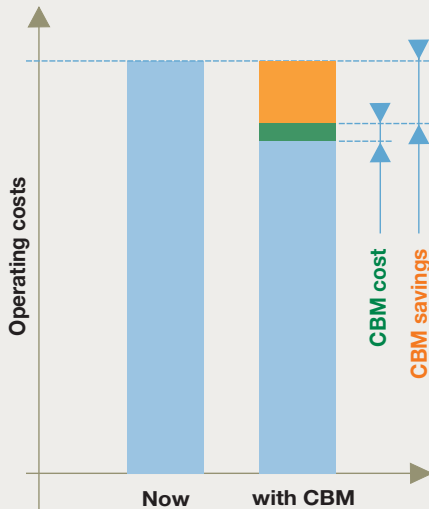


Optimizing engine operation and maintenance with CBM

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owner or operator to plan and perform the correct amount of maintenance at the right time. The savings in maintenance costs, for most installations, are in the area of 10-20% over a period of 30,000 operating hours.

Reducing fuel costs

Fuel cost savings have become a critical issue today as fuel prices rise continuously. CBM can lead to fuel savings of as much as 5% when operating within the ideal operating data window. This is because the advantages mentioned above (notably improved follow-up, correct maintenance performed at the correct time), reduce the number of unexpected stops and failures. Moreover, component lifetime is also increased when operating within the designed thermal and mechanical load values.

According to the statistics of several insurance companies failures due to human error can be as high as 50-80% of the total number of failures. In these cases the necessary information was available but the necessary corrective action was not taken. CBM, which automatically analyses and predicts, can considerably reduce this

number.

Thanks to the recent rapid development of communications technology, transferring the performance data to the Wärtsilä CBM centre is an easy matter today, no matter where the installation is located. Several different solutions are available:

- A standard broadband and VPN (Virtual Private Network) connection is sufficient and the application can be on line 24 h/day. At the same time the owner can connect his own office to the system, to maintain contact with the application whenever there is a need. This solution is in use in almost 30 installations.
- ISDN connections are still used in most power plant installations.
- Automatic e-mail transfer is mainly used in marine applications.
- Manual e-mail transfer is mainly used for older installations.

CBM is the solution when you want to optimize your installation's operation. It allows you to minimize operating costs, fuel consumption and emissions, as well as improve maintenance planning, perform maintenance at the correct time, and reduce the number of unplanned stops. ■

- According to several insurance companies, as much as 50% to 80% of claims originate from human factor.
- The information was available but the correct actions was not taken.
- Savings range from 10% to 20% of total lifetime operating costs.

