



Training on developing SDG7 Road Map and long-term energy planning using the NEXSTEP framework

Online via Zoom

Date: Four half-day sessions (23, 30 April, and 7, 14 May)
10am to 13pm (Santiago, Chile; GMT-4)

1. Background

Delivery of SDG 7, ensuring access to affordable, reliable, sustainable and modern energy for all by 2030, will be a significant challenge. Despite current efforts in ensuring the achievement of the SDG 7 targets, the International Energy Agency (IEA) suggests that the current pace is not adequate to achieve any of the 2030 targets for SDG 7. It is estimated that 63 million people in the Asia-Pacific region will be without access to electricity and 1.6 billion people without access to clean cooking by 2030. The region's renewable energy share will grow from 7 per cent today to 14 per cent by 2030 but needs to reach 35 per cent in order to achieve both SDG 7 and the Paris Agreement. In the UNECE region, universal household electrification in terms of physical access has been attained, but aging infrastructure, a lack of supply diversity and increasing tariffs lead to poor power quality and, for some, energy poverty. In Latin America and the Caribbean 12 million people remain without electricity access and 83 million people without access to clean cooking.

The situation brought about by the devastating COVID-19 pandemic entails a new set of challenges and opportunities for the achievement of SDG 7. The socio-economic response launched by governments to restart their economies and build back better offers potential for targeted policies and investment that drive energy efficiency and renewable development, lower the costs of energy and create jobs, and provide access to modern energy to move people out of poverty.

Against this backdrop, ESCAP, UNECE and ECLAC have been collaborating since 2022, with the support of the UN Development Accounts, to address this matter by developing SDG 7 roadmaps for eight countries and building capacity of ECLAC region in developing roadmaps. As part of this collaboration, a training program will be organized for the ECLAC region to build the capacity of energy planners and experts on long-term energy planning to help develop SDG 7 in this region. This training program will use the National Expert SDG Tool for Energy Planning (NEXSTEP), a framework developed by ESCAP in 2019 and is being used by several countries to develop SDG 7 Road Maps. Further information on NEXSTEP is available at <https://nexstepenergy.org/>.

2. NEXSTEP training

A four half-day training program will offer in-depth knowledge, along with hands-on experience, on energy and emissions modelling using the Low Emissions Analysis Platform (LEAP) tool, economic analysis of power generation with different technologies, and scenario analysis using the Multi-Criteria Decision Analysis (MCDA). This training is being organized jointly by ESCAP, UNECE and ECLAC, and is composed of three main items:



- a) Lectures: Presentations from the facilitator will explain step-by-step process of using the LEAP tool, including:
- Setting up basic parameters – factors and key assumptions
 - Creating the demand tree
 - Creating the supply/transformation tree
 - Setting up the emissions module
 - Developing scenarios
 - Displaying and extracting/transporting results
- b) Hands-on work: Participants will be given access to the LEAP tool to work on a fictitious project involving creating a demand tree, creating the supply module and setting up the emissions parameters.
- c) Evaluation: Participants' learning will be assessed using short questions based on the lessons learned from the training.

This training would be appropriate for stakeholders working on or are involved in long-term energy planning and policy development. This may include participation from the government agencies, as well as any other organisations/agencies as deemed appropriate by ECLAC. A certificate of participation, jointly signed by ESCAP, UNECE and ECLAC, will be given to participants who successfully complete the full training.



Agenda

Session 1: 23 April 2025 (Santiago Local time)

Time	Agenda	Description/Topic/Activity
10:00 – 10:05	Welcome remarks	Mr. Martín Abeles , Director of the Natural Resources Division, ECLAC
10:05 – 10:15	Opening remarks	Mr. Hongpeng Liu , Director, Energy Division, ESCAP (TBC) Mr. Dario Liguti , Director, Sustainable Energy Division, UNECE (TBC)
10:15 – 10:25	Introduction of participants	
10:25 – 11:45	Module 1 Key aspects of Energy Planning From long to short term planning: which scope for which purpose? – Integrated energy system planning vs power system planning vs electrification planning – Linkage to international obligations.	This session covers fundamental aspects of Long-Term Energy Planning, contrasting macro- and micro-level approaches, linking each to global commitments (NDCs, LT-LEDS, Biannual Reporting (Enhanced Transparency Framework), SDGs), and outlining key data needs and anticipated results.
11:45 – 12:45	Module 2 Key steps for Long-Term Energy Planning Understanding Data requirements for modelling – What modelling tools are appropriate – Scenario construction – Policy recommendations.	This session outlines the core stages of Long-Term Energy Planning, including defining research questions, identifying essential data, choosing suitable modeling tools, interpreting results to inform policy, and clarifying responsibilities among stakeholders.
12:45 – 13:00	Discussion, Q&A	

Session 2: 30 April 2025 (Santiago Local time)

Time	Agenda	Description/Topic/Activity
10:00 – 11:30	Module 3 Introduction to NEXSTEP - NEXSTEP methodology - Anticipated results - Developing SDG7 roadmap using NEXSTEP - Proposed workflow and timeline	This module provides a general introduction to the NEXSTEP methodology, anticipated results, as well as proposing a general workflow and timeline, considering consultation processes with stakeholders. This covers details about required data for energy modelling.



	Data requirement and data collection - Data requirement - Data collection	
11:30 – 12:45	Module 4: Energy and emissions modelling using LEAP – topical lectures and practical tutorial: Key assumptions and scenario settings.	This module focuses on providing hands-on practical learning for the participants. Short lectures will be provided, followed by practical tutorials. Participants are expected to be using the sample data provided to come up with modelled scenarios.
12:45 – 13:00	Discussion, Q&A	

Session 3: 7 May 2025 (Santiago Local time)

Time	Agenda	Description/Topic/Activity
10:00 – 13:00	Module 5: Energy and emissions modelling using LEAP – topical lectures and practical tutorial: Demand tree development.	This module focuses on providing hands-on practical learning on demand tree development.

Session 4: 14 May 2025 (Santiago Local time)

Time	Agenda	Description/Topic/Activity
10:00 – 12:45	Module 6: Topical lecture and tutorial on electricity generation and capacity estimation, emissions analysis, investment estimate, net benefits, and energy balance.	This module focuses on setting up electricity generation tree, modelling different power generation mixes, setting up cost factors and generating/viewing results.
12:45 – 13:00	Discussion, Q&A	