



Energy Modelling Platform for Uganda (EMP-Uganda) | 2027

Concept Note

Context

Uganda's energy sector is entering a period of rapid transformation in which energy access, industrialisation, clean cooking, productive use of energy, climate resilience and long-term economic development must increasingly be planned together. The Energy Policy for Uganda 2023 provides the overarching framework for a secure, affordable and sustainable energy sector, while the Uganda Energy Transition Plan (2023) sets out a pathway for universal access to electricity and cleaner cooking, modernisation of the energy mix, energy security and a lower-emissions transition. Uganda's Fourth National Development Plan (NDP IV, 2025/26–2029/30) similarly recognises affordable, reliable, clean and modern energy as an enabling condition for industrialisation, value addition, productivity and improved quality of life.

These priorities are reinforced by Uganda's Updated Nationally Determined Contribution and the National Integrated Clean Cooking Strategy. Together, these policy frameworks create a strong demand for analytical approaches that can help decision-makers compare technology options, understand spatial differences, forecast demand, assess investment requirements and evaluate alternative energy pathways.

Uganda's energy planning agenda is therefore becoming increasingly technically demanding. Although modelling and geospatial tools are increasingly available, expertise remains dispersed across government, academia, utilities, regulators, development partners and practitioners. Different analytical exercises may use different datasets, assumptions and methods, while opportunities for intensive hands-on training and institutional knowledge exchange remain limited. This can constrain comparability across studies, weaken continuity between modelling exercises and planning processes, and increase dependence on short-term external analytical support.

Against this background, the Centre for Research in Energy and Energy Conservation (CREEC) and the Ministry of Energy and Mineral Development (MEMD), with support from Climate Compatible Growth (CCG), propose to host EMP-Uganda from 11–22 January 2027 at the Smart Manufacturing Hub in Kiruhura under the National Science, Technology and Engineering Innovation Center (NSTEIC). EMP-Uganda will provide a locally anchored capacity-building platform combining prerequisite learning, induction, intensive hands-on

training and Uganda-focused case-study development for selected participants across five specialised modelling tracks.

Objective

The main objective of EMP-Uganda 2027 is to strengthen the technical and institutional capacity of selected participants in Uganda to apply energy modelling and geospatial decision-support tools for evidence-based energy planning, scenario development and investment decision-making. The specific objectives are to:

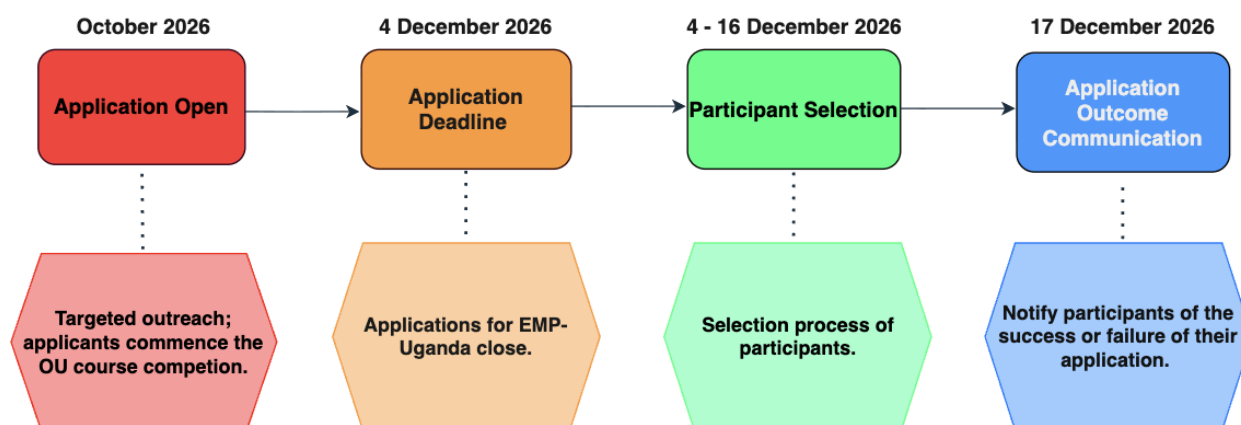
- Build practical competence in five specialised tools, Energy Access Explorer (EAE), OnSSET, OnStove, OSeMOSYS and MAED, for geospatial planning, electrification, clean cooking, long-term energy-system analysis and energy-demand assessment.
- Strengthen participants' ability to formulate analytical questions, prepare and assess data, construct scenarios, interpret modelling results and communicate implications for policy and investment.
- Develop Uganda-focused case studies and analytical outputs demonstrating practical application of the selected tools to national and subnational energy-planning challenges.
- Strengthen institutional collaboration and establish a sustained community of practice among government, academia, utilities and regulators, development partners, private-sector actors and other energy practitioners.

Structure of the EMP-Uganda 2027

This year's EMP-Uganda will be held in person in Kampala from 11–22 January 2027.

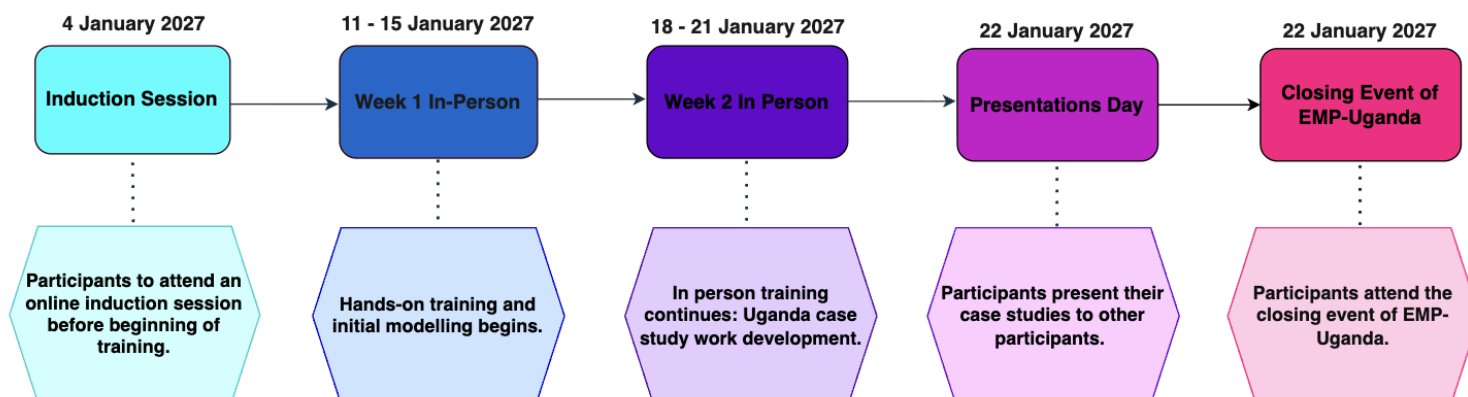
The application period is as follows, please make note of the dates below:

Application Period and Process



The application period will be followed by the training period, see below for dates and details:

Training Period



The online induction session on 4 January will inform participants of the necessary data to gather for the development of the case studies during the training.

During EMP-Uganda 2027, participants will acquire energy and resource modelling skills using one of the following five specialised tools under dedicated trainers. They will focus on:

- **OnSSET / The Global Electrification Platform**

This course will help participants learn about geospatial energy modelling, how to build electrification analyses, compare grid-extension and off-grid options, include the spatial dimension in energy planning, and identify technology and investment priorities for universal energy access.

- **OSeMOSYS**

This course will strengthen participants' capacity in long-term energy-system modelling and scenario analysis. Participants will examine what investments, when, and at what scale are needed to meet future energy demand while accounting for technology choices, resource availability, policy objectives, energy security, environmental considerations and other system constraints.

- **MAED**

This course will strengthen participants' ability to use the Model for Analysis of Energy Demand (MAED) for long-term energy-demand analysis and projection using demographic, socio-economic, technological and sectoral drivers. Participants will develop demand scenarios that can support generation, infrastructure and broader energy-system planning.

- **OnStove**

This course will focus on spatially explicit clean cooking planning and transition analysis. Participants will examine alternative cooking technologies and fuels, spatial differences in costs and benefits, and approaches for identifying priority geographies and transition pathways for clean cooking interventions.

- **Energy Access Explorer: A data-driven, Integrated and Inclusive Approach to Planning for Achieving Universal Access to Energy for Equitable Development**

EAE will introduce the importance of spatial data and analytics for providing actionable insights regarding expansion of clean energy services for socio-economic development. Participants will undertake practical hands-on activities to identify priority areas for energy access interventions, productive use of energy, healthcare electrification and integrated development planning.

From 11–22 January 2027, participants will receive interactive in-person coaching from dedicated trainers. Participants will apply their chosen tool to a Uganda-focused case study and will be expected to develop an ‘elevator pitch’ presentation for a senior decision-maker. Presentations will be completed at the end of the training.

Participants will receive a certificate on successful completion of the training, once they provide their presentations.

The final day of EMP-Uganda (22 January 2027) will be dedicated to participant presentations and a closing event.

The substance of the closing event will be determined with CCG and the EMP-Uganda organising partners.

Application

Regular EMP-Uganda Application

There is no fee to attend; however, competition for space is high. CREEC and MEMD will undertake targeted outreach to government, academia and research institutions, utilities and regulators, development partners, private-sector organisations, civil society and other relevant energy-sector practitioners.

Applicants interested in participating in EMP-Uganda will be required to complete an online application form, following this link:

<https://forms.gle/cyJMwMqd5V466ite7>

The form will have a ‘Personal Details’ section and an ‘Application’ section, where candidates will be required to share information including their current job responsibilities, institutional affiliation, preferred technical track, motivation for the application, and field of interest.

1. In order to be considered, applicants must complete the Open University course for their chosen track and attach the certificate of completion to their application or submit it within the required readiness period.
2. Additionally, applicants are required to complete the ‘Applied Political Economy Analysis for Energy Modelling’ course available on the Open University website, and attach the

certificate of completion on the application form. Please note, this course is available only in English.

3. Furthermore, a stamped Letter of Commitment from participants' respective institutions confirming institutional support and full attendance will be mandatory. This letter should confirm:
- That the selected track and expected output are relevant to the applicant's institution and responsibilities; or
 - That the skills, tools and teaching material acquired will be used in university teaching, government planning, utility/regulatory work, investment preparation or institutional knowledge management; or
 - That the output will contribute to policy-relevant research, planning or decision-making.

Supporting documentation should be endorsed by an appropriate institutional authority. Selection will consider technical suitability, institutional relevance, potential application of the skills, equity, diversity and inclusion, and balance across participating institutions and sectors.

Applicants will also be required to submit a Letter of Motivation stating why they should be selected, how the selected course relates to their work, and how their background knowledge and experience make them suitable candidates.

Applications will close on 4 December 2026. Participant selection will be completed by 16 December 2026. Successful applicants will be informed by email on 17 December 2026. The notification will confirm track allocation, outstanding prerequisite requirements and logistical arrangements.

Furthermore, full-time commitment towards EMP-Uganda is crucial.

IT requirements

Participants will require a computer with stable internet access to participate in the training. It is recommended, for all tracks, that participants have at least 8 GB of RAM and a relatively new computer. Specific tracks may have additional requirements above this minimum.

- Track-specific software, operating-system, storage or processing requirements will be communicated before the induction week.
- The induction week will include technical checks to ensure that required software, datasets, accounts and tools are ready before hands-on training begins.

Partners

In alphabetical order:

- 2050 Pathways Platform
- British High Commission
- Centre for Global Equality
- Centre for Research in Energy and Energy Conservation (CREEC)
- Centre for Sustainable Transitions: Energy, Environment and Research (STEER), Loughborough University
- Clean Cooking Alliance
- Climate Compatible Growth Programme (#CCG)
- Energy Sector Management Assistance Program (ESMAP)
- Global Green Growth Institute
- Global Research and Technology Development
- Green Grids Initiative (GGI)
- Imperial College London
- International Atomic Energy Agency
- International Energy Agency
- Kartoza
- KTH Royal University of Stockholm
- Ministry of Energy and Mineral Development (MEMD)
- Modern Energy Cooking Services (MECS)
- OpTIMUS Community
- Politecnico di Milano
- Simon Fraser University (SFU)
- Sustainable Energy for All
- United Nations Department of Economic and Social Affairs (UNDESA)
- United Nations Development Programme (UNDP)
- United Nations Economic Commission for Africa (UNECA)
- University of Cambridge
- University of Oxford
- World Bank
- World Resources Institute (WRI)

Partners For further information, please contact: kuteesapecos1818@gmail.com