Overview and Guidance for taking the Self-Paced Version of the EDM Training

1. About the Energy Delivery Models (EDM) Training

While access to energy is crucial for cooking, lighting, heating, clean water, and most income-earning activities, energy for many displaced people, including in refugee camps, is either non-existent or severely lacking in terms of availability, accessibility, and quality. This means that they often rely on solid fuels like firewood to cook, negatively impacting their health from the smoke, and the environment through the effects of deforestation. Lack of access to electricity means they resort to candles, kerosene lanterns or torches for lighting.

To date, humanitarian programs have often focused on distributing firewood and solar lanterns that only meet basic energy needs. Addressing energy access sustainably and for the long term has been a considerable challenge. Local markets and energy enterprises can be used to deliver cleaner energy options, but there are barriers such as low affordability among the displaced or humanitarian, development and private sector actors' lack of awareness of displaced communities energy needs.

To fill the capacity gap in the humanitarian sector, the United Nations Institute for Training and Research (UNITAR) developed the Energy Delivery Models (EDM) training programme to support the integration of energy access and sustainable delivery models of modern energy services into humanitarian and development programming. The EDM Training is based on the Energy Delivery Models Toolkit developed by IIED and CAFOD, a standard process for inclusive planning of energy planning for energy poor communities, and the pilot phase of the humanitarian focused EDM training in 2020-2021 was delivered with financial and technical support from MECS, NORCAP, SELCO Foundation, and IIED.

2. Training Components

The self-paced version of the training programme consists of three online e-learning modules where participants learn about the importance of energy in humanitarian operations, review market-based approaches to improve energy access, and utilize standard energy project development tools to address energy needs identified with displaced and hosting communities. The modules are described below.

Module 1: Introduction to Energy Access in Displacement Contexts

This module will help you describe what energy access is, its relevance for development and humanitarian contexts, and how it can help you save and change lives; explain the role that energy can play in humanitarian programmes and examples of current work on energy; explain the approach of diffusing energy access by strengthening market systems; and state the importance that analysing energy value chains bears over the design of sustainable energy projects for displaced and host communities

Module 2: Hands-on Design of Energy Delivery Models

This module will help you understand energy value chains in the local contexts and identify energy solutions that are sustainable in the medium to longer term; identify barriers that prevent the local energy value chain from functioning properly; and design a set of strategies and solutions aimed at addressing those barriers.

Module 3: Developing & Managing Your Energy Project

This module will help you develop a quality project proposal that supports the local market ecosystem, includes a budget and plan of work, and leverages public and private partnerships to achieve maximum impact and sustainable delivery of the energy service.

Workbooks

Modules 2 and 3 each contain a workbook that is intended to be filled in as participants take the modules to support participants to identify energy access needs with communities, analyse surrounding energy value chains and policy environments to develop context-fit and sustainable solutions, and develop a project idea based on the analysis.

3. Background on the Six-Step EDM Design Process

The Energy Delivery Models (EDM) Training is based on the Energy Delivery Models Toolkit developed by IIED and CAFOD, a standard process for inclusive planning of energy planning for energy poor communities. This process can be used to design new energy services or to reflect on how to improve an existing energy service. The six-step process is accompanied by an online e-learning module (Hands on Design of EDMs) and EDM Canvas workbook to support project planners to assess energy needs, co-design solutions with communities, and develop inclusive energy access programmes. The following table and checklist, in combination with the online EDM e-learning modules described in section 2, provide guidance on how to take the self-paced e-learning modules of the EDM training. The intended users of this document are practitioners, policymakers or enterprises from or working with communities living in contexts affected by forced displacement. The graphic below outlines how the EDM training relates to different steps in the Six-Step EDM Design process, followed by a checklist on how to take the EDM Training.

EDM Training Phase	Steps in the EDM Toolkit
Phase 1: Energy Value Chain Analysis Steps 1-3	**Step 1: Identify the starting point** — Identify the entry point and approach to be used for providing an energy service to a particular group of people (potential end users). *Which organisation or group is starting the process and what do they want to achieve?* Carry out initial data gathering. **Step 2: Be inclusive** — Map out all the relevant stakeholders who will participate in the design process and build their awareness of the process and its aims. **Step 3: Build understanding** — Explore the target end users' needs and wants and their context in more depth. Understand their priority needs, and the energy and non-energy 'gaps' preventing the needs being met. Brainstorm potential solutions and identify the 'value added' of an energy service. Develop a value proposition.
Phase 2: Pre-feasibility Data Collection and User Testing Steps 4-5	**Step 4: Design and Test** — Explore in depth potential solutions (energy delivery models) using the EDM tools. Understand who will do what, and the various outputs and activities needed. Test out the value proposition/different solutions by challenging your assumptions and gathering further data. **Step 5: Optimise and review** — Think through the financial, social and environmental risks and how to mitigate them. Ensure that the EDM is sustainable, and all the supporting services required are in place. Finalise the EDM.
Phase 3: Pilot Ideation and Design Step 6	**Step 6: Prepare to implement** — Develop an implementation and a monitoring and evaluation plan. Once financing and other support is in place, move to the start-up phase, beginning with piloting the EDM.

4. Checklist for taking the EDM Training E-learning Modules

The checklist below outlines what actions participants should take to identify energy access needs of communities they are from or working with, analyze energy value chains to develop appropriate strategies/projects/approaches to meeting those identified needs.

Phase 1: Conducting Energy Value Chain Analysis
Corresponds to steps 1, 2 and 3 of six-step EDM Design process

Using the online EDM e-learning modules and mentor support, complete an analysis of the local energy value chain, barriers preventing it from functioning, and supporting services that your organisation could provide to overcome identified barriers.

☐ Take Module 1: Introduction to Energy Access in Displacement Contexts
☐ Take Module 2: Hands on Design of EDMs

- ☐ Watch the additional webinar on how to conduct End User focused energy planning and co-create solutions with communities (Recording online here)
- ☐ Review and use relevant tools in the EDM Toolkit Annex (stakeholder map, community questionnaires, case study) if needed
- ☐ Work with communities throughout the process through continuous engagement, dialogue and feedback loops to ensure the approach and solutions proposed are fitting to end user needs.
- ☐ When evaluating energy value chains and identifying key energy access needs, ensure coordination with other actors and existing national energy access programmes and plans, as well as organisations country/regional policy or project planning in order to frame EDM intervention into wider organisational or national plans and seek synergies across existing programmes
- ☐ Seek information and data from private sector suppliers about solutions on the market, delivery structures, costs, after sales warranty schemes, etc and document for analysis on the cost-benefit of different solutions
- ☐ Discuss with energy/humanitarian/development sector partners to be informed about what solutions are on the market, relevant information about the regulatory environment, and learn lessons from previous experiences, potential synergies with existing projects, etc.
- ☐ After Module 2: EDM Canvas workbook is filled in, reach out to the UNITAR EDM Team for a short consultation (energy@unitar.org)

Phase 2: Pre-feasibility Data collection and User Testing

Corresponds to steps 4 and 5 of six-step EDM Design Process. *Using the completed EDM Canvas (value chain analysis, barriers, enabling environment, supporting services), it is suggested to get basic baseline data to justify the project proposal idea and inform the project approach and activities.*

- ☐ Collect pre-feasibility information with communities on what priority needs are, end user preferences, existing supply chains, etc to inform the pilot project approach and justify project assumptions (drawing on already existing information and assessments if available)
- ☐ If possible and within budget, try to do end user testing and piloting with a small demonstration group to get concrete feedback on Energy Delivery Model
- ☐ Reflect on learnings from small-scale pilot testing and dialogue with end users of the energy product or service to inform

Phase 3: Pilot Project Ideation and Design

Corresponds to step 6 of six-step EDM Design Process. *Based on pre-feasibility data and energy value chain analysis, project objectives, goals and activities are developed leading toward a session with energy sector donors and financers.*

- ☐ Based on pre-feasibility information and light-touch user testing, participants develop a project concept note or proposal. Supporting tools include:
  - o Concept note template
  - o Module 3: Developing your EDM (e-learning module, workbook)
- ☐ Link with existing partners, donors, financers to kick off resource mobilization for the project approach
- ☐ Ensure communications and stakeholder/partner management throughout the design process (specifically with end users

5. Contact

The EDM training is facilitated by UNITAR. The focal points below will be managing the EDM training delivery and are available to support participants throughout the training process: Aimee Jenks, UNITAR (aimee.jenks@unitar.org), Elif Gül Demir, UNITAR (elif.demir@unitar.org).