2ND MEETING OF THE PCREEE STEERING COMMITTEE

Tuesday, 12 December 2017

Venue: Novotel, Suva, Fiji

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)

Key actors involved in the Project **(PCREEE, ECREEE, CCREEE, UNIDO, CIEMAT)**

Lara de Diego

Knowledge Management & Training Division of CIEMAT

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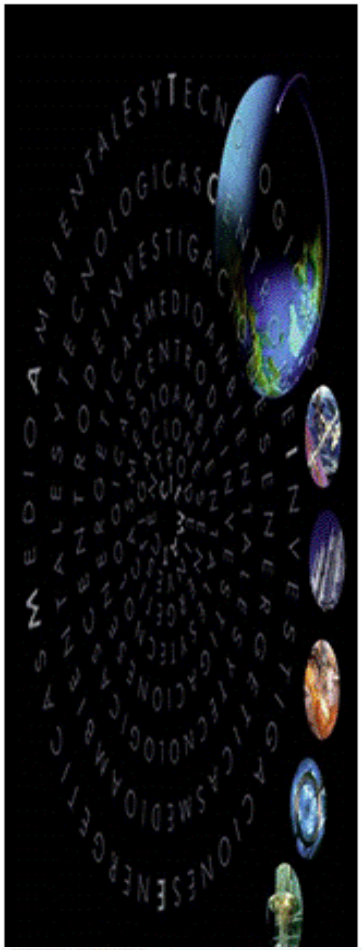
GOBIERNO DE ESPAÑA
MINISTERIO DE ECONOMÍA, INDUSTRIA Y COMPETITIVIDAD

Ciemat
Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas

PCREEE
Pacific Centre for Renewable Energy and Energy Efficiency
SE4ALL Centre of Excellence to Promote Sustainable Energy Markets, Industries and Innovation

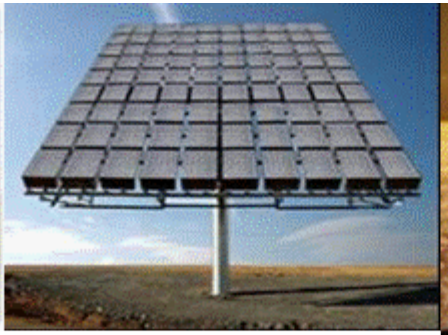
SIDSDOCK
SMALL ISLAND DEVELOPING STATES
ISLAND ENERGY FOR ISLAND LIFE

UNIDO
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION



CIEMAT

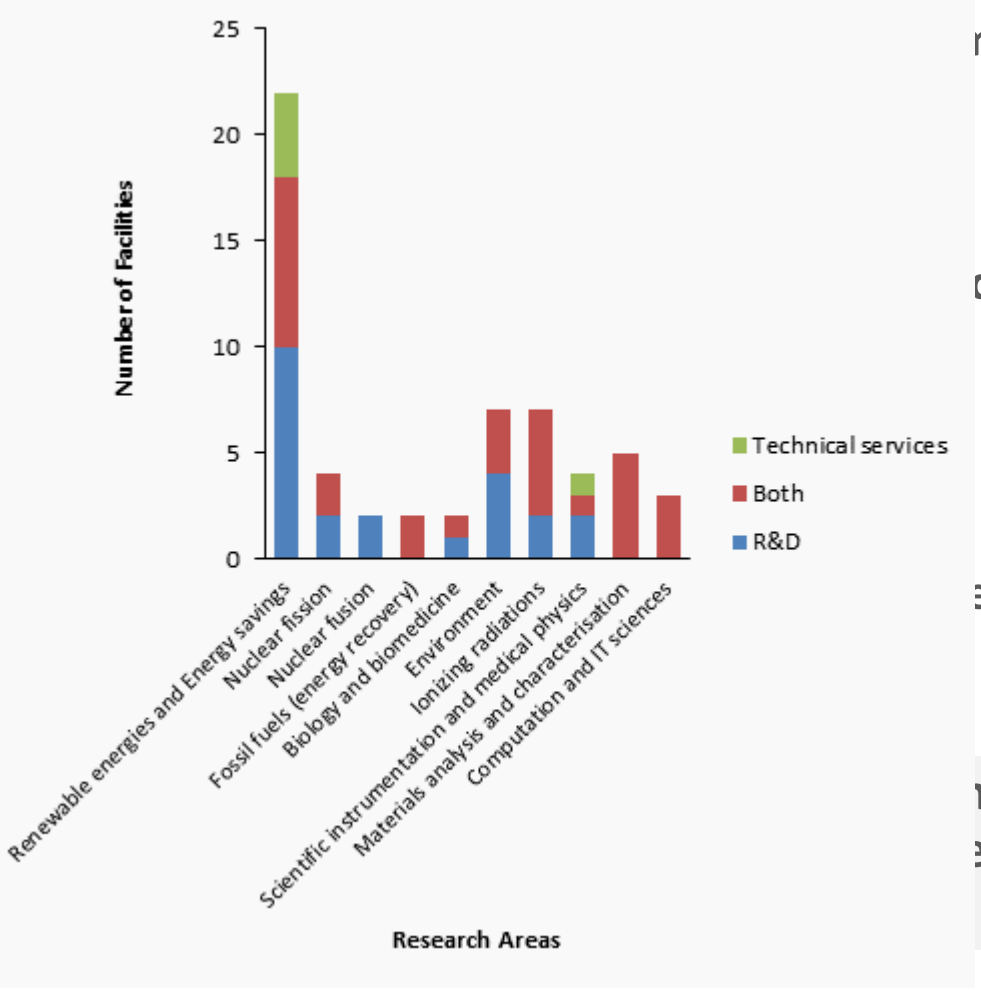
PRESENTATION



CIEMAT

- CIEMAT is a Spanish Public Resea ny, Industry and Competitiveness.
- Since 1951, most of activity is stru Energy, Environment and Technol
- In 1964 was created the Institute d (1951).
- CIEMAT links initiatives between Tech.
- CIEMAT has 1400 employees, 50%
- Collaboration with other R&D&I i er the knowledge generated and su

With an intermediate position n to the industrial application, so e bridge between R & D and the s



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RENEWABLE ENERGY AT CIEMAT

CENTERS AND LABORATORIES

National Centre for Development of Renewable Energies – CEDER includes biomass laboratories; wind power (Small Wind Turbine, Test Plants, Flywheel Test Laboratory and Demonstration and Research Building Prototype.

CIEMAT central office Madrid.
Includes facilities and laboratories in Solar PV, Solar Radiation characterization, Environmental applications of solar energy, Demonstration and Research Building Prototype, several laboratories for lignocellulosic biomass analysis, etc.

Almeria Solar Platform – PSA includes:

Central receiver systems Parabolic-trough collector system with associated thermal storage system; Water desalination plant

An experimental system for two-phase flow and direct steam generation for electricity production research. A complete oil circuit for evaluation of new parabolic-trough collector components

Linear Fresnel technology loop. Dish/Stirling facility

A 60-kWt solar furnace for thermal materials treatments. solar detoxification

RENEWABLE ENERGY AT CIEMAT

ACTIVITIES

From **1985 CIEMAT starts his activities in the Renewable Energy** field as one of the pioneer team in Spain.

The main research areas are:

- Solar PV
- Solar Concentrating Systems
- Environmental Applications of Solar Radiation
- Energy Efficiency in Buildings
- Biomass & Biofuels
- Wind Power
- Storage Energy

CIEMAT 's OBJECTIVES

- Promote and execute **R&D activities** in energy, environ. and technology.
- Become a **centre of reference** in the scope of its competence in cooperation with the national and regional governments.
- **Collaborate** with other national R&D centres, universities and business.
- Integrate activities in the **framework of the European Union** and cooperate with intergovernmental organisms and R&D centres in other countries with special attention to Latin America and the Mediterranean.
- Foster activities derived from its R&D in the fields of **scientific-technical diffusion**, education and technology transfer.
- Provide **technical services** in the areas within its scope of competence.
- **Advise governments** and public and private institutions and **represent Spain** in international forums where applicable.

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SIDSDOCK SMALL ISLAND DEVELOPING STATES ISLAND ENERGY FOR ISLAND LIFE

CAPACITY BUILDING AT CIEMAT

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

Knowledge Management and Training Division of CIEMAT

The group is recognized in the spheres of capacity building projects and in the specialized training in the areas of its activity

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**

CAPACITY BUILDING AT CIEMAT

To carry out its mission,the Group`s main activities are:

- **E&T in Energy and Environment**
- **Face-to-face/ E-learning / B-learning**
- **Educational Data Bases**
- **Especialized Web Sites**
- **Expertm Networks in Energy and Environment**
- **Cooperation Educational Proyects**
- **Capacity Building Projects**
- **ICT Research**

Knowledge Management (KM)

9

POSTGRADUATED Education & TRAINING Programs

MAIN ACTIVITIES

- Master PROGRAMS on RES, Environment and applications
- Experts and PHD

Education &Training Activities

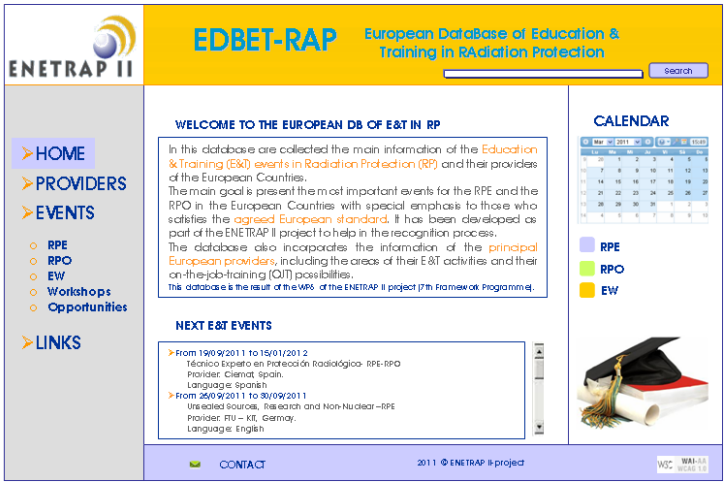
Areas of:

- Solar Energy
- Energy Efficiency
- Wind Energy
- Bioenergy, Biomass & Biofuels
- Environment
- Geographic Information Technologies
- Smart Grids/Microgrids

CAPACITY BUILDING MAIN PROJECTS

Radiation Protection and Nuclear Energy Area

- European Credit System for Vocational Education and Training (ECVET
- MATISSE (VII PM)
- TIARA Project: E&T for Accelerator Science (VII PM)
- ENETRAP Project: European Network on Education and Training in Radiological Protection (VII PM)
- EUTERP Project: EUropean Platform on Training and Education in Radiation Protection
- OIEA: Steering Committee on the Strategy on Education and Training in RP and Waste Safety



GOBIERNO DE ESPAÑA · MINISTERIO DE ECONOMÍA, INDUSTRIA Y COMPETITIVIDAD · Ciemat Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas · PCREEE Pacific Centre for Renewable Energy and Energy Efficiency · SIDSDOCK Small Island Developing States · UNIDO United Nations Industrial Development Organization

Renewable Energy and Energy Efficiency Areas

Main Projects

Capacity Building Programme in Renewable Energies for Latin America and the Caribbean (LAC)

SUSTAINABLE ENERGY FOR ALL

UNIDO OBSERVATORY FOR RENEWABLE ENERGY IN LATIN AMERICA AND THE CARIBBEAN

http://www.renenergyobservatory.org/applications/cbponre.html

Renewable Energy Resource Mapping: Tanzania, Africa Region

WORLD BANK GROUP Energy & Extractives · ESMAP

*Within the framework of the **ESMAP** initiative, administrated by the World Bank, to support of renewable energy (RE) resource mapping and geospatial planning across multiple countries.*

Cogeneration by biomass-Solar Hybrid System for farms on the island of Cuba

HybriduS

Cogeneración de Energía, mediante un sistema híbrido Biomasa-Solar, en la isla de Cuba.

Ciemat · SOD PAZ · cubasolar · GOBIERNO DE ESPAÑA MINISTERIO DE ASUNTOS EXTERIORES Y DE COOPERACIÓN aecid

*** Knowledge Transfer Division is developing the Capacity building Plan**

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

Project Coordination and Contacts at CIEMAT - Knowledge Management & Training Division	
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PROJECT CONTEXT

- **Energy** is the factor that has the greatest impact on the economic development of any society

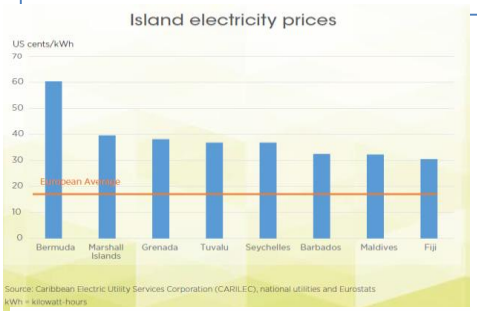
- The **promotion and growth of economies** involves a high and growing **Energy Demand**

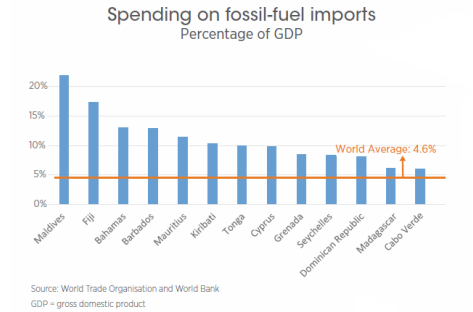
- Growing energy demand faces the urgent need of combat C**limate Change and Mitigation and Adaptation measures,** a top priority of the policies: Sendai Framework for Disaster Risk Reduction 2015-2030, the Sustainable Development Goals, Climate Change Agreements-COP21…

- **Sustainable Energy Solutions** (based on Renewable Energies, Energy Efficiency, Environmental Sustainability, CC Mitigation and Adaptation..) **play a key role in meeting energy demand, the fight against climate change and the transition to a low carbon economy**

Project CONTEXT. Small Islands and Territories. Transition to a Renewable energy Model

- **Islands** face particular **energy challenges**. Are extremely vulnerable to **climate change impacts and natural hazards and Sustainable Development is under threat**
- Besides, islands are the **best scenario to proof that isolated communities can meet 100% of their energy demand without greenhouse gas emissions** (=Sustainable Energy)
- There are **numerous initiatives and projects** under development to implement **100% renewable energy plans in island regions worldwide,** dealing with very different climate conditions, renewable energy resources and economic activities.





- **<u>Embracing sustainability:</u>** Many SIDS recognize the urgency to move towards low-carbon, climate resilient economies.
- "SIDS often rely heavily on **costly imported fossil fuels**, what can **burden island's budgets and inhibit investment in socio-economic development.**
- In contrast, **indigenous renewable energy technologies** can provide **energy at a lower cost**, making SIDS more sustainable, reducing the dependence on imports while **encouraging the creation of local business and so, employment opportunities**

Project CONTEXT. SIDS Renewable Energy and Energy Efficiency Targets

- SIDS play a key role in demonstrating that Renewables are crucial for the achievement of the Sustainable Development and Climate agendas

- Overcoming reliance on fossil fuels will increase their resiliency and economic viability

❖ **For 30 member states, Renewable Energy and Energy Efficiency Targets establish:**

- 50% of power generation from low-carbon sources by 2033
- 20–30% reduction in petroleum use in transportation by 2033
- 25% increase in energy efficiency by 2033

- **Renewable energy and climate targets** can be addressed by the region's tremendous potential for sustainable energy solutions..

  - Availability of **renewable energy resource**s
  - Adequate **regulatory framework**
  - **Secure energy m**arket to attract investment
  - Existence of **technical skills, expertise and qualify personnel** along all the value chain of renewable technologies.

Project CONTEXT. Capacity, expertise and skills for Sustainable Energy Transition

- **UNIDO & SIDS DOCK & Regional Organizations (PCREEE, ECREEE, CCREEE)** have created the **Global Network of Regional Sustainable Energy Centres**, to assist SIDS in addressing the existing barriers and move towards sustainable energy markets, industries, innovation, energy security status and resilience to climate change.
- **Lack of local and regional capacity and expertise is a major barrier** for the creation of sustainable energy markets and industries.
- **Technical knowledge & Capacity Development is required** to conduct sustainable energy development, energy security and resilience to climate change solutions
- **Strengthening of capacities will help SIDS** and territories **to achieve their sustainable energy targets** in the Intended Nationally Determined Contributions (INDCs).
- **Capacity building and skills certification are important areas of work of the centres** (PCREEE, CCREEE, ECREEE)

FIRST JOINT ACTIVITY

Online Capacity Building Programme on Sustainable Energy Solutions for Islands

- As a first joint activity 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

- The activity is implemented with **financial support of the Spanish and Austrian Governments**

- **The Centers will be the owners and direct beneficiaries of the Program**

- **The target audience are** professionals and experts from the target states and from the public and private sector **with managerial potential**, and which will be being **benefiting from the online trainings**

- To increase the impact and sustainability of the program, it is sugessted to make the online program **part of the curricula** of existing sustainable energy master programs of the University of the South Pacific (USP), University of Cape Verde in Mindelo (UNIVC), the University of West Indies (UWI)

SCOPE OF ACTIVITIES

- The program **is based on the deliverables of the "UNIDO Online Renewable Energy Capacity Building Program for Latin America and The Caribbean**", which was developed by CIEMAT in 2013 for the UNIDO's Observatory for Renewable Energy in Latin America and Caribbean in the framework of the Initiative **"Sustainable Energy For All"**

- 7 modules were developed in three languages (Spanish, English and Portuguese), with 100% online format and self-study modality, hosted on the Observatory Website: http://www.renenergyobservatory.org/

- 4 of these modules of this training program will be **updated and practical cases will be adapted to the specific island realities**.

- And **5 new modules** which are of particular importance for SIDS **will be added**, resulting **a total of 9 modules**.

(The selection of modules was made by UNIDO, from a catalogue sent by CIEMAT, and after consultation with the 3 Centers in which this training program will be hosted)

SCOPE OF ACTIVITIES

The Online CB programme aims to offer a solid and specialized training program in the RES technologies and sustainable energy solutions for islands regions

Capacity Builgin Program MODULES
M1. General introduction into **Island Energy** and **Climate Change Mitigation and Resilience** (NEW)
M2. **Solar Thermal Systems** and Applications for water heating and industrial process heat (updated)
M3. Grid-connected and decentralized **Photovoltaic Systems** (updated)
M4. **Efficient Energy** use and thermal optimization **in buildings** and industry (updated)
M5. **Geographic Information Technologies** and Renewable Energy (NEW)
M6. **Bioenergy**. Anaerobic digestion of organic waste to energy solutions (updated)
M7. **E-mobility** (NEW)
M8. **Minigrids**, Grid Stability in Insular Power Systems and Energy Storage (NEW)
M9. **Ocean Energy** (NEW)

PROGRAM OBJECTIVES

- To contribute to cover the need for **affordable training and certification program**s on **sustainable energy in islands**

- **To meet the lack of capacities which are a major barrier** for the creation of sustainable energy markets and industries:
  - Without a considerable **strengthening of capacities**, most of the small island developing countries and territories will not **achieve their sustainable energy targets** in the Intended Nationally Determined Contributions (INDCs) [*for reductions in greenhouse gas emissions that almost all the countries signed after the UNFCCC, held in Paris (Dec. 2015)*]
  - Quality issues and the **perception that solutions are not mature** (partly due to weak innovation and productive capacities of the domestic sustainable energy industry) **have been a backdrop for various renewable energy technologies (e.g. solar thermal, SHS)**
  - The **lack of domestic energy businesses** has led to a severe sustainability and maintenance issues in various islands
  - the domestic value and job creation effects along the value chain of the technologies remains often very limited. Equipment and services continue to be imported

- **To provide technical knowledge ,** required to establish a critical mass of **policy makers**, **project financiers, engineers,** and **university and R&D communities** who will be **able to manage the crucial aspects of sustainable energy development and implementation**

PARTICIPATING INSTITUTIONS

- UNIDO subcontracted (CIEMAT) to develop and hand-over the "**Online Capacity Building Program on Sustainable Energy Solutions for Islands and Territories in the Pacific, Caribbean, Africa and Indian Ocean**."

- CIEMAT will develop and execute the activities in **close partnership with UNIDO, SIDS DOCK, PCREEE, CCREEE and ECREEE**.

- The assignment **will require further consultations and collaboration** with the **USP and PacTVET, University of Cape Verde, University of West Indies and the Energy Unit of the CARICOM Secretariat**

Ciemat Training Unit

Roles of CIEMAT (Knowledge Management and Training Division) in the project:

- Project management and coordination
- Desing, development and implementation in colaboration with the Project Counterparts
- Methodology and Quality Assurance
- Modules virtualization: production of learning materials, multimedia and digital contents
- Moodle E-learning Platform administrator and manager
- Responsible for Web Design
- IT Support provided by the Computer Service of CIEMAT- Unit of Development of Applications and Computer Systems

PARTICIPATING INSTITUTIONS

- **Besides** the participation of experts from the different research departments of the **CIEMAT, other R&D institutions are involved** in the preparation of the Modules. All of them are centers of excellence in the field of energy, energy efficiency and the environment.

Universidad de Alcalá

itc INSTITUTO TECNOLÓGICO DE CANARIAS

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oecc Oficina Española de Cambio Climático

- (in M1): Spanish Office of Climate Change (OECC)
- (in M7): University of Alcalá de Henares (UAH) Robotics Services and Technologies for Road Safety
- (in M8): Technological Institute of the Canary Islands (ITC) Renewable Energy Department

CB STRUCTURE & LEARNING MATERIALS

The training program is designed to be offered **at 2 speeds of study**, aimed at two types of audience or approach to renewable energies by this route

- **Module's General Overview: 1st Speed**

TARGET AUDIENCE	**General public**
OBJECTIVE	To provide an overview of each technology
LEARNING MATERIAL	Video presentation and multimedia content
DEVELOPMENT SITE	Temporarily on the CIEMAT's servers, on the LMS Moodle 3.1.6
FINAL SERVERS	ECREEE, CCREEE and PCREEE Websites

- **Module's specialized training: 2nd speed**

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

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.

MODULES FEATURES

Module's General Overview: 1st Speed

TARGET AUDIENCE	**General public**
OBJECTIVE	To provide an overview of each technology
LEARNING MATERIAL	Video presentation of the Module, multimedia content
FUTURE SITE	Website of PCREEE

- **Video presentation** by the expert author of each module: consists of a brief presentation of the state of the art of the technology and aims to give a global view, and motivates the participant to complete the program.

- **Multimedia content** (animated presentation) Its objectives are to encourage reading of the documents of the course in a pleasant way, to facilitate understanding of the concepts and activities and promote the retention of the key ideas of the course.

MODULES FEATURES

Module's Specialized training: 2nd speed equivalent to ≥ 20 teaching hours per module

TARGET AUDIENCE	**Professionals in the sector, academics and postgraduate students**
OBJECTIVE	**To provide a more technical and detailed view** of each module and technology
LEARNING MATERIAL	Complete learning materials including **video presentation** multimedia content, **extensive documentation, a case study** and **final assessment test** aimed at providing practical experience in each of the renewable technologies as well as to assess the progress of the participant and acquire the achievement certificate
FUTURE SITE	PCREEE platform accessible through the Centre's Website

Participant profile: Technical level. Decision makers, project financiers, engineers and policy makers and developers of energy plans

MODULES FEATURES

Module's Specialized training: 2nd speed. Learning Materials per Module

- **Educational Didactic Guide** (already availables for the 9 modules)
- **Video presentation** by the expert author, which consists of a brief presentation of the state of the art of the technology and an introduction to the module.
- **Multimedia content** (interactive presentation with voice-off) **including a 5 questions self-assessment test,** which will allow track the progress. Its objectives are to encourage reading of the documents of the course in a pleasant way, to facilitate understanding of the concepts and activities and promote the retention of the key ideas.
- **Extensive documentation** (PDF format). It integrates all study contents that the participants must learn to achieve the objectives. Comprehensive, practical and didactic.
- **A case study focused on the Island countries and territories,** presenting statement and right solution for the participant to check the resolution. Is also an element for the evaluation of the course, essential for the final diploma.
- **A self-assessment 20 questions test or Final Test**. Multiple choice test. Besides being an element to reinforce knowledge, to overcome is necessary to receive the achievement diploma.
- **Additional documentation**: references, documentation, web links and articles of interest on its subject and related to it.

CERTIFICATION / ACCREDITATION

- The Program is based on objectives and learning outcomes that are addressed through a technical scientific content program equal to 20 hours approx. per module
- Within Self-study modality, the online assessment tools become essential to track the progress and the achievement of competencies and objectives.
- The 2nd Speed Program involves the compliance of the evaluation criteria to achieve the established objectives and learning outcomes and overcome the module
- Once the evaluation criteria have been reached, a Final Achievement Certificate issued by UNIDO, CIEMAT and the owner Centres will be electronically available to be downloaded by the student
- Further Accreditation based upon professional qualifications, or *TVET (Technical and Vocational Education and Training)* may be offered through a University or accredited training institution

PRINCIPAL FEATURES

- 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

- **Designed** to be offered **both in self-study or tutored mode**

- The training program will be **available in English, Spanish and Portuguese (a 2nd Phase would entails the French version)**

- It will be **hosted** in a platform of online training, in this case **Moodle**

moodle

- ✓ **Learning Management System (LMS)**
- ✓ **MOODEL**
- ✓ **Open Source Learning Platform**

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.
- **Phase III**. Preparation of the final version of the e-learning modules. Implementation of the program within the Regional Centers Webpages and e-Learning Platforms.
- **Phase IV**. Technical Knowledge Transfer: Train the trainers and Moodle Technical Management Trainings

9. TABLE 1: PRELIMINARY TIME SCHEDULE. TIMING OF ACTIVITIES IN WEEKS FROM THE START OF THE ACTION

	MOUNTHS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DELIVERABLES	Phase 1. TRAINING PROGRAMME MANAGEMENT															
a	FORMULATION OF THE INCEPTION REPORT															
b	ANALYTICAL REVIEW PAPER															
	Phase 2. DESIGN AND DEVELOPMENT OF THE TRAINING CONTENTS. MODULES TRANSLATION INTO ENGLISH AND PORTUGUESE															
c	ADAPTATION, TESTING AND QUALITY ASSURANCE OF 5 ALREADY EXISTING MODULES															
d	DEVELOPMENT, TESTING AND QUALITY ASSURANCE OF 4 NEW ISLAND TRAINING MODULES															
e	VALIDATION WORKHSOP AT PCREEE															
f	VALIDATION WORKHSOP AT CCREEE															
g	VALIDATION WORKHSOP AT ECREEE															
i	TRANSLATION INTO SPANISH AND PORTUGUESE															
	Phase 3. MODULES FINAL VERSION. VIRTUAL PLATFORM IMPLEMENTATION. CAPACITY BUILDING PRESENTATION INTO THE CENTERS WEBPAGE															
h	VIRTUALIZATION AND EDITION ACTIVITIES OF THE MODULES LEARNING MATERIALS															
	VIRTUAL PLATFORM INSTALLATION, DESIGN AND CONFIGUATION															
	CONFIGURATION OF THE CAPACITY BUILDING PROGRAM INTO THE REGIONAL CENTERS WEBSITES. TECHNICAL SUPPORT FOR THE MIGRATION OF CB PROGRAM TO REGIONAL CENTRES' MOODLE PLATFORM															
	Phase 4. TRANSFER KNOW HOW : TRAIN THE TRAINERS AND TECHNICAL MANAGEMENT															
j	DEVELOPMENT OF AN ONLINE TRAIN THE TRAINERS COURSE															
	DEVELOPMENT OF A MOODLE PLATFORM COURSE															
	1 WEEK ONLINE COURSE "TRAIN THE TRAINERS COURSE"															
	1 WEEK ONLINE COURSE "MOODLE"															

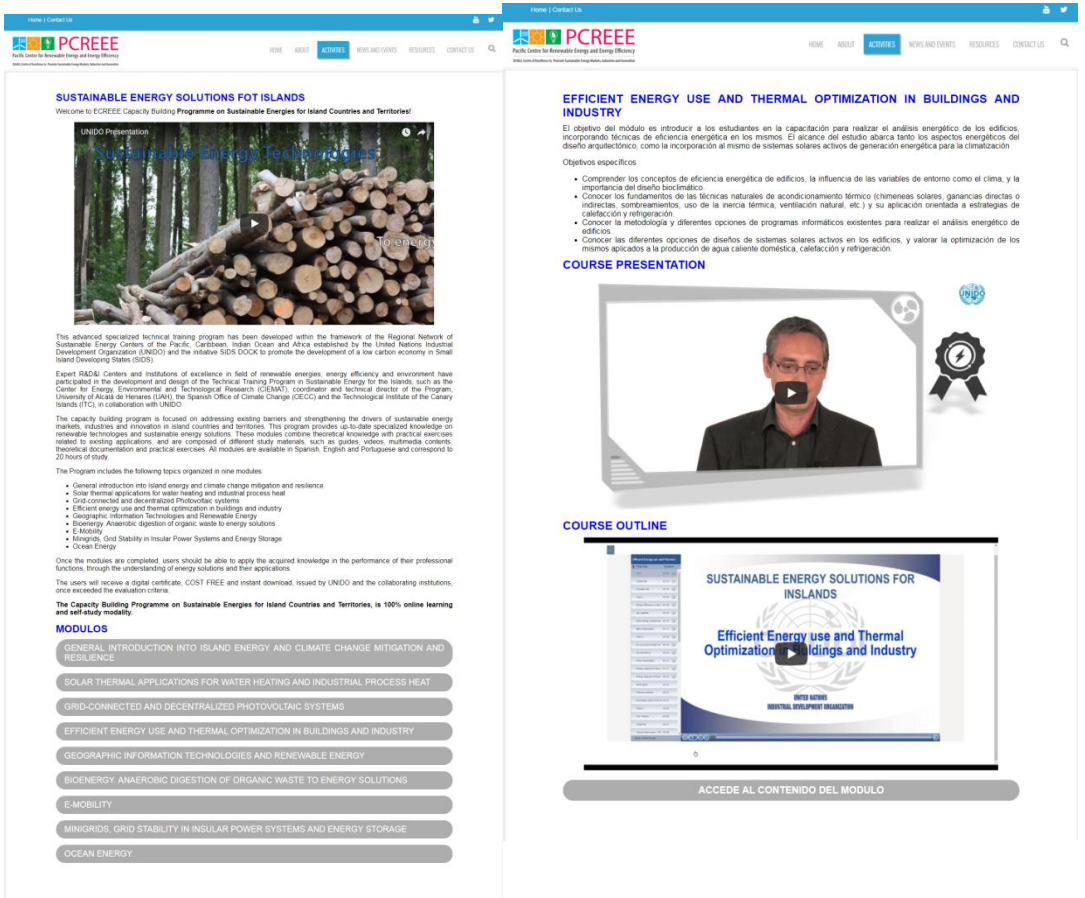
- Starting date of the subcontract (Project): 1/7/2017
- Duration: 15 months (ending 30/9/2018)
- (For Details see the "Inception report" issued in July/2017)

PROJECT CURRENT STATE

EXAMPLE of CONTENTS when accessing to the complete course in the e-learning platform.:

http://unidos2d.ciemat.es/course/view.php?id=7

Video Presentation: https://youtu.be/MQyQ-Sabt5s



- Draft example of the Web appearance of the training program within the PCREEE Web Portal

COLLABORATIONS AND NEXT STEPS

1. CONTACTS REQUIRED (FOR Consultations / Close cooperation, IT responsible,..)
2. Discuss possible official accreditation through the University of South Pacific, PacTVET,..
3. Hosting of the Online CB Program/Installation of Moodle Platform at PCREEE

Role	Person/persons	CENTER	E-mail (optionally phone) CONTACT?
main participant in the project		PCREEE	
main participant in the project		University of South Pacific	
main participant in the project		UNIDO	
IT Responsible / team: Technical issues: Web Content Manager, Moodle			

Thank you Very Much

For your Attention

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Renewable Energy and Energy Efficiency Areas

Capacity Building Programme in Renewable Energies for Latin America and the Caribbean (LAC)

SUSTAINABLE ENERGY FOR ALL

- Developed in the framework of the UN initiative "**Sustainable Energy For All**"
- 7 e-learning modules providing up to date information on the following technologies:
  - ***Energy and climate change.***
  - ***Solar-thermal energy.***
  - ***Photovoltaic Systems.***
  - ***Small Hydraulic Plants.***
  - ***Biogas.***
  - ***Small Wind Turbines.***
  - ***Energy Efficiency in Buildings***

Technologies for energy production and one applied to Savings and Energy Efficiency

- Meets the objectives of promoting access energy and covers the local and global needs in LAC
- Provides universal open access to high quality education democratizing knowledge and contributing to cover the training gaps in the renewable energy area, especially in the LAC
- Focused to provide both general and technical and specialized knowledge

UNIDO OBSERVATORY FOR RENEWABLE ENERGY IN LATIN AMERICA AND THE CARIBBEAN

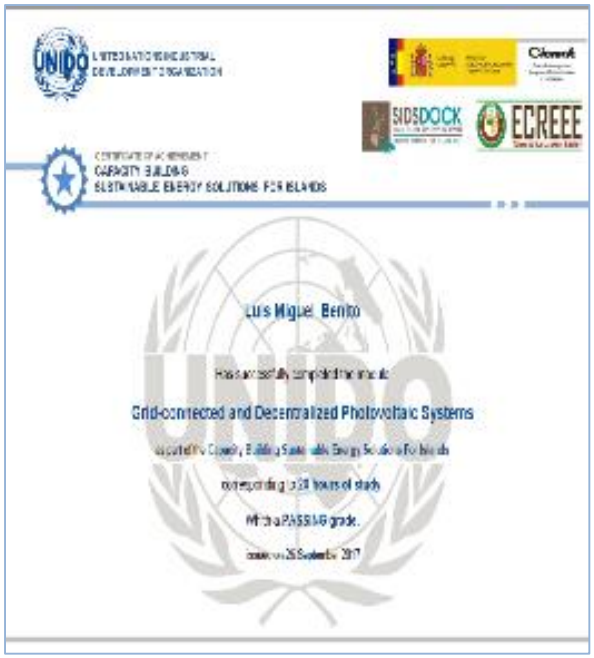
http://www.renenergyobservatory.org/applications/cbponre.html

Further comments, collaborations and Next Steps. Some topics to discuss.

3. Agree the model of certificate that would be obtained after the course

The platform collects the data needed to issue a nominal certificate which contains: the participant's name, the module name and made equivalent teaching hours, and the qualification of APT

***Step forward*: An official accreditation could be offered by Cabo Verde University or a certified training center, if there is a mutual interest in including the program within its training offer and in line with the official system of qualifications, where appropriate**

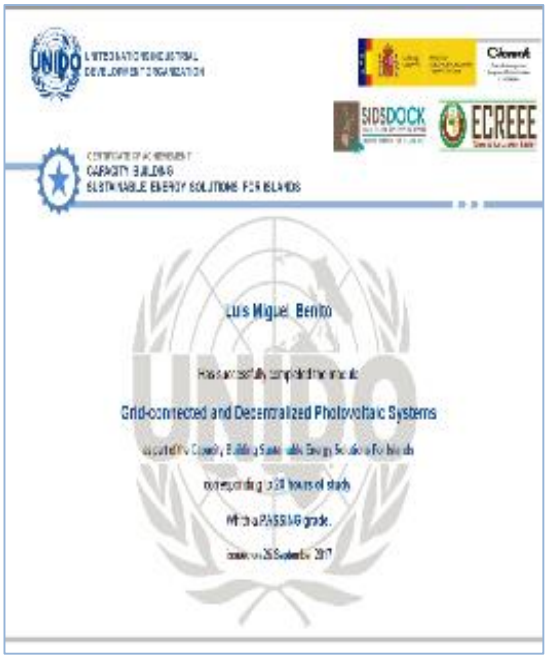


Further comments, collaborations and Next Steps. Some topics to discuss.

4. Possibilities of official accreditation after following this training course?

- For an official accreditation of this training program, a University or Training Center must be involved with an accreditation system and include the program as part of its curricular offer.

Could be the University of South Pacific interested in promoting such an official accreditation?



Further comments, collaborations and Next Steps. Some topics to discuss.

5. Installation of the MOODLE Plarform at the target websites (ECREEE, PCREEE, CCREEE)

VERSION SELECTED: Learning Management System (LMS) based on Open Source **Moodle 3.1.6**

Ciemat project' coordinator Lara de Diego (lara.dediego@ciemat.es) could provide a user profile from now (Something that is planned to do later, when it is more advanced). To do it she requires an email address and the contact person to register.

Direct communication with the person in charge of the computer support and the Platform, **ICT**, is **needed** to discuss the technical issues related to the web and the installation of the Moodle Platform where in the future the modules will be hosted.

Further comments, collaborations and Next Steps. Some topics to discuss.

5. Installation of the MOODLE Plarform at the target websites (ECREEE, PCREEE, CCREEE)

Information that CIEMAT should have from you (for this installation) at the moment:

- If you have Moodle installed and which version. In case you have it, it is necessary to check if it is compatible with version 3.1.6 that we are working on to ensure that the migration at the end of the project can be performed successfully and that the program works correctly on its platform
- It is foreseen to provide an online training course on MODDLE and on the RE CB program on renewables, as well as the technical support during the migration process of the modules by CIEMAT for the people in charge of the Centers.
- ECREEE website: Confirm the Content Manager (CMS) you use. Our technical support partners think they work with DRUPAL. It is important to create the interface where the training program will go and the "first speed learning: overview" modality of the modules