

# Steam Cooking System for 1200 people using Scheffler Dishes at Gurudwara Karmasar Rara Sahib Trust, Karmasar , Punjab

**Location:** Karmasar, Punjab

**Type of Installation:** Scheffler Dishes

**Configuration:** 224 m<sup>2</sup> (16 m<sup>2</sup> x 14 No's)

**Supplier:** Taylormade Solar Solutions Pvt. Ltd.

**Application:** Cooking

**Year of Installation:** 2013

**Beneficiary Details:** M/s. Gurudwara Karmasar Rara Sahib Trust was established as a religious institution. Gurudwara is located 22 km southeast of Ludhiana, 14 Km Northeast of Ahmedgarh and is situated in the bank of Bathinda Branch of the Sirhind Canal. The establishment has implemented 224 m<sup>2</sup> capacity Concentrated Solar Project for the purpose of community cooking. The plant is installed at roof top of Gurudwara.



**Gurudwara, Karmasar**

**System Details:** Gurudwara Karmasar Rara Sahib has implemented the Scheffler based system for the purpose of cooking. The total system has 224 m<sup>2</sup> of collector area and 14 concentrators installed. The system was commissioned on 1<sup>st</sup> April 2013 by M/s Taylormade Solar Solutions Pvt. Ltd. Prior to the implementation of the CST system the establishment was using fuel wood for cooking. The system is a standalone one. The project is set up at a cost of Rs. 38.50 Lakh with grant not availed from MNRE of the order of Rs. 11.55 Lakh.



**CST system at Gurudwara, Karmasar**



**CST based Cooking System at Gurudwara**

**Timings & System Application Details:** The system is operated from 10AM to 5PM for preparation of breakfast, lunch and dinner. The daily quantum of food cooked is around 80 kg of Rice, 50 kg of Vegetables and 60 kg of Pulses. Usage of the system is approximately 7 hours per day and around 300 days in a year. Due to implementation of the system the Gurudwara is resulted in saving 1200 Cylinders/Year.

**Steam Generation:** 880 kg/d      **Operating Temperature & Pressure:** 100-120°C; 6 to 8 kg /cm<sup>2</sup>

**Type of Fuel Saved:** LPG      **Quantity of Fuel Saved:** 1200 Cylinders/Year

**Functionality & Key Issues of Non-Operation:** Operational

**Status of Equipment:** Working Good

**O & M Issues & Beneficiary Perception:** The system is recently installed; they have not yet faced any problems in operation except tracking system.

**Financials in Detail:** The project is set up at a cost of Rs. 38.50 Lakh with grant not availed from MNRE of the order of Rs. 11.55 Lakh. The plant has an IRR without subsidy of 42.11% and payback period of 2 Years and 2 Months. With subsidy the IRR is 54.39 % and payback period is 1 Years and 3 Months.

**Cost of System:** Rs. 38.50 Lakh

**MNRE Subsidy:** Rs. 11.55 Lakh

**IRR & Payback with Subsidy:**  
54.39 % & 1 Year and 3 Months

**IRR & Payback without Subsidy:**  
42.11% & 2 Year and 2 Months

**Overall System Performance:** Good

**Date of Visit:** 03-05-2013

**Beneficiary Contact:**

Mr. Jasveer Singh  
Manager  
Gurudwara Karmasar Rara Sahib Trust  
Village & Post Karmasar,  
Punjab  
Cell:



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