

Power & Gas Ring Main

Anache

Project Value CAPEX > £200M CO₂ Reduction 100,000 – 500,000te

Project Scope (Phase 1)

In 2003/04, Apache installed an electric power and gas ring main, connecting all five Forties platforms to facilitate efficient power sharing across the Forties Field.

In addition, outdated generators were replaced with more efficient models to increase power generation, from 32MW to 55MW.

The investment afforded centralisation of three control centres to a single centre on Forties Alpha, reducing offshore manning risks whilst enhancing efficiencies.

Project Scope (Phase 2)

In 2016, Apache developed the Aviat Field, 23km from Forties, to provide additional fuel gas to meet power demands and avoid diesel consumption.

The Power & Gas Ring Main has enabled continuous field wide electrification, executed under various projects including: cranes, MOL pumps, ESP conversions, HP PWRI pumps, additional WI pumps plus additional generation upgrades.



Good Practice:

Apache's installation of an electric power and gas ring main allowed for future field investment, flexible development options, and demonstrated the company's early commitment to reducing its carbon footprint. This has been further demonstrated through subsequent equipment upgrades, which resulted in increased production efficiency and a reduction to emissions and operating costs.

Development of the Aviat Field enabled Apache to reduce diesel consumption, as the power generated from Aviat gas along with Forties associated gas is shared field wide by the power ring main to optimise energy.

Apache's phased project investment has extended the Forties field life reducing emissions and OPEX costs. Environmental benefits, achieved between 2016-2019, include:







Apache is now actively investigating electrification from the mainland and power sharing options across both its Forties and Beryl Field to further reduce its emissions whilst maximising economic recovery from its North Sea operations.



Power & Gas Ring Main

Apache

Apache is an oil & gas exploration and production company with operations in the United States, Egypt and the United Kingdom and exploration activities offshore Suriname.

Our vision is to be the premier exploration and production company, contributing to global progress by helping meet the world's energy needs.

Headquartered in Houston, we employ 3,000 people globally with over 600 individuals based in Aberdeen, where we operate the Forties and Beryl Fields.

As of year-end 2020, Apache has interests in approx. 516,000 gross acres in the U.K. North Sea and contributed 14% of Apache's 2020 production and approx. 13% of year-end estimated proved reserves.



The Future of Energy

As the world transitions to a cleaner energy mix, oil and gas will continue to play an important role. Apache is committed to helping produce those needed resources in a clean and socially responsible manner.

Our ISO 50001 certified Energy Management System defines our strategic approach to becoming even more effective in tackling the world's energy challenges and ensures we are accountable for delivering continuous energy improvement.