

TEA-LP ROLLING FUND CASE STUDY: HOW FLEXIBLE MICRO-FINANCE CREATES IMPACT FOR CLEAN ENERGY ACCESS

Through a Rolling Fund mechanism, our partners were able to catalyse place- and needs-based energy access activities to drive SDG7

Part of the TEA-LP's work is to grow a network of energy professionals in the Global South that can design, manufacture, implement and manage renewable energy to enable energy access for all. The aim is to foster collaboration, knowledge sharing, promote research and forge a resilient partnership that supports each other in the effort of driving SDG7 across countries that share development challenges.

WHY FLEXIBLE FUNDING MECHANISMS MATTER

Each researcher and institution within our network experiences unique circumstances, barriers and opportunities. Partner feedback after funded conference attendance in 2024 indicated a need for micro-financing for various activities that partners themselves deemed worthwhile in their goal of driving capacity building in energy access within their institutions and communities. Different contexts needed different activities. Partners indicated a need for funding to attend conferences of their choice - relevant to unique research goals, exchanges between partner universities or context specific workshops or training. The TEA-LP Rolling Fund emerged to meet this need: a micro-finance reimbursement mechanism offering up to 2000 GBP per applicant in the related field of energy education and renewable energy. The amount of 2000 GBP was settled on as to maximise the number of possible applicants against available funding for this work stream. Initially, this money would have been used to support the attendance of partners to a conference or event determined by the TEA-LP.

The response to the Rolling Fund was incredibly positive. Over four rounds, there were 16 successful applications: 6 conferences, 8 workshops and 2 faculty exchanges. It was inspiring to watch partners drive these activities, leveraging their own expertise, connections and other funding avenues. It provided an opportunity for needs- and place-based activities that truly emerged in relation to their contexts. The Rolling Fund represented a shift from centrally directed programming to partner-owned initiatives. Context-specific activities increased ownership and promoted decentralised leadership within the TEA-LP partnership. This aligns with our goal of promoting a network of energy professionals that continue to connect and collaborate long after the end of the TEA-LP project timeline.

The Rolling Fund was used in various ways, leveraging local expertise and research focus, existing relationships, and even other funding opportunities. This partner-led approach enabled a range of different, yet all impactful clean-energy-access-related activities.

LEVERAGING OWN NETWORKS

Dr. Kiran Siraj and her team at Lahore University of Management Sciences have their own connection with a rural university in Skardu, Pakistan. This existing partnership with the University of Baltistan and relationship with the community there allowed them to conduct a necessary workshop on clean air monitoring. The workshop aimed to empower youth and community members through energy education, citizen engagement, and localised climate learning. The sessions were co-led by Dr. Kiran Siraj (LUMS Energy Institute) and faculty from the University of Baltistan, bringing together over 70 participants, including students, educators, and local community representatives.

"By embedding climate and clean energy education in local universities and linking it with community voices, we ensure that solutions are not only technically sound but socially accepted and scalable." - Dr. Kiran Siraj



LEVERAGING THE TEA-LP NETWORK

One of the most exciting TEA-LP Rolling Fund activities thus far has been an impactful faculty exchange between Universiti Teknologi MARA (UiTM), Malaysia, and Lahore University of Management Sciences (LUMS), Pakistan. The exchange was designed to strengthen academic links, support knowledge sharing on energy access, and build working relationships between institutions operating in similar development contexts.

Led by Professor Nauman Zaffar from LUMS and Associate Professor Ir Dr Najib Hussain from UiTM, the two academics travelled to the respective universities for the exchange. Through workshops, laboratory visits, faculty meetings, and site tours, both universities identified concrete areas of mutual interest – from distributed generation and battery energy storage systems to modular energy architectures and sustainability-oriented design. Both academics highlighted the value of reciprocal learning: UiTM shared its sustainability-driven design approach and alignment with Malaysia's renewable energy goals, while LUMS showcased its strengths in microgrids, power electronics, and commercialisation pathways.

As Professor Zaffar observed, the exchange enabled “a genuine two-way flow of ideas,” allowing both institutions to identify complementary expertise and opportunities for joint research and teaching. These interactions have already sparked discussions on co-supervision of postgraduate students, joint proposals, comparative case studies, and professional development courses.

The LUMS-UiTM faculty exchange illustrates the power of targeted academic mobility within a networked partnership. The exchange not only strengthened bilateral ties but also added value to the broader TEA-LP community. By fostering trust, shared understanding, and concrete collaborative pathways, it demonstrated how universities across the Global South can co-create knowledge, leverage complementary strengths, and collectively address complex energy access challenges.



LEVERAGING LOCAL KNOWLEDGE

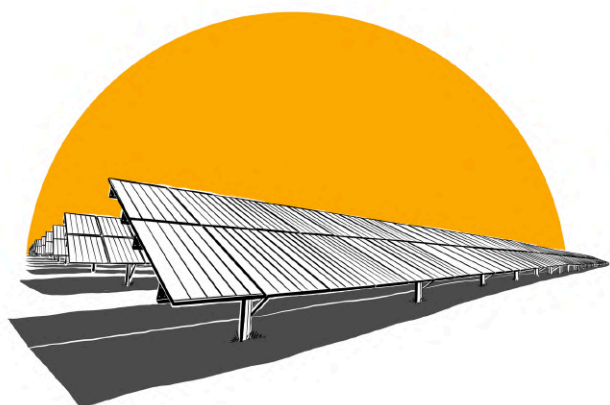
The Rolling Fund also saw several partners apply to conduct workshops on topics that were both relevant to their contexts but also leveraged their own knowledge, expertise and networks. Workshop participants varied from master's students, faculty, local government to community members – dependent on the workshop objectives. A wide range of topics were focused on, from AI for Energy Access, Solar Design, Data Analytics, HomerPro and Battery Storage among others. This funding mechanism has seen an exciting ripple effect of energy access activity, promoted regional knowledge transfer, strengthening institutions and developing a workforce for a clean energy transition. Workshops were the most sought-after activity for funding through the Rolling Fund which shows an interest in context specific, responsive and targeted training experiences.

Across all workshops, three key elements emerged:

- Practical, hands-on learning (learning by doing rather than lectures)
- Capacity building for the energy transition (developing people and institutions)
- Application to real-world energy access challenges (rather than purely academic exercises)

ROLLING FUND SUPPORTED WORKSHOPS

TEA-LP partner	Key themes
Kiran Siraj Lahore University of Management Sciences Pakistan	• Climate & energy awareness • Clean household energy & air quality • Citizen science & monitoring • Community engagement & climate action
Misbahu Ladan Mohammed UDUSOK Nigeria	• Solar PV design & installation • Hands-on technical skills • Industry & real-world exposure • Career & workforce development
Ogheneruona Diemuodeke Energy Technology Institute at University of Port Harcourt Nigeria	• Data analytics & digital skills • Renewable energy planning & decision-making • Practical industry applications • Workforce development
Kelleh Mansaray University of Sierra Leone Sierra Leone	• AI & digital energy planning • Data & geospatial analysis • Electrification & mini-grid planning • Responsible AI & decision-making
Julius Butime Strathmore University Kenya	• Hybrid energy system modelling • Technical & economic analysis • Digital skills & applied research • Energy planning & workforce development
Emiyamrew Molle Jimma Univeristy Ethiopia	• Battery technology & safety • Circular economy & recycling • Industry & policy development • Skills & capacity building
Khosru Salim Independent University, Bangladesh	• Energy modelling & planning • Data & geospatial analysis • Energy access & transition scenarios • National capacity building
	• Solar-powered charging for electric rickshaws • Technical training and capacity building • Battery management and maintenance • Community engagement and outreach • University-community collaboration and knowledge exchange



Professor Khosru Salim from Independent University, Bangladesh (IUB), was supported through the RF to organise a community outreach program aimed at enhancing awareness and building technical capacity among electric rickshaw drivers, owners, technicians, and other members of the local community regarding the adoption of solar-powered charging solutions. The sessions included presentations, practical demonstrations, and interactive discussions to ensure an engaging learning experience for participants. They covered the awareness of solar energy, operation of solar charging systems, battery management practices, basic charging, maintenance procedures, and important safety considerations. Participants also explored the economic aspects of solar charging, including opportunities to improve battery lifespan, lower charging expenses, and identify potential business prospects associated with renewable energy technologies. What made this workshop unique was that several students from IUB actively contributed as volunteers, facilitating hands-on activities and supporting participant engagement throughout the event. This provided an opportunity for these students to gain valuable field-level insights into the experiences, needs, and challenges faced by electric rickshaw users. One of the key strengths of this initiative was its direct engagement with rural communities that often have limited access to technical training opportunities related to emerging technologies. By delivering practical knowledge and encouraging dialogue with local stakeholders, the program helped bridge the gap between academic expertise and real-world energy challenges.

At Usmanu Danfodiyo University, Sokoto (UDUSOK), under Professor Misbahu Mohammed, a workshop on Solar System Design was carried out for 39 MSc students. The workshop successfully combined theory with hands-on practice, bridging the gap between classroom learning and real-world application. Student feedback consistently highlighted the value of the hands-on sessions, which helped them move beyond theory to practice. One student reflected that they could now confidently differentiate between types of photovoltaic panels, while another emphasised learning system sizing, a skill directly transferable to real-world projects. Several noted that mastering solar installation skills would be instrumental in their future careers, opening pathways into both employment and entrepreneurship in Nigeria's growing renewable energy sector.

Professor Ogheneruona Diemuodeke facilitated two workshops at University of Port Harcourt (UNIPORT): Data Analytics for Renewable Energy Management and Business Decision-Making and AI for Energy Access. These were two highly practical interventions: one building students' capabilities in Excel, Python and Power BI for data-driven renewable energy decision-making, and another equipping energy planners to use AI as a co-pilot for real-world electrification planning. In both cases, the funding enabled locally relevant training that combined expert facilitation with hands-on application, allowing participants to work directly with real energy data, solve practical problems and immediately consider how the tools could be applied in their own work. The strong engagement and confidence gained demonstrate the value of small, targeted and partner-led investments. Rather than prescribing how funding should be used, the Rolling Fund gave UNIPORT the flexibility to identify timely capacity gaps and respond with training that was directly relevant to Nigeria's evolving energy sector.

LEVERAGING FUNDING

Partners at Jimma University in Ethiopia used the Rolling Fund to leverage other funding received from Climate Compatible Growth (CCG), and the World Bank to conduct a ten-day training: Energy Modeling Platform-Ethiopia. This in-person workshop saw 30 participants trained in MAED, OSeMOSYS, ONSSET, and Geospatial Data Management. The Rolling Fund enabled them to scale the activity; increasing both the number of participants involved in the training and the scope of the training itself.

LEVERAGING RESEARCH

As our partnership consists of an incredible array of researchers all focusing on different aspects within energy access; from mobility, off-grid, AI, tech design amongst others, a funding mechanism that supports attendance and publishing of research at relevant conferences provides an opportunity to promote research and catalyse collaboration. It also aids researcher career goals by applying for conferences best suited to their research agendas. For conference attendance, paper acceptance was required. Six conference attendances were supported through the Rolling Fund presenting research on a variety of topics such as Carbon markets, energy system modelling, e-mobility, clean energy cooking to name a few.

Using the Rolling Fund to attend conferences of choice provided an opportunity for researchers in our network to increase their own research exposure and that of the wider TEA-LP network, further strengthening essential infrastructure for accelerating energy access and education.



The TEA-LP Rolling Fund helped increase the visibility of my research and strengthened my capacity as an emerging energy systems researcher. It created access to networks, conversations, and learning opportunities that are difficult to achieve without physical participation in such an event. I am deeply grateful because this support has contributed directly to my academic development, professional exposure, and future research direction...This support demonstrates the importance of investing in emerging African researchers and creating pathways for them to participate in global energy conversations. For many researchers, especially those working in resource-constrained environments, such support can make the difference between developing research locally and being able to share it internationally. - Addo Kwabena

LOOKING FORWARD

The response to the Rolling Fund illustrates the value of micro-finance mechanisms in energy education and clean energy transition research. Key learnings included;

- Partner-driven activities result in meaningful, context-specific impact
- Reimbursement funding seemed to work better for some over others - reimbursement funding requires up front capital for the activity which can be limiting
- Networking as essential infrastructure for accelerating energy access and education
- Partner-led activities drive institutional strengthening and increase ownership and sustainability
- Workshops/training act as high impact, responsive capacity building activities that meet local needs, and leverage local knowledge

Future iterations of the Rolling Fund could see different calls with different capped amounts – for example, a larger amount for workshops with the scope to create digital lessons to share across the network, research partnerships and student support, along with the regular amount available for network-related partner travel.

The Transforming Energy Access - Learning Partnership (TEA-LP) is a global partnership of universities and stakeholders across Africa, South Asia, and the Indo-Pacific, driving the transition to sustainable energy access for all. Through innovative Master's programmes, professional CPD courses, and a growing network of southern expertise, TEA-LP is equipping the next generation of energy leaders and supporting professionals already shaping the sector.

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