

Sharjah Energy Future Rises from Pioneering Past

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In November 1978, a team of engineers crisscrossing 600,000 acres of Sharjah's desert pinned down a sweet spot; the Sajaa asset. Their efforts paid dividends. When the Sajaa-1 well was drilled in May 1980 to 16,656 feet – roughly six times the height of the world's tallest building, the Burj Khalifa – it was one of the largest gas discovery in the UAE at the time. The engineering team worked without today's technological luxuries – real-time updates from mobile phones and satellites – and navigated their way to success by unrolling dog-eared maps of the desert on the hot bonnets of their four-wheel drive vehicles. This pioneering spirit heralded the beginning of Sharjah's energy industry.

Fast forward three decades and *Sharjah National Oil Corporation (SNOC)* was established in 2010 by the Amiri decree of Sharjah's Ruler His Highness Dr. Sheikh Sultan Bin Mohammed Al Qasimi. Tasked with exploration, production, engineering, construction, operation and maintenance, SNOC was also handed the golden keys to operating and managing the Sajaa assets. And ten years on, SNOC has just managed the Emirate's first-ever competitive bid for 3 oil and gas exploration concessions which were awarded to Italy's largest energy company Eni.

SNOC had access to the other legacy infrastructure pre-2010. Sharjah's bullish streak after the discovery of the Sajaa asset continued with the discovery of the nearby Moveyeid field in October 1981. Just one year later, the first cargo of 500,000 barrels of condensate was exported from the Sajaa plant on the oil tanker 'Amoco Savannah' – the birth of Sharjah's gas exporting business.

Gas sales started in 1983 to *Sharjah Electricity and Water Authority (SEWA)* and later to Dubai and the Northern Emirates in a new pipeline network. An agreement to build a liquified petroleum gas (LPG) terminal and export facilities in a new harbor at Hamriyah was signed in 1984, thus laying the foundation for a new Port facility in Sharjah, with it exporting its first load of LPG in 1986. Two world records followed in 2003. One was for the highly efficient recovery of LPG (Propane & Butane liquid) and another for a world-leading coiled tubing under balance drilling (CTD) campaign, which was managed by BP and the Sharjah Government.

"It makes business sense for SNOC to leverage the infrastructure and resources already available in Sharjah, due to decades of hard work since 1980. This will better ensure gas security for the next generation in the UAE and beyond. SNOC is available and ready to deepen its footprint in the UAE's gas ecosystem," explains Sheikh Sultan Bin Ahmed Al Qasimi, Deputy Chairman of Sharjah Petroleum Council (SPC) and President of SNOC. *"Sharjah also benefits from a strategic position along the coastline and in the center of the country's seven emirates, which means SNOC can provide an uninterrupted supply of gas across the UAE at a time of significant growth in demand. It is a win-win situation for all."*

Just seven years since its inception, SNOC owns and operates 53 wells distribute in three fields and 2 hydrocarbon liquid storage and export terminals. The condensate terminal was constructed in 1981 in Hamriyah and has two 500,000 barrels tanks and one offshore *Single Point Mooring (SPM)* buoy for VLCC tanker loading. Constructed in 1986, the LPG terminal has a dedicated loading jetty inside Hamriyah Port and Free Zone with 400,000 barrels and 300,000 barrels of propane and butane storage capacity, respectively.

The Hamriyah Port is the only location in the Northern Emirates with existing infrastructure and connectivity capable of sending more than 1 billion standard cubic feet per day (Bscfd) efficiently into the market. All pipelines in the Northern Emirates converge at Sajaa, giving it the ability to transfer this gas to anywhere in the UAE – a valuable convergence of infrastructure in a region that lacks an intra-GCC gas pipeline network. These pipelines are owned and operated by SNOC, SEWA, Emarat, Dana Gas, DUSUP and Dolphin.

"We recognize the urgent need of the Northern Emirates for a reliable supply of natural gas that can be easily distributed to support large and small consumers, from the big power generators to small businesses. SNOC is already able to provide that level of much-needed flexibility," said Hatem Al Mosa, Chief Executive Officer of SNOC and Secretary General of SPC. "The Sajaa complex has traditionally been the center of the gas supply business in the Northern Emirates and it is well-placed to continue supporting the region."



Image Attribute: Sajaa Well 1 / Source: SNOC's Official Website

Fortuitous Timing

SNOC's growth is well timed to help meet the demands of the UAE's growing population, with an 11% rise by 2030 as today's 9.4 million increases to 11.05 million. SNOC also provides services to Anabeb company for importing jet fuel into Hamriyah port for transit to support the rapidly-growing business at Sharjah International airport. The airport has handled 4.6 million passengers and more than 30,000 aircraft movements this year alone

SNOC's deal in May this year with SEWA for a 10 years gas sales agreement targeting the supply of natural gas for Sharjah Electricity and Water Authority (SEWA) power generation in

Sharjah, follows the company's joint venture with Uniper in October last year to import liquefied natural gas (LNG) into the emirate's Port of Hamriyah. The joint venture between SNOC and Uniper will supply natural gas to the three power stations operated by SEWA. First gas deliveries to SEWA from the 10-year agreement will be in early 2019 and some of the gas will flow from the Hamriyah port jetty directly into the SEWA 'Hamriyah' power station. Additional gas will flow to SNOC's Sajaa gas field complex and will supply the other SEWA power stations. The import project will have a capacity of 3-4 million tons of LNG per annum (mmtpa) and a send out capacity range up to 1000 million standard cubic feet per day (mmscfd).

"The Emirate has had to rely on an expensive, unpredictable commodities market, which means SEWA has been selling power for less than its cost of production," Al Mosa said. "But that is changing as the deal between SNOC, Uniper and SEWA will ensure Sharjah has a guaranteed gas supply at attractive prices. This is a major milestone in SNOC's growth story and indeed, Sharjah and the UAE."

Gas storage is the next stage in SNOC's evolution. SNOC owns the ideal size reservoir for such a project, which is located close to its gas complex. The LNG import project will provide the required volumes to start this, which allows storing excess gas in the winter for its production in summer to satisfy the summer peak demand. It also provides a readily available strategic reserve to respond to unexpected operational or market problems. Requiring significant capital investment for the project, SNOC is planning a phased project with the first tranche potentially starting in 2021. Pilot studies to test existing infrastructure are being carried out to optimize the final project design.

As the UAE's gas demand continues to swell, SNOC's leadership will ensure that the company is a collaborative and flexible partner. The days of crisscrossing desert tracks may have been replaced by modern technology, but the entrepreneurial and determined spirit that sparked Sharjah's energy industry is still alive and well.
