#### **UNITED NATIONS**



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## ECONOMIC AND SOCIAL COMISSION FOR WESTERN ASIA (ESCWA)

Regional capacity building workshop on the "Water - Energy Nexus Operational Renewable Energy", 11-12 July 2017, UN House, Riad Al Solh, Beirut, Lebanon.

#### **INFORMATION NOTE**

#### (1)Introduction

Securing water and energy needs represents a critical issue, which has not yet received the required attention. Energy production consumes significant amounts of water; providing water, in turn, consumes energy. In the Arab region, confronting the issues of water scarcity and the increasing demand on energy to realize sustainable development plans represents a challenge that needs to be tackled through an integrated set of wise energy and water policy decisions.

In the light of the above and within the context of the work program 2016-2017, the United Nations Economic and Social Commission for Western Asia (ESCWA), will organize a regional capacity building workshop on "Water–Energy Nexus: Renewable Energy", to be held on 11 – 12 July 2017, ESCWA'HQ, Beirut, Lebanon.

#### (2)Background

Upon an Intergovernmental Consultative meeting on the Water-Energy Nexus, held in the ESCWA House in Beirut, June 2012, by the Committee on Water Resources and the Committee on Energy, the representatives of the Member Countries (MCs) of both Committees identified seven-priority areas, covering the following topics:

- 1. Knowledge and awareness raising
- 2. Increasing policy coherence
- 3. Examining the water-energy security nexus
- 4. Increasing efficiency
- 5. Informing technology choices
- 6. Promoting renewable energy
- 7. Addressing climate change and natural disasters

Accordingly, ESCWA is implementing a UN Development Account (DA) Project on "Developing the Capacities of ESCWA Member Countries to Address the Water and Energy Nexus for Achieving Sustainable Developing Goals". The DA project targets to strengthen the capacity of ESCWA member countries to achieve an integrated and sustainable management of water and energy resources to contribute in the achievement of the Sustainable Development Goals (SDGs).

The indicated project is implemented through two parallel and complementary tracks. The first track, targets high-level officials in ministries responsible for water and energy who will be engaged in training on water and energy nexus considerations in their strategies, policies and plans at the national and regional levels through two regional workshops. The first training was performed through a regional policy toolkit<sup>(1)</sup>, comprised of seven modules in relevance to the prioritized areas. The second track, focuses on water and energy service providers and three technical areas of interventions. These areas will be addressed through an operational Toolkit made up of three standalone modules on:

- Resource Efficiency<sup>(2)</sup>
- Renewable Energy (RE)
- Technology Transfer

Based on the above, ESCWA organized two workshops: (1) on 30-31 Oct. 2016, in Amman on Water-Energy Nexus Polices", to build a complete conceptual framework for the water-energy nexus using regional policy available tools to contribute to sustainable development, and (2) on 20-21 Feb. 2017 in Manama, on "Water-Energy Nexus: Resource Efficiency"<sup>(3)</sup>, to improve efficiency during the production and consumption of water and energy resources and services, by presenting an operational Resource Efficiency module<sup>(4)</sup>.

In the scope of accomplishing the activities under this DA project, ESCWA will be organizing a capacity building workshop on "Water–Energy Nexus: Renewable Energy", on 11 - 12 July 2017, in Beirut, Lebanon.

It is worth mentioning, that ESCWA plans to hold a workshop on the operational module of Technology Transfer in September 2017, and a final workshop on Water-Energy Nexus Policies to illustrate the DA project end results in November 2017, before the official project closure date in December 2017.

## (3) Main Objectives

Address the possibility to use commercialized renewable energy technologies available today, to improve water security by, providing the required energy sources for water related activities. From one side, these activities include freshwater distribution, wastewater treatment and improving the energy security and diversifying the national energy mix, by providing

<sup>(1)</sup> https://www.unescwa.org/publications/water-energy-nexus-regional-policy-toolkit

<sup>(2)</sup> www.unescwa.org/publications/water-energy-nexus-sustainable-development-goals

<sup>(3) &</sup>lt;u>www.unescwa.org/events/water-energy-nexus-policy-workshop</u>

<sup>(4)</sup> www.unescwa.org/events/water-energy-nexus-operational-toolkit

different energy sources that use small water amounts and encourages water saving. On the other site, these activities will contribute in providing modern energy services in rural / remote areas, and to reduce the reliance on fossil fuels as an energy source; thus, contributing to the decrease of greenhouse gas emissions. This will push the Arab region forward to meet their demand for water and energy needs, and implementing sustainable development plans. These stated targets above are to be highlighted using visual presentations on the operational model for the use of renewable energy in the water and electricity sectors.

# (4)Themes

- Evaluation of the RE technologies:
  - Used in the water sector, for water pumping, production, transmission and treatment and it includes: (1) the use of mechanical energy for small scale wind mills, large scale electric wind energy turbines, photovoltaic systems, biofuel, hybrid RE systems for water pumping, (2) solar thermal systems for water heating, (3) water desalination by solar, wind and geothermal energies and (4) industrial water processes (Production of bioenergy from industrial wastes to generate energy), (4) Case study: oil and gas industry and use of RE for EOR.
  - Used in the electricity sector, through water usage in the electricity production,
- Key indicators of performance of RE technologies,
- Financial perspective of RE technologies.

# (5)Participants

The workshop will bring together executives/practitioners from middle management in the government, public utilities working in the electricity & renewable energy and water sectors (including water desalination, water production, transmission, water treatment, waste water and water sewage). Experts/officials/Academia representatives from concerned Arab, regional international entities will also, be invited to contribute to foster interactive discussion and interventions.

## (6) Organization of the Workshop

The workshop will be held in the 11<sup>th</sup> and 12<sup>th</sup> July 2017, whereas ESCWA staff will elaborate details about the DA project. Where power points will be delivered on the operational toolkit: Renewable Energy in the water and electricity sectors. Then, number of invited Arab/regional/international experts by the ESCWA will make presentations and/or panel discussions, to discuss different subjects (including different cases in the region), related to concrete projects and experiences. There will also be an opportunity for interventions from the participants. The workshop will involve a breakdown of all participants into parallel working groups, each focusing on a theme subject of common interest to the members.

The outcomes of the working groups that are based on the interventions/discussions of the participants will be presented in a joint session at the end. Based on these discussions and interventions, it is expected to come up with the appropriate comments and recommendations. At

the end, ESCWA project team will wrap up the workshop and summarize the key results of the workshop to serve for future activities on the water-energy nexus. An Arabic/English/French interpretation will be available during the workshop.

## (7) Date, Time and Venue

The Regional Capacity Building Workshop on the "Water–Energy Nexus: Renewable Energy", will be held at the UN-House in Beirut, Lebanon on 11 - 12 July 2017. The event will start from 9:00 am to 16:00 (registration will be at the first day from 8:30 - 9:00 am), participants are kindly requested to arrive to the building at 8:00 am on Tuesday 2017 to secure their identification cards and access the building. The relevant Agenda will be provided soon to participants in the workshop.

# (8) Logistics

Sponsored participants will receive a daily subsistence allowance for up to three nights in Beirut, as well as a roundtrip economic class airplane ticket to and from Beirut issued on the least expensive route in accordance with UN rules and regulations. In addition, participants will receive a list of hotel prices with special deals for the ESCWA.

Each participant shall undertake the preparation related to her/his participation, in terms of: (i) securing hotel reservation in the venue location, (ii) visa, and any other requirements for travelling to Lebanon. Participants can obtain their visas from the Lebanese embassy in their respective countries. In case of needing an assistance to obtain the entry visa, ESCWA can provide the participant with a supporting letter, upon his/her request.

# (9) Correspondences

Correspondences and inquiries concerning the worskhop should be addressed to:

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