

Summary

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Power and Renewable Energy

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Key points

- With increasingly attractive economics and new technological developments, renewable energy is becoming a reality in the GCC.
- The region's governments must nevertheless overcome regulatory, infrastructure and financing challenges.
- Bahrain has ambitious goals for renewables and energy efficiency, as well as for the power sector.
- Establishing renewables is not necessarily about getting the money for investment; it is about having a stable, long-term plan for the future.

Synopsis

New oil and gas discoveries in the GCC may lead most to think the drive for renewable energy sources will lose steam. Not so, according to H.E. Dr Abdul-Hussain Bin Ali Mirza, Minister of Electricity and Water Affairs of Bahrain. He cited Saudi Arabia, with over 260 billion barrels in oil reserves, signing a deal with SoftBank of Japan to develop 200 gigawatts of energy from renewable sources. The trend is backed by certain key factors. Societies need to be ready when the supply of fossil fuels diminishes. Moreover, the effects of climate change are spurring interest in renewables. And costs are becoming more and more interesting – in fact, according to Adnan Nawaz, Broadcaster, TRT World, United Kingdom, the overall cost of key renewables competes with gas, coal and nuclear plants.

Indeed, traditional sources will continue to supply baseline energy levels. But with increasingly attractive economics and new technological developments, renewable energy is becoming a reality in the GCC. Three factors contribute to this: energy efficiency, the huge need to upgrade systems and create capacity, and technological developments. In addition, GCC pricing is attractive and competitive, with offshore energy generated at 5 cents per kilowatt hour.

GCC governments must nevertheless overcome regulatory, infrastructure and financing challenges. Infrastructure challenges alone are immense and can occur in many places and situations. The dynamics in the GCC can be similar to those in Europe; for example, Germany can end up flooding the Dutch market with energy. This indicates several key needs: becoming better at steering energy, having capacity available in places different from those where it is currently available, and increasing electricity storage. In fact, Nissan already has opened an energy and power production unit.

With high consumption driving growing demand for electricity and water, Bahrain has ambitious goals for renewables and energy efficiency, as well as in the power sector. The Kingdom must ensure an uninterrupted supply of electricity and water, with capacity at 4,000 megawatts (MW) for electricity and some 700 million litres for water. The increase in electricity demand year-on-year is expected to double by 2030, from 3,600 MW to 6,500 MW in a normal scenario by 2030, according to Mirza. For electricity, a production capacity expansion project and a new backbone initiative underscore this trend's importance. For water, key priorities include new distribution stations, the expansion of existing ones, the laying of transmission pipelines, and subsidy and tariff reforms. In the past, almost 100% of the energy required to produce electricity and water came from natural gas; now, the Sustainable Energy Unit concentrates on new energy sources and on improving the use of existing ones. Bahrain operates with clear targets: 10% of energy supplied by renewable sources by 2035, with key policy changes (including putting the surplus from renewables back into the national grid for credit) and 6% improvement in efficiency by 2025. In all, new projects are projected to deliver 300 MW, surpassing the targeted 250 MW.

The utility sector sees power generation from thermal and renewable sources as a major area of investment. Meshary M. Al-Judaimi, Division Head, Financial Services and Utilities, Gulf Investment Corporation (GIC), said “all the GCC countries have great examples. A market like Saudi Arabia has a great deal of pipeline, renewables and thermal. We look at the GCC as one market.” Beyond the impetus to invest, establishing renewables is not necessarily the money; it is about having a stable, long-term plan. According to Jason Channell, Global Head of Sustainable and Responsible Investment, Citi, United Kingdom, the obvious though often avoided issues in the past were subsidies and fossil fuel prices, with about 6% of Bahrain’s gross domestic product going to oil and electricity subsidies. Instead, “you want a long-term plan – it’s a 20- to 30-year investment,” Channell said. Building large plants can be seen as carrying the risk of a life-long asset and it is hard to determine their eventual selling price or load factor. “The beauty of solar is you know what it costs. It may mean lower returns, but also much greater certainty.” May Ashoor, First Deputy, Prime Minister’s Office, Bahrain, said the country was subsidising electricity, “but that’s going to go down to zero. Sustainability is part of our ethos. We understand that renewable energy has a role to play. It’s important to rationalise the finite resources and capitalise on the renewable ones.”

Renewables may carry financial risks. However, while sovereign guarantees need to be assured, credit risks for renewable projects are quite low, with the GCC’s renewable energy tariffs currently some of the lowest. Bahrain has a subsidy programme that will cover costs. But its form and source will be rethought. Subsidy reform is critical and well underway. “We’re no longer subsidising production no matter who they are; it’s more about who needs it most, and not just for everyone,” said Ashoor.

New renewable projects in Bahrain include:

- The Al Dur Phase-II power and water production plant, which will become the country’s fourth privately held facility and have a capacity of 1,200-1,500 MW of electricity and nearly 190 million litres of water
- A solar photovoltaic project, with the government guaranteeing 100 MW of offtake
- Wind power farms
- Solar photovoltaic panels on rooftops
- Feed-in tariffs supporting the renewable energy strategy.

Bahrain is also interested in thermal solar and desalination projects and is considering floating solar and offshore wind initiatives.

What is the big, next technology? Storage and batteries are front runners. “If you combine renewables with batteries, you can shift distribution to peak times. This is the major innovation coming very soon,” said Channell.

Session panellists

H.E. Dr Abdul-Hussain Bin Ali Mirza, Minister, Electricity and Water Affairs, Bahrain

Frédéric Claux, Head of Asset Management, GCC and Pakistan, ENGIE, France

Jason Channell, Global Head of Sustainable and Responsible Investment, Citi, United Kingdom

T.R. Kishor Nair, Chief Operating Officer, AVAADA Power Private Limited, India

Meshary M. Al-Judaimi, Division Head, Financial Services and Utilities, Gulf Investment Corporation (GIC)

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Moderator: **Adnan Nawaz**, Broadcaster, TRT World, United Kingdom

Disclosures

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