KSA Climate 18

Renewable Energy Initiatives through Economic Diversification with Mitigation Co-Benefits

Presented by the Kingdom of Saudi Arabia

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Zaour Israfilof, SABIC Mohammed Al-Musbeh, REPDO Sulaiman Altaneeb, KNPC Mani Sarathy, KAUST

This panel, moderated by **Mani Sarathy**, King Abdullah University of Science and Technology (KAUST), considered the use of renewable energy technologies, such as solar photovoltaics (PV) and electricity generation through wind turbines to build low-carbon energy sources within the GCC region, and the mitigation co-benefits which emerge from these developments. Panelists presented their companies' investments in renewable energy projects, and discussed the technical requirements and economic feasibility of these investments in light of the present high-carbon energy production mix in the GCC region.

Sulaiman Altaneeb, KNPC, introduced the Al-Shagaya project, derived in the Shagaya area of Kuwait, and introduced as a result of Kuwait's commitments after the Doha 2012 UN Climate Change Conference of Parties (COP) to reach an energy mix of 15% renewables by 2030. He specifically introduced the Al-Dibdibah Solar Project, the second of three phases in the Al-Shagaya project. Constructed over an area of 32 square kilometers, the Al-Dibdibah project is divided into five Solar Generating Units of solar PV panels which will generate power to be sold to the Kuwait Ministry of Electricity and Water. He anticipated that the project will result in reductions of 2.1 million tonnes of CO2-equivalent per year, and generate 3150 GWh by the project's 25th and final year. Altaneeb also mentioned that the project focuses on:

- hiring workers from within Kuwait;

- promoting national investment; and
- attracting international investments.
- He showed a video rendering of the project which advertised that the project will, once completed, power the equivalent of 100,000 homes.

Mohammed Al-Musbeh, REPDO, spoke about the country's ambitions in the field of renewable energy. He focused on the country's National Renewable Energy
Program, managed by the Ministry of Energy, Industry and Mineral Resources, noting that the Program aims to create a renewable energy industry through public-private partnerships, as well as to localize renewable energy production in the long term through: research and development; manufacturing; and connections with other sectors. He detailed that the Program invests in solar PV and concentrated solar power, waste to energy, and wind power generation. He outlined the series of projects which have presently been developed, mainly focusing on solar and wind, and which attempt to balance between an energy price that results in the user receiving a cheaper end price, and the environmental aspect of the project, which is anticipated to help meet Saudi Arabia's 2030 energy targets, the details of which have not yet been publicly released.

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Zaour Israfilof, SABIC, gave a brief presentation on SABIC's interactions with renewable energies. He described the four main areas of business which have emerged in SABIC, namely petrochemicals, "specialties," "agri-nutrients" and metals. As a major industrial company, he suggested SABIC is interested in tapping into the renewable energy supply to generate the building blocks of renewables which will contribute to Saudi Arabia's 2030 plan for reducing emissions. Israfilof said that this involves creating hardware for solar panels and wind turbines, as well as exploring "alternative business opportunities." He also presented an example from SABIC's recent research and development, a series of materials for solar PV systems such as resins for junction boxes, mounting stations and connectors. He then outlined an "integrated roof solution" for panel installation, which, he described, was lighter and more durable than most industry standards. He concluded by presenting renewable feedstock projects, which build polyethylene and polypropylene.

In the ensuing discussions, participants asked questions about: the economic feasibility of the aforementioned projects, as well as automated technologies, which could be used to construct PV panels; whether, considering the low ambition of nationally determined contributions (NDCs), there were any discussions about ramping up mitigation ambition in GCC countries; and what the main driver was for low solar energy tariffs in GCC countries. Panelists answered that the economy of scale was extremely useful in reducing prices, given the area of deployment for solar PV, and that they were not in a position to comment on their countries' national strategies.