

Contax Project Snapshot: Al Shaheen Refinery

Kathleen Bury, Contax project manager, provides an insight into Qatar Petroleum's 250000 barrels per day capacity oil refinery project at Mesaieed



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With over eight years of experience across market intelligence, consultancy, strategy and implementation, Kathleen is a part of the Growth Consulting practice at Contax. She has worked with FTSE 100 and other international companies in the United Kingdom, Middle East and Africa. Kathleen has a strong background in the energy, utilities and construction sectors.

GCC Context

The planned GCC energy Capex landscape for 2008 to 2010 continues to show signs of growth over the period 2005 - 2007, with c.\$370bn worth of investments on the table. The dominant sectors continue to include the refining and petrochemical sectors, with c.\$84bn and c.\$60bn respectively already planned for award by the end of 2010. Qatar supports a project Capex position of c.10% worth of the investment planned within the GCC energy space.

Following Contax's analysis of project postponements from 2007 and within the first two quarters of 2009, it is evident that the market is continuing to see a considerable amount of award and execution schedule slippages. Nevertheless, given the GCC's commitment to solidifying its global 'petrochemical and refining hub' position, it is anticipated that a number of key projects will be realised to help bridge the global demand and supply gap.

A major project that is expected to help Qatar achieve this goal is the Al Shaheen Refinery project.

Background and Strategic Importance

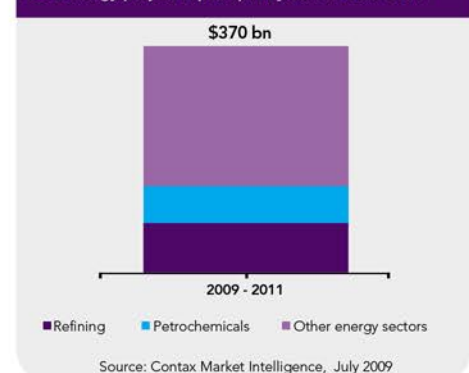
With growth of about 14 per cent a year, Qatar is one of the world's fastest growing economies. It has the highest per capita GDP in the Middle East.

Qatar Petroleum is planning to solely develop a grassroots refinery within the Mesaieed Industrial Area to process sour, heavy marine crude feedstock that will be sourced from Block 5 of the offshore Al Shaheen field currently being developed by Maersk Oil Qatar.

Following a significant delay in the project schedule, the planned multi billion dollar refinery project is now expected to begin operations in Q1 2015. Utilising technology from Axens IFP Group Technologies, Black & Veatch, Haldor Topsoe, MECS, Stranco Dupont and UOP, the refinery will have a capacity of 250 000b/d and produce a range of products including distillates, bitumen, green coke, gasoline, jet fuel diesel for the local and export markets.

Despite the initial project schedule delay, which is believed to be a result of the project owners desire to take advantage of perceived lower critical input costs and drive down EPC bid prices as well as project financing concerns, a series of meetings were held in June with the project consultants, Beicip Franlab and Jacobs Engineering, in Paris to discuss the potential structure of the refinery. There appears to be strong support from the Qatar government to push ahead with the project as the development of the Al Shaheen Refinery looks set to satisfy a number of key strategic objectives.

GCC energy project capex split by sector 2009-2011



Key Objectives

1. The project will refine c.50% of the crude/condensate capacity being produced from the Al Shaheen field and is being built to serve the current low sulphur specifications by generating about 1000tpd of by product sulphur.
2. The project will utilise special technology conversion units to upgrade the bottom-of-barrel products to increase the production of marketable fuel distillates and expand Qatar's reach into the refined product market.
3. The project will maximise the production of petrochemical feedstock in addition to the fuel output.
4. To support Qatar's drive to export refined products rather than crude, the Al Shaheen Refinery project is scheduled to be the third refinery after the Nodco Refinery in Mesaieed and Laffan Condensate Refinery in Ras Laffan.

Scope of Work

The Al Shaheen Refinery project consists of two packages:

- Process Package
- Offsites and Utilities

The packages themselves will be developed in two phases:

Project activity	Proposed timeline/status
Commencement of FEED	Q2 2007
Completion of FEED	Q3 2008
EPC ITB Issue	Q3 2010
EPC Award	Q1 2011
Completion Date	Q1 2015

Source: MEED Projects - CMI, July 2009

Key project details:	
Project Name:	Al Shaheen Refinery
Project Owners:	Qatar Petroleum – 100%
Status:	FEED
Location:	Mesaieed, Qatar
Feedstock:	Heavy marine crude
Contractors	FEED: Technip PMS: Technip Consultants: Beicip Franlab / Jacobs Engineering Group
EPC Award Date:	Q1 2011
Completion Date:	Q1 2015

Source: MEED Projects - CMI, July 2009



The project will eventually refine around 50% of the crude/condensate produced from the offshore Al Shaheen oil field.

Phase one: Crude distillation unit, hydrocracker facility and offsites and utilities infrastructure.

Phase two: Fluid catalytic cracker and expansion of existing offsite and utility units

Challenges

Current economic and market dynamics are questioning the validity and schedules of many of the energy projects within the GCC, especially petrochemical projects. With the recession in buyer economies and project financing issues; key projects are being postponed and cancelled on a weekly basis. Contax's latest report 'Impact of the Financial Situation on GCC Energy Project Workload' looks to provide clarity around which projects have a 70%, between 40-70% and less than 40% probability of proceeding within the current economic climate and thus which sectors and countries will experience the greatest impact.

Despite discussions taking place between QP and the project consultants to define the structure of the refinery, the availability of

project financing within the market still remains tight.

Coupled with this, project owners continue to hold out for further price reductions, pushing project award dates towards mid/end 2010 and 2011. As a result, Contax believes that the Al Shaheen Refinery has a medium probability of going ahead in the short – medium term. **PME**

Contax Opinion: Likelihood of Project Realisation

- Low
- Medium
- High



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Some data within this article has been sourced from MEED Projects – CMI (www.meedprojects-cmi.com)