

EPC (Energy Performance Contract)

Is an agreement between the supplier, financial institution and the customer.

The financial institution covers the investment costs according to guaranteed and specified energy savings from the supplier and the customer within the agreed period of time. The customer pays for the investment through his future energy savings, only.



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Reduction in the CO₂ & NO_x emission by
40-60%

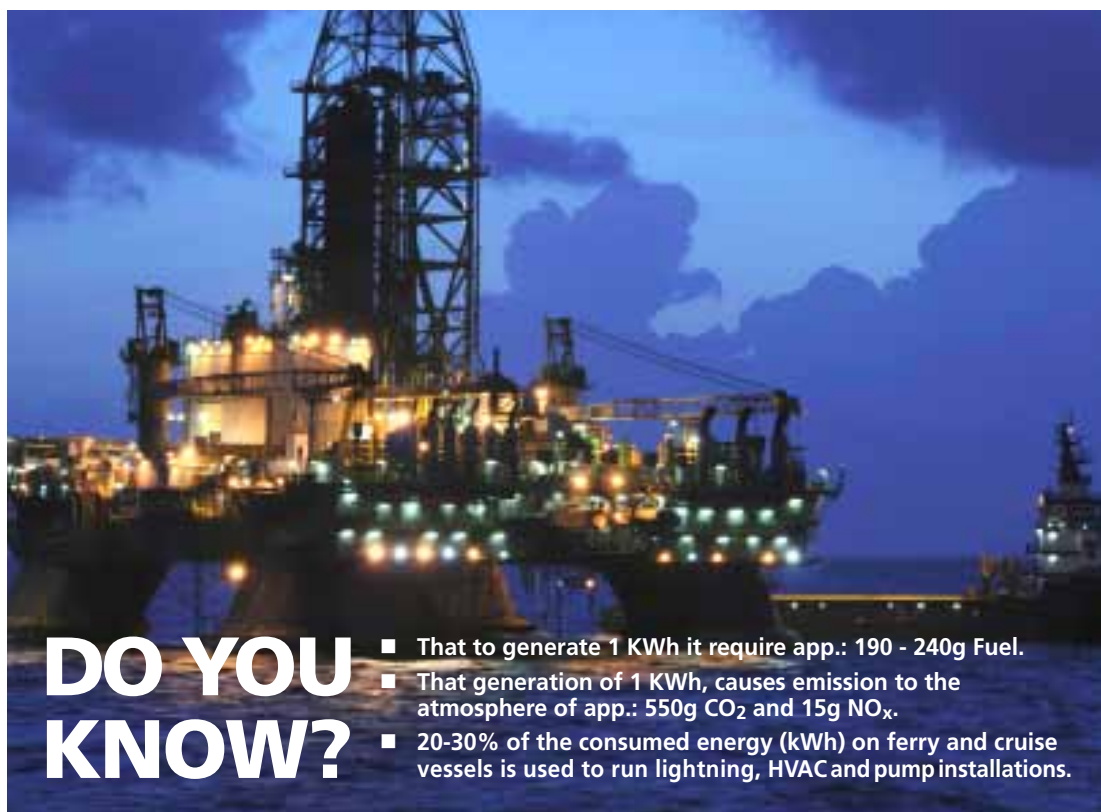
Reduction in the KWh consumption by
40-50%

Reduction in operation costs by
30-50%

Return of investment / Payback time:
6-20 months



Power through knowledge



DO YOU KNOW?

- That to generate 1 KWh it require app.: 190 - 240g Fuel.
- That generation of 1 KWh, causes emission to the atmosphere of app.: 550g CO₂ and 15g NO_x.
- 20-30% of the consumed energy (kWh) on ferry and cruise vessels is used to run lightning, HVAC and pump installations.

UPGRADE YOUR LIGHTING, HVAC AND PUMP INSTALLATION

– and gain the following savings:

- Reduction in the CO₂ & NO_x emission by **40-60%**
- Reduction in the KWh consumption by **40-50%**
- Reduction in operation costs by **30-50%**
- Return of investment / Payback time **6-20 months**

Based on survey / measurements, and evaluation of the installations onboard, a separate report will be prepared, providing the following details:

- Power and net analysis (KW/KVA, Cos phi & harmonics).
- Recommended technical solutions.
- The calculated reduction of CO₂.
- The calculated reduction of NO_x.
- The calculated reduction of KWh.
- The calculated reduction in operation costs.
- The calculated investment.
- Time schedule for implementation of the solutions.
- Return of investment / Payback time.



HOW TO REDUCE KWH CONSUMPTION, AND THEREBY REDUCE EMISSION OF GREEN HOUSE GASES TO THE ATMOSPHERE



Lighting installation

Almost all fluorescent lighting installations are equipped with magnetic ballasts and T8 tubes. Introduction of the latest technology in electronic ballasts, T5 tubes and LED products, in combination with dimmer, daylight- and motion sensors, will reduce the kWh consumption by: 50-75%.

Further due to a heavily reduction in the number of light tubes, as well as increased lifetime of the individual components, the maintenance costs are reduced dramatically.



HVAC

Many HVAC installations are oversized in capacity and this together with a lack of a correct duty cycle, is causing a huge waist of produced kWh. Introduction of VSD (Variable Speed Drive) combined with heat exchangers and a correct duty cycle of the plant, will reduce the kWh consumption by 40-60%.

Further implementation of sensors measuring CO₂, temperature and humidity will make a contribution to the efficiency of the plant.



Pump Installations

Seawater cooling system, high and low temperature cooling water systems for main and auxiliary engines are often oversized. Usually the flow is controlled by 2-speed motors and additionally by control of the valves. Surveys have shown that the efficiency of this setup is rather poor. Introduction of VSD (Variable Speed Drive) technology in combination with exchange of pump wheels with better efficiency and electric motors with better cos phi (eco-motors), will reduce the kWh consumption by up to 50%.

On website: www.scanel.dk, you can find more information and see the results of a survey and upgrading of lighting, HVAC and pump installations of a marine installation.