# Energy Modelling Platform for Latin America and the Caribbean (EMP-LAC) 2023
## *Concept Note*

## Context

The main objective of the EMP-LAC 2023 is to contribute to creating optimised investments for the energy transition in Latin America and the Caribbean in order to meet the continent's growing demand for low-carbon, inclusive, and climate-resilient development pathways whilst accessing its large resource base. It is an excellent opportunity to acquire free training, access to discussion forums, and coaching skills in models and tools for energy planning needs.

To date, one small scale round of EMP-LAC has taken place, namely EMP-LAC 2022. To accommodate growing participation and resounding calls for more dedicated sessions, all 5 tracks have been translated into spanish to increase accessibility. EMPLAC 2023 will take place from January 16th to February 3rd 2023.
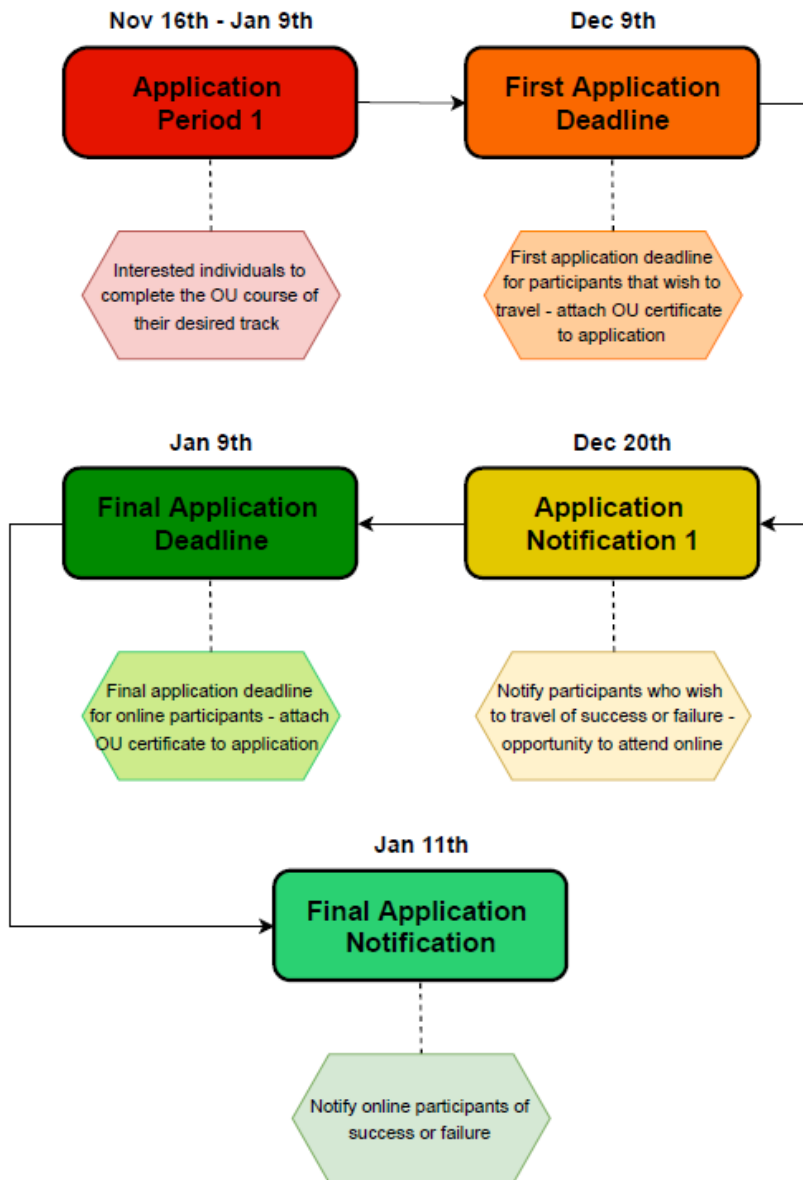
## Objective

- Gather the energy planning and modelling community in Latin America and the Caribbean to share experiences, models, and data in climate, land, energy, and water systems.

- Support human and institutional capacity in Latin America and the Caribbean for integrated energy modelling and investment planning.

- Support the development of centers of excellence for energy planning in Latin America and the Caribbean.

- Promote efficient and widespread use of open-source modelling tools to support the implementation of the SDGs and the Paris Agreement.

**Structure of the EMP-LAC 2023**

This year's EMP-LAC will be a hybrid event, however will aim to have as many participants attend in person from January 23rd to February 3rd in Costa Rica.
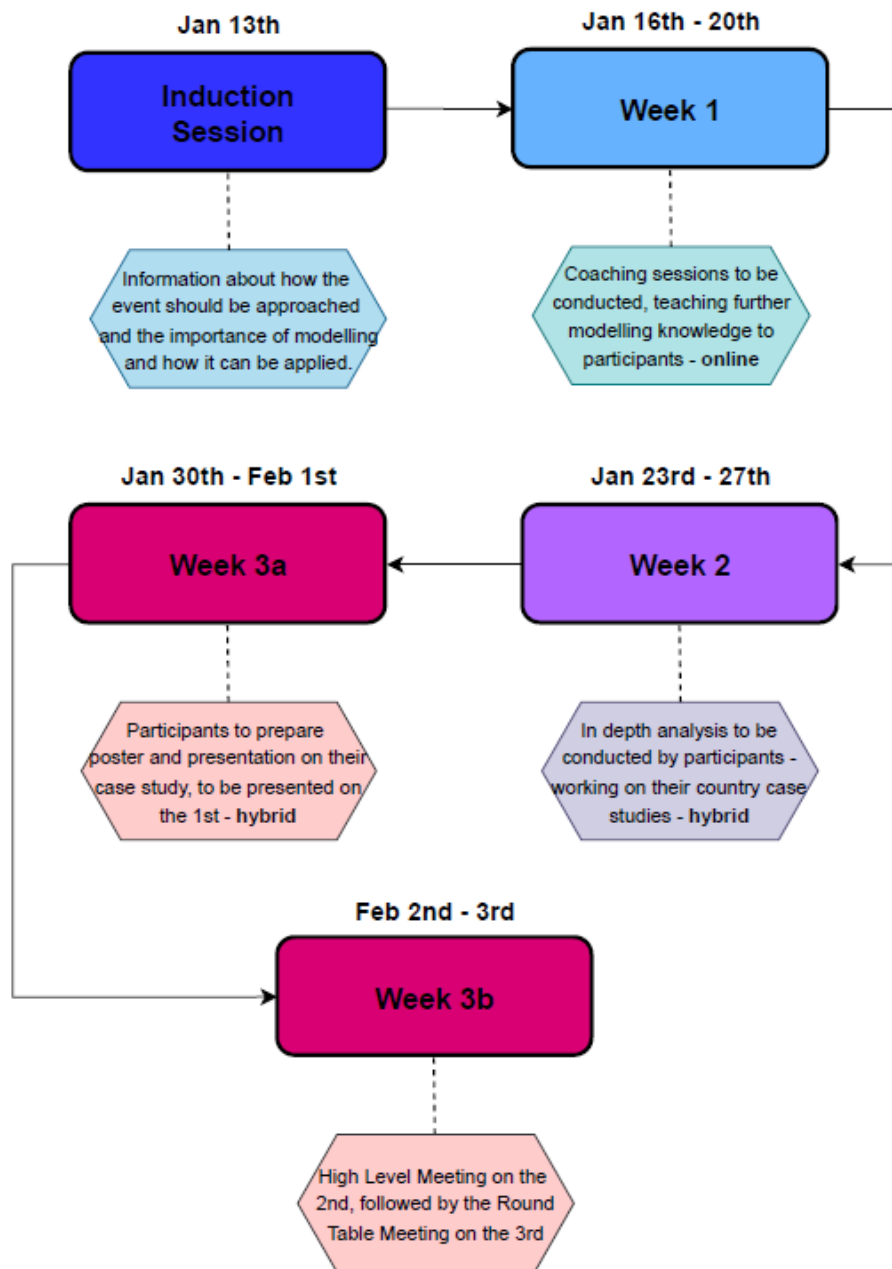
The application period is as follows, please make note of the dates below:



## Application Period

**Nov 16th - Jan 9th**
Application Period 1
Interested individuals to complete the OU course of their desired track

**Dec 9th**
First Application Deadline
First application deadline for participants that wish to travel - attach OU certificate to application

**Jan 9th**
Final Application Deadline
Final application deadline for online participants - attach OU certificate to application

**Dec 20th**
Application Notification 1
Notify participants who wish to travel of success or failure - opportunity to attend online

**Jan 11th**
Final Application Notification
Notify online participants of success or failure

The application period will shortly be followed by the training period, see below for dates and details. Please note that the majority of training sessions will be **conducted in english** however there will be spanish speakers on hand to assist.

## Training Period

**Jan 13th**

Induction Session

Information about how the event should be approached and the importance of modelling and how it can be applied.

**Jan 16th - 20th**

Week 1

Coaching sessions to be conducted, teaching further modelling knowledge to participants - online

**Jan 30th - Feb 1st**

Week 3a

Participants to prepare poster and presentation on their case study, to be presented on the 1st - hybrid

**Jan 23rd - 27th**

Week 2

In depth analysis to be conducted by participants - working on their country case studies - hybrid

**Feb 2nd - 3rd**

Week 3b

High Level Meeting on the 2nd, followed by the Round Table Meeting on the 3rd

During the EMP-LAC 2023, participants will acquire energy and resource modelling skills using <u>one</u> of the following open-source modelling tools for sustainable development pathways under leading academics and researchers in the field of model-informed development strategies. There are five tracks. They will focus on either.

- **OnSSET / The Global Electrification Platform**

  This course will help participants learn about geospatial energy modeling, how to build your own electrification analysis, how to include the geospatial dimension in your energy modelling to unlock new dimensions and gain an understanding of the earth's different energy resources, and how to incorporate them in your energy modeling.

- **Energy and Flexibility Modelling: OSeMOSYS & IRENA FlexTool**

  This course will help participants to understand what investments, when, and at what scale are needed in the energy sector to meet the growing demand for energy while meeting security, environmental, and other constraints. Special considerations will be made for modeling the flexibility of the electricity system, to account for high renewables penetration.

- **FinPlan (Financial Planning of Energy Infrastructure) and Investment Pipelines**

  This training course will provide basic knowledge on financial theory, will show how financing is done in the power sector across the world, with primary focus on developing countries, and will demonstrate how to carry out financial analysis of power projects using FINPLAN.

- **MAED and Energy Balance Studio**

  This course will teach participants how to use two of the International Atomic Energy Agency (IAEA) modeling tools: the Model for Analysis of Energy Demand (MAED) and the Energy Balance Studio (in the process, participants will learn about energy balances and energy systems in general, assisting them in energy system planning).

- **Introduction to CLEWS: Climate, Land-Use, Energy and Water Systems**

  This course will teach participants how to analyse policy decisions on issues such as the promotion of clean energy, competition for water and agricultural modernisation by teaching how to define model components, linking them together in an integrated system representation, populating the model with data, running a model, and interpreting results using CLEWS.

**Each course has two parts:**

- **Self-paced study**: Participants will complete the track of their choice and attach the certificate of completion on their application form. After participant acceptance an Induction Session will take place (January 13th), participants will attend an introductory session on the geopolitics/political economy of the energy transition vis-à-vis long-term energy planning to set the scene for the training course. Week 1 of the School (January 16th to 20th) will be conducted online. Coaching and troubleshooting sessions will be scheduled to support applicants and further their modelling knowledge.

- **In-depth hands-on training** Week 2 (January 23rd to 27th) is comprised of an interactive component with dedicated trainers. Applicants will receive further coaching and training on using the tool from their chosen track for a national case study. Applicants are expected to develop a poster, and an 'elevator pitch' presentation for a senior decision-maker. Applicants are required to present the PowerPoint and poster in Week 3a on the 1st February. Feedback will be given based on these presentations, as well as invitations to a high-level dialogue (February 2nd).

Participants will receive a certificate from CCG and University of Costa Rica on successful completion of the hands-on training. Trainers will also receive a certificate from CCG and University of Costa Rica for successfully acting as a trainer.

The last two days of the School (Week 3b, February 2nd and 3rd) will be dedicated to:

- **A High-Level Strategic Dialogue** of government officials, representatives of international organisations, and the expert community on planning and policies for national and sustainable development for the 2030 Agenda. This strategic dialogue is scheduled to occur on February 2nd.

- **Roundtable Discussion on Strategic Energy Planning -** A complementary event organised by the FCDO,  this event is scheduled to occur on February 3rd (trainers only).

**Application**

There is no fee to attend; however, competition for space is high, and space is limited. Applicants interested in participating in the EMP-LAC are required to complete the application form with the attached using the link below:

https://share-eu1.hsforms.com/1evs6FLxbTra0tqYzScJPhgexfzv

This form has a 'Personal Details' section and an 'Application' section, where candidates are required to share information such as, but not limited to, their current job responsibilities, motivation for the application, and field of interest. Such writing from the candidate will subsequently be taken into consideration for the application process.

In order to be considered, you **must attach the Open University certificate** of completion for your chosen track to your application.

Furthermore, a stamped letter stipulating an **Express Statement from participants' respective institutions towards attendance of the module of choice** is **also mandatory** for attendance. To apply, you will have to demonstrate:

- That the output of your study is in demand by the government that you represent; or
- That the skills, tools, and teaching material that you acquire will be used in university teaching or government planning knowledge management; or
- That the output will fit into policy-relevant research to be published on a visible platform.

Supporting documentation will require a letter from a head of unit or higher (government) or head of department or higher (university and others).  Exceptions will be made for selected candidates from participating organisations and ongoing technical assistance programmes, and applicants will be notified via those channels.  Priority will be given to participants from countries with a demonstrated need and ability to apply the training to policy development. The selection of participants will include considerations of equity, diversity, and inclusion.

The deadline to submit the application form for participants who wish to **attend in person** is at **12.00 pm (GMT-6) on December 9th**, and applicants will be notified of their outcome by 12.00 pm (GMT-6) on December 20th. If unsuccessful, applicants may still be considered for online participation. The deadline to submit the application form for participants who wish to **attend online** is at **12.00 pm (GMT-6) on January 9th,** and applicants will be notified of their outcome by 12.00 pm (GMT-6) January 11th.   It should be noted that spaces are limited and the application process is highly competitive. Furthermore, full-time commitment towards the EMP-LAC is crucial.

**Funding for in person participants**

Funding will be made available for some in person participants to cover the cost of flights and/or accommodation. However, participants not selected for funding can still attend at their own expense. Please specify in your application if you wish to be considered for funding and whether you wish to attend the entire event in person or a select few days.

**Partners**

In alphabetical order:

- Climate Compatible Growth Programme (#CCG)
- Energy Sector Management Assistance Program (ESMAP)
- International Atomic Energy Agency (IAEA)
- International Renewable Energy Agency (IRENA)
- Imperial College London (ICL)
- KTH Royal Institute of Technology (KTH)
- OpTIMUS Community of Practice
- Simon Fraser University
- Sustainable Energy for All (SEforALL)
- The Loughborough Centre for Sustainable Transitions: Energy, Environment, and Resilience (STEER)
- United Kingdom Foreign, Commonwealth and Development Office (UK FCDO)
- United Nations Department of Economic and Social Affairs (UNDESA)
- United Nations Development Programme (UNDP)
- University of Cambridge
- University of Costa Rica
- University of Oxford
- World Bank Group (WBG)
- 2050 Pathways Platform

**IT requirements**

Note that 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 have additional computer requirements above and beyond this minimum:

- CLEWs - Windows 10 computer
- Energy Modelling and Power System Flexibility - Windows 10 computer, 8GB RAM, MS Office with Microsoft Access.

**Further information contact:**

Email: inquiries@optimus.community