POWER PROFILE
MOHO NORD TLP

All offshore platforms built for extracting and processing oil and gas need a supply of energy for them to operate. They will need 2 types of power supply: main power supply and emergency power supply. The emergency diesel generator will be there as a backup generator, supplying power when there are power cuts or black out situations.

When TOTAL E&P Congo need an ATEX Certified Package by Notified Body with DNV Certification

Power need

The Moho Nord Field is located 80km off the coast of the Republic of the Congo and is operated by Total. Total launched the Moho Nord offshore exploration and production project in 2013. This development comprises a total of 28 subsea wellheads tied back to floating production units (FPUs) and 17 subsea wellheads tied back to a new tension leg platform (TLP). The production of this field will be 140 000 boe/d in water depths ranging from 450 to 1.200 meters.

Depending on the platform and on the operator, different certifications are needed such as ATEX certification for hazardous areas and DNV certification which is a Marine certification.

The new tension leg platform had the need for an emergency diesel generator in case of power cuts.

In addition to this power need, the whole emergency diesel generator package required an ATEX certification by Notified Body for zone 2 hazardous area (IIA, T3) and a DNV certification.
For ATEX zone 2 hazardous area, a high level of protection is needed for ignition sources in order to avoid any contact between hot sources and leaked gas.

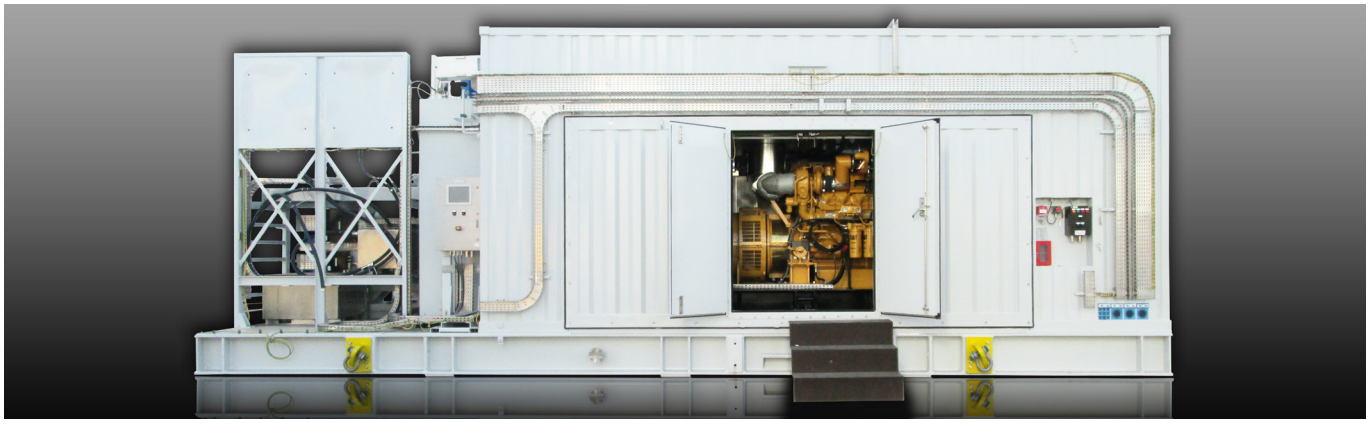
MOHO NORD TLP

LOCATION
Congo

CUSTOMER
TOTAL E&P Congo

EQUIPMENT
C32 engine
ATEX certified package
DNV certified package

CAT DEALER
Eneria
www.eneria.com
oilandgas@eneria.com



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POWER PROFILE
MOHO NORD TLP

Solution

Eneria's proposal was to supply a diesel generator set composed of a C32 Caterpillar engine coupled with an IP 23 alternator in order to fulfill the power requirement of 500 ekW.

Eneria engineering team worked on this project to comply with the ATEX and DNV certification. Eneria designed a soundproof enclosure with a fire rating A60 so that the package can resist at least 60 minutes to a cellulosic fire. This means the enclosure walls are insulated with non-combustible materials so that, if either side is exposed to a standard fire, after 60 minutes the average temperature increasing on the unexposed face will not be more than 139°C above the initial temperature.

Eneria engineering team has developed an innovative solution in order to reduce risks of explosion in zone 1 / 2 hazardous areas and be compliant to ATEX regulations which is one off the most constraining regulations in the world for the management of hazardous risk.

Results

Eneria supplied a stand alone generator set package, ATEX certified for zone 2 / zone 1 by a Notified Body. Eneria's custom-made solution fulfills Total requirements for Moho TLP project. This package is the result of Eneria's engineering team and its expertise.

The package includes a fire extinguishing water mist system complying with NFPA 750, and a black start capability.

The package includes a primary starting system with an electric starter and also a hydraulic back up starting system.

Eneria also takes into account the maintenance accessibility and provides a removable enclosure module in order to remove/replace engine or alternator.

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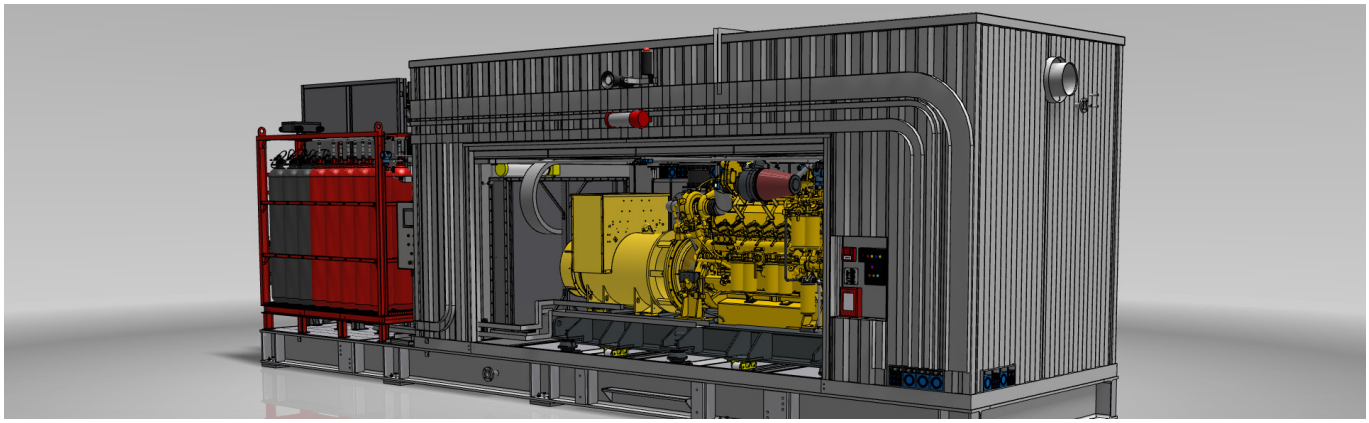

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