



Shared Prosperity Dignified Life



Global Energy Interconnection
Development and Cooperation Organization
全球能源互联网发展合作组织

RCREEE

Regional Center for Renewable Energy and Energy Efficiency
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

LAS-UNESCWA-RCREEE-GEIDCO Training Program

Grid Interconnection and Energy Transition in the Arab Region

Concept Note

22nd ~23rd August, 2023

Online Event (Microsoft Teams)

1. Introduction

The League of Arab States (LAS) is a regional organization that aims at strengthening the ties between its member states, coordinating its political plans for close cooperation and safeguarding its independence and sovereignty and generally considering the affairs and interests of Arab countries and enhancing cooperation among them economically.

The United Nations Economic and Social Commission for West Asia (UNESCWA) is one of five regional commissions under the jurisdiction of the United Nations Economic and Social Council. The role of the Commission is to promote economic and social development of Western Asia through regional and subregional cooperation and integration. The Commission is composed of 20 member states, all from the regions of North Africa and the Middle East.

The Regional Center for Renewable Energy and Energy Efficiency (RCREEE) is an intergovernmental organization with diplomatic status that aims to enable and increase the adoption of renewable energy and energy efficiency practices in the Arab region. RCREEE teams with regional governments and global organizations to initiate and lead clean energy policy dialogues, strategies, technologies and capacity development in order to increase Arab states' share of tomorrow's energy.

The Global Energy Interconnection Development and Cooperation Organization (GEIDCO) promotes the consolidation of the global energy link, lead its development, develop a framework for technical standards and formulate its own development plans to benefit from renewable sources of energy to meet the growing demand by providing cleaner alternatives.

In light of desiring to work together to promote sustainable energy development through regional cooperation and integration in energy. The four organizations signed Memoranda of Understanding seeking to partner with regional and international organizations to stimulate all countries to establish a link to all electricity networks in the world.

This training program is one of the outcomes of the MoUs between LAS, UNESCWA, RCREEE and GEIDCO.

2. Objectives

The objectives of this training program include but are not limited to:

- (1) Promote technology communication to deepen exchanges between the member states of LAS, UNESCWA, GEIDCO and its members, using the latest technologies and engineering cases in the power sector.

- (2) Expand cooperation channels through academic and technical exchanges. National power companies and institutions will have a more direct understanding of the demands of LAS, UNESCWA member states and lay a solid foundation for further cooperation in technology, equipment and engineering.

3. Project Overview

The training program will held be online using Microsoft Teams between 22nd ~23rd August 2023. The specific contents are to combine the Global Energy Interconnection development concept to introduce new plans, new technologies and new equipment for clean energy generation, large-capacity and long-distance transmission.

And combined with the characteristics of natural resources and national conditions in the Arab region, it will introduce the latest research results of the Arab countries' electricity market and regional energy interconnection to promote the clean energy transformation and sustainable development.

4. Areas covered by the Training Program

- (1) Global Energy Interconnection Concept & Development Strategy
- (2) PAN-Arab Sustainable Energy Strategy
- (3) Power System: Past, Present, Future
- (4) PAN-Arab Electricity Market
- (5) Ultra-High Voltage Transmission Technology & Practice Experience
- (6) Voltage Source Converter-HVDC Transmission Technology & Case Study
- (7) The Development Trend of HVDC Technology & Future Application in Arab Region
- (8) Electrical Submarine Cable Technology & Practice Experience
- (9) Research on Future Development of solar energy generation and transmission in Arab region.
- (10) Photovoltaic Power Generation Technology & Case Study
- (11) Solar-Thermal Power Generation Technology & Case Study
- (12) Introduction to the New Integration Technology for Clean Energy
- (13) Clean Energy in the Arab Region
- (14) Arab Green Hydrogen Strategy

5. Training Team and Trainees

- (1) Training Team: **9** Experts from LAS, UNESCWA, RCREEE, GEIDCO and the members of GEIDCO.
- (2) Trainees: Each member of LAS, UNESCWA, RCREEE nominate 1-2 participants from the Electricity/Energy Sectors who have adequate background.

6. Expected Results

- (1) The trainees will have an understanding of the current status, development trends and application scenarios of technologies such as UHV, photovoltaic, photo-thermal, and renewable energy grid-connected, and strengthen technical reserves of trainees.
- (2) The trainees will establish contacts with enterprises and institutions of various countries to lay a solid foundation for future business cooperation and technical exchanges.

Overview of the LAS-UNESCWA-RCREEE-GEIDCO Training Program

1. Name of the event

Grid Interconnection and Energy Transition in the Arab Region

2. Time and Date

22nd ~23rd August 2023

3. *Virtual Platform*

Register Link: <https://events.teams.microsoft.com/event/41d2013e-88bb-41c1-96b4-7884fbbec628@bb8550d2-0be2-4236-9782-99073ea92a18>

Microsoft Teams:

Meeting ID: 313 490 134 358

Passcode: oqZtBh

4. Form of participation

Virtual Event on Microsoft Teams

5. Scale of event

over 60 attendees

6. Language

English

7. Certification

All trainees will be receiving a signed certificate, by LAS, UNESCWA, RCREEE & GEIDCO, after completing attendance for both days.

8. Agenda

Time (GMT+3)	Contents	Lecturer
Day 1: 22nd August 2023		Energy Strategy
09:00-09:05	LAS Opening Address	Eng. Jamila Matar (Director, Energy Department of League of Arab States)
09:05-09:10	GEIDCO Opening Address	Mr. Xuan WU (Secretary-General, GEIDCO)
09:10-09:15	UNESCWA Opening Address	Mr. Sean Ratka (Economic Affairs Officer, UNESCWA)
09:15-09:20	RCREEE Opening Address	Dr. Jauad El Kharraz (Executive Director, RCREEE)
09:20-09:50	PAN-Arab Electricity Market	Eng. Rania Raafat (LAS)
09:50-10:50	Global Energy Interconnection Concept & Development Strategy	Dr. Yi Gao (GEDICO)
10:50-11:50	Arab Countries Renewable Energy and Energy Efficiency Strategy and Status Quo	Dr. Maged Mahmoud (RCREEE)
11:50-12:50	Ultra-High Voltage Transmission Technology & Practice Experience	Dr. Caihao Liang (GEIDCO)
12:50-13:50	Assessment and Development Potential of Renewable Energy Resources in the MENA Region	Dr. Jiawei Wu (GEIDCO)
Day 2: 23rd August 2023		Transmission Technology
10:00-11:00	The Techniques and Projects of VSC for Grid Integration	Dr. Yuntao Zou (XiDian Group)
11:00-12:00	Grid Integration of Renewable Energy Generation and Simulation Study	Dr. Lingzhi Zhu (SGCC CEPRI)
12:00-13:00	The Solar Duck Curve	Mr. Omar Kaaki (UNESCWA)
13:00-14:00	Advanced Power System Simulation Technologies for New Power Systems with High Penetration of Renewable Energy and HVDC Interconnected	Dr. Yizheng Xu (SGCC CEPRI)
14:00-14:10	Closing Addressed by H.E. Dr. Elham Ibrahim Vice Chair of GEIDCO	