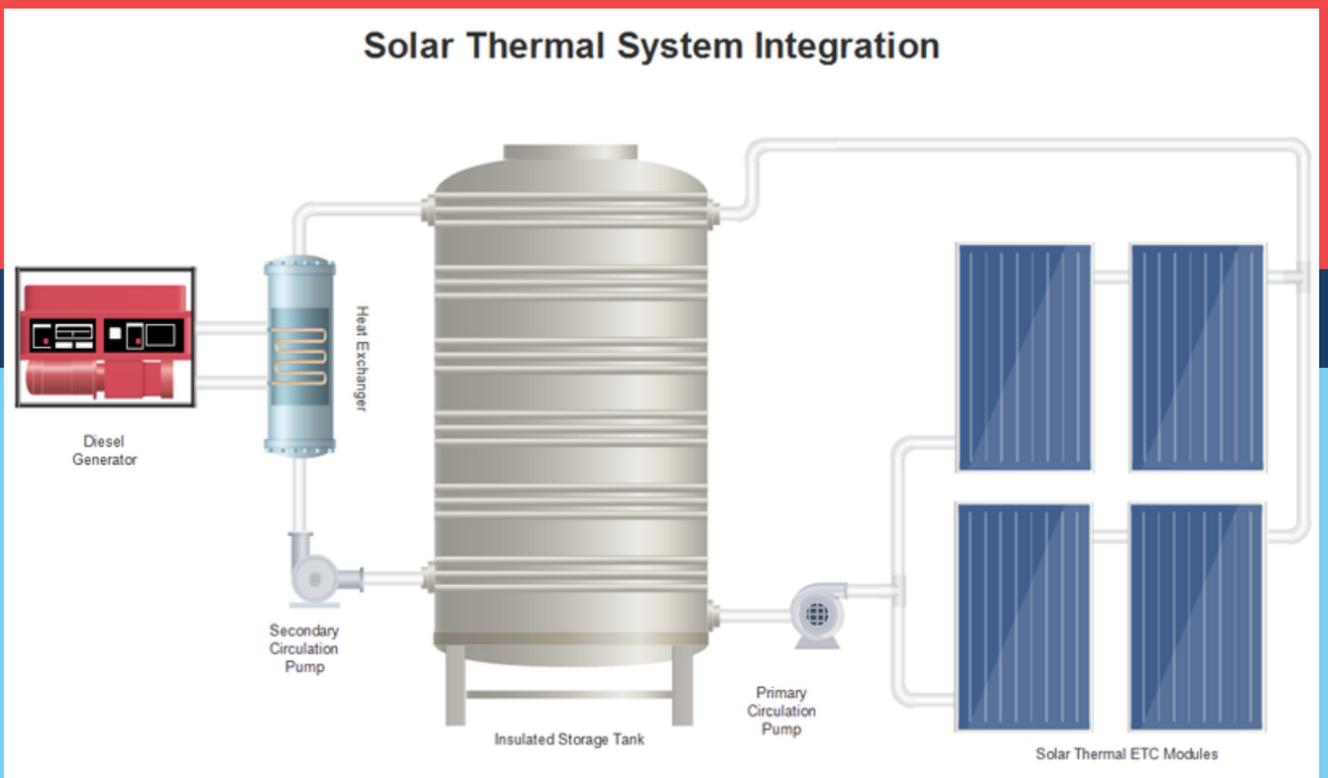


CASE STUDY ON TVS MOTORS, HOSUR

TVS Motor is the third largest two-wheeler manufacturer in India, with revenue of 11,244 Cr INR (2015-16). The company has annual production capacity of 3.2 million 2 wheelers & 1.2 Lakh 3 wheelers. TVS Motor Company Ltd (TVS Motor), member of the TVS group (Revenue around INR. 40,000 Cr in 2015-16), is the largest company of the group in terms of size and turnover.



TVS Motor, Hosur (TVSM) plant uses Diesel Generator as a backup power source during the time of power failures. To reduce the start-up time of the Diesel generator the engine head must be maintained at constant temperature and this is done with the help of forced circulation electrical heating system. Because of this continuous requirement to maintain constant temperature in the engine block, the electrical heaters consume about 1200 kWh per day.



The system is designed with butterfly-shaped Evacuated Glass Tube Collectors (ETC). Each ETC module is rated at 4.5 kW thermal capacity with 7.7 m² aperture area.

| | |
|-----------------|-------------------------------|
| Application | Diesel Generator Head Heating |
| System Capacity | 225 kW |
| Temperature | 55 to 60 ° C |

Our solution

After detailed study and analysis on the energy consumption pattern for the electrical heaters, Aspiration Energy came up with a highly efficient solar thermal system design with energy accumulator to serve the heat requirement for 24-hour operation of engine head block heating.

The designed capacity of total system is 225 kW and consists of 50 modules of 4.5 kW each. The solar thermal systems are designed in such a way that even at the winter season, the system will deliver the required heat output to maintain the engine block temperature at 55 °C.

Testimonial

D Rajendra Babu,
G M – Central Utilities, TVS Motor company Ltd.
 “In line with our commitment and strive for year on year increase in the share of renewable energy, We have implemented Solar hot water system of 225kW with hot water storage facility of 30 KL, to keep the DG’s (10.5 MW in total) in hot standby mode, earlier which use to consume daily 1200 units of electricity. This has contributed significantly in reduction of daily heating system power consumption from 1200 units to 400 units per day. The system has been designed & installed by M/s. Aspiration energy Pvt Ltd., Chennai, in a professional way.”

