

Special Report

# FOSTERING RENEWABLE ENERGY DEPLOYMENT IN KUWAIT

By Nada Bedir

This year, Kuwait is hosting the 6th edition of the Middle East and North Africa Renewable Energy Conference (MENAREC) from 4th-6th of April under the patronage of His Highness the Amir Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah. The MENAREC conference is an opportunity for high level stakeholders from the region to gather and discuss the challenges they are facing and the potential solutions to achieve a smooth and timely transition towards sustainable energy.

One of the organizers and supporters of the Conference is the Regional Center for Renewable Energy and Energy Efficiency (RCREEE); an inter-governmental organization based in Cairo, Egypt, that aims to enable and increase the adoption of renewable energy and energy efficiency practices in the Arab Region. I had the privilege to work at RCREEE through my participation last year in the Arab Program for Sustainable Energy Youth. The program aims to equip the youth of the region with the technical and operations skills to pursue careers in sustainable energy. Based on my experience at RCREEE, I would like to shed the light on why energy transition in Kuwait is vital.

**Abundant resources**

Kuwait is endowed with abundant natural resources, mainly oil products. And despite being ranked as the sixth

country worldwide with proven oil reserves, domestic energy demand is growing at a rate of 6-8 percent each year which puts pressure on country's resources in the long run. In 2009, Kuwait became a net importer of natural gas to help meet its energy demand. According to Eversheds, an international law firm, Kuwait consumes 552 billion cubic feet per year of natural gas of which about 12 per-



cent is imported. Also the country needs to increase its installed capacity to 24.5 GW by 2020 to meet the increasing peak demand load. In 2014, the peak demand was very close to the current installed capacity of around 12 GW. This rising demand is due to several factors which

include population increase, extreme weather conditions, energy-intensive water desalination plants, and last but not least, government subsidies of energy which encourage inefficient consumption. Kuwait is also blessed with bright sun and wind making it an attractive destination for investment in renewable energy.

Promoting and developing renewable energy projects in Kuwait can

opportunity to free up more oil for exports rather than domestic consumption which will increase the country's revenues. Secondly, renewable energy contributes positively to the economy through job creation, attracting investment, and private sector growth. Thirdly, greater use of clean energy resources will allow Kuwait to mitigate greenhouse gas emissions and participate in the global fight against climate change.

**Ambitious vision**

Kuwait has adopted an ambitious vision to generate 15 percent of its total energy needs by 2030. To achieve this target, the government has allocated 100 KM2 in the west of the country to develop large-scale renewable energy projects with a total capacity of 2 GW, Al-Shagaya Renewable Energy Park. This grand project is managed by Kuwait Institute for Scientific Research (KISR) and the Ministry of Electricity and Water (MEW). The park shall include a mix of PV, CSP, and wind technologies. The first phase of the park is currently under construction and expected to be completed by the end of 2017. In a joint venture, Spain's TSK Electronica y Electricidad with Kuwait's Kharafi National shall design, construct and operate a 50 MW solar thermal plant in Shagaya and a 10 MW solar PV plant. In addition, Elecnor Spanish Company entered into a joint venture with Al-Ghanim International to design, con-

struct, and operate a 10 MW wind farm.

In addition, to the energy park, there are several projects that are in the pipeline such as the Abdaliya Integrated Solar Combined Cycle Project which will have a total capacity of 280 MW. The project is expected to be completed by 2017. Also, there is the 10 MW Umm Gudair PV plant that is being developed by Spain's Gestamp Solar after signing a contract with Kuwait Oil Company (KOC). The plant has a capacity of 10 MW and it is estimated to be completed by the end of 2015. When it comes to wind energy, there is the Salmi Mini-wind farm that was completed in 2013 with a capacity of 2.4 MW. The farm serves telecommunication towers located in remote areas and the fire brigade station in Salmi.

With all these projects in the pipeline, the focus now should be on implementing projects in a timely manner and also on developing new projects to be able to reach the target of 15 percent in 2030. In addition, while setting a vision/target reflects the government commitment towards renewable energy, the next step would be to develop a comprehensive renewable energy framework with supporting policies and regulations to attract more investments. Currently, Independent Power Producers (IPP) by-laws and Feed-in-Tariff schemes are being studied by the Ministry of Electricity and Water.

## KUWAIT TO PRODUCE SOLAR POWER ON HOUSE ROOFS

**KUWAIT:** Kuwait is planning to boost production of electricity on house roofs through model pilot projects in 150 homes, to be increased to 1,500 in a later stage after 2018, Director General of the Kuwait Foundation for the Advancement of Sciences (KFAS) Adnan Shihab-Eldin has said. According to the plans, the cost of a kilowatt of electricity produced through solar energy is 20 fils (65 cent), Shihab-Eldin told reporters as part of the final arrangements for the 6th Middle East and North Africa Renewable Energy Conference (MENAREC-6) that opened yesterday evening.

It is very competitive, compared to the cost of a kilowatt of traditional electricity produced

through fossil fuels, 30 to 40 fils. Kuwait, in cooperation with Germany, established the first solar power plant in the region in 1984, with one megawatt capacity, he said.

Shihab-Eldin pointed to the various renewable energy projects launched by the Kuwait Institute for Scientific Research (KISR) such as the 70 MW Shagaya complex. He suggested that the government directs part of power subsidy to renewable energy, to raise its share of Kuwait's production of electricity to 15 percent, a target set for 2030.

**Remarkable change**

Meanwhile, Director-General International

Renewable Energy Agency (IRENA) Adnan Amin said that the world has witnessed a remarkable change in the alternative power systems over the past three years. He stressed the necessity of paying more attention to alternative energy amid the various crises the world is suffering.

According to Amin, solar power is the cheapest among sources of renewable energy, especially in the Middle East region, in addition to wind power in Egypt and Morocco. Amin said that the world's renewable energy has grown by 17 percent over the past period, and "we believe it will double to 34 percent by 2030." — KUNA



**KUWAIT:** Director General of the Kuwait Foundation for the Advancement of Sciences (KFAS) Adnan Shihab-Eldin (center) attends a preparatory meeting for the 6th Middle East and North Africa Renewable Energy Conference. —Photo by Yasser Al-Zayyat

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