



PREPARING BAHRAIN FOR AN LNG FUTURE

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The Kingdom of Bahrain has a long history of oil and gas. The country was the first Arabian Gulf state to discover oil in the Bahrain Field back in 1932. This field is still producing today, and from this field and the offshore Abu Safa'a field, shared with the Kingdom of Saudi Arabia, Bahrain's oil production is currently about 200,000 bpd. In 1934, Bahrain exported its first shipment of crude oil produced from the Bahrain Field to Japan.

The Bahrain Petroleum Company (BAPCO) was established in 1929. BAPCO operates a 267,000 bpd refinery, from which over ninety percent of its production is exported to international markets, primarily in the Middle East, India, the Far East, South East Asia and Africa. The refinery is undergoing an extensive multi-billion-dollar upgrade to modernise and expand its capacity to 360,000 bpd. The first commercial oil from Saudi Arabia was shipped by sea to the Bahrain refinery in the late 1930s, and a pipeline linking the two countries was built in 1945. This pipeline is being replaced with a larger one, as part of a US\$300 million project. Both BAPCO and Saudi Aramco are working on the implementation of the new 350,000 bpd pipeline that will replace the existing 230,000 bpd link.

Bahrain has been producing natural gas from its Bahrain Field for its local consumption for power generation and water desalination and the industrial sector since the 1970s. This field is still covering the energy demand for the whole country. However, with the increase in gas demand from our expanding economy, as well as the need to meet the expanding requirements of the industrial sector, there is a need to secure further sources of energy for the country.

As part of endeavours to enhance Bahrain's hydrocarbon resources, the Kingdom is looking to increase output and production from our own oil field by developing the pre-Khuff deep gas.

Furthermore, by early 2019, Bahrain will enter the LNG club, when the new LNG import terminal will be commissioned to complement the domestic production of natural gas. The LNG terminal is being constructed at an offshore location around 4 km away from the existing Khalifa Bin Salman Port. It will have a production capacity of 800 million cu/ft a day. The terminal is being developed and will be operated by a joint venture known as Bahrain LNG WLL, which is owned by Bahrain's Oil

& Gas Holding Company, NOGAHOLDING (30 per cent), Canda's Teekay LNG (30 per cent), South Korea's Samsung C&T (20 per cent) and the Gulf Investment Corporation (20 per cent). It is being developed on build-own-operate-transfer basis for a 20-year period. For the LNG import, NOGA is in the process of signing several Master Sales and Purchase Agreements with a number of LNG exporters.

Moreover, Bahrain is also preparing long-term plans for onshore and offshore oil and gas exploration. Work is currently underway on the preparation of developmental plans, which includes the drilling of wells, so that Bahrain will have three sources of gas; natural gas from Khuff formations, deep gas from Pre-Khuff formations and LNG imports.

On a strategic level, there is discussion of the importance to the Gulf Cooperation Council (GCC) countries to develop a pan-GCC Natural Gas Grid Project, like the existing GCC electricity network.

To achieve its ambitions, the Kingdom of Bahrain need not only focus on the development of energy resources, but also on the development of human resources. Investment in training, youth development and life-long learning are key elements in the success of any human resources strategy. The country leadership's directive to invest in the development of future leaders, and improve the performance of the national workforce, has contributed to Bahrain ranking as a leader in terms of human development in the Arab World.

In May 2017, The National Oil and Gas Authority (NOGA) organised the Second International Symposium on Human Resources Management in the Energy Industry, in collaboration with the International Energy Forum (IEF) and the Russian Ministry of Energy, under the title "*Human Resources Challenges, in a Changing Time in the Global Energy Sector*". The event was successful in addressing productivity issues via training, development and investment in human resources development.

The Kingdom of Bahrain plays an active role within the IEF. NOGA is a member of the International Support Group and BAPCO is a member of the Industry Advisory Committee. Bahrain is a rotating member of the IEF's Executive Board. In addition, the Kingdom truly believes in energy and producer-consumer dialogue and seeks to enhance cooperation amongst the IEF members to achieve this goal. ■