

Efficiency for Access Design Challenge Download: December 2023



Warm greetings as we step into our December 2023 edition of the Efficiency for Access Design Challenge Download. As the year draws to a close, join us in reflecting on the transformative stories and innovative journeys that have defined our shared exploration of clean energy access, sustainable technologies, and responsible engineering.

If you have ideas to share or simply want to connect, please reach out to us at eforachallenge@est.org.uk.

Challenge News

Challenge updates

Students from 17 universities in 10 countries, Bangladesh, India, Kenya, Nepal, Nigeria, Rwanda, Tanzania, Uganda, the UK and Zimbabwe, are participating in the Challenge this year. Student teams have started submitting their concept notes on agriculture, refrigeration, water and sanitation or power management for off-grid appliances. As part of their journey, they will soon start their mentoring with experts in the sector.

You can find a list of [universities and industry partners](#) participating on our website.

Call for Mentors

Are you a professional in off-grid technology? Are you looking to give back to the sector? Would you like to mentor a team of students participating in the Challenge? Student teams are developing their initial ideas for designing off-grid appliances on a wide range of technologies, and engaging with a mentor from our network of experts is one of highlights of their journey.

Register your interest in engaging as mentor [here](#), or contact us for more information via eforachallenge@est.org.uk.

"I am monumentally proud of the team I mentored for winning the Gold Award. I'm inspired by them actually. I know how hard they worked for that gold award. That is 100% their talent and determination, their hard work, and to be honest them embracing the Challenge to not give up and go all in. And I couldn't be happier for the entire competition and the team. I very much appreciate the memories this competition has placed into my life. What an amazing experience." **Chris Woyewodzic, Western Harmonics, CEO (mentor in the Challenge 2021-2022 and 2022-2023)**

"You really learn the most when you get an opportunity to teach or pass a skillset on to someone else... The opportunity to interact in something like the Efficiency for Access [Design] Challenge where you're looking at a much broader scope, actually gives the [mentor] an opportunity to think broader... it's more than just about teaching... it's an opportunity for the mentor to develop themselves." **Priscilla Sani-Chimwele, CEO, WALA Clean Energy (mentor in the Challenge 2022-2023)**

Announcement of Accelerator Programme participants

There have been eight ambitious teams from various years of the Challenge selected for the six-month Efficiency for Access Design Challenge Accelerator Programme.

These eight teams will receive tailored business support from experts with experience accelerating the innovations needed for a just and inclusive clean energy transition. Participants will receive bi-monthly workshops based on a needs assessment of their early-stage businesses, take-away exercises for every module and regular mentor support for each team.

The Efficiency for Access Design Challenge Accelerator Programme is delivered in partnership with [Energy Catalyst](#), an Innovate UK accelerator programme with the primary objective of unlocking clean energy access and pushing us closer towards achieving SDG 7.

Efficiency for Access Coalition News

New Agritech R&D funding to accelerate clean energy innovation in the Global South

We're delighted to announce the launch of our Research and Development Fund's fourth funding call, focused on off-grid appropriate agricultural technologies.

Under this call, over £1.3m will be made available to help develop and improve clean energy agricultural technologies and appliances for the world's poorest people, and smallholder farmers across the Global South. Funding is being provided by UK aid via the Transforming Energy Access platform, and the IKEA Foundation.

This funding call closes on 17 January 2024. Join us in our mission to accelerate clean energy access in the Global South.

[Register for our Agritech funding now.](#)

Join us at COP 28

Efficiency for Access is taking part in various events at COP 28, contributing to discussions around energy access, inclusive appliances and humanitarian justice in the Global South.

Efficiency for Access Design Challenge Gold Winner, to speak at COP 28

Siam Ibne Masud, a research and engineering student from Bangladesh, Youth Ambassador and former winner of the Efficiency for Access Design Challenge, has been sponsored by The Resilience Hub to attend COP 28.



In his role as Youth Ambassador, Siam is taking part in various panel discussions which we will aim to share with you in a future newsletter.

Siam and his team, from Independent University, Bangladesh and Makerere University, Uganda, scooped the Gold award at last year's Efficiency for Access Design Challenge with their solar-powered automated anaerobic digestion system, which produces biogas and crop fertiliser from food waste.

Join us in extending congratulations to Siam for this exciting opportunity to be part of the conversation at COP 28.

Launch of the Walk-In Cold Rooms Technical Guide

On 10 December, as part of The International Institute of Refrigeration's (IIR's) workshop: "[Leapfrog to a sustainable agricultural cold chain in low-income economies](#)," we'll be launching a technical guide on walk-in cold rooms, a comprehensive document presenting accessible, practical guidance for practitioners, on installing and operating appropriate precoolers and walk-in cold rooms. It highlights the most effective and economically viable methods in off-grid, unreliable and limited power supply situations.

Our Senior Research Lead, Jakub Vrba, will unveil the guide in a presentation, providing key insights into the scope of information, and its solutions to cold room challenges.



Wrapping up our #CoolingWithImpact Campaign

From mid-October to December, Efficiency for Access has been running a #CoolingWithImpact communication campaign highlighting the multiple, mutually reinforcing benefits of cooling technologies, particularly for those living in low-power or off-grid areas of the world.

Throughout the campaign, Efficiency for Access has collaborated with partners to amplify messaging on sustainable cooling solutions, showcase current research on cooling, and facilitate dialogue between industry stakeholders.

Join the final countdown of our campaign via [X \(Twitter\)](#) and [LinkedIn](#), or for more information visit our [campaign webpage](#)

Unlocking Green Jobs for Youth in Solar Irrigation

As the demand for solar irrigation expands, it brings with it a wealth of promising job prospects that demand a diverse range of hard and soft skills. In Kenya, the solar-powered irrigation systems (SPIS) sector is expected to create 7,000 to 10,000 direct jobs by 2027.

Underemployed rural youth have the chance to seize these opportunities with the right training. This pilot programme, implemented by Efficiency for Access in collaboration with Dalberg, is dedicated to enhancing technical and vocational courses tailored to meet the specific needs of SPIS, particularly for rural youth.

[Discover more about our programme and how you can be part of the initiative here.](#)

News from Our Network

Engineers Without Borders UK: Reshaping Engineering Challenge



Engineers Without Borders UK, the international movement working to put global responsibility at the heart of engineering, has opened applications for the fourth annual Reshaping Engineering challenge!

Delivered in collaboration with Azuko, the month-long virtual design challenge offers students and professionals working in technical and non-technical roles around the world the opportunity to work collaboratively to tackle a real-world brief. Register today to grow your skills in line with ever-evolving global challenges and deepen your understanding of the changes required to ensure engineers are equipped to enable humanity and the planet to thrive.

[Discover the challenge and secure your place!](#)

The Transforming Energy Access – Learning Partnership (TEA-LP)

The "Future Female Leaders in Energy" programme, a collaborative initiative between [Transforming Energy Learning Partnership \(TEA-LP\)](#) and the [African Management Institute \(AMI\)](#) has reached an important milestone as it welcomed its first cohort of 33 women.

Enabled by the [Transforming Energy Access Programme](#), this innovative programme is committed to offering accessible, high-quality education for young women entering the Energy Access sector. Through a combination of online courses and experiential workshops, this supportive learning environment aims to build skills in leadership and management and support.

Africa Climate Careers Network is here

[Shortlist](#) has launched the [Africa Climate Career Network \(ACCN\)](#), serving as the continent's premier talent marketplace for professionals embarking on or transitioning into climate-related careers. This centralised platform offers a wealth of resources, including Africa's largest climate-focused job board, educational programmes on climate topics and job preparation, and a supportive virtual community for networking and webinars.

ACCN goes beyond connecting professionals; it facilitates webinars tailored for graduates and partner organisations, fostering a collaborative environment. If you're eager to be part of this dynamic network, [explore more here](#).

TEA Chevening Scholars embark on energy-related Master's studies in the UK

The Transforming Energy Access (TEA) platform recently welcomed the first cohort of students to the [Chevening TEA Scholarship](#) programme. Eight TEA Chevening scholars hailing from sub-Saharan Africa have been awarded scholarships to pursue energy-related master's degrees at UK universities.

The class of 2023/2024 will also have access to mentoring and networking opportunities from across the TEA network. The cohort recently gathered in London for a welcome and networking event hosted by the Carbon Trust - [see more here](#).

DT Global – HVT collaborations with Sum4All, research publications

The [High Volume Transport - HVT](#) programme, funded by UK aid and implemented by DT Global, has published a paper, the [Electromobility and Renewable Electricity: Developing Infrastructure for Synergies](#), which further explores the opportunities and challenges that e-mobility encounters in LICs, highlighting that while electrification of transport is a central pillar of the much-needed emission reductions in the transport sector, it will require substantial scaling up of renewable electricity.

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