

ENERGYST

Energyst



LOCATION

Gibraltar

BUSINESS SECTOR

Power Generation

SIZE

43MW primary power supply to Gibraltar

GENERATORS

16 gensets using CAT 3516 engines.

CHALLENGES FACED

1. Energyst needed to reduce maintenance costs and simplify service procedures. Reducing oil changes was identified as a primary goal.
2. Reliability and uptime had to be maintained because the gensets provide primary power to the territory.
3. Any solution had to fit within the tight space constraints of the Gibraltar site.

SOLUTIONS DELIVERED

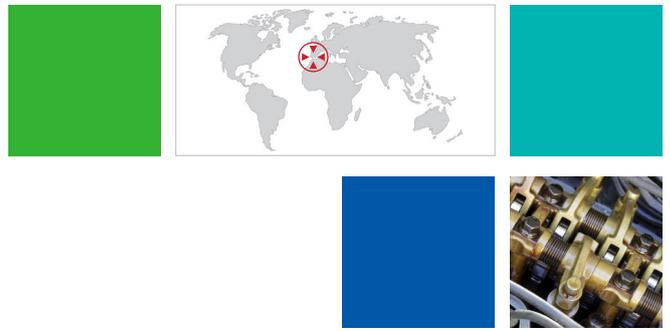
1. OilLife units successfully allowed engines to run safely to 2,000 hours without changing oil, extending service intervals by a factor of four.
2. OilAlert sensors gave Energyst 24/7 access to real-time oil condition data.

“ OilLife’s ability to preserve oil quality and extend service intervals has convinced us to offer it as an option on future generations of rental gensets. ”

Robert Gregory
Service & Maintenance Manager
Energyst Group Services BV



IPU's OilLife unit



UNIQUE PROBLEMS, UNIQUE SOLUTIONS

GIBRALTAR'S UNIQUE SITUATION

Although connected to the Spanish mainland, Gibraltar has its own independent power supply. A series of major power disruptions convinced the territory it needed a new power station. While it is being built Energyst has been commissioned to provide temporary power.

16 gensets powered by CAT 3516 engines provide 43MW electricity to the territory at 11kV. It is critically important to avoid downtime (whether scheduled or not) because these gensets represent the territory's primary source of power. If they fail, lights go out.

EXTENDING SERVICE INTERVALS WITH OILLIFE

Energyst ran a pilot programme with IPU to confirm that it was safe to extend the gensets' oil change intervals. With OilLife units in place, lubricants can last as much as four times longer than engines with normal filters. Reducing the frequency and duration of service interruptions is advantageous in Gibraltar where so much relies on the gensets' reliability. IPU's engineers visited Energyst's North Mole site to setup the programme.

Extend life

One genset was configured with 3 OilLife OP100 units to extend the life of the lubricating oil. The target was a four-fold increase from 500 to 2,000 hours between changes. A second genset with no OilLife units was used as a control.

Monitor results

Step 2 was to fit an OilAlert sensor to send real-time condition data to IPU's monitoring service in the UK. This gave Energyst 24/7 access to reports about the actual condition of the lubricants in the gensets.

Indemnify risk

The third component in the test was not mechanical. All engines equipped with OilLife units are indemnified by IPU against damage resulting from degraded oil¹. This offered Energyst three levels of protection: OilLife extended the life of the oil, OilAlert gave them real-time data showing its healthiness and the indemnity removed the financial risk from the programme.

¹ Terms and conditions apply.



PROVING THE EFFECTIVENESS OF OILLIFE

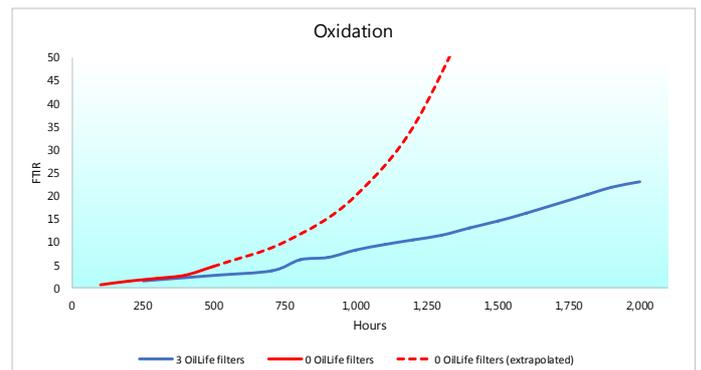
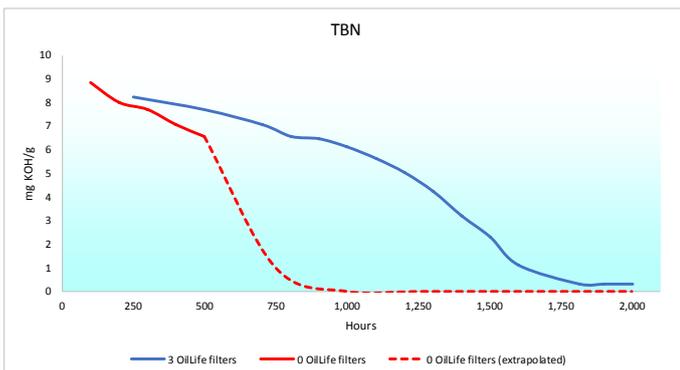
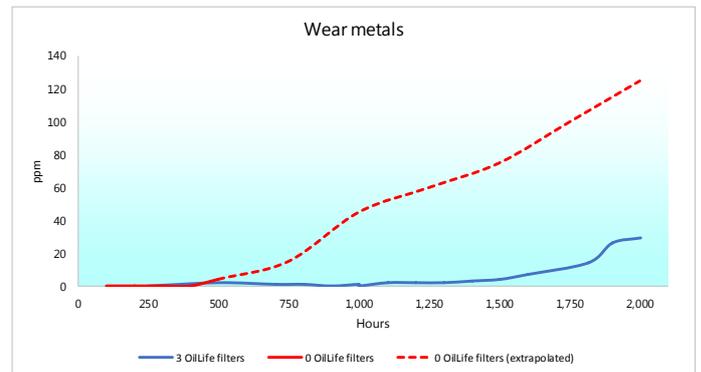
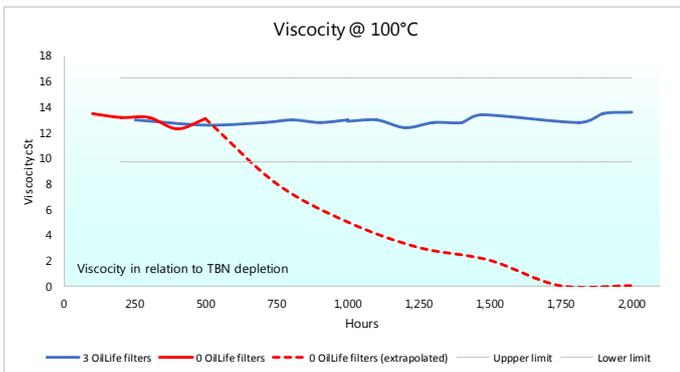
A TESTING REGIME

Oil samples were taken frequently throughout the pilot project to assess changes in four key characteristics: viscosity, wear metal contamination, Total Base Number (TBN) and oxidation.

Of the four, viscosity represents the best 'overall' indication of the condition of the oil. Over a period of 2,000 hours viscosity remained stable and well within the normally acceptable boundaries of 10 to 16 centistokes. Without the protection of the OilLife units viscosity can be expected to fall dramatically when the oil is pushed beyond 500 hours.

OilLife's performance with the other characteristics was equally impressive.

- Wear metals were almost totally removed from the lubricants until 1,750 hours and kept within acceptable limits all the way to 2,000 hours.
- Oxidation was kept in check and sudden spikes were eliminated.
- TBN was preserved until the test genset had passed the 1,500 hour point.





WINNING ENERGYST'S APPROVAL

The test results convinced Energyst of OilLife's technical capabilities and its financial viability. Not only does it allow engines to run longer without an oil change, the cost of installation is more than outweighed by reduced running costs and improved uptime. OilLife shows a positive return-on-investment within its first year of operation.

After the test, Energyst concluded that it would be possible to extend oil change intervals by a factor of three to 1,750 hours. Although short of OilLife's theoretical potential, this would offer them an ideal combination of major savings, total confidence and improved service for the territory.

The benefits to on-site power providers like Energyst are clear. Reduced costs and improved reliability means happier customers.

The benefits to customers are equally important. Pairing OilLife with OilAlert means customers can see tangible evidence of the measures Energyst take to ensure the reliability of their rental gensets.

2,000 hours

Standard oil change interval for gensets with OilLife fitted.

www.ipu.co.uk/oillife

£5,000,000

Indemnity insurance for damage caused by degraded oil¹

ABOUT ENERGYST

Global operator Energyst provides turnkey rental solutions for temperature control and power generation. Its site in Gibraltar provides primary power for the territory.

ABOUT IPU GROUP

IPU's oil products can help extend the life of engine and transmission oils and hydraulic fluids by removing harmful contaminants and by monitoring and analysing contamination levels and properties. IPU's specialist team has extensive knowledge of all forms of engine and industrial filtration.

IPU Group Oil Conditioning

Cygnus Way, West Bromwich, B70 0XB
Phone: +44 (0) 121 511 0400
Email: ipu@ipu.co.uk
Web: www.ipu.co.uk/oil

