Steam Cooking System for 2000 people using Scheffler Dishes at JSSM Girls Hostel, Mysore, Karnataka

Location: Mysore

Type of Installation: Scheffler Dishes

Configuration: 288 m^2 (16 m^2 x 18 Nos.)

Supplier: Unisun Technologies, Bangalore

Application: Cooking

Year of Installation: 2011

Beneficiary Details: JSS Mahavidyapeetha was the vision and foresight of his holiness, Jagadguru Late Sri Sri Sri Dr. Shivarathri Rajendra Mahaswamiji, the 23rd pontiff of the 1000-year-old Suttur Mutt. Sri Sri Sri Shivarathri Deshikendra Mahaswamiji, the 24th pontiff, is steering the success of a host of educational institutions and programs in the fields of engineering, medicine, dental, pharmacy, naturopathy, nursing, law, management, pure sciences, arts, commerce, vocational and spiritual education.

JSS Mahavidyapeetha Girls Hostel

System Details: The total community cooking system has an area of 288 m^2 comprising of 16 concentrators of 16 m^2 capacity each. The system was commissioned during 2011 by M/s. Unisun Technologies (Pvt.) Ltd. Prior to the implementation of the system, the establishment was using wood as a fuel for generation of steam. The plant is integrated with its existing process. The project is set up at a cost of Rs. 53.10 Lakh with grant availed from MNRE of the order of Rs. 15.93 Lakh.

CST Array at JSS Girls Hostel

Heat receiver water piping

Timings & System Application Details: The system is operating for 2 hours for preparation of breakfast, 3 hours for cooking lunch and another 2 hours during evening. The daily quantum of food input for cooking is around 175 kg of Rice & 300 kg of dal. It is functioning properly and is operated around 240 days in a year. It is operating properly and resulted in saving 1,92,000 kg of wood/year.

Steam Generation: 1170 kg/d	**Operating Temperature & Pressure:** 100-120^{0}C;6-8 kg/cm^2
Type of Fuel Saved: Wood	**Quantity of Fuel Saved:** 192000 kg/Year

Functionality & Key Issues of Non-Operation: Operational

Status of Equipment: Working Good

O & M Issues & Beneficiary Perception: Around 192000 kg of fuel wood per year is saved by adopting the concentrating solar cooking system. As the system is installed recently, they have not yet faced any problems in operation.

Financials in Detail: The project is set up at a cost of Rs. 53.10 Lakh with grant availed from MNRE of the order of Rs. 15.93 Lakh. The plant saves around Rs. 9.60 Lakh per year on cost of purchasing fuel wood. The plant has an IRR of 17.37 % without subsidy and payback period of 5 Years and 2 Months. With subsidy the IRR is 24.65 % and payback period is 3 Years and 3 Months.

Cost of System: Rs. 53.10 Lakh	**MNRE Subsidy:** Rs. 15.93 Lakh
IRR & Payback with Subsidy: 24.65 % & 3 Years and 3 Months	**IRR & Payback without Subsidy:** 17.37 % & 5 Years and 2 Months
Overall System Performance: Good	**Date of Visit:** 09-05-2013

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