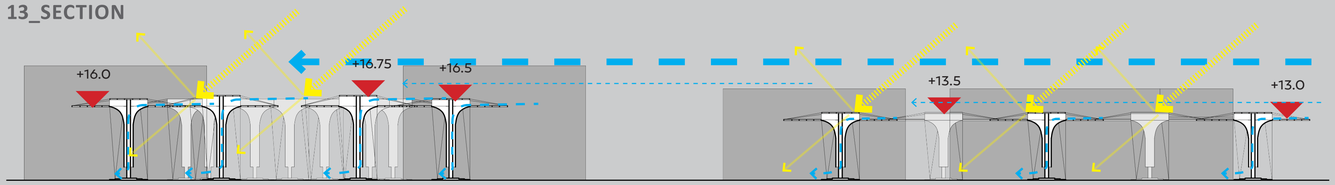
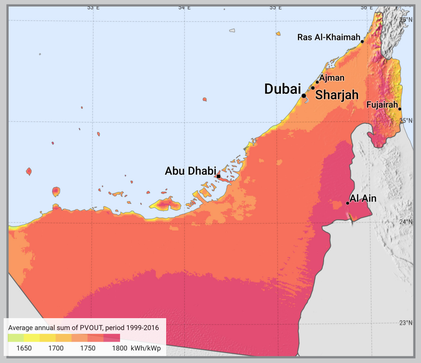
13_SECTION



Hight diversity allows wnd to blow frearly between different panels. Panels gaps are located on differnt levels. Different slots can catch the wind streams from different levels.

15_ENERGY SAVING



Photovoltaic power potential

Assumptions:
Integrated and transparent photovoltaics (BIPV)

Dimensions of the glazed element (equilateral triangle with a side of 449mm) let for placing one cell
with standard dimensions of 156 x156 mm

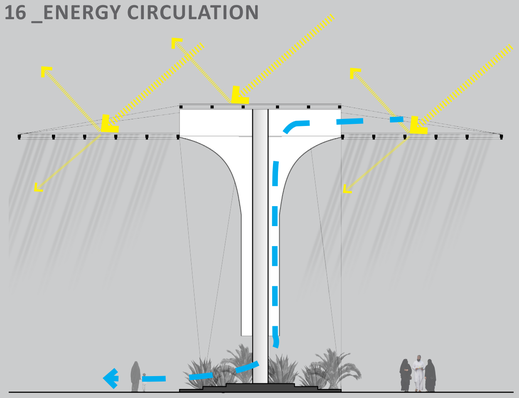
Accessible area – 9260 m2 (12880 single elements)
Average power of each mono crystalline cell – 5 Wp

According to the attached map of Solagris the potential of photovoltaics in Masdar is approximately 1750 kWh/kWp per year.

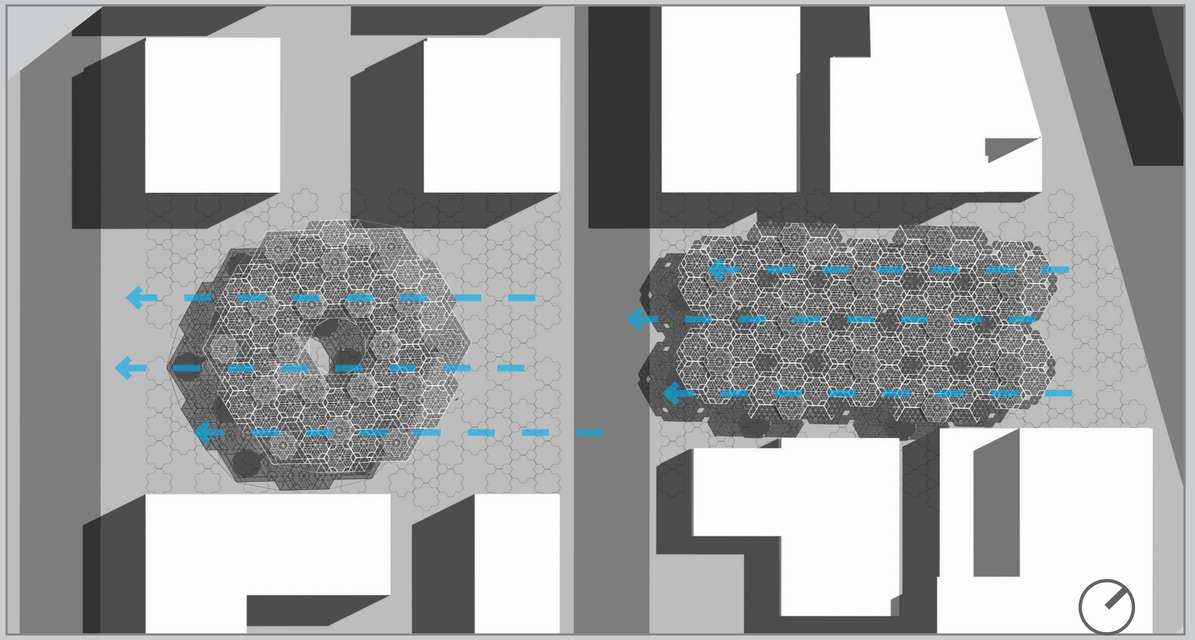
Having one cell that generates 5 Wp and the area that accommodates 30360 of these cells the virtual power is 212,52 kWp which translates to generation of electric energy of 371,91Mwh/year. The simulation gave the output of 392,7 MWh/year

The full cover of the the given area (not considering the shape) with rectangular and partly transparent modules of BIPV type gives the opportunity of installing approximately 1155 kWp which gives the generation of 2019,6 MWh/year.

16 _ENERGY CIRCULATION



14 _PLAN



Plot is divided into two parts. According to the design, we have two different spaces. One might be dedicated for the market. Second one, with rounded shape could work as a city agora, main placefor people to meet and interact. There are more places to sit and enjoy the beautiful environment surrounded by plants.