



Shared Prosperity Dignified Life



## **Virtual Event**

### **Desalination Using Renewable Energy**

**7th June 2021**

**8:00 – 9:30 AM, New York time / 3:00 – 4:30 PM, Beirut time**

#### **Draft Concept Note**

#### **Background**

Desalination is seen as an increasingly important option for meeting freshwater needs in different world regions, particularly in Northern Africa and West Asia where most countries are under serious freshwater stress. Over the past decade, the improvements in technological systems, including reverse osmosis, have made water desalination more efficient and less costly. It remains however a highly energy intensive process and energy needs are typically met by fossil fuels, mostly natural gas. Although desalination is widely projected to grow rapidly during the coming years, there is concern that this fresh water supply option could considerably increase GHG emissions contributing to climate change. Nevertheless, desalination plants exist that demonstrate the economic viability of seawater desalination using renewable sources of energy.

Global desalination capacity has grown considerably in the last decades. Countries where desalination is most used include Saudi Arabia, the United States, the United Arab Emirates (UAE), Australia, the Islamic Republic of Iran, China and Kuwait. As energy needs and energy costs are high, desalination facilities are often located near power plants. The use of wind and solar energy for powering commercial water desalination plants represents a sustainable water and energy solution for many world regions. Several governmental entities, private sector initiatives and non-governmental organizations are advancing the deployment of these technological systems.

Ensuring universal access to modern and sustainable energy, water and sanitation services while reducing related environmental impacts lies at the heart of sustainable development. The Division for Sustainable Development Goals of UN DESA is conducting a number of initiatives and events designed to support the integrated implementation of SDG 6 (water) and SDG 7 (energy). One of these initiatives is the Global Sustainable Water and Energy Solutions Network created in 2018 (<https://www.un.org/en/waterenergynetwork>). This capacity development event, organized by this Network in cooperation with its member the Economic and Social Commission for Western Asia (ESCWA), will bring together multi-stakeholders to discuss and showcase

existing initiatives and disseminate information on desalination systems powered with renewable energy.

### **Objective**

The objective of this capacity building event is to provide a virtual space for the exchange and dissemination of knowledge and experiences related to desalination systems powered with renewable energy. The expected outcome is audiences with knowledge about sustainable desalination systems. The event will allow information exchange about efficient and effective uses of seawater and energy resources for a more sustainable world. Participants will also have the opportunity to learn and discuss the synergies that can be realized when integrated approaches on desalination and renewable energy are implemented.

### **PARTICIPANTS**

Participants will include representatives from Member States and from public, private, and non-profit organizations, as well as international organizations, civil society and practitioners involved and interested in the research, development, management and implementation of integrated water and energy systems and programmes in general, and in particular about desalination systems being powered by renewable energy.

### **TIME**

This event will be held on 7 June 2021 as a virtual meeting from 8:00 to 9:30, New York Time.