DSE

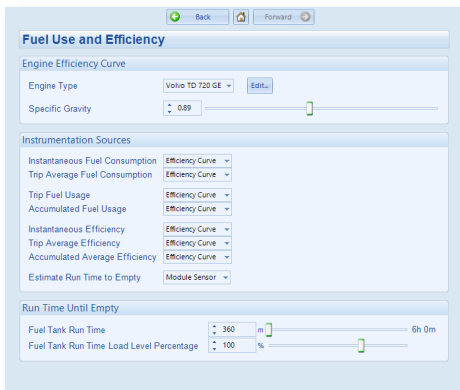# CALCULATING FUEL EFFICIENCY AND MEETING GREEN EMISSION DIRECTIVES

Written by John Ruddock
DSE Product Development Manager

Meeting environmental directives for emission control is becoming an increasingly wide spread requirement and being able to record and report statistics for fuel efficiency is one method towards helping to achieve this.

The DSE8610MKII synchronising and load sharing genset control module is the latest product from DSE containing the most sophisticated features including Fuel Efficiency.

By measuring kW and fuel usage over a time period, the control module can calculate the kW hour per litre achieved by the generator. The information is collected by the control module from different sources depending on the engine type, and results are displayed and can be stored within Data Logging to provide useful trending graphs.

TRADITIONAL OR MECHANICAL ENGINES

Using information from a fuel level sensor within the fuel tank and engine run times, together with the manufacturers' fuel consumption data (fuel map), and provides average efficiency measurements.

ECU AND TIER 4 ENGINES

By collecting kW, fuel usage and engine run time information from the ECU, the control module, in addition to providing an average measurement, can also provide instantaneous information for measurements occurring at that moment.

By extracting this information from the DSE8610MKII control module and using the manufacturers' published performance specifications, the user can then calculate the emission output. This works on the assumption that the engine is running at its optimum performance and the data can be used to compare the planned efficiency with the actual achieved. This is extremely useful as the application may be influenced over time by external conditions reducing the engines efficiency; such as poor maintenance leading the engine to not 'run clean' and therefore increasing emissions.

The function allows the user to investigate variations beyond the acceptable tolerances and use our advanced PLC programming inside the module to set alarms.

Using the manufacturers guidelines for fuel usage, this feature can also be used as an indicator of engine condition e.g. if more fuel is being used it could indicate a worn engine, so preventative maintenance can be carried out.

At present the fuel efficiency feature is available in the DSE86XXMKII modules. It will soon be made available within the DSE73XXMKII modules.

For more information please refer to the DSE website **www.deepseaplc.com**.

Fuel Use and Efficiency Settings
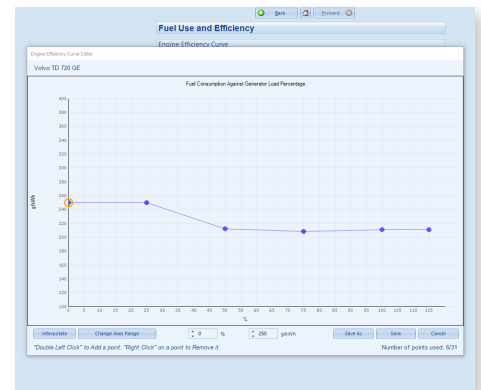
Engine Efficiency Curve Editor

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