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GRAM OORJA
निमित्तमात्रं भव

WATT MATTERS 2025

WEEKLY MEMBER SPOTLIGHTS

GRAM OORJA

MAHARASHTRA

EST. 2008

SOLAR, BIO-GAS

ABOUT

In Indian languages, Gram means rural and Oorja means energy. Founded by three visionaries — Anshuman Lath, Sameer Nair, and Prasad Kulkarni, with a mission to bridge the rural energy divide, Gram Oorja is a Pune-based enterprise focused on delivering sustainable energy solutions to remote and underserved communities. Operating across Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Odisha, and Uttar Pradesh, Gram Oorja primarily addresses the challenges of energy access in areas where grid connectivity is absent or unreliable.

The organization recognized that access to clean energy is essential not only for lighting but also for powering education, agriculture, and basic infrastructure in rural India. Gram Oorja's work is rooted in the belief that decentralized renewable energy can unlock economic potential and improve quality of life in off-grid communities.

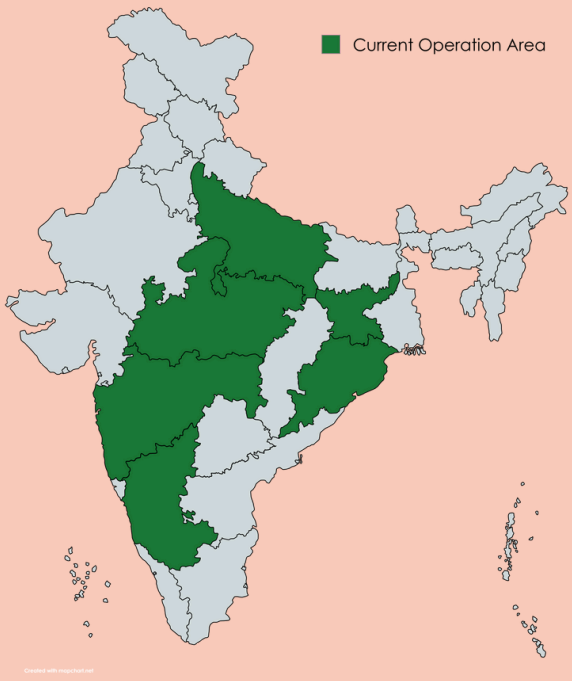
The core principles guiding Gram Oorja's projects are:

a) Usage of energy locally where it is produced

b) Sustainability of projects

Current Operation Area

Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Odisha, Uttar Pradesh



. Current Operation Area

TECHNOLOGY & SERVICES

Gram Oorja addresses rural energy challenges through two core solution categories: Energy Access and Energy Transition.

1. Energy Access Solutions

These projects enable communities or institutions to engage in activities previously restricted due to the absence of reliable energy. The focus is on improving quality of life and enabling livelihood opportunities.

a. Solar Micro Grids

Overview: Community-scale solar grids that power homes and small businesses in off-grid villages.

Key Features:

- Provide lighting, power for communication, and small appliances.
- Enable productive applications like agri-processing machinery and refrigeration.
- Improve conditions for education and safety.
- Include community engagement mechanisms (e.g., Village Energy Committees) and metered usage for accountability.
- Long-term sustainability ensured via beneficiary contribution, ownership transfer, and local maintenance.

b. Solar Powered Group Irrigation Systems

Overview: Shared solar-powered irrigation systems designed for smallholder farmers.

Key Features:

- Replace diesel pumps and reduce irrigation costs.
- Enable 2nd and 3rd crop cycles through efficient water distribution.
- Utilize cluster approach for regional scalability.
- Deep community engagement and tailored system design via GPS surveys.
- 5-year AMC and rural-rooted implementation team.

c. Institutional-Level Energy Systems

Overview: Solar energy systems for institutions in remote areas such as schools, hostels, health centers, and rural processing units.

Key Features:

- Enable digital education and safe lighting in schools and hostels.
- Ensure vaccine refrigeration and power for surgeries in health centers.
- Support productive application machinery in rural industries.

Solar Micro Grids	Numbers
Deployment	150+
Households electrified	6,000+
Total PV capacity	1,400+ kWp

Solar Powered Group Irrigation Systems	Numbers
Deployment	870+
Acres irrigated	4,800+
HP installed pumping capacity	4,130+

Table. Project Deployment

TECHNOLOGY & SERVICES

2. Energy Transition Solutions

These projects help commercial and institutional clients reduce dependence on fossil fuels and adopt renewable energy solutions as part of their sustainability goals.

a. Grid-Tied Solar Systems

Overview: Rooftop solar PV systems integrated with the electricity grid for commercial and institutional buildings.

Key Features:

- Lower power bills and reduce carbon footprint.
- Systems offer paybacks of 1.5 to 5 years, with over 20 years of service life.
- Used in car showrooms, innovation parks, and commercial spaces.

b. Biogas Cooking Grids

Overview: Decentralized biogas-based cooking systems designed for dairies, goshalas, and rural households with large cattle populations.

Key Features:

- Utilize cattle manure and biodegradable waste to generate clean cooking fuel.
- Replace traditional fuels (LPG, wood, coal) and reduce health and environmental impact.
- Modular, monitored systems delivering an LPG-like cooking experience.

3. Consulting Services for Energy Access and Transition

Gram Oorja provides comprehensive technical and advisory services to support entities in implementing rural electrification, decentralized energy systems, and transitioning to renewable energy. Their expertise includes feasibility studies, policy research, system design, and implementation planning tailored to various energy needs.

Clients and Partners include:

- Shakti Sustainable Energy Foundation: Conducted surveys and developed policy documents for off-grid electrification.
- HCL Foundation: Prepared Detailed Project Reports (DPRs) for microgrids in Uttar Pradesh.
- UNDP: Carried out feasibility studies for off-grid electrification projects.

Services:

- Feasibility studies and technical advisory
- System design and implementation planning
- Support for CSR initiatives, industrial clients, and institutional users adopting clean energy solutions

Project Type	Scale
Solar Micro Grids	150+
Solar Water Pumps	870+
Biogas Based Cooking Projects	15+
Institution Level Energy Systems	83+

Table. Project Scale

IMPACT

Solar Water Pumps for Group Irrigation

- ~90% migration reduction in villages with solar pumps (Western Maharashtra).
- 215 farmers earned ₹73 lakh annually by growing extra crops (Central India).
- In Tulyachapada, farmers growing multiple crops rose from ~12 to 108; irrigated area expanded from 7 to 108 acres in one year.

Solar Microgrids

- During cyclone Yaas (2021), 164 households in Jharkhand had uninterrupted power despite a regional blackout.

Biogas

- Social organization Keshav Shrushti's biogas plant saves ~2 LPG cylinders daily, running efficiently for nearly 10 years.
- Maihar biogas plant cut coal use for cooking by 90%.

Institutional Projects

- Installed hybrid solar system at a school for hearing-impaired children, reducing electricity costs (2023).
- Powered 70+ schools, hostels, and health centers with reliable energy for essential equipment.

Domestic Water

- 96% of households reported improved water quality near solar pumps.
- 95% reported better sanitation and hygiene.
- Water source distance cut from kilometers to 2-minute walk, easing daily collection.

4,200
farming families' incomes increased

1,100+
Projects

150,000+
Lives Impacted

Way Forward

For the past 17 years, Gram Oorja has worked to be a catalyst in commercializing viable, on-the-ground renewable energy solutions for rural communities and enterprises. The organization aims to scale its solutions and deepen its impact, while maintaining the highest standards of ethics, integrity, and professionalism.

Allignment with SDG Goals

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