

**Empowering Women FPO through Solar Power: Ghummar FPO**

**Location: Pali, Rajasthan** **Use Case: Fruit Pulp Producers**

**Background:**

Ghummar Farmer Producer Organization (FPO) is based at village Nana of Bali tehsil of Pali district of Rajasthan. Ghummar Mahila Samiti established Ghummar FPO in the year 2014. It has 948 women shareholders, along with seven staff. The FPO has received financial support from several sources, including MPOWER Project, Axis Bank Foundation, and Srijan Foundation Trust. The FPO collects and partly processes fruits like custard-apple, ‘ber’, and ‘palash’, which are abundantly available in the wilderness in its area of operations.



One of the leading products of FPOs is the custard apple pulp which is a crucial ingredient in the ‘sitaphal’ flavor for ice creams. The members of the FPO collect the custard apple growing in the forests around their villages. They are then pulped using both manual and mechanical methods. The pulp is hardened through a cooling process and then transported to cold storage at Udaipur before being sold to ice cream producers. For hardening and storing the pulp, Ghummar FPO was using grid power-connected bulk refrigerators. As their area of operation received electricity intermittently, the FPO used diesel gensets to overcome the outages that could last up to 4-5 days. The challenges of unreliable power supply and the high cash outflows on diesel limited their total production capacity to about three tonnes.

<b>Solution</b>	<b>Size of Fridge:</b> DDSF 200L*8	<b>Size of</b> 150W*3	<b>Panels:</b>	<b>Date of Installation:</b> Oct’2020
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Last year, as part of the initiative, Ghummar Farmer Producer Group received eight DDSolar solar refrigerators and one cold van. These were installed at FPO facilities at Bheemana and Bekriya in Bali tehsil itself.



**Economic Impact:**

Since the installation, the production capacity of the FPO has tripled to nine tonnes. The cold van has contributed significantly to collecting the pulp from village collection centres and bringing it to the two facilities for hardening and initial storage and, after that, transporting the hardened pulp to a larger cold storage in Udaipur. The cycle of collection hardening and transfer to cold storage that could be undertaken only 3-4 times previously has increased manifold.

*Ghummar had estimated that their average cost for electricity from both grid and diesel generator was INR 8,000 per tonne. This has now reduced to Rs.2,500 as fuel expenses for the entire production of nine tonnes.*

**Social Impact:**

The ready availability of cold van has reduced spoilage and contributed to an increased share of FPO’s profits from custard apple pulp. Ghummar currently has 948 women shareholders in the FPO and makes more than 8.7 Lakhs profit per year. They plans to increase the number of its solar refrigerators to help its women members generate an average monthly income of INR 10,000.