



**ECOLOGICAL BENEFIT ESTIMATE :**

In view of the fact that Abu Dhabi's overall climate change is relatively flat and the lighting conditions are good, monocrystalline silicon or polycrystalline silicon photovoltaic modules are more suitable. Considering that single crystal silicon has a high conversion rate, but the cost is high, and the impact on the environment is larger than that of polysilicon, polycrystalline silicon photovoltaic modules are selected in the design.

YINGLI Solar's cost-effective polycrystalline silicon photovoltaic module YGE 60 Cell has a power generation capacity of about 160 W/m<sup>2</sup>. The minimum module area is about 15.59m<sup>2</sup>, and the current total arrangement is about 1000 pieces. The maximum power generation capacity of the power station is 2494.4kw, and the annual sunshine hours are calculated at 2800 hours.

Total annual solar power :  
 $2494.4(\text{kw}) * 2800(\text{h/y}) * 18\% (\text{capacity factor}) = 1257177.6(\text{kwh})$

Brine desalination unit (net weight: 200kg, length: 800mm, width: 600mm, height: 1700mm), brand: RIGHTLEDER, model: JHH-FSHB10, water yield: 10~11m<sup>3</sup> /d, power: 5.5kw. One machine consumes 132 degrees of electricity , and can produce 10 to 11 tons of water per day.

Total annual desalinated water :  
 $1257177.6/132=95240(\text{tons})$

**MANGROVE PLAN AXONOMETRIC DRAWING :**

