UNITED NATIONS E





ECONOMIC AND SOCIAL COMISSION FOR WESTERN ASIA

Regional capacity building workshop on "Water - Energy Nexus Operational Toolkit: Resource Efficiency", 20th- 21th February 2017, Manama, Bahrain.

INFORMATION NOTE

(1)Introduction

Securing water and energy needs represents a critical issue, which has not yet received the attention that it merits. 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), in cooperation with the National Oil and Gas Authority in Bahrain under the patronage of HE the Minister of Oil, will organize a regional capacity building workshop on "Water–Energy Nexus: Resource Efficiency". to be held during the period 20th- 21th February 2017, Manama.

(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 to achieve the Sustainable Development Goals (SDGs).

The 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 (comprised of seven modules in relevance to the seven prioritized areas and is made available through the link:

ww.unescwa.org/sites/www.unescwa.org/files/publications/files/water-energy-nexus-regional-policy-toolkit-english.pdf).

The second track focuses on water and energy public service providers and three technical areas of interventions will be addressed through an operational Toolkit made up of three standalone modules on:

- Resource Efficiency
- Technology Transfer
- Renewable Energy (RE).

Based on the above, ESCWA will be organizing a regional capacity building workshop on "Water-Energy Nexus: Resource Efficiency", during the period 20th- 21th February 2017, in Manama, Bahrain.

(3) Main Objectives

The workshop on "Water – Energy Nexus: Resource Efficiency", targets to improve efficiency during the production and consumption of water and energy resources and services. An operational Resource Efficiency module will be presented, which aims at improving the technical capacity of government officials, who manage or oversee the provision of water or energy services, and provide technological strategies that can integrate water-energy nexus considerations in the ESCWA member countries to achieve sustainable management of water and energy resources thereby contributing to sustainable development.

(4) Themes

Focusing on using efficient technologies in relevance to water usage in the production process of energy is an important issue. In the oil and gas sector for example, water is used in upstream oil and gas exploration and production for purposes such as injection water for wells and to assist in the recovery of crude oil and gas. In the process of electricity generation, water is essential for the production of all conventional fuels, where it is needed as part of almost every

step in the production processes. It is noted that raw water usage for cooling in the various fossil-fuel-powered power plants constitutes around 79-99% of total water usage; the remaining water is used for applications such as ash handling, in the humidifier and condenser and in flue-gas desulfurization (FGD) at combustion-steam plants. Consequently, due considerations have to be given for improving cooling process to make the electricity production more water efficient.

Similarly, issues related to energy efficiency in water and wastewater processes will be carefully addressed. This includes, for example, water distribution systems, wastewater treatment and water efficiency technologies in the industrial, commercial, and institutional sectors. Financial aspects as well as key performance indicators for the water-energy nexus will also be addressed.

(5) Participants

The workshop will bring together executives/practitioners from middle management in the government, public utilities and private sector working in the fields of oil & gas, energy production, energy efficiency, co-generation, water desalination and other water and wastewater processes. Experts/officials/Academia representatives from concerned Arab and international entities will also, be invited to contribute to foster interactive discussion and interventions.

(6) Structure of the Workshop

The capacity building workshop will be held for two days, whereas ESCWA staff will elaborate details about the DA project. The project Consultant will deliver power point presentations on the operational toolkit: Resource Efficiency. Then, number of invited Arab/regional/international experts will make presentations and/or panel discussions, to discuss subjects (including regional cases) of water-energy nexus and their related issues. There will also be a window for the interventions of 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 will be presented in a joint session at the end. Based on the discussions and interventions of the participants, it is expected to come up with comments and recommendations. At the end, the moderator will wrap up the workshop and summarize the key outcomes to serve for future activities on the water-energy nexus.

An Arabic / English interpretation will be available during the workshop.

(7) Date, Time and Venue

The Regional Capacity Building Workshop on "Water–Energy Nexus: Resource Efficiency" will take place on 20^{th} - 21^{th} February 2017. The event will start from 9:00 am to 16:00 (registration will be at the first day from 8:00-9:00 am), in Manama, Bahrain. The relevant Agenda will be provided soon.

(8) Logistics

Sponsored participants will receive a daily subsistence allowance for up to four nights in Manama, a terminal allowance to cover their ground transportation to and from the airport, as well as a roundtrip economy class airline ticket to Manama issued on the least expensive route in accordance with UN rules and regulations.

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 (iii) any other requirements for travelling to Bahrain.

Participants can obtain their visas to Bahrain from the Bahraini 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 request.

(9) Correspondences

Correspondences and inquiries should be addressed to:

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