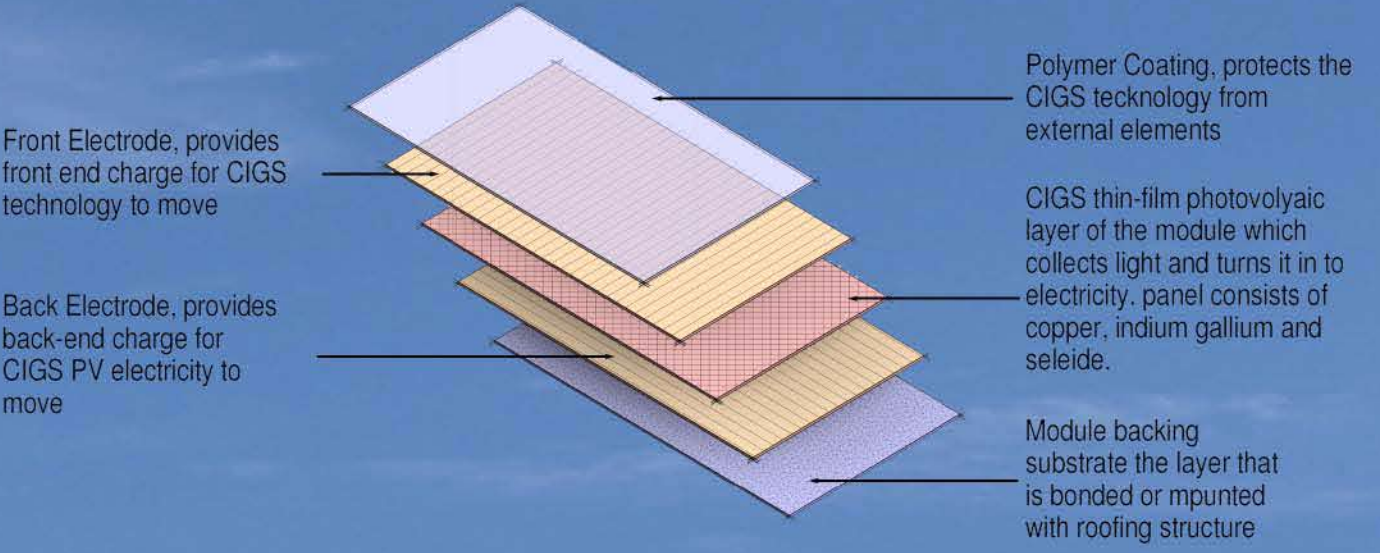


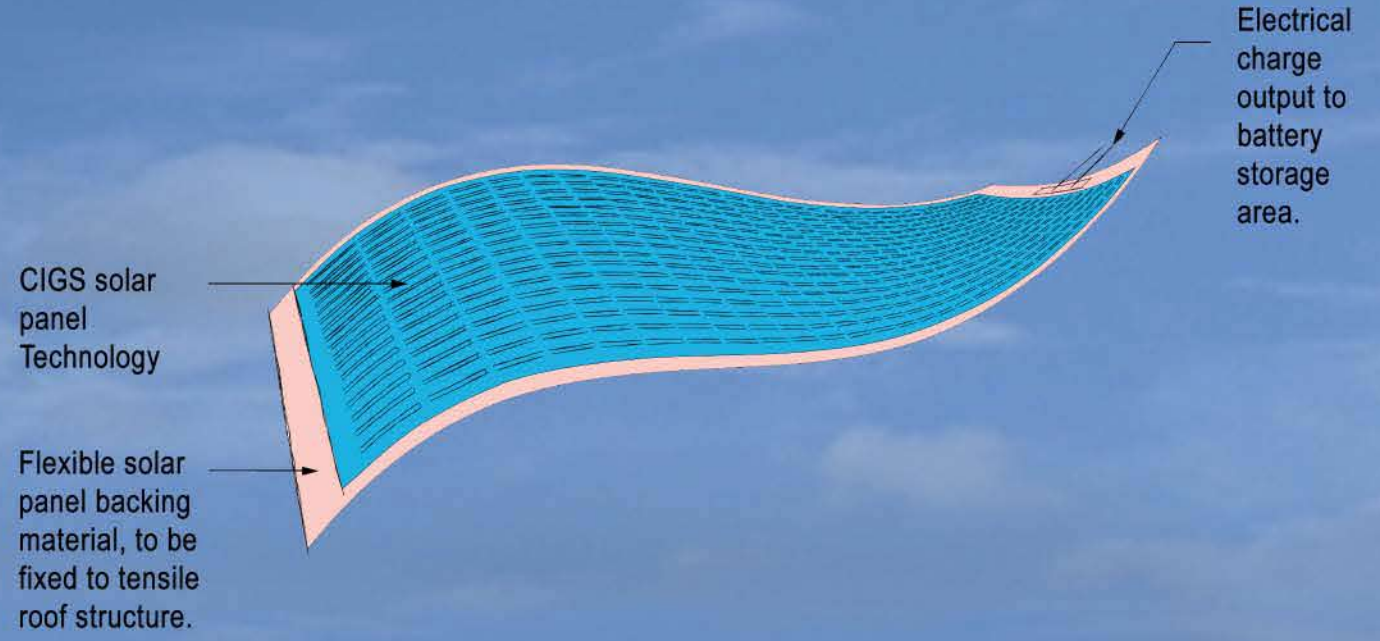
Energy

The energy type used in this design is solar energy. Making use of new technology CIGS (Copper Indium Gallium Selenide) This technology is incorporated into an ultra-thin, flexible and light weight material which makes it easy to apply it to flexible or tensile roof structures.



CIGS solar panel composition

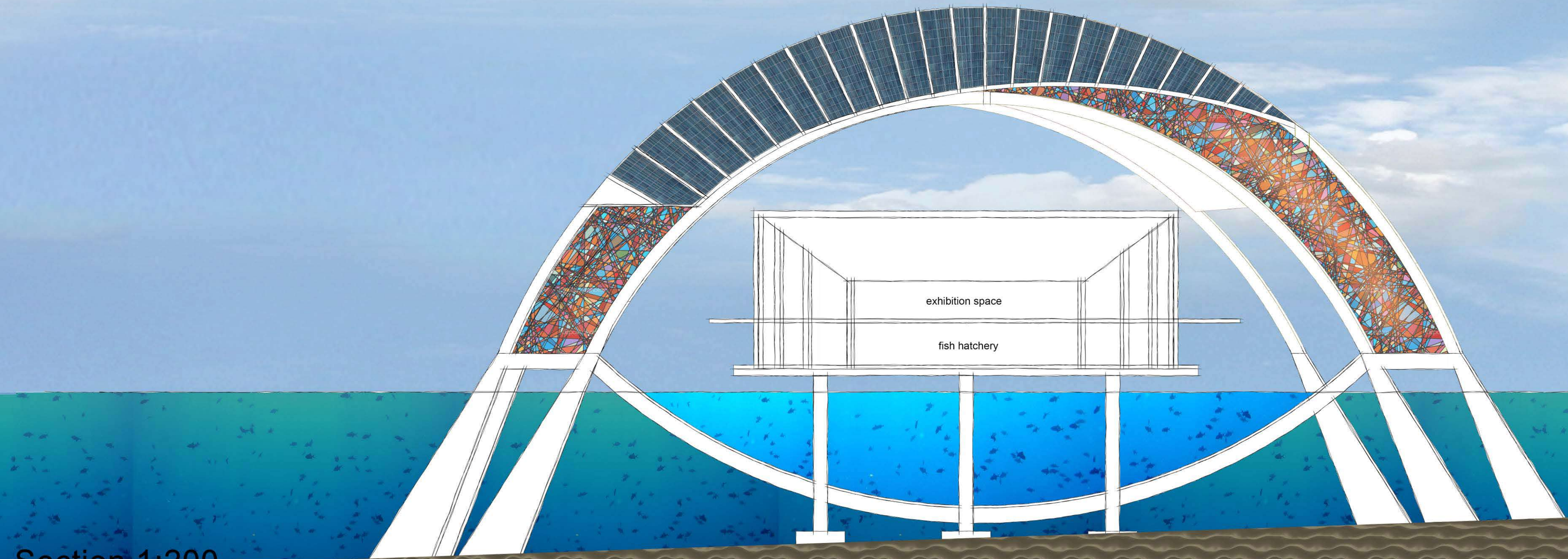
this project makes use of CIGS (Copper Indium Gallium Selenide) thin-film technology as the basis for our solar PV systems. CIGS has a more extensive absorption spectrum than silicon (Si) panels. CIGS has a much better spectral response that is closely aligned with the entire spectrum of light. This means that CIGS absorbs light for longer throughout daylight hours. Silicon is very sensitive to small amounts of shading, CIGS on the other hand is much more tolerant to higher levels of shading. When shaded, CIGS technology will continue to produce efficient amounts of electricity, whereas Si will not.



Flexiable solar panel to be installed on to tensile roof material

The solar panels will be installed on to the tensile roof structure that face south, of which there is 13 sections. That gives as the energy generation as show in the table below

Solar Energy Generation	
Average W/h per m ²	5260 W/h
m ² per Section	1120 m ²
Totale Area in m ²	14560 m ²
Totale MW/h per Day	76.58 MW/h
Annual MW/h	27953.74 MW/h



Section 1:200



Site plan 1:500