

Stack on & plug in

Accelerating rural businesses through nano-grid electrification

Our initiative

Rural economic empowerment through access to reliable electricity

The Energy for Rural Start-Ups initiative, a partnership between Caritas Switzerland and Power-Blox AG, pioneers rural electrification in Ethiopia. Using Swiss-developed Powerblox (PBX) technology, it connects off-grid rural households with a nano-grid approach, empowers micro-enterprises, cooperatives, and public institutions. With a 100% payback rate in 10 months, it drives economic growth, resilience, and inclusion, aiming to scale up and electrify 100,000 households and empower 5,000 SMEs.

Our approach

Rural electrification with nano-grids

Employing the adaptable Powerblox (PBX) swarm battery technology, we are revolutionizing access to reliable electricity in Ethiopia. By providing communities with this innovative solution, we are lighting up homes but also igniting economic empowerment for micro and small enterprises (MSEs), cooperatives, public institutions, and marginalized groups. This newfound access empowers them to enhance and broaden their business operations and services, while simultaneously playing a vital role in the electrification of rural households through the deployment of nano-grids.

Our technology

Swiss-developed Powerblox PBX-200

The Swiss-developed Powerblox PBX-200 is a swarm battery technology designed for rural off-grid energy solutions. A single PBX battery has a capacity of 200W AC and 1.3KWH, offering flexibility, speed, serviceability, cost-effectiveness, longevity, extendibility, upgradability, and integration pathways. The swarm grid concept provides infinite scalability, enabling tailored energy solutions for rural communities and businesses.

Our achievements

Deployment of Powerblox (PBX) units

- 87 PBX units installed
- 49 locations
- 7 public institutions
- 2 cooperatives
- 15 SMEs

Diverse revenue streams

- Lighting
- Mobile charging
- TV services
- Laptops/desktops
- Audio tools
- Health center appliances
- Printer/copy machines
- Barbershop hair clippers
- Rechargeable lamps
- Rechargeable batteries

Financial sustainability

92% of PBX units sold have been paid back with **10 months.**

Empowerment and job creation

- 78 Business operators
- 36 Women
- 49 Jobs created

Health centre impact

- Weekly energy savings of **ETB 2428 (USD 43)**
- An average of **1134** patients weekly
- An average of **5336** patients monthly provided with improved services

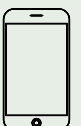
531 LAMPS

242 for own use
289 for income generation



1013 MOBILE PHONES

Charged per day



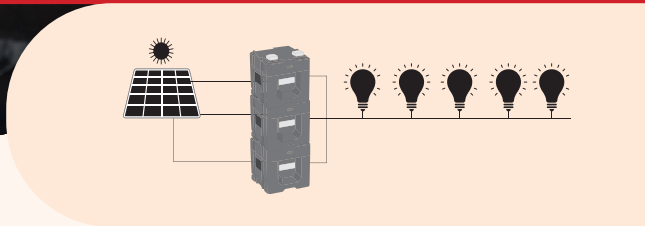


We have a team of 4 people in our business group. Initially, we faced challenges in providing for our families, which led us to sell our livestock and seek government assistance. Thankfully, with the help of Powerblox technology, we now generate income from mobile charging, DSTV, barbershop, and printing services. As a result, we are now able to support a total of 37 family members.



Mr. Kebede

MSE member in Borana



Our partners

Collaborating for sustainable impact

Energy for rural start-ups is the result of a strong partnership between diverse organizations, the key partners involved are:



Caritas Switzerland

Caritas Switzerland, a Swiss NGO registered in Ethiopia since 1974, plays a crucial role in this partnership. With their extensive experience in the region and commitment to social justice, Caritas Switzerland provides valuable insights and support to ensure the project's alignment with local needs and priorities.



Power-Blox AG

Power-Blox AG, a Swiss innovator and tech-developer of the Powerblox swarm battery technology, brings cutting-edge solutions to the table. Their innovative approach to energy storage and distribution is a key component in delivering reliable and sustainable electricity to underserved communities.



Oromia Regional Government

The Oromia Regional Government in Ethiopia serves as a key supporter and signatory of project and business-related undertakings. Their involvement ensures that the project is aligned with national priorities and benefits from the necessary policy support and institutional frameworks.

WITH THE FINANCIAL SUPPORT OF



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Swiss Agency for Development
and Cooperation SDC

Join the effort

Partner with us to revolutionize rural last-mile electrification in Ethiopia. Learn more about our initiative and impact and discover how to get involved on our website today.

Contact us

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