Steam Cooking System for 2000 people Using Scheffler Dishes at JSSM Boys Hostel, Mysore, Karnataka

Location: Mysore

Type of Installation: Scheffler Dishes

Configuration: 576 m^2 (16 m^2 x 36 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 Boys Hostel

System Details: The total system has an area of 576 m^2 comprising of 36 concentrators with 16 m^2 capacity each. The system was commissioned during 2011 by M/s. Unisun Technologies (Pvt.) Ltd. Prior to the implementation of the CST system, the establishment was using wood as a fuel. The system is integrated with its existing process. The project is set up at a cost of Rs. 106.2 Lakh with grant availed from MNRE the order of Rs. 31.86 Lakh.

Solar Dishes Array at JSS Boys Hostel

CST System Components

Timings & System Application Details: The system is operating for 2 hours for preparation of breakfast, 2-3 hours for cooking lunch and another 2 hours during evening. The daily quantum of food is around 350 kg of Rice, 600 kg of dal and 20 kg of vegetable. It is functioning properly and is operated for approximately 5 – 6 hours / day and around 240 days in a year. It is operating properly and resulted in saving 2,88,000 kg of wood/year.

Steam Generation: 2340 kg/d	**Operating Temperature & Pressure:** 100-120^{0}C;6- 8 kg /cm^2
Type of Fuel Saved: Fuel Wood	**Quantity of Fuel Saved:** 288000 kg/year

Functionality & Key Issues of Non-Operation: Operational

Status of Equipment: Working Good

O & M Issues & Beneficiary Perception: Around 1200 kg of fuel wood is saved by adopting the concentrating solar cooking system. As the system is installed recently, so far they have not faced any problems in operation.

Financials in Detail: The project is set up at a cost of Rs. 106.2 Lakh with grant availed from MNRE of the order of Rs. 31.86 Lakh. The plant saves around Rs. 14.40 Lakh per year on cost of purchasing Wood. The plant has an IRR without subsidy of 13.93 % and payback period of 6 Years and 2 Months. With subsidy the IRR is 20.45 % and payback period is 4 Years and 3 Months.

Cost of System: Rs. 106.2 Lakh	**MNRE Subsidy:** Rs. 31.86 Lakh
IRR & Payback with Subsidy: 20.45 % & 4 Years and 3 Months	**IRR & Payback without Subsidy:** 13.93 % & 6 Years and 2 Months
Overall System Performance: Good	**Date of Visit:** 09-05-2013

Beneficiary Contact:

Mr. Sriappa
Director
General Development Division
JSS Mahavidyapeetha
Mysore 570 004

Cell: 09740783400

Email: jssmvp@yahoo.com