Online Capacity Building Programme on Sustainable Energy Solutions for Islands and Territories in the Pacific, Caribbean, Africa and Indian Ocean - Project.

First Operational Phase of the Caribbean Centre for Renewable Energy and Energy Efficiency

UNIDO- Project SAP ID: 130200

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The Project

Online Capacity Building Programme on Sustainable Energy Solutions for Islands and Territories in the Pacific, Caribbean, Africa and Indian Ocean - (UNIDO Project Ref. SAP ID: 130200)

First Operational Phase of the Caribbean Centre for Renewable Energy and Energy Efficiency - CCREEE
CIEMAT is a Spanish Public Research Center under the Ministry of Science, Innovation, Focused mainly in the areas of energy, environment and technological field. Its mission is to contribute to sustainable development of the country and to the quality of life of its citizens as a Centre of excellence.
• CIEMAT Has an intermediate position from the basic knowledge to the industrial application
CIEMAT makes a considerable effort to transfer the knowledge, capabilities and results obtained by its research projects and activities to the production system, industry and society.

OBJECTIVES:
Develop competencies and capabilities to enable “sustainable, competitive and secure energy as well as lifelong learning and borderless mobility for the scientific community”.
- Transfer the knowledge and experience through CB and Education and Training (E&T) activities
- To share the Spanish experience

To promote capacity building and knowledge exchange in the field of energy and energy efficiency in order to stimulate technology & investments and encourage access to modern energy services.
ONLINE CAPACITY BUILDING PROGRAMME ON SUSTAINABLE ENERGY SOLUTIONS FOR ISLANDS

Framework: UNIDO-SIDS DOCK Global Network

To assist SIDS to address existing barriers and move towards sustainable energy markets, industries, innovation, energy security and resilience to climate change.

This joint initiative with of PCREEE, the ECREEE and the CCREEE, the “Online Capacity Building and Certification Program on Sustainable Energy Solutions for Islands and Territories in the Pacific, Caribbean, Africa and Indian Ocean” is being developed by CIEMAT.

Program Objective: to cover the knowledge & skills requirements in renewable energies, energy efficiency and the energy in general of the different stakeholder groups.

REASONS FOR THIS PROJECT

In line with the global climate agreement at COP 21
Opportunity to reduce barriers and gaps through the capacity development
Strengthen the awareness and knowledge base of local institutions and stakeholders in REs & EE
Opportunity to benefit from high quality and intensive programs developed by renowned specialists.
Promote the training of women in technological areas
OFFERS a solid and specialized technical training on sustainable energy solutions for islands regions and technologies to the regional Centres

### 9 ONLINE MODULES

<table>
<thead>
<tr>
<th>Module</th>
<th>Title</th>
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<tbody>
<tr>
<td>M1.</td>
<td>General introduction into Island Energy and Climate Change Mitigation and Resilience</td>
</tr>
<tr>
<td>M2.</td>
<td>Solar Thermal Systems and Applications for water heating and industrial process heat</td>
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<tr>
<td>M3.</td>
<td>Grid-connected and decentralized Photovoltaic Systems</td>
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<td>M4.</td>
<td>Efficient Energy use and thermal optimization in buildings and industry</td>
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<td>M5.</td>
<td>Geographic Information Technologies and Renewable Energy (NEW)</td>
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<td>M6.</td>
<td>Bioenergy. Anaerobic digestion of organic waste to energy solutions</td>
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<tr>
<td>M7.</td>
<td>E-mobility</td>
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<tr>
<td>M9.</td>
<td>Ocean Energy</td>
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The training program is offered at 2 speeds of study.

## Module’s General Overview

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<tr>
<th>Target Audience</th>
<th>General public</th>
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<tr>
<td>Objective</td>
<td>To provide an overview of each technology</td>
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<tr>
<td>Learning Material</td>
<td>Video presentation and multimedia content</td>
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<tr>
<td>Development Site</td>
<td>Temporarily on the CIEMAT’s servers, on the LMS Moodle 3.1.6</td>
</tr>
<tr>
<td>Final Servers</td>
<td>ECREEE, CCREEEE and PCREEEE Websites</td>
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## MODULE’S SPECIALIZED TRAINING

### TARGET AUDIENCE
Professionals in the sector, academics and postgraduates

### OBJECTIVE
To provide technical and detailed view and quality specialized training for qualify and skilled personnel

### LEARNING MATERIAL
Complete learning materials including:
- Educational Didactic Guide
- Video Presentation
- Multimedia Content
- Extensive Documentation
- Case Study
- Final Assessment Test
- Achievement Certificate

### DEVELOPMENT SITE
Temporarily on the CIEMAT’s servers, on the LMS Moodle 3.1.6

### FINAL SERVERS
ECREEE, CCREEE and PCREEE Websites And E-Learning Platform

### SELF-REGISTRATION

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<th>Self-Registration</th>
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- Learning Management System (LMS)
- MOODLE
- Open Source Learning Platform

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**2ND SPEED**

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**CB Structure and Learning Materials**

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**GLOBAL NETWORK REGIONAL SUSTAINABLE ENERGY CENTRES**
While the Module's General Overview, or 1st Speed has no associated practical activities and assessment tests. The Module's Specialized training or 2nd Speed, includes various activities to overcome and the recognition of learning and progress by a certificate of achievement.

Further Accreditation based upon professional qualifications, TVET (Technical and Vocational Education and Training) may be offered through a University or accredited training institution.
CB PROGRAM GENERAL FEATURES

- Islands regions

- Two Learning Speeds: articulated in 2 learning speeds to cover the needs of knowledge different target audience profiles

- Contents and materials of high technical and didactic quality, suitable for E-learning methodology

- Methodology: Self-study (MOOC) & Tutored (e-learning)

- Applications to case studies in the Islands context

- Elements of assessment of Learning, Progress and Participation

- Autonomous Modules: suitable to the interest and choice of the participant

- Dedication time: 20-40 hours/module for a satisfactory use

- Certificate of Achievement

- Available English, Spanish and Portuguese
EXPECTED RESULTS

Provide the GN -SEC Energy Centres with a capacity building and skills certification program to foster the deployment of sustainable energy and low-carbon climate technologies (SECTs) in SIDS and territories, strengthening capacities achieve SIDS sustainable energy targets.

To Meet the need for affordable training and certification programs on sustainable energy in islands in order to provide local and regional capacity and expertise to overcome the barriers for the creation of sustainable energy markets and industries.

The Program will be installed on the main Portal Webs and learning Platforms of the ECREEE, the CCREEE and the PCREEE, that will be the owners and direct beneficiaries.

Open Online Access: the Program aims to be widely disseminated specially among key stakeholders (organizations, companies and governments) for the public sector, private sector and civil society of the Islands regions.

Building future leadership to manage energy programs
Thank you Very Much

For your Attention

marisa.marco@ciemat.es

Spanish R&D&I institutions involved
WORK PLAN AND SCHEDULE

The project is organized into four main phases:

• **Phase I.** Program management

• **Phase II.** Design and development of the training contents. Modules translation into English and Portuguese. Setting the Virtual Platform in CIEMAT servers

• **Phase III.** Preparation of the final version of the e-learning modules. Design the Capacity building portal within the Regionals Centers Webpage. Linking to CIEMAT Virtual Platform.

• **Phase IV.** Transfer Know How: and Technical Management.