



Energy Survey – HVAC and Thermal Systems



Heating



Ventilation



Air Conditioning

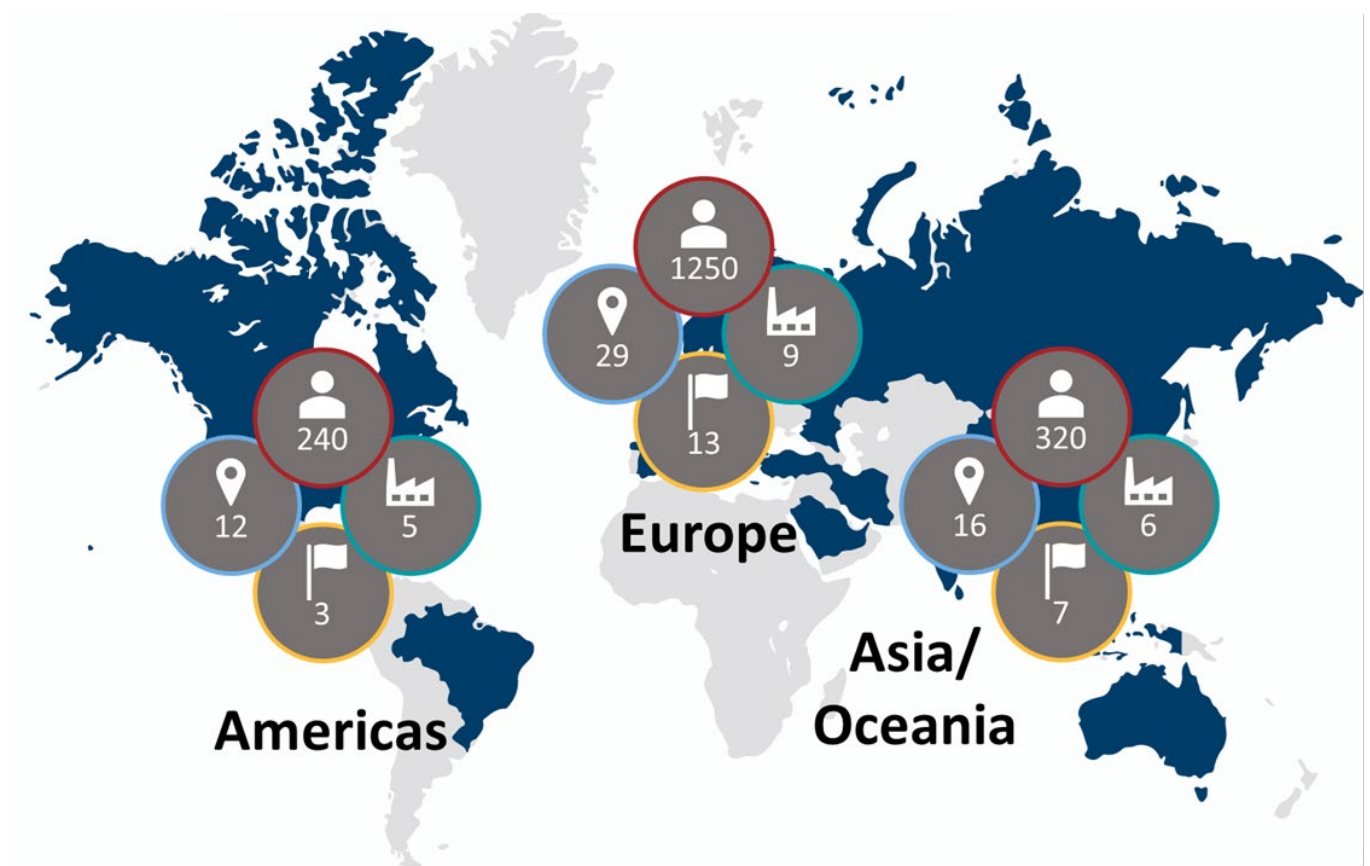


Refrigeration

Established in 1926, Teknotherm brings almost 100 years of experience from Heating, Ventilation, Air-Conditioning (HVAC) and Refrigeration to the table.

Teknotherm focus on providing a good system functionality along with compliance to applicable regulations and relevant international standards. We are continuously working to develop systems with better energy efficiency, improved functionality, easier operation and low maintenance cost – in combination with cost efficiency for equipment delivery and on-board installation.

Being a part of the **HEINEN & HOPMAN GROUP** we are providing a wide range of products and services from 43 subsidiaries in 20 countries. We have our own R&D department developing new products especially designed for marine use, finally being manufactured in one of our 14 factories around the world.



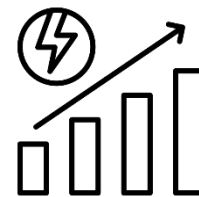
Background

In today's global energy landscape, offshore energy operations are vital, with a major focus on maintaining the wellbeing of the crew and operational integrity through HVAC systems. Managing HVAC energy use in the harsh marine environment is a unique challenge, requiring precision to balance comfort with environmental responsibility.



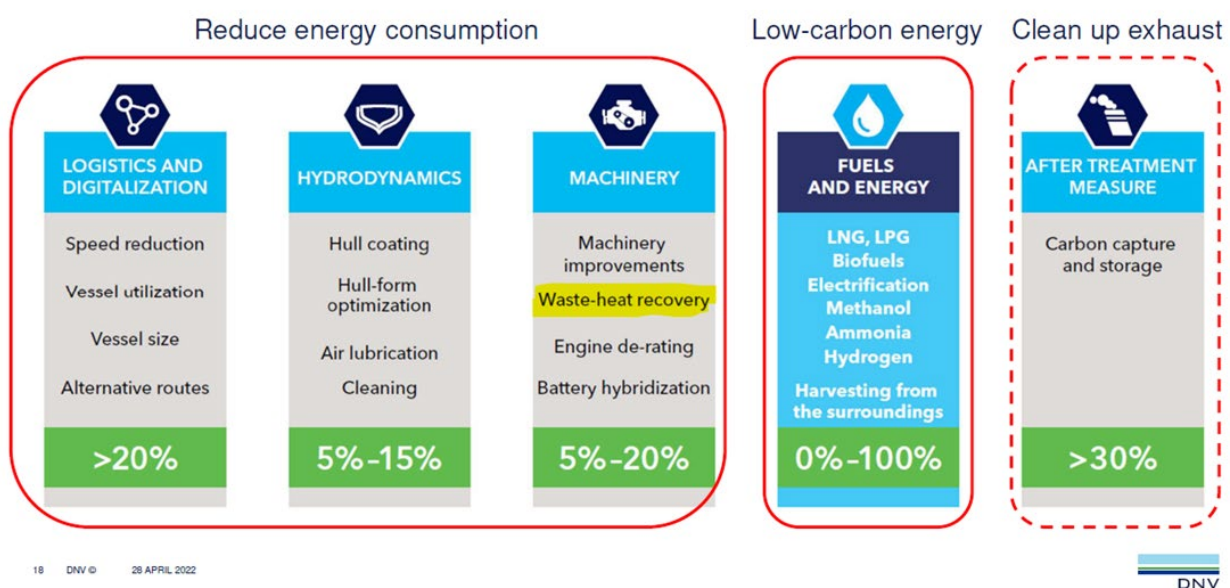
Energy & HVAC

Energy, particularly in the form of HVAC, is a vital component of offshore operations, impacting the safety, comfort and productivity of the crew while navigating the formidable marine environment. Efficiently managing HVAC energy consumption is a unique challenge. It necessitates the careful balance of maintaining optimal working conditions while minimizing the environmental footprint. This backdrop underscores the pressing need for a meticulous examination and optimization of energy consumption in the domain of HVAC on offshore rigs.



Our services

Our services cater specifically to this challenge, offering a targeted HVAC energy survey tailored to offshore facilities. We are committed to empowering the industry with the knowledge and strategies needed to optimize HVAC systems, cut energy consumption, and reduce operational costs. We understand the interconnected nature of HVAC systems, waste heat recovery, and energy management, promoting a holistic approach that ensures sustainability and cost-effectiveness in offshore operations.



Energy survey

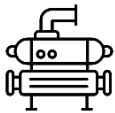
During an energy survey, we undertake a thorough examination of your specific systems, with the aim of tailoring a strategy that offers the best return on investment for achieving a more efficient and sustainable system. We understand that the offshore energy industry operates within unique parameters, and therefore, we focus on assessing a range of crucial systems that play pivotal roles in your operations:



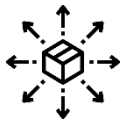
Steam Boilers: We evaluate the efficiency of your steam boiler systems, examining their performance, maintenance, and potential for improvement. Steam generation is often a significant energy consumer, and optimizing this process can yield substantial energy savings.



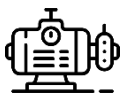
Waste Heat Recovery from Generator Sets: The waste heat generated by generator sets represents a valuable resource. We analyze how effectively this waste heat is captured and utilized for various applications, such as heating, power generation, or process efficiency.



Heat Pumps and Chillers: In offshore environments, temperature control is essential. We assess the efficiency of heat pumps and chillers, which play a critical role in maintaining optimal conditions for both equipment and personnel.



Energy Distribution Systems with Steam or Water: The distribution of energy, whether through steam or water, can be a source of energy loss if not optimized. We examine these systems to identify areas for improvement and energy conservation.



Pump Control Systems: Pumps are integral to various offshore processes. We evaluate the performance and control of pump systems to ensure that they operate efficiently and effectively, minimizing energy consumption.



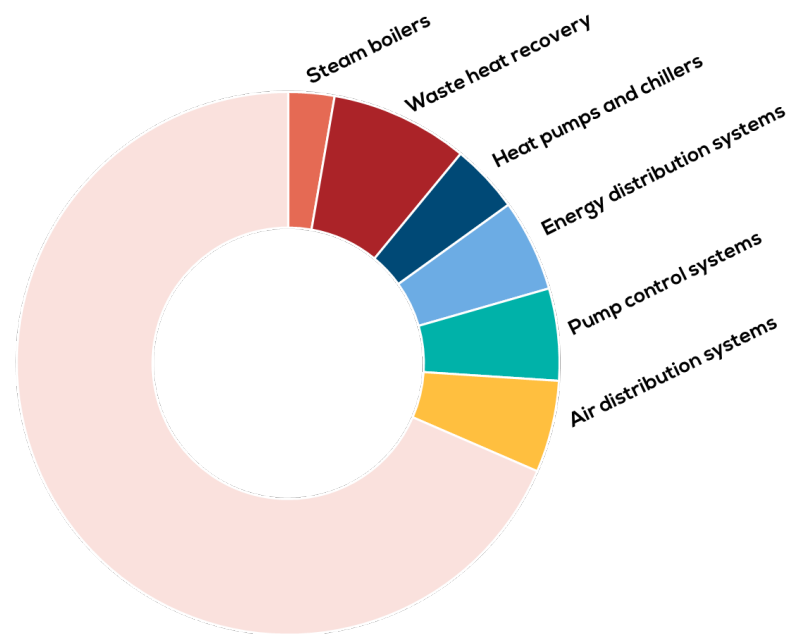
Air Distribution Systems: Maintaining a comfortable and safe environment within offshore facilities relies heavily on air distribution systems. We scrutinize these systems to enhance their energy efficiency and environmental impact.

Our approach focuses on understanding the synergy between these systems, recognizing that an improvement in one can have cascading effects on others. By holistically assessing and optimizing these systems, we provide you with a comprehensive strategy that not only maximizes energy efficiency but also ensures a more sustainable and cost-effective operation for your offshore endeavors.

Outcome of energy survey

The culmination of our comprehensive energy survey is a report serving as a tool for you to better understand your energy consumption, highlighting the potential for saving energy, while also putting into a context of investment, feasibility, and environmental impact.

Based on your needs and further assessments we can also assist with a comprehensive ROI analysis for each proposed measure and strategic planning to provide a clear roadmap for realizing energy efficiency.



In summary, our energy survey report is a robust and well-rounded document, providing you with hard numbers on energy savings. It empowers you to make informed decisions, helping you to optimize energy consumption, reduce costs, and contribute to a more environmentally responsible and efficient future.



“For assistance with your next steps towards energy efficiency, I am here to help”

Ronny Reksten

rre@teknotherm.no