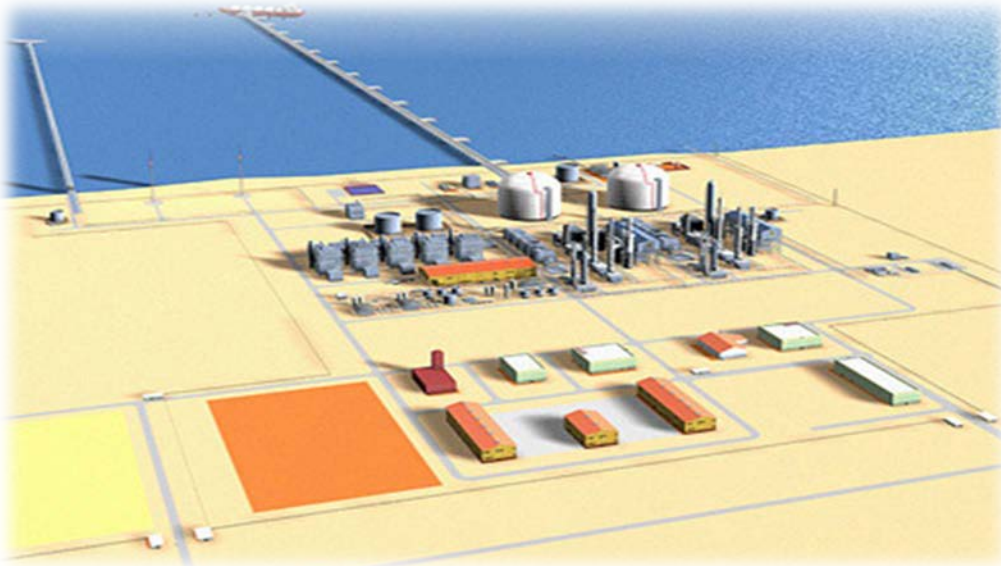


Al Khaleej Gas - Phase Two (AKG-2) Project, Qatar

(Reference: Hydrocarbon Technology)



Key Data

Order Year: 2006

Construction Started: 2006

Project Type: Gas field development phase 2

Location: Qatar

Estimated Investment: \$3bn

Completion: December 2009

Official Inauguration: May 2010

ExxonMobil Middle East Gas Marketing, which is controlled by Exxon Mobil Corporation, the State of Qatar and Qatar Petroleum, announced the launch of the Al Khaleej Gas - phase II (AKG-2) project in July 2006.

This development followed the successful completion of the initial stage of the project, AKG-1, which started up in November 2005 with a capacity of 750 million cubic feet per day (mcf) pipeline sales gas.



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The AKG-2 project was completed in December 2009 and was the last phase of the Al Khaleej Gas Project. The AKG-2 was officially opened in May 2010. It was planned to have a production of 1,580mcf/d of north field natural gas for processing to sales gas for domestic markets in Qatar, while recovering associated condensate and natural gas well liquids.

The project brings the total production of AKG to 2,000mcf/d. The majority of the second phase production will be used for producing electricity and meet the long-term domestic requirements for natural gas feedstock.

AKG-2 output

"The AKG-2 project includes two wellhead platforms, gas treating and liquids recovery facilities and fractionation."

AKG-2 is expected to produce 1,250mcf/d of sales gas a year, 61,000 barrels of field and plant condensate, 2,400t of natural gas liquids (propane and butane) and an estimated 2,500t a year of ethane for use as petrochemical feedstock.

Al Khaleej Gas is being developed alongside the Ras Laffan (phase III) LNG expansion project (LNG trains six and seven) to provide extra gas for export to the Ras Laffan Liquefied Natural Gas Company Limited.

The total investment for AKG-2 is estimated to be more than \$3bn. By sharing the same site the project was less costly and took less time for completion.

Construction of the Al Khaleej gas project

The development involved the construction of offshore and onshore facilities, including two wellhead platforms, gas treating and liquids recovery facilities and fractionation operations.

The onshore components were constructed adjacent to other RasGas facilities in Ras Laffan Industrial City.



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Technip France signed a contract for engineering, procurement and construction (EPC) of the AKG-2 project with RasGas, acting on behalf of ExxonMobil Middle East Gas Marketing Limited. Chiyoda of Japan carried out the front-end engineering and design (FEED) for the project in late 2005.

The contract for a gas processing train (with ethane recovery capability), with a capacity to support gas sales of 1.25 billion standard cubic feet a day (mscfd) of natural gas, was executed by the Technip / Chiyoda Joint Venture (CTJV).

The value of the contract exceeds \$1.6bn and involves the construction of the feed gas-inlet, gas treatment, liquids recovery and fractionation facilities. Previously Chiyoda was the construction company responsible for the successful completion of the AKG-1 project.

AKG-2 offshore

The offshore element of the AKG-2 project involved the fabrication and installation of two remote unmanned well-head platforms (WH10 and WH11) and jackets, with attendant supporting infrastructure.

"The total investment for AKG-2 is more than \$3bn."

There are two nine-slot offshore platforms and two intra-field pipelines that connect the platforms with two 38in wet-gas export trunk-lines to bring the gas ashore.

The two platforms are connected to the RasGas Alpha Complex by two separate composite power and fibre-optic subsea communications cables.

The Engineering, Procurement, Construction and Installation (EPCI) contractor responsible for both platforms and pipelines was J Ray McDermott Eastern Hemisphere, a subsidiary of J Ray McDermott SA, which was awarded the contract by ExxonMobil Middle East Gas Marketing in July 2006 (the



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estimated value of the contract was \$300m). Construction of the platforms began in May 2007 in the Jebel Ali yard was delivered in 2009.