

Steam Cooking System for 2000 people using Scheffler Dishes at Gurudwara Dhan Dhan Baba Deep Singh Ji Sheed, Solkhian, Punjab

Location: Solkhian, Punjab

Type of Installation: Scheffler Dishes

Configuration: 320 m² (16 m² x 20No's)

Supplier: Taylormade Solar Solutions Pvt. Ltd.

Application: Cooking

Year of Installation: April 2013

Beneficiary Details: Gurudwara Shri Dhan Dhan Baba Deep Singh Ji Shaheed is involved in the religious activities. The establishment has implemented 320 m² capacity Concentrated Solar Project for the purpose of community cooking. The plant is installed at roof top of canteen building of Gurudwara.



Gurudwara, Solkhian

System Details: The Gurudwara has implemented the Scheffler based system for the purpose of community cooking. The total system has 320 m² of collector area and 20 concentrators installed. The system was commissioned on 6th April 2013 by M/s Taylormade Solar Solutions Pvt. Ltd. Prior to the implementation of the CST system the establishment was using wood and LPG cylinders resource for its end use consumption. The system is an integrated system. The project is set up at a cost of Rs. 64.24 Lakh with grant not availed from MNRE of the order of Rs. 17.28 Lakh.



Array of Scheffler Dishes



CST based Cooking System at Gurudwara

Timings & System Application Details: The system is operated from 9 AM to 4 PM for preparation of breakfast, lunch and dinner. The quantum of food cooked is around 200 kg of Pulses to cook food and 100 kg of sugar & 30 kg of tea leaves for preparation of tea daily. Usage of the system is approximately 7 hours / day and around 300 days in a year and depends on the availability of sunlight. Due to implementation of the system the Gurudwara is resulted in

saving 1800 LPG Cylinders/Year.	
Steam Generation: 1300 kg/d	Operating Temperature & Pressure: 100-120°C; 6 to 8kg/cm ²
Type of Fuel Saved: LPG	Quantity of Fuel Saved: 1800 Cylinders/Year
Functionality & Key Issues of Non-Operation: Operational	
Status of Equipment: System components are in good condition	
O & M Issues & Beneficiary Perception: The system is recently installed; they have not yet faced any problems in operation. Beneficiary is not satisfied with the present subsidy availed and has faced lot of problems. Beneficiary wants more subsidy to generate power to provide electricity for Gurudwara and to feed into grid.	
Financials in Detail: The project is set up at a cost of Rs. 64.24 Lakh with a MNRE grant of the order of Rs. 17.28 Lakh. The plant saves around Rs. 21 Lakh /year on cost of purchasing LPG. The plant has an operating IRR of 33.85% and payback period of 2 years and 2 months as compared to an IRR of 25.08% and a payback period of 3 Years 4 Months without subsidy.	
Cost of System : Rs. 64.24 Lakh	MNRE Subsidy: Rs. 17.28 Lakh
IRR & Payback with Subsidy: 33.85% & 2 Years and 2 Months.	IRR & Payback without Subsidy: 25.08% & 3 Years and 4 Months.
Overall System Performance: Good	Date of Visit: 02-05-2013
Beneficiary Contact: Mr. Naranjan Singh Dhanoa Manager Gurudwara Shri Dhan Dhan Baba Deep Singh Chandigarh Road, Sidhwakalan Village- Solkhian, Ropar Chandigarh Cell: 9814709764	