



WAVEenergy

WHY LOOK FOR SOLUTIONS WE
ALREADY HAVE





NOW IS THE RIGHT TIME TO UTILISE THE POTENTIAL OF WAVE POWER

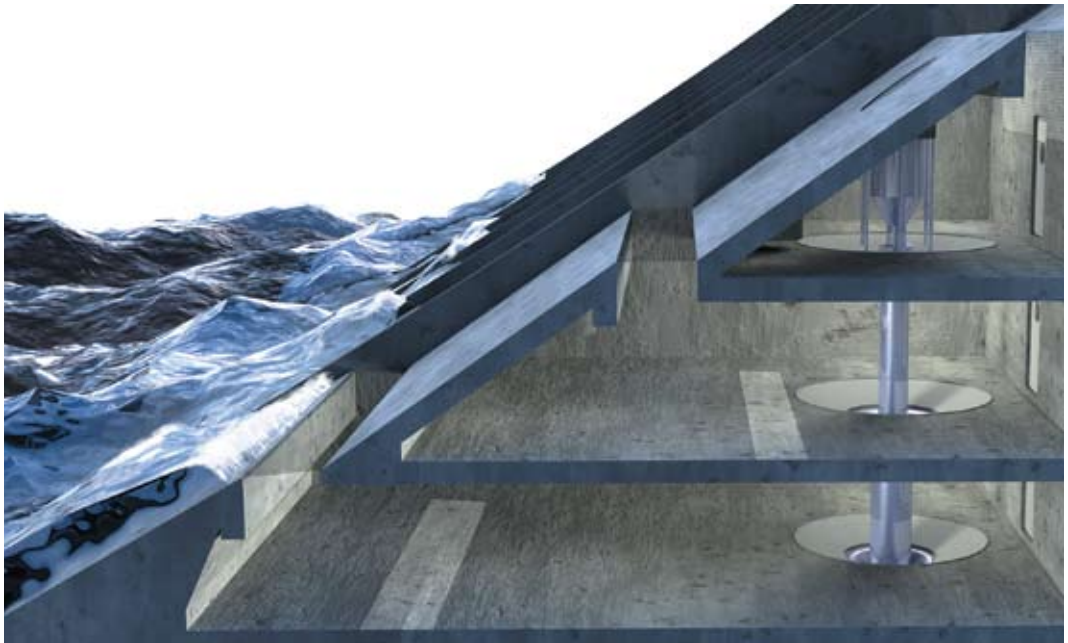
Wave Energy's vision is to be acknowledged internationally as one of the leading companies in the field of development and supply of technology for the production of electricity from the energy contained in waves. The company was established in 2004 and has been built upon a unique and patented concept.

The people behind this innovation are serial entrepreneurs with considerable experience of establishing new companies in the oil and gas sector. With support from among others The Research Council of Norway and the European Commissions research program, is this new and groundbreaking concept ready to be implemented. Wave Energy's SSG concept represents a far more effective method of utilising wave energy than those previously tested. It is reliable, flexible and highly cost effective. It is also environmentally friendly - in the broadest sense.

DESIGNED FOR THE TOUGHEST MARITIME CONDITIONS

One of the fundamental challenges in wave power generation is that installations must be able to withstand extreme weather conditions and resist seawater corrosion.

The key factor in the design of the SSG is the simple and robust structure. The construction design utilises experience gained through the design process of offshore and marine constructions and installations will be able to withstand the toughest maritime conditions. In the long term the installations will remain reliable and have a long service lifetime. The turbine and control ports are the only moving parts that are exposed to seawater. This leads to low maintenance costs and minimal operational reliability issues.



A BRAND NEW SOLUTION

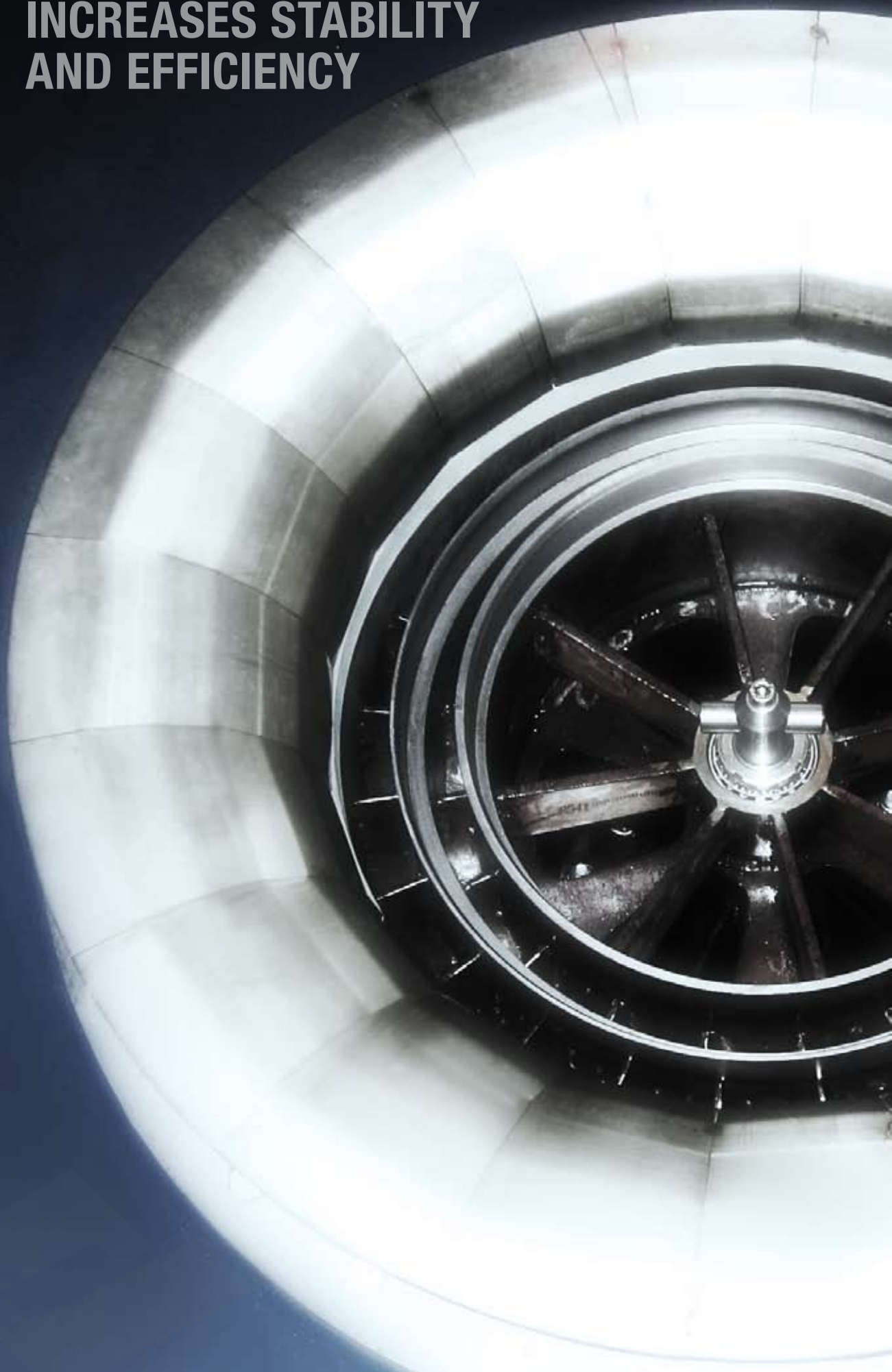
The concept is based on the overtopping principle, in which the waves are captured in a reservoir and fed through to a turbine that drives the generator. The construction itself is based on multiple reservoirs built on top of each other. In this way the energy is generated in several height stages and the hydraulic effect is increased. Wave Energy has patented this technology. Combined with the internally-developed Multi-Stage Turbine (MST), the generation plant can utilize different water head heights on a common turbine wheel and attain a stable energy output from the waves at all levels. Tests carried out at Aalborg University have shown that as much as 50% of the waves' energy can be utilised with this technology. This is exceptional and results in a far greater effect ratio than that produced by competing concepts.

MST: The MST turbine concept is patented by Wave Energy and has been developed in co-operation with Sintef and NTNU, with financial funding from the Norwegian Research council. Successful testing of 1:4 scale model performed in NTNU water laboratory.

SSG: The fundamental principle of the SSG concept has been tested at the Aalborg University, Denmark. The University of Aalborg have long experience in development and testing of different wave energy devices and is considered one of the best on the area. The result verifies a superior efficiency for this concept. The hydraulic efficiency was estimated to 50 %, when fully optimised. This is substantially higher than other known wave overtopping concepts.

NEW TECHNOLOGY

**INCREASES STABILITY
AND EFFICIENCY**



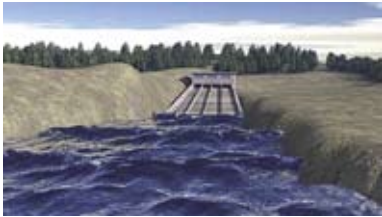
A FLEXIBLE SOLUTION WITH CONSIDERABLE ENVIRONMENTAL ADVANTAGES

The SSG concept is highly flexible and can be constructed as a land-based, ocean based or floating offshore installation. Normally, the construction itself represents the major cost in this type of project; therefore, a great deal of attention has been paid to the possibility of integrating the SSG wave power concept in structures that can serve several purposes, such as breakwaters and larger quay installations. Structures of this type are normally located close to other infrastructures; thus the costs of construction, installation, power transfer and maintenance can be reduced considerably. From an aesthetic and environmental perspective, this type of solution will offer major advantages.





SSG offshore



SSG onshore



SSG Break water

WAVE-GENERATED POWER HAS ENORMOUS POTENTIAL, ALL OVER THE GLOBE

There is already a huge deficit of electrical power. On a global basis, it is expected that the demand for electricity will double during the next 20 years. At the same time, most countries have committed to reducing CO₂ emissions, via international agreements. Research into and the development of renewable energy sources has become one of the most important growth markets of the future.

Wave power is one of the most concentrated forms of renewable energy sources. The energy volume (per square metre) of waves is approximately 5 times that of wind and between 10- 30 times that of solar power. Considering that the hydraulic efficiency achieved with the SSG concept is as much as 50%, it is obvious that there is an enormous potential for energy production - not least in economic terms. On a world basis, the resources that lie in wave power are estimated to be somewhere between 2000 and 4000 TW/h annually. This amount represents 10-20% of the world's total energy consumption.

Wave Energy has the ambition of becoming an international operator in the supply of wave power installations. We have developed a unique concept that carries major advantages in terms of reliability and product service lifetime, in which cost - relative per kW/h generated - is one of the most important factors.

We have a vision to be acknowledged internationally as one of the leading companies within the supply of technology to produce electricity from the power in the waves. We have a vision to develop our technology and grow our organization to be acknowledged for reliability, quality and innovation.

Through the various phases of our development program, we intend to build up an organisation that will focus on knowledge, expertise, quality and innovation.

WE ARE THERE. NOW



WAVEenergy

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