~1600 m²
6 pm		~1300 m²



Sun position relatd to Abu Dhabi (day time 6am-6pm)

Sun position (9am, 12am, 3pm, 6pm)

n° Inclination of the sunrays (10°- 90°)

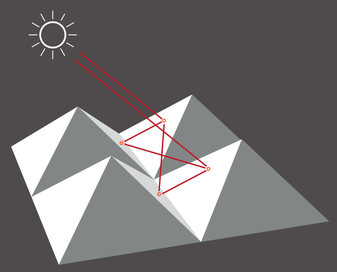
ENERGY OUTPUT GENERATION

Amorphous PV glass panels provide a peak power of 42 kWp; the average surface struck by sunlight during the day is approximately 1500 m². The Red Giant has been positioned so as not to be overshadowed by the surrounding buildings, and this combined with the design of the placement of its panels, allow a capacity factor utilization of 40%.

42 kWp x 8.760 h x 40% = 147.168 MWh

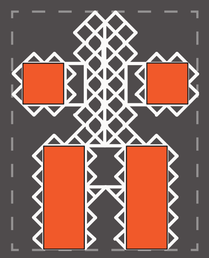
THE SHAPE

The geometry of the installation provides a greater surface that is struck by the sun's rays. Photovoltaic glass produces energy, not only from the direct sunlight, but also from indirect light coming from the bouncing of sunlight on the different forms of the structure and from the surrounding environment.



SCULPTURE AREA

The Red Giant's footprint of 215 m² takes up approximately 1% of the area allocated to the project, leaving most of the land free to be used as a park, an area of socialization for visitors. Nonetheless, its design allows the production of a proportionately higher amount of energy considering the relatively small area it occupies.



FOOTPRINT: 215 m²

BOX SIZE: 792 m²

The sculpture is made of a supporting tubular steel structure to which photovoltaic glass surfaces are applied.
The mingling of faceted volumes offers a changing rhythm of transparencies and reflections, casting colored shadows.

63,735 Kg
CO2 Emission saved

147 MWh
Annual energy generated

A minimal part of the energy produced will be used to illuminate the sculpture by night. The Red Giant is equipped with low-consumption LED lighting tubes placed along the internal structure and on the ground of the installation.