Two 42 MW GE Gas Turbines Power *Triton* FPSO



Two 42 MW GE gas turbines, with dual fuel operating capabilities, power the *Triton* floating production, storage and offloading ship. *Triton* produces oil and gas from Bittern, Guillemot West, Guillemot North-West, Clapham, Pict and Saxon fields. *Triton* is located in the central North Sea in the United Kingdom, some 193 kilometers (120 miles) east of Aberdeen. Joint venture partners in Triton FPSO are Dana (51.966%), Shell UK (26.42%), Esso Exploration and Production UK Limited (20%) and Endeavour (1.614%).

Including *Triton*, there are a total of 17 of the 42 MW gas turbines delivered or operating on the following FPSOs or power barges:

- Åsgard FPSO
- Douglas Platform
- PLN Power Barge
- Schiehallion
- Tanir Bavi Power Barge
- ZADCO Platform

42 MW Gas Turbine

The 42 MW is derived from GE's CF6-80C2 high bypass turbofan aircraft engine. The 59,600 shaft horsepower gas turbine has a 42% simple cycle thermal efficiency (over 52% for combined cycle operation) and high part-power efficiency. Currently, more than 1,100 of the 42 MW gas turbines are operating or have been shipped.

Both the 42 MW and 52 MW models of this gas turbine have received Lloyd's Register's Design Appraisal Document to the Marine Naval Vessel Rules (NVR). This powerful gas turbine is now available for additional naval marine applications.

In addition, the 52 MW gas turbine marine module package design has been certified by Lloyd's Register and RINA Services after extensive testing at the GE Oil & Gas facility in Massa, Italy. Testing confirmed the quality, low noise and low vibration characteristics and the overall performance of this compact module package.



Shown is the Triton FPSO (photo courtesy of Dana Petroleum).

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