

CENTRIFUGAL GAS COMPRESSORS

EXTENDING LIFE AND IMPROVING EFFICIENCY

LOCATION: OFFSHORE INDONESIA

In 2015, Solar Fleet Assessment Services (FAS) mobilized a team of field engineers to production platforms off the coast of Indonesia.

The offshore platforms had two primary operational objectives:

- Gas lift operation for crude oil production
- Sales gas delivery to the onshore terminal

To meet these objectives, the customer utilized six Solar® gas compression trains in a complex arrangement across two platforms.

During the course of the detailed FAS equipment assessments, it was noted that gas compressor performance was suboptimal due to dramatic changes in the overall process conditions. In fact, the customer had already concluded that without any intervention the platforms had a useful remaining operational life of less than 10 years due to reservoir depletion.

Searching for solutions, the FAS engineers sent the site data (gas flows, pressures, temperatures, composition, etc.) to Solar's headquarters in San Diego, California for further analysis.

Working in close cooperation with the customer, FAS was able to evaluate all the restage solutions available in order to optimize the compressor efficiencies around new sets of operating conditions and balance compression load more efficiently between the two platforms.

Through creative repurposing of the customer's existing turbomachinery, Solar was able to devise a comprehensive gas compressor life extension strategy for both platforms. The proposed solutions did not require additional gas turbine horsepower or additional gas compressor bodies. Instead, FAS was able to present elegant solutions that utilized the existing customer infrastructure.

Through a series of phased compressor restages and some minor compressor piping modifications, it was determined that the life of the platforms could be significantly extended, thus breathing new life into assets that were once considered near the end of their economic viability.

Solar Turbines has vast expertise in gas compressor restaging and overhaul. Solar works to exacting OEM standards so customer equipment operates like new – or even better.

For more information on how Solar Fleet Assessment Services can provide intelligent, cost-effective equipment optimization and refurbishment solutions for your Solar fleet, please contact your local Solar Sales Account Manager.

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