Powering OBCHA – Solar Energy Community

Summary

The Obcha Solar Energy Community will give 12 neighbouring households, a family winery (OBCHINO) and a youth centre (Knowledge Oda) in Obcha, Bagdati Municipality, cheaper and more reliable electricity from a shared solar plant on private land next to the grid.

Members will form a cooperative run on energy-community principles: open membership, one member one vote, and benefits for the community rather than profit. Phase 1 is a plant of about 30 kW, built to grow towards serving all 230 households in the village.

We are seeking grant support for the equipment, contacts with suppliers and funders, and support for advocacy with Bagdati Municipality. Members contribute the land, their labour, coordination and youth training.

The problem

Obcha's 230 households live mainly from grape growing, winemaking and livestock. They face three energy problems:

- **Power cuts** interrupt daily life, cooling and winemaking.
- **High electricity bills** take a large share of small farm incomes.
- **Energy poverty:** most families cannot afford solar panels on their own, and the village has no local know-how to install or maintain them.

Georgia's sunshine and the village's free land make solar the obvious answer. What is missing is the money for the equipment and a shared structure to run it.

The idea and the partners

The founding members will register a **cooperative** that owns or operates the solar plant. Knowledge Oda, a registered NGO, leads the grant applications and coordination. Georgia has no legal form for energy communities yet, so the cooperative's statutes will set out the energy-community rules: open and voluntary membership, democratic control, and community benefit as the main purpose.

Partner	Who they are	Role	Contribution
Knowledge Oda	Registered NGO; youth centre under construction	Lead applicant, coordinator, training hub	Coordination, youth training and awareness, project management
OBCHINO	Family wine cellar; owner registered as an individual entrepreneur	Founding member and energy user	Private land for the plant, near the grid
12 households	Neighbours in one part of the village	Founding members	Physical work: site preparation, fencing, panel

Partner	Who they are	Role	Contribution
			cleaning, watching over the site
Village school	Next to Knowledge Oda	Possible member and education partner	To be confirmed
Coordinator	Manager of the association; trained in the POWERYOUTH EU programme (Vicenza, October 2026)	Day-to-day management	Time, contacts, energy-community know-how

The municipality is not a formal partner: the project relies on private land and community structures. We will, however, seek the municipality's support through advocacy.

Technical concept

Phase 1 is a ground-mounted solar plant of about **30 kW** on private land next to the grid. This is a starting assumption. An installer will confirm the size from the members' electricity bills.

- **Phase 1 (about 30 kW):** covers the 12 households, OBCHINO and Knowledge Oda.
- **Phase 2 (up to about 450 kW): adds more households in stages. Georgia's net-metering limit is 500 kW per plant (GNERC), so at the Phase 1 ratio of about 2 kW per member, the plant could grow to about 450 kW and serve all 230 households.**
- **Grid connection:** through Energo-Pro Georgia under net metering. Members' bills are reduced by what the plant feeds into the grid.
- **Back-up for power cuts:** a grid-connected plant switches off during an outage. A small battery at Knowledge Oda would keep a "resilience point" running for lights, phone charging and essential needs.
- **No batteries for the main plant:** under net metering the grid stores the surplus, which keeps costs down.

Benefits and how they are shared

The main benefit is **lower electricity bills for every member**. The cooperative's rules also share the benefits fairly:

- **Labour counts as a contribution:** members who cannot pay in cash take part through physical work, so poorer families are not excluded.
- **Priority for vulnerable households:** the poorest families are among the first members.
- **A maintenance fund:** a small part of the savings or income is set aside for repairs and panel replacement.
- **Reliability:** the resilience point keeps essential services running during power cuts.
- **A model for the village:** the first 12 households show the remaining 218 how it works.
- Contribution to Georgia's energy supply: surplus solar power fed into the grid adds clean, local generation to a system that depends heavily on hydropower and winter imports.

Budget and funding

The Phase 1 plant should cost roughly **USD 15,000–18,000**, based on Georgian installer averages of about USD 500–600 per kW (Step Energy). The figures are indicative until installers quote. A September 2026 quote from an international supplier (Bluesun, China) suggests equipment alone could cost about **USD 6,600–7,400 for 30 kW** if imported directly, before shipping, VAT and installation.

Item	Estimate (USD)	Paid by
Solar plant, about 30 kW (panels, inverter, mounting, installation)	11,000–14,000	Grant (Bluesun, China calculations)
Battery for the resilience point (16 kWh battery)	2000	Grant
Grid connection, meters, permits	To be quoted	Grant / cooperative
Cooperative registration and legal advice	100	Cooperative
Bank account opening for the cooperative	5–40	Cooperative
Notary fees, if signatures need certifying	To be quoted	Cooperative
Youth training and awareness events	To be budgeted	Grant
Land	In kind	OBCHINO / landowner
Site preparation, fencing, cleaning, guarding	In kind	Member households
Coordination and management	In kind	Vazha Datuashvili

Funding sources to approach:

- **UNDP / EU (ENPARD-4):** this programme funded an energy-community call in Lagodekhi in 2025, and Imereti is one of its target regions (UNDP).
    - ENPARD-4 was listed as ending in June 2026, so ask about a follow-up phase covering Imereti.
- **UNDP / GEF Small Grants Programme:** community renewable-energy projects run by NGOs (UNDP).
    - Check that Bagdati falls within the programme's target regions.
- **Other UNDP green calls:** for example the Denmark-funded EcoSmart grants of USD 10,000–25,000, so far limited to other municipalities (UNDP).
    - Ask about future calls in Imereti.
- **Rural Development Agency:** co-financing for OBCHINO's share, as given to other wine cellars for solar (MEPA).
    - Contact: hotline 1501 (+995 32 247 01 01 from abroad), info@rda.ge, 10a Akhmeteli Street, Tbilisi.
- **EBRD GEFF green loans:** a fallback for any gap, through local banks (EBRD GEFF).

Workplan

Risks and open questions

GNERC's rules allow one net-metering plant to supply a group of customers, with each member billed on their own meter. The open point is how Energo-Pro Georgia will apply this to our cooperative, especially under the new rules from 2027.

Risk	Why it matters	Response
Sharing one plant across many meters	GNERC rules allow group net metering, but how Energo-Pro applies it to a cooperative is unconfirmed	Ask Energo-Pro and GNERC first. Fallback: several smaller systems, one per member group
Net-metering rules change on 1 January 2027	New systems move to monthly net billing (EBRD GEFF)	Build the business case on the new rules
No legal form for energy communities	Georgia has not yet adopted the EU rules	Register a cooperative with energy-community statutes
Grant goes to the NGO, plant serves the cooperative	Ownership and maintenance must be clear	Written agreement between Knowledge Oda and the cooperative
Members cannot pay in cash	Donors often ask for co-financing	Value land and labour as in-kind co-financing
No municipal support letter	Some calls ask for one	Private land, plus support letters from the school and residents

Next steps:

- ☐ Landowner, plot size and distance to the grid connection
- ☐ Monthly electricity use of the 12 households and OBCHINO (last 12 bills)
- ☐ Plant size and price quotes from at least two installers
- ☐ Whether the village school wants to join
- ☐ Group net metering confirmed by Energo-Pro and GNERC
- ☐ Cooperative statutes and member agreement drafted