

# YOUR DIGITAL TRANSFORMATION

CAT® SMART EMS

- REDUCE COSTS
- INCREASE AUTOMATION
- IMPROVE SAFETY





# OPTIMAL POWER FOR YOUR BUSINESS

Experience right at your fingertips our data-driven solution for your engine management needs. Cat Smart EMS is the latest engine and generator controller system developed by Caterpillar exclusively for land electric drilling rigs. This new technology efficiently manages the number of engines required to be online to meet rig power demands.

## TECHNOLOGY ENABLER



### EMCP 4.4

- Widely used in Cat diesel and gas products
- Capable of paralleling and load sharing multiple packages



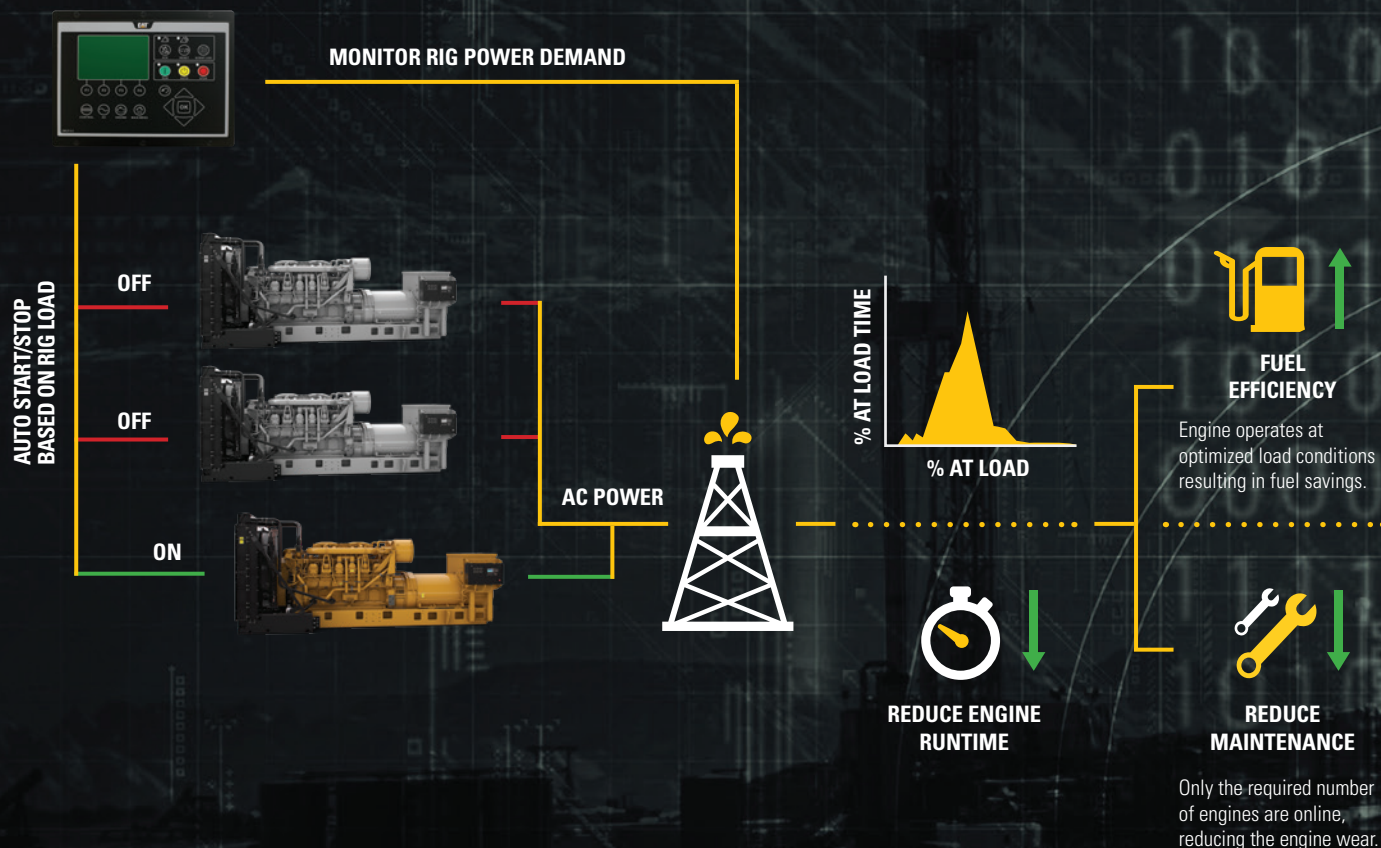
### HMI PANEL

- Remote access and local control of generators
- Remote viewing and setting of key parameters and operation modes



# DATA-DRIVEN POWER PERFORMANCE

Cat Smart EMS works by continuously monitoring rig power demand and comparing against available engine power. Depending on the power demand and availability, engines are started or stopped automatically for efficient operation.





# OPTIMIZED FOR YOUR OPERATIONS



## FUEL SAVINGS

- Reduce fuel consumption with increased engine load factor
- Upto 10% reduction in fuel consumption
- Improve gas substitution on Dynamic Gas Blending (DGB) engines



## MAINTENANCE

- Reduce yearly maintenance cost with less engine run time
- Upto 25% reduction in engine runtime



## SAFETY

- HMI provides remote access to engine controls
- Enhanced safety for rig crew working around engines with local lockouts, visual and audible alarm before engine start-up



## SIMPLIFIED RIG CONTROLS

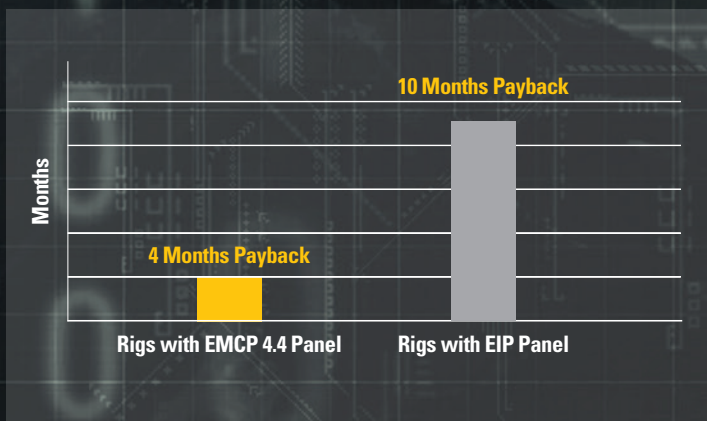
- Reduced CAPEX for new rig builds since Cat Smart EMS replaces third party engine controllers
- Simplified power house layout and space savings with removing the engine controller from the power house
- Product differentiation with Cat Smart EMS



# REAL SAVINGS THAT PAYBACK

Having the right number of engines online can improve fuel economy and reduce maintenance costs.

## PAYBACK PERIOD



## WHAT OUR CUSTOMERS ARE SAYING...

"Tripped out / in 4000m with only one generator had tried previously on several occasions, but couldn't do it."

"I like the start/stop of EMCP better than other engine controls, brings engines online faster."

"Engines are load sharing move smoothly than with the previous engine controls."

"We are seeing upto 10% saving in fuel usage."



## WE'RE HERE TO HELP

We continue to expand our offering of digital technologies in the Oil & Gas industry to help improve integration and operational efficiency. Whether for local installation or global support, the Cat dealer network is there for you. With more than 2,100 dealer locations world-wide, our dealer network is dedicated to more than your operation — we're committed to your reputation.

## TALK TO US

**BUILT FOR IT.**

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