

Design Considerations for Solar Energy Application to Fish Pond Recirculating System

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Abstract : A fish pond recirculating system was designed and constructed. The system consists of three plastic culture tanks (1000 litres each, filled up to 850 litres). It also consists of a sedimentation tank where the water filtration was carried out and a pump tank where the treated water partially settled before being pumped to the culture tanks. A pump of $\frac{1}{2}$ hp capacity was selected to pump water round the system to enhance water recirculation. Following the design of the solar array that was done, a grid support of tilt angle 36.640 was constructed to offer the system an optimum, all-year-round, intense solar energy reception, which is specific to the location of the project.

Keywords : solar energy, fish pond, recirculation system, pump tank

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