MULTI-ENGINE
OPTIMIZER

- FUEL SAVINGS
- EMISSIONS REDUCTIONS
- IMPROVED MAINTENANCE
- TRANSIENT RESPONSE

CATERPILLAR®

OPTIMIZE FOR EVERYTHING

FUEL ECONOMY

5%, 10%, 15% or more depending on the engine room configuration and the vessel load profile.

MAINTENANCE INTERVALS

When using hours-based maintenance, MEO condenses more kW into each hour of engine operation. When using fuel consumption based maintenance, the fuel savings extend maintenance intervals.

MEO can balance engine usage by hours or fuel to synchronize overhaul intervals or prioritize engines, enabling staggered overhaul intervals.

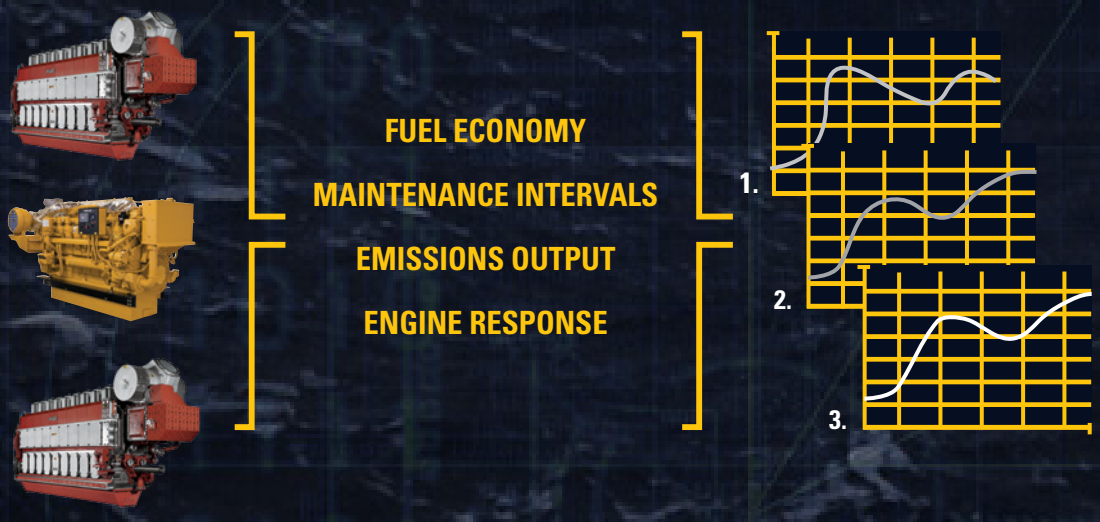
EMISSIONS OUTPUT

With MEO you can choose to optimize based on NOx emission maps, instead of fuel maps. NOx map based optimization can reduce urea consumption, increase governmental NOx credits and allow longer operating in NOx containment zones.

ENGINE RESPONSE

MEO response optimization maintains a customer-determined amount of exhaust boost enabled running reserve to meet any transients your vessel application demands.

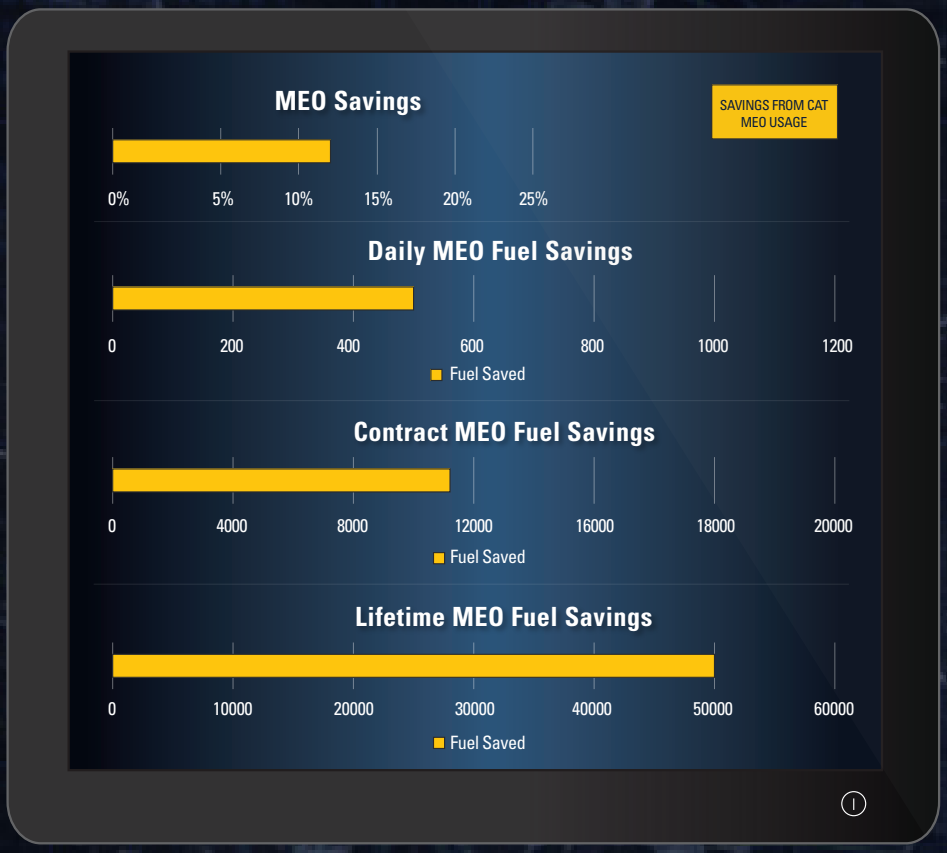
PERFORMANCE MAP BASED OPTIMIZATION

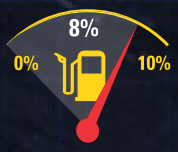


REAL SAVINGS
WATCH IT HAPPEN

MEO savings are not theoretical. They are visible on the MEO cabinet touch screen or through your vessel data system. You can view the savings by day, week, contract or instantaneous savings as they happen.

VIEWABLE.TRACKABLE. REPORTABLE.





1 FUEL MAPS

Propriety fuel maps enable MEO to know the exact combinations of engines and load points needed to drive efficiency.

2 CONTROL ALGORITHMS

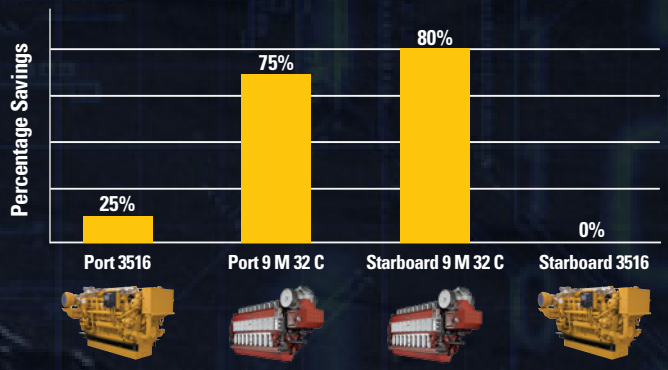
Patented control algorithms enable dynamic asymmetric load allocation and customer-specific operating parameters.

3 VARIABLE SPEED WITH CONSTANT SPEED

MEO enables the use of variable speed and constant speed genarator sets on one bus, leveraging the low load advantages of variable speed with the high load advantages of constant speed.

4 DYNAMIC ASYMMETRIC LOAD ALLOCATION

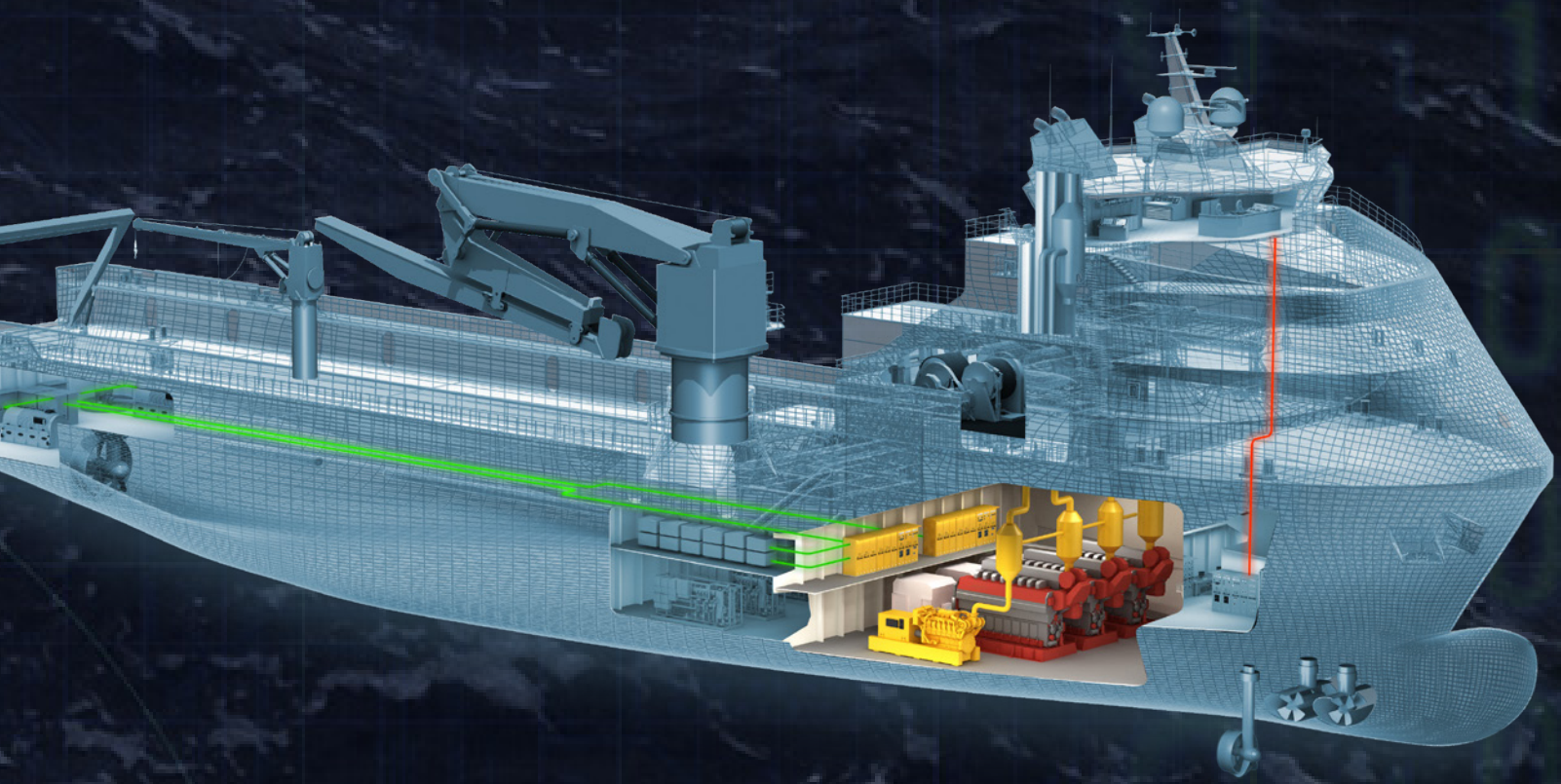
Each engine operates at a load point independent of the other engines, while MEO maintains system stability.



5 MEDIUM SPEED WITH HIGH SPEED

MEO enables the combined used of different engine sizes and types, lowering fuel consumption, improving emissions, providing a faster transient response all at lighter weight.

CAT® MAK EMD



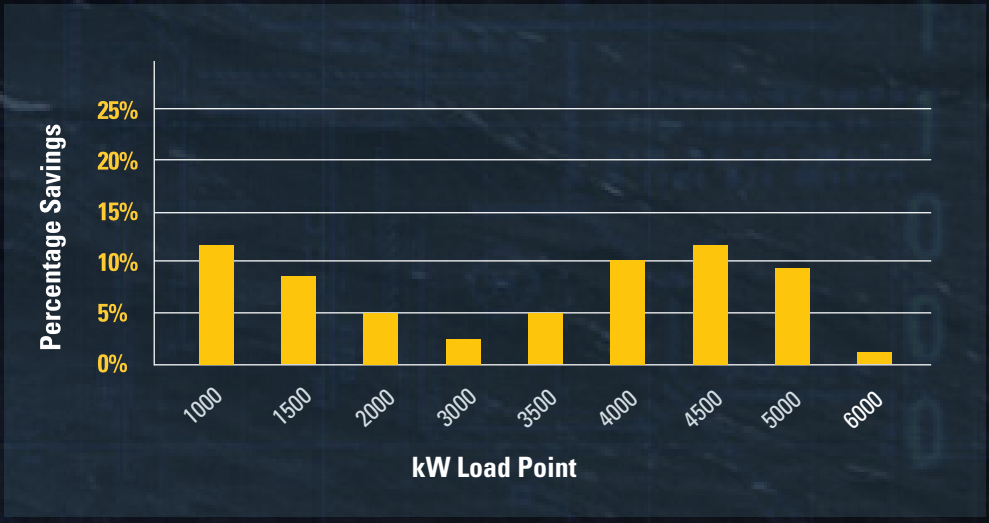
THE RIGHT MIX

What happens when you design a vessel's power system with different types of engines: medium speed, high speed, constant speed, variable speed, large power, small power and even battery power? Good things happen.

The MEO's simulation tool allows you to view the fuel consumption of any combination of power sources, all from your Cat® dealer's laptop. By using the best estimate of a vessels load profile, you can construct the engine room that best meets your needs for fuel consumption, emissions, transient response and maintenance practices.

MEO PERFORMANCE BY kW LOAD POINT

Try different combinations and view the effect on fuel consumption.



DEALERS DO MEO

MEO is not a power management system, rather it is an advisory system that provides any power management system with the input needed to deliver performance, reliability and efficiency. Whether for local installation or global support, the Cat dealer network is there with Caterpillar to meet your product and support needs.

TALK TO US

cat.com/marine

LEDM0143-01

CATERPILLAR®