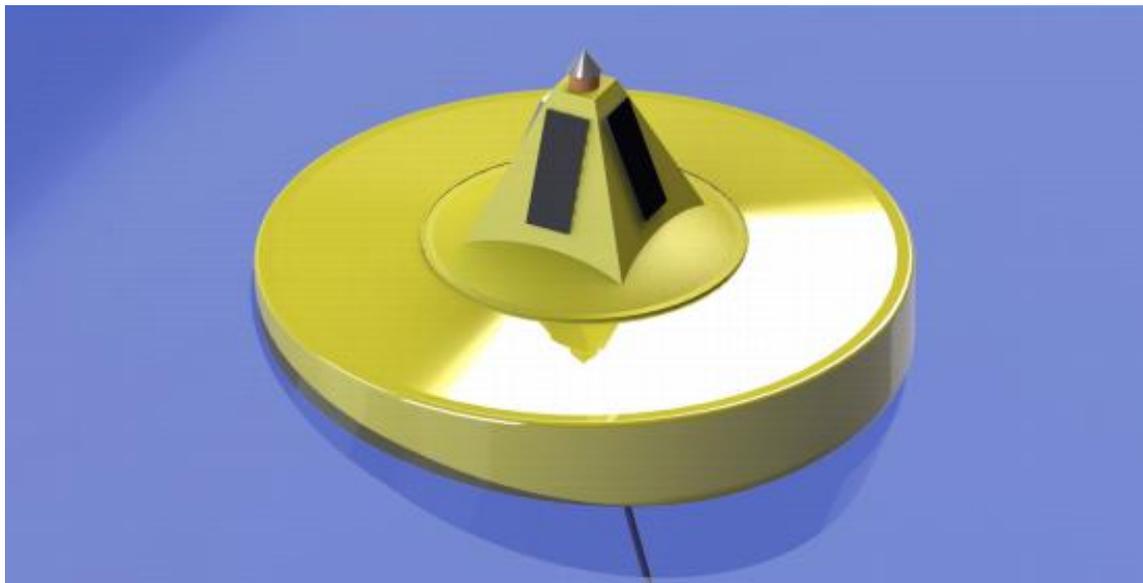
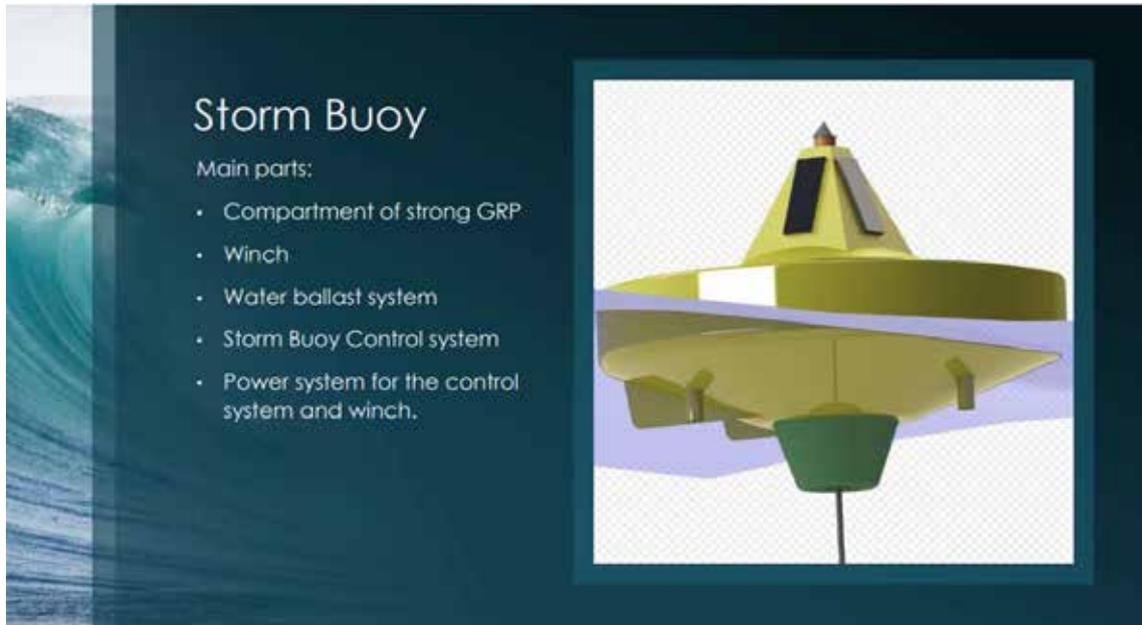




# OCEAN ENERGY AS

Information Prospectus  
September 2022

*Ocean Energy's submergible and patented floating buoy (The Storm Buoy)*



*«All truths go through stadies. First, they are ridiculed. Thereafter strongly opposed.*

*At last they are accepted as completely evident.»*

*Arthur Schopenhauer (1788-1860)*

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## 1. Responsibilities

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This prospect has been prepared in order to give the best possible picture of this business. The information of this prospect has been compiled by the Board of Directors and as far as the Board of Directors is concerned the information complies with all known factors. All views and assessments are given according to the Board's best abilities.

The company is not involved in any court cases or disputes which could have any significance for an appraisal of the company.

The emission is not prospect-obliged, as it will not be in excess of 1 million Euro.

Purchase of shares is linked to the risk of loss. Further information about this and other factors linked hereto makes it important to the investor to get to know all relevant factors, before an investment is entered.

September, 2022  
The Board of Directors





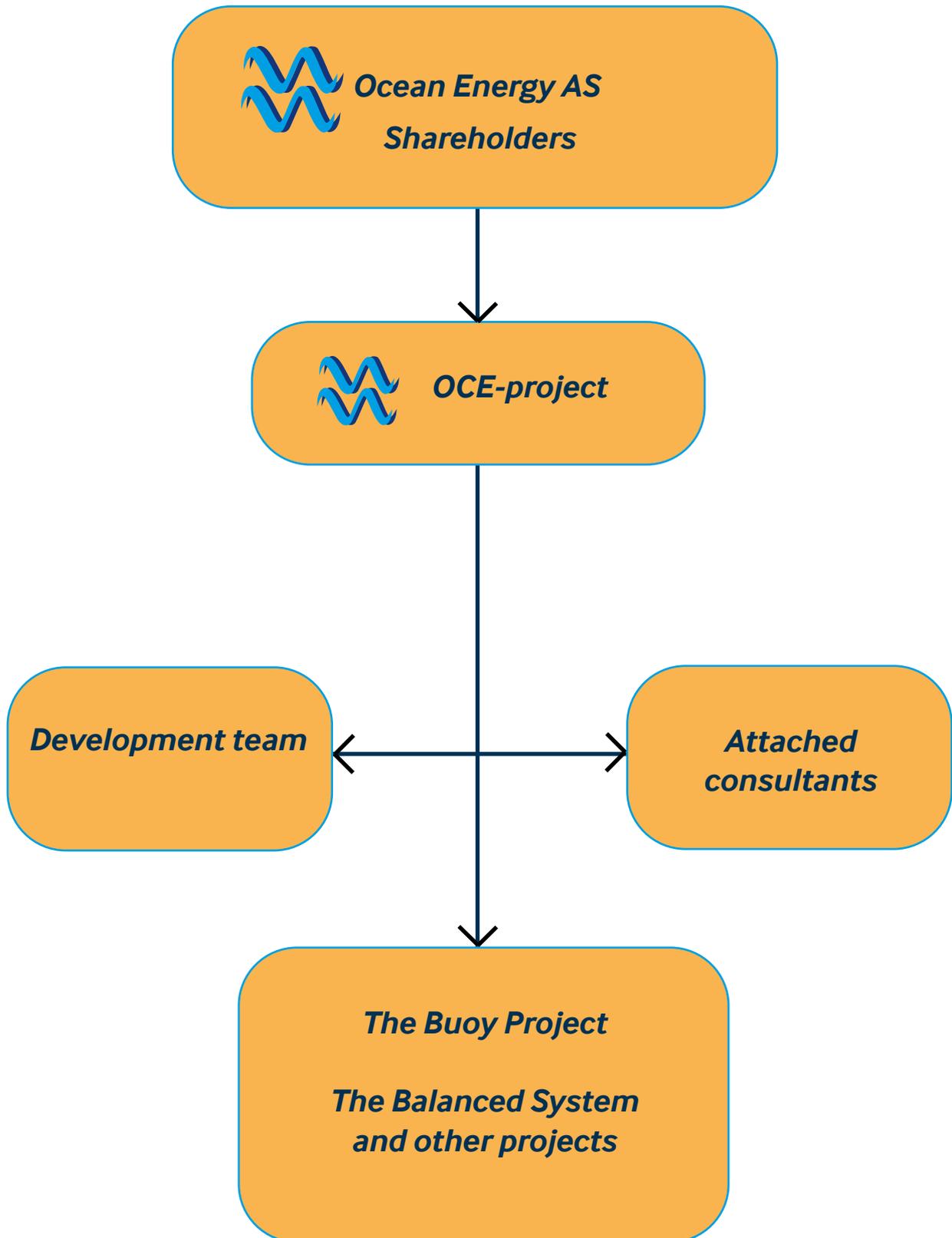
Normal operation



Extreme weather operation

### 3. Organisation

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## 4. Ocean Energy AS - The Project

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### Short description of the idea:

The founders behind Ocean Energy AS (OCE) have during a period of approx. 10 years worked out and patented a simple and robust wave power station, based on direct electric induction in a linear generator in combination with robust floating buoys. This solution is today patented world-wide. (PTC Patent)

Based on a demand in the first patent of submergibility of the whole plant in extreme weather conditions, OCE has thereafter patented a general submergible floating Buoy (The Storm Buoy) which automatically is submerged by extreme weather conditions to avoid wreckage when waves are extremely high. This buoy can be combined with the Company's own generator concept or with other wave generators which are available in today's market, or which will, most probably be available in the future – also as a separate product.

### Which existing demands and/or challenging solutions will this unique idea produce?

A lot of successful attempts to create wave power stations, both in Norway and internationally for more than 30 years, and a repeating problem has been that they quite fast are wrecked by bad weather during the winter season.

Norway's most advanced expert in this field, concluded after several full scale trials that «It is impossible to create a commercial wave power station because they will be too expensive to build, because the dimensions will be so great that for being able to withstand extreme weather conditions – something like oil drilling platforms.» He then based his solutions on the fact that the solutions would be placed on the ocean surface all the time.

This saying was the basis for the Company's mind-blowing idea; to combine bottom-mounted generators with floating buoys which could be submerged with extreme weather conditions without a very expensive structure or an over dimensioned one. (Compared to U-boats which rather dive a few meters below surface to avoid bad weather.)

Furthermore, most of the earlier, unsuccessful wave power stations were cleanly mechanically created, often with conventional high rpm- generators mounted with hydraulic pumps and open wire-pull

floating on the surface of the ocean – resulting in the solution not giving the wanted degree of efficiency. These contraptions demanded a rather high degree of maintenance if they survived the first winter storm.

These were the basic challenges which have hindered wave power stations to be developed commercially (compared to wind and sun energy stations) which Ocean Energy now seems to have solved with the Storm Buoy in combination with sea bottom mounted and hermetically closed linear generators in the complete solution, The Balanced System.

### In which way did these ideas solve the needs and challenges?

Ocean Energy's total ideas and patents are based on that the subsequent 4 basic specifications for a wave power station had to be solved through the process:

The claims were put forward at the project's start some years ago and was defined after a founding analysis of the problem. As a matter of fact, all these claims and demands are now solved by the Company, together with the partners and involves the following 4 basic postulates for a functioning system.

#### 1. Simple wave absorption – «wave to energy conversion» - with optimal efficiency.

I.e. maximum 1 -one- power conversion from a physical ocean wave to electric current into the consumption network. Without the use of mechanical intermediate solutions with hydraulics, mechanical gear boxes or pulley-systems.

*Solution:* One makes use of the Company's own developed generator concept which generates the electricity directly in time with the wave's low frequency at the surface of the ocean, for thereafter to inter-connect more generators to produce a totally normal current which can be delivered directly into the network.

This anchored unit «Seabed unit» will be a steel construction which is anchored to a concrete base, which is easily reached for maintenance. The unit

will be joined by means of two «pressure-chambers», each with 25-kVA (kilovolt AMP). The magnet gear (the MLS unit) will be a part of the construction. The complete «Seabed-unit» is filled with nitrogen gas before it is submerged, -the gas having the same pressure as the surroundings at the planned depth. This is to prevent leakage and it will protect the unit against corrosion due to the lack of oxygen which will be expelled.

## **2. Marginal maintenance and renewal requirement**

I.e. corrosion free contraptions without superfluous and friction creating mechanics for the energy conversion itself.

*Solution:* The bottom-mounted linear generators are as mentioned above hermetically closed and filled with nitrogen gas in order to avoid any kind of corrosion. The power conversion takes place with a magnet gear (MLS) which will not contract running wear and tear as there are no point of touching between the magnets, The generator is placed safely at the bottom of the ocean in a protected environment and even temperature (2-4 degrees), minimal external influence, and not to forget, stable cabling which is placed on the bottom of the sea to avoid breakage in the cables during time. Estimated time for this type of installation is estimated by Seabased AB to 15 years.

## **3. Damage-secure equipment**

I.e. that the equipment by the few but estimated extreme occurrences of bad weather through the winter season, with simple means must be able to «initial adjust» the equipment

in such a practical way that the equipment can endure these stresses for a limited period.

*Solution:* By external manual command or automatically by hard and increasing stress, the surface buoy will gradually – via compensation by the ballast tanks – the buoy will submerge to an underwater level which will make the buoy able to survive the bad weather at the surface. As soon as the conditions at the surface level is normalized

an acoustic signal is given, and the buoy will again ascend to the surface. The ballast tanks will empty, and normal production will resume. This is what will be the Company's main product which has the name «The Storm Buoy».

## **4. Simple implementing in a commercial model.**

I.e. that the wave power compounds must easily be able to be implemented in a larger concept for the commercial delivery of electricity to the land-based electricity network.

*Solution:* The System can be built successively and modularly out of 2 generator units to «parks» for up to 100 MW based and several hundred generator units. This will also simplify the investment for smaller units. One can for example start with a small «park» with 1 MWh (such as the plan for our future «test- customer» in Greece) and then successively build this carefully larger when positive cash flow is obtained, and the earning power is good.

## **What is the idea's long-term potential and what are realistic goals in 2 years' time?**

The global market for wave power is assumed worldwide to be as large as today's total production of hydroelectric power, when the technology is a fact – say the analysis companies.

Our earlier Swedish partner, Seabased AB, which has developed a complete solution for calmer waters (i.e. without storm/bad weather protection and with limited length of stroke), has during the last year noted orders for close to 3 billion NOK and will shortly start the series production of these units in Brevik (in Norway) (See more details on their web page [www.seabased.com](http://www.seabased.com)).

This shows that wave power has taken the step out of the scientific environment and over to the commercial industry.

If «The Balanced System» with both storm/bad weather security and dynamic solution for all types of weather and waves gives us good test results, the market for our offshore solution will be considerable – even worldwide.

The primary market is large groups of islands with very high prices for electricity, such as the Canary Islands, Hawaii, The Pacific Islands and the Caribbean Islands and even Japan with their new and «green» energy plan after Fukushima – seems alone to be equivalent to over 40000 units of «Storm Buoy» and the Balanced System for the coming years. So, the potential for the product is without a doubt quite considerable.

### **What is the planned process in order to obtain the goal – realize the potential?**

In order to realize the project Ocean Energy has chosen to cooperate with the best operators in the world within their own special segments.

For the calculations under the development of The Balanced System, we have entered a close cooperation with SINTEF Ocean in Trondheim. We have also direct attachment to their University environment (NTNU) in Trondheim, which will be actively utilized in the further testing process of the System and the documentation of the buoys in the future.

On complete steering software and firmware part mechanics we have entered cooperation with the Lyng Group in the Trondheim region represented by CTM Lyng AS.

On the practical/mechanical side we wish to cooperate closely with the unique maritime environment in Sunnmøre (West Coast of Norway) and we have now become part of the «Maritime Cluster».

Through all this we are now attached to the plastic pioneer, Westplast AS, in Leinøy, as main partner in building and mounting of the buoy. This company produces the world's leading buoys both in the Arctic and the Antarctic and as such they have a unique experience with large buoys operating under extreme conditions. Further to this we have pulled with us resource-persons whom we think will be important to obtain a competent unit in Ocean Energy – we can among others, mention the Dr. engineers within power current, technical physics and wave power for the development of the solutions and similar experts/consultants on the financing of the project.

We will try to supply the activity with the best resource-persons we can find in order to keep a top competence level. The project has been checked by governmental support facilities with for example SINTEF, and they have so far granted NOK 4 million to this project.

The project has also been nominated to DNB's innovation prize for 2012 and was checked by specialists from The Norwegian Veritas.

After the product has been tested and established in Scandinavia, we wish to licentiate the production of the «Storm Buoy» in all other continents.

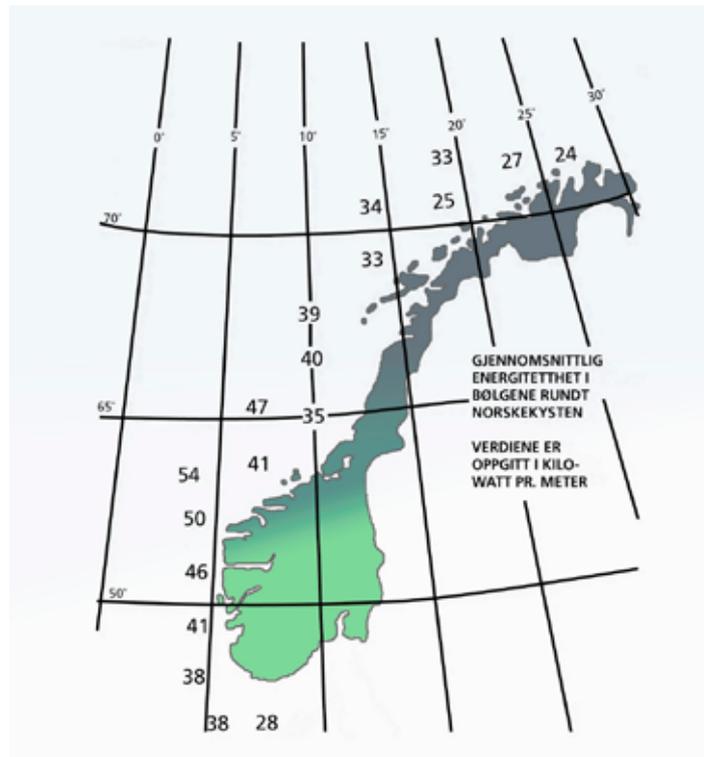
It is already a claim in Gran Canary Island that the «Storm Buoy» is produced locally, while all sophisticated parts are delivered from Norway.

### **Our first market channels will be two-parted by that:**

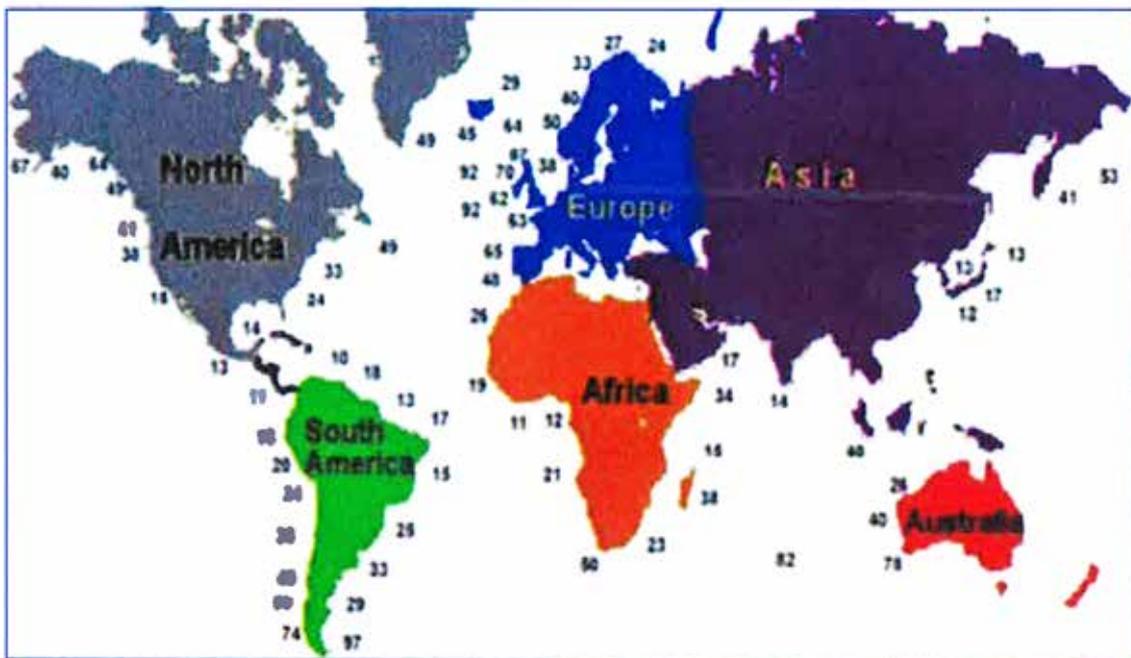
1. We will deliver the complete offshore solution of «The Balanced System» to the world market. This includes our own generators, buoys and the current contribution system, Here, we ourselves, will be the sales channel and the direct distributor, The Company's founder has long experience in the building of an international sales crew, and has several resource persons to pull into the sales team as it escalates, so the Company will handle this side of business themselves..
2. Will offer our «Storm Buoy» in the demanded markets where such situations are necessary towards other suppliers of generators. These producers will then become our distributors in the rest of the world.



## Figur: Wave Energy Map, Norway



The figure shows that in the sea off the Norwegian coast between Stad and Lofoten is the transport of wave energy in time averages between 30 and 50 kW/m, but less inwardly Skagerrak and up to Finnmark. It must also be noted that the average wave energy is at least twice as large in winter as in summer. The addition of wave energy towards the Norwegian coast is estimated at 400 TWh in a normal year. The total resource in Norwegian waters is actually not significantly less than the energy resources in all our watercourses.



Verdenskart: Relative Global Wave Energy Density in kW/m.

## 5. Degree of Innovation

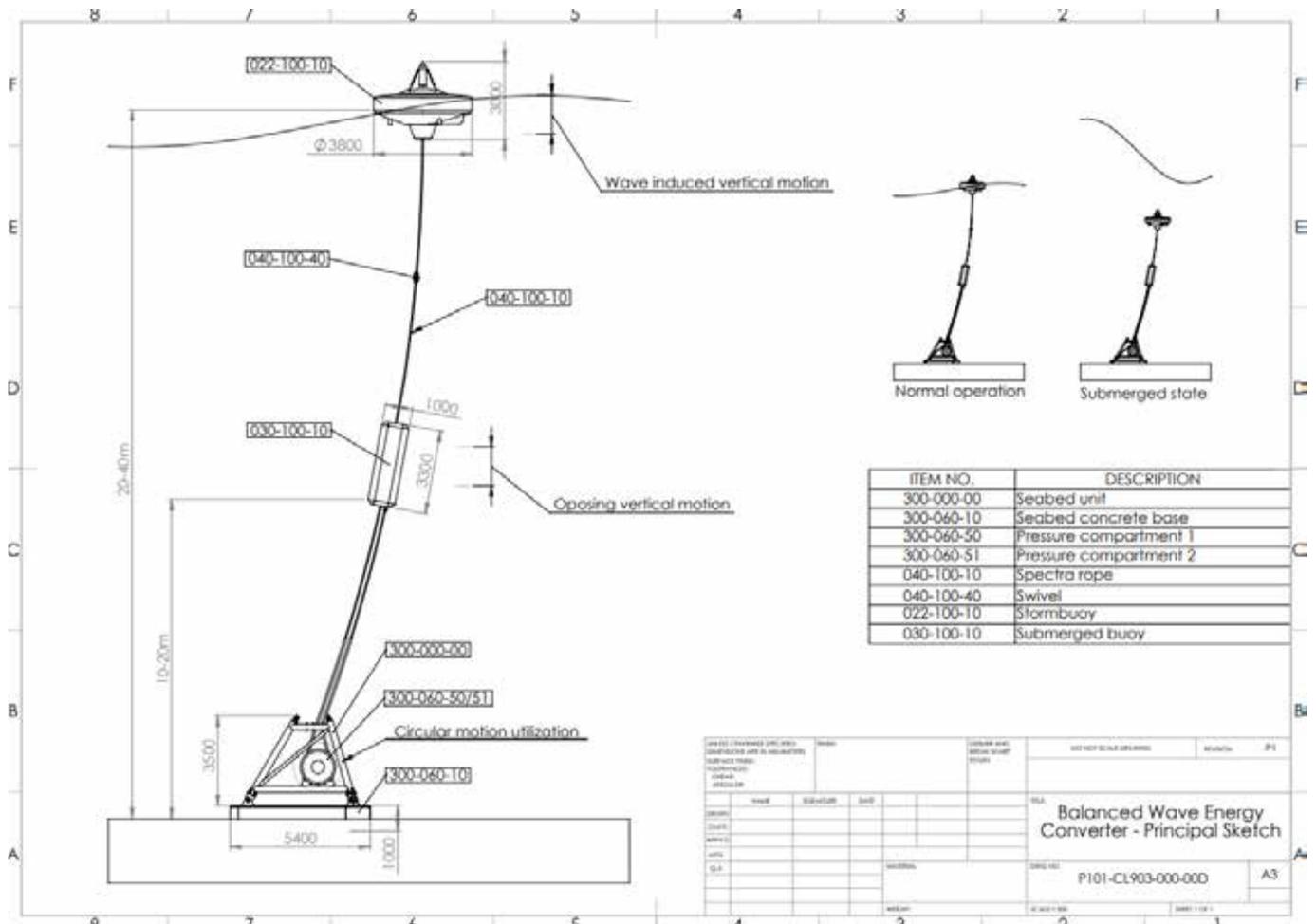
Ocean Energy AS is using a gathering of all their patents as basis for this project.

The technology master develops further and optimizes with the wave technology to make it economically competitive compared to other renewable energy sources. One goal is that the technology must be weather independent and be able to endure storms and other mechanical strains, which today's technology does not.

The further goal is to bring forward the balanced wave energy converter system, which is to arrange for the system to handle uneven movements, which normally influences such systems. «The Balanced System, will be able to operate under variable stroke lengths – which enables handling of all running and

normal wave heights (until) critical weather forecasts are announced and the system submerges from the surface of the ocean. This is quite a unique «point absorber»-solution and is the sole concept in the world to tackle this condition. The innovation was, when presented for the first time radical – which it still is.

With the development done by Ocean Energy, which happened through time and by gradual innovations, we have now a complete concept, which we want to show is durable through time. With this solution it appears that a wave energy power station (plant), will appear to operate over time without being worn out – as we have seen other solutions struggle with today and which has a limited stroke length.



The Balanced System consists of two buoys where one is placed on the surface where it absorbs energy directly by following the wave movements. In addition, one buoy should be submerged along the anchor line (which connects the two buoys), which again is connected to the generator in the «Seabed Unit» on the ocean bottom. In other words, the system is connected by the anchor line being connected to the surface buoy, one side connected to the surface buoy on one side, stretches down to the submerged buoy to the generator wheel and further, stretches upwards and is coupled to the submerged buoy on the other side.

The surface buoy itself will be operated by a ballast system which enables the submerging. This has been tested and verified and will be one part of the complete system.

The system needs to be developed by advanced calculation models which analyses the weather conditions. We will on beforehand utilize SINTEF Ocean in Trondheim to carry out the strengthening calculations on the component level. In the system itself which must be developed, the system needs to be able to compare weather conditions with earlier data and consequences through actions carried out.

The system will continuously collect data on produced energy, weather conditions, forecasts etc. will be available – so called «Big Data».

This will be an important element in what it is related to when the buoy submerges and is raised.

We will whenever this is possible, cooperate with the supplier companies who has the competence to lift this to a higher level. In this instance, it will be the company CTM Lyng AS which will be responsible for the work concerning sensors, etc.

We also want to investigate the possibility to start a dialogue with other companies who has prepared systems for wind power, in order to check if there are any transferable values to wave power energy.

One other important innovation which we think will

be decisive for a stabile production of energy is the magnetic screw (Magnetic Lead Screw – MLS). The magnetic shaping of the MLS-unit is based on a Hallbach-matrix<sup>1</sup> on the rotor and a resistance-based transformer. The MLS-unit will be arranged between the generator and the fly wheel. Resulting in the vertical movement giving a rotation of the generator in both directions for every passing wave. This results in an even electric production.

The MLS unit utilizes the benefit of not touching the power transmission parts, and thereby minimizing the friction and increases the effectiveness. In addition, the unit has a power protection which the magnetic poles will jump past a pair of poles when it is subjected to higher power than the unit is designed for. This makes the MLS-unit especially well-suited for wave energy, as large waves will lead to high power load, which the unit is capable to resist, all due to the power protection. In short, the unit consists of one screw and one nut. But the mechanical tread is not made of steel.

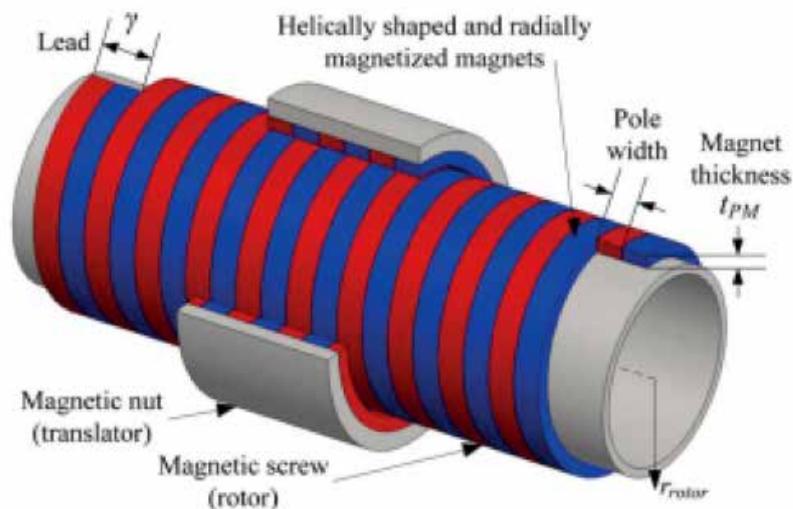
However, it is supplied with magnets arranged in a spiral shape.

By implementing an MLS in the bottom unit, «Seabed Unit», the movement from the waves is transmitted to the unit which converts slow going, linear movements to quick rotating movements. These quick movements will then be converted to electricity using a generator mounted on the MLS-rotor.

We have earlier together with Ålborg University worked in order to test prototypes of the MLS-unit. We have used considerable means to make the MLS-unit work in a smaller scale.

See the picture for the principle around the magnet screw (MLS).

<sup>1</sup> Hallbach-array is a special composition of permanent magnets which increases the magnet field on one side while it reduces the magnet field on the other side.

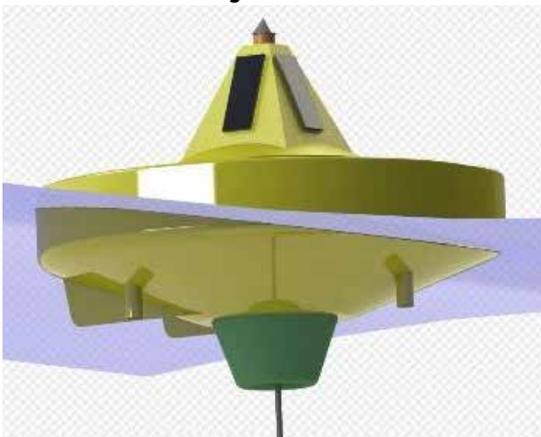


**Picture 1: MLS-unit**

### The wave technology

The wave technology consists of a set of components which one by one has been tested in a smaller scale, they have been evaluated, designed or prototyped. The further development will verify that the technology not only alone is functional but that the components are functional in a system.

### The Wave Buoy



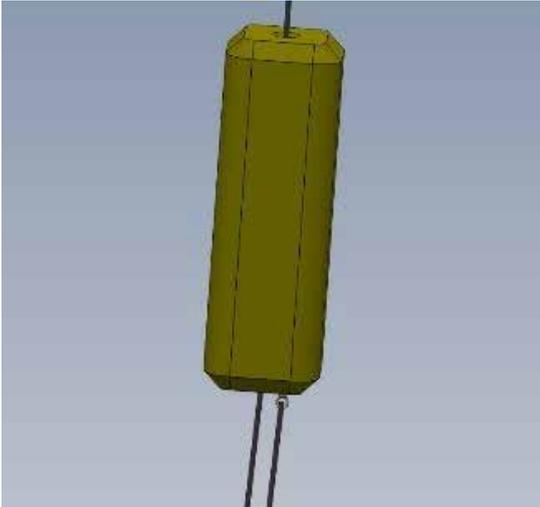
«The Storm Buoy» is equipped with a ballast system which will be filled/or emptied during the submerging or raising of the buoy. The brain in the system will be placed in the buoy, just like a control or steering system which are handling diverse situations at sea. In addition, the buoy will be mounted with a ventilation system which is handling the control and steering.

### The Anchoring Unit



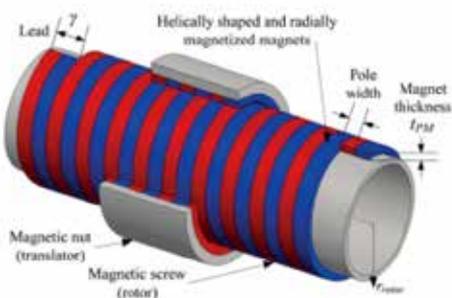
The anchoring unit, i.e. The Seabed Unit will be a steel construction which is anchored to a concrete base, and which is easily accessible for maintenance. The unit will be coupled to two pressure chambers, each with a 25-kVA (kilovolt AMP) generator. The magnet gear (MLS) unit will be a part of the construction. The whole sealed «Seabed unit» will before it is submerged, be filled with nitrogen with the same pressure as its surroundings at the planned depth. This will prevent leakage and any form of corrosion inside the unit as a result of total lack of oxygen which then is expelled from the unit.

## Submerged Buoy

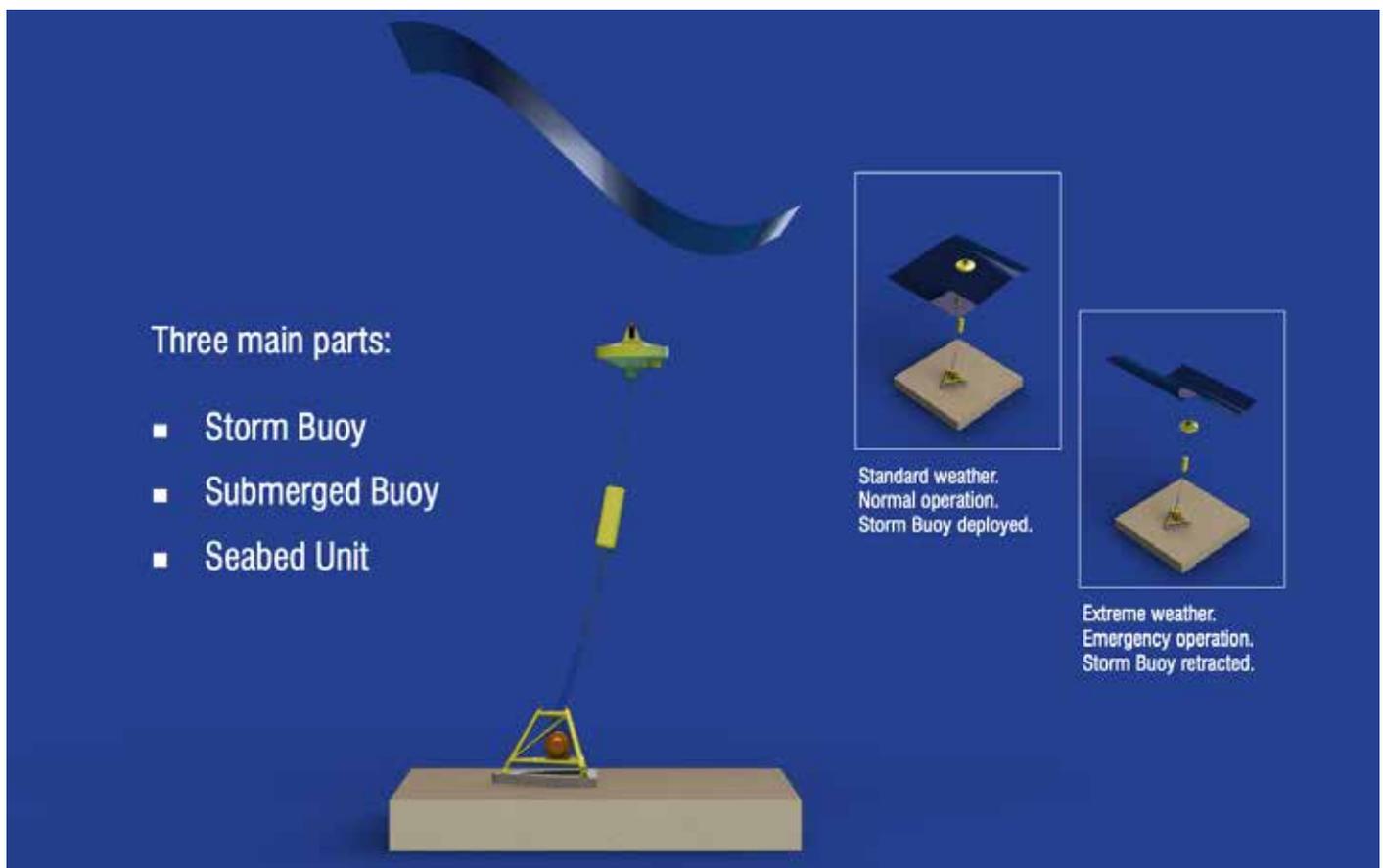


The submerged buoy will be a passive buoy, which has as its purpose that a tightening function will not be needed. The magnet gear does also have the unique character that it also behaves as a «shock absorber» by «tug and jerk» from the buoy at the top – because the magnets will only «slide over» by extreme wear and tear and will be maintenance free for many years' use.

## Gearbox



«Gearbox» without superfluous and friction-generating mechanics for the energy conversion itself. The magnet gear also has the unique feature that it also acts as a «shock absorber» at «jerk and snap» from the buoy at the top - because the magnets simply «slip over» at extreme loads and are virtually maintenancefree for long-term operation.



## 6. The Buoys of the Svalbard Class

Ocean Energy has entered into an agreement with Svalbard Airport AS that they will purchase all the produced electricity from a planned and small-scale wave production unit in Svalbard situated by the «Hotel Headland» (Hotell Neset) for the use for recharging of the batteries for el-cars at the airport. This mini-power station is built on an upscaled version of an earlier «light buoy» (recharging of marking buoys with wave power electricity) which were partly developed by Ålborg University in connection with the Company's studies of magnet gears (MLS) with the intentions to utilize this later in a full scale version of The Balanced System.

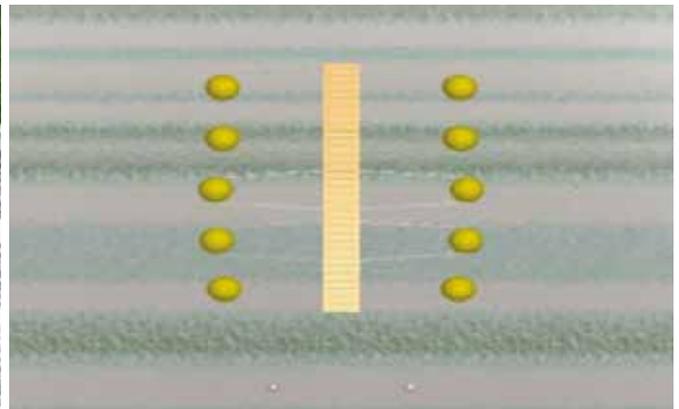
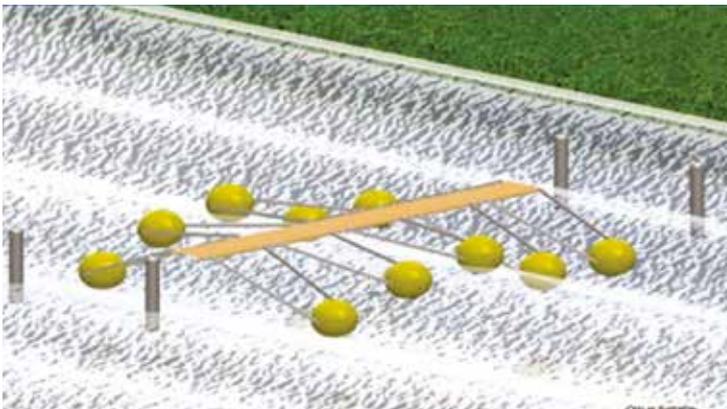
This small wave energy station will be placed in a matrix of 10 units mounted on a robust floating pier of concrete which will be placed vertically from land just below the airport.

This demonstration-unit is expected to receive considerable press attention, both nationally and internationally.

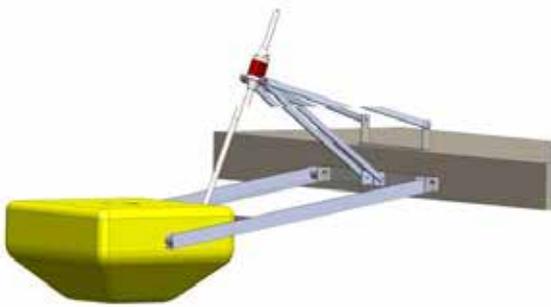
Svalbard is known to be Norway's environmental show case, and here the wave energy station will replace «dirty» coal energy from the local power station when the electric cars are recharged at the airport. This will be a very good PR-demonstration up there for our very good and «green» project. The good thing about this «spin-off» innovation from the main cause towards The Balanced System is that these small generators of 5-6 kW per unit, can be mounted in fish-farming units in order to give them operation electricity for feeding machineries, etc.

Today the fish-farming industry utilizes diesel generators with considerable expenditure connected to this, and it is now a demand from the State Authorities that any new units shall be built with «green» solutions and have a «green» profile.

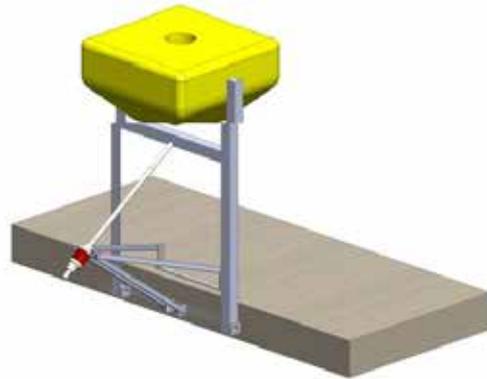
So just in this field there are already a large and separate market in the future, when the first installation has been tested in Longyearbyen on the electric cars' recharging of batteries.



The buoys are placed on each side of a robust concrete floating pier, which is anchored outside the Hotel Headland just below the Svalbard Airport.



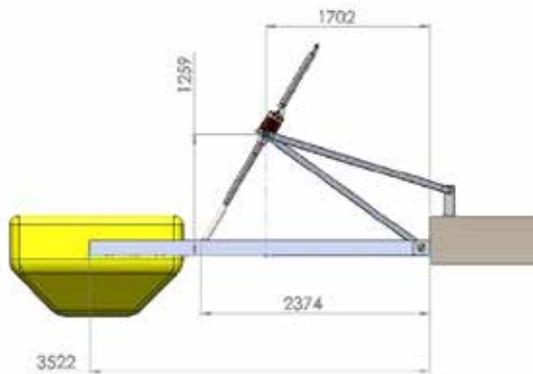
**Figure 3.10:** MLS WEC



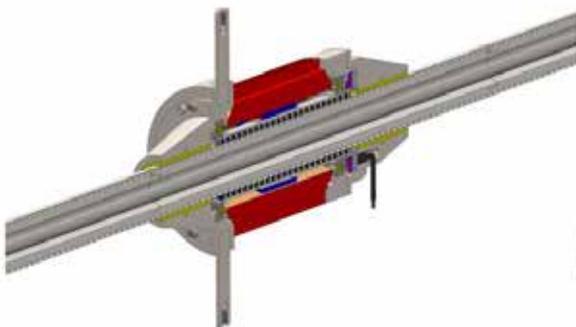
**Figure 3.11:** MLS WEC (storm protection)

Fig. 3.10: The concept is built on the same solution as the small «light buoy», but here the magnet gear generator is placed in the stay above the buoy, marked red.

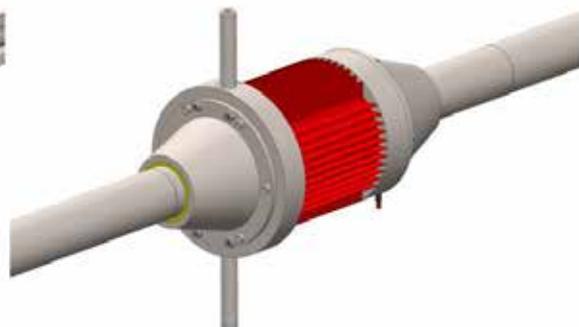
Fig 3.11: By extreme weather conditions the buoy is tilted up from the ocean to avoid destructive storm waves. This will be serviced by local staff and will happen automatically via a simple mechanical solution on the concrete pier.



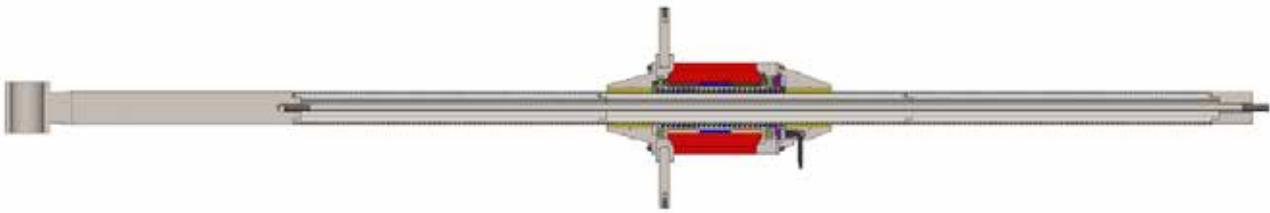
**Figure 3.12:** Dimension of WEC



**Figure 3.13:** MLS WEC cut through



**Figure 3.14:** MLS WEC



**Figure 3.15:** MLS generator unit

Here is shown a sketch of the magnet gear-generator which can produce up to 6 kW per buoy.

See complete project for the Svalbard Class Buoy from the Ålborg University.

<http://ocean-energy.no/docs/Svalbard-Design-Rapport.pdf>

The status of the project is today:

The prototype buoy with floating pier etc. will be

tested locally in Sunnmøre (The West Coast) in the spring of 2019.

- Please see the complete environmental report for Svalbard which has just been published.

Here are the first photos of the testing of the Svalbard Class generator outside our test lab in the Storfjord (on the photo without waves when it was mounted for testing).



## 7. Matters of accounting

Below we are giving information regarding the Company's key members and information.

Note 1: Numbers in NOK 1000. The Company was established 22.11.2007.

Post	Per 31.12.2020	Per 31.12.2021	Per juni 2022
Operational income	4989	4995	16440
Working expenses	2442	4518	1504
Finance entry	289	212	0
Working results	+2836	+263	+14936
Fixed assets	6568	3848	4255
Current assets	7647	14256	29729
Sum assets	14215	18967	33984
Share capital	10522	11602	11602
Own capital	13370	18825	33899
Longterm debt	0	0	0
Short time debt	908	142	85
Sum own capital and debt	<u>14215</u>	<u>18967</u>	<u>33984</u>

### NOTES

Note 1

Principle of accounting.

The yearly accounts are listed according to Law of Accounting 1998, and good practice of accounting.

Main rule of classifying

Property decided as permanent ownership or use has been classified as fixed assets. Other property is classified as current assets.

By classification of debt, claims which is payable within a year, are still classified as fixed assets. By classification of debt, analogue criteria are at its base. Fixed assets are valued at purchase cost and are written down to real value when the value reduction is not expected to be incidental.

Fixed assets with a limited economic life span are written down as planned. Debt is balanced to the nominal amount

at the time of establishment. Current assets are considered to lowest possible purchase price and real value.

Permanent assets and write offs

Fixed assets are estimated to original cost price with deduction of write offs which are calculated to assumed economic life span. Linear write offs are used.

Activated development costs

Development costs are activated as the work goes forward in the different projects. The activating includes solely the directly entranced to development costs. Costs for general administration and other direct costs are not activated. A ground rule principle for activating costs is that these costs are assumed to supply more value to the project which in the future will generate income. These incomes will be noticeable when the projects go from project to production, or for example, that the project is sold.

### Consolidation principles

The account shows the numbers for Ocean Energy AS.

### VPS

The company is a limited company (AS).  
The shares are registered in Verdipapirsentralen.

### Note 2

### Fixed assets

Fixed assets consist of the following: FoU, equipment, etc.

### Note 3

### Share Capital

The Share Capital is NOK 12 245 000,00 distributed on 244 900 000 shares, each with a face value of NOK 0,05 (per 01.09.2022).

The shares have been paid in full and are issued with the name of the buyer.



From the company's permanent test site at Storvfjorden in Ørskog on Sunnmøre



## 8. Share holder issues

The Company's share Capital is NOK 12 254 000,00 distributed on 244900 000 shares, each with a face value of NOK 0,05 fully paid and issued with the name of the owner (see enclosed list).

Navn	Antall	%
Tov O J Westby	30405000	12,42
Greentech Resources AS	23737265	9,69
Orkla Grube AS	21179278	8,65
Leiv Eiriksson Nyskaping AS	9290053	3,79
Svenska Handelsbanken CA	7023812	2,87
Arne Frogner	6812500	2,78
Tor Helmich Høie	6812500	2,78
Jo Torsmyr	4000000	1,63
Skotte & Co AS	3848400	1,57
Evelyn Villers	3250000	1,32
Fredrik Stange & Co AS	3000000	1,22
Alv Orheim	2468125	1,00
Øyvin Danielsen	2174687	0,87
Nikolai Annar Markussen	2053333	0,82
Kjell Lybek Jørgensen	2032235	0,81
Skinnboden Holding AS	1578750	0,64
Mariann C Skaar Skotte	1500000	0,61
Asbjørn Skotte Jr.	1500000	0,61
Ulv-Eirik Steinsvik	1500000	0,61
Kjell M S Ekstrøm	1405000	0,60
Morten Andreas Gjestvang	1250000	0,57
Vannprodukter AS	1237000	0,50
Jan Inge Rabås	1135000	0,46
Rune A Ruud	1088125	0,44
Carl Einar Ianssen	1036250	0,42
Fridtjof Leif Gillebo	1005959	0,41
J. H. Noreide AS	1005000	0,41
Viktor Dick Kjenna	1001250	0,40
Thor Krefing Nissen	1000000	0,40
Stian Veka	1000000	0,40
Ivan Nygreen	1000000	0,40
Elisabeth G H Svendsen	1000000	0,40
Knut H Knudtsen	1000000	0,40
Jørn A Rye Alertsen	867500	0,35
Iren A Pedersen	800000	0,32
Arbiens Gate 8 AS	756250	0,31
Irene Bjørsvik	700000	0,29
Einar Håkon Østebrød	700000	0,29
Annie Lia	675500	0,28
H og P Jacobsens Stiftelse	645000	0,26
Kjell Karlsen	640000	0,26
Hallstein Netland	625000	0,25
Tom Jannestad	620000	0,25
Dietrich Sturm	605000	0,24
Stiftelse Nødhjelp og Misjon	604545	0,24
Cilaris AS	560000	0,23
Per Torbjørn Skauseth	560000	0,23
Rikke S Nilsen	557625	0,22
Askeland Røyr og Varme AS	552083	0,22
TIC AS	550000	0,22
Harald Olav Breivik	538125	0,21
Frode Utgård	536250	0,21
Gunther C Gruner	530500	0,21
Ulf-Inge Ellingsen	520000	0,20
Kjell E B Egge	520000	0,20
Rolv Svein Rougnø	500000	0,20
Sheikh Invest AS	500000	0,20
Gjermund Holsæter	500000	0,20
Alyla AS	500000	0,20
Dan Eggen	484500	0,19
Paul K Johannessen	480000	0,19
Egil Holland	475000	0,19
1.255 andre aksjonærer	78467600	32,04
<b>Totalt</b>	<b>244.900.000</b>	<b>100,00</b>

## 9. SWOT-analyse

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Analyses of the Company's

<b>S</b> trength	Do an evaluation of both internal conditions in the Company in comparison with the environment (market and competitors).
<b>W</b> eakness	
<b>O</b> pportunities	
<b>T</b> reaths	

### Strenghts

The Company OCE has a unique patented solution to a fundamental problem by utilization of wave power stations. The fact that the solution is unique and patented, secures the Company's product in the market. The solution secures that all obstacles of market penetration of wave power solutions will disappear. OCE has together with their cooperating partners built a secure and stable competence basis which will be utilized in the future company development.

### Weaknesses

OCE has not yet carried out a grand scale test of their patents during realistic environmental conditions. Today's calculations are based on simulations and models only.

### Opportunities

If a grand scale testing is carried out giving a stable and dependable result, then the last of the obstacles are cleared off. This will lead to a very large market, for this technology will open worldwide. The patent approval will for the Company secure no competitive products.

### Threats

Large scale trials may not result in the assumed results so that running costs and maintenance costs will increase. Large scale trials may result in eventual changes in the patent. Other technologies may also occur in this market.

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### 1. Strengthen the strong sides

OCE is building up their knowledge and their competence network through partnerships with leading environments within their field. This will lead to more knowledge and competence building which creates a solid basis for further innovative development of the solutions already in function. Large scale testing with realistic operating conditions will uncover the strong or weak sides of the product where modifications may take place if this should be necessary.

### 2. Reduce weaknesses

A large-scale operating test might uncover the strong or weak sides of the product on short or long term. The test will also uncover areas where the product's quality would need to be strengthened. This will give OCE a knowledgeable and competition wise head start versus possible competitors.

### 3. Make use of opportunities

A completed test run in conditions which can give the greatest environmental heavy loads and a wide span of capacities and challenges which will document the product's qualities in a maximal way. Tests and verification possibilities, which will give the product unique competitiveness towards possible alternative solutions.

### 4. Ward off threats

Agreements entered regarding large scale testing under realistic operating conditions will lead to the product obtaining a credibility towards possible competitors. Documented and verified results will ward off possible threats of alternative solutions.' Simultaneously, this will document that OCE's solution is dependable and stable in a real delivery situation.

### Who are the Company's customers?

OCE's customers are coastal close energy users who wishes to produce renewable and «green» energy where one simultaneously has or will put forward claims to the forming of the landscape in the area. In other words, the customer does not wish to do large environmental changes. The customer needs to have available an ocean area where a

wave energy power station can be mounted without being an obstacle for other maritime activities.

### Which requirements will the customer have?

The customer may have requirements to increase their energy production base don fossil sources or a combination of these moments.

### Expected purchase criteria

It is assumed that central purchase criteria will be:

- Effective and stable energy no matter whatever type of working conditions
- Low production cost per unit of energy  
Low running costs and cost of maintenance
- Will claim few or none interventions in the environment
- Will be able to replace solutions based on fossil energy sources.

OCE's solution will cover the assumed purchase criteria. It is today few alternative suppliers of such equipment without the customer having to invest larger amounts of larger environmental interventions.

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### The Customer's increased value by OCE's offer

The customer's added value, apart from the financial and economical prerogatives, will be that OCE's solution will not demand noticeable inventions in the local environment. This will especially be important for customers where the tourist industry will be an important source of income.

unattractive in areas with tourism. Investments, operation costs and maintenance costs will be higher than for OCE's solution.

Suncell panels can be an alternative but this will occupy large areas which could otherwise be used for alternative operation. In areas where the space is limited, this solution is often not chosen.

### Alternative competition

Wind power-based solutions may be a competitor, through their many references and experience from operation and maintenance. Wind power solutions will, however, claim rather large interventions in the environment, which will make this solution very

### OCE's unique strength

OCE has built a unique knowledge and competence within their product area. One has also developed a network of professional suppliers and cooperation partners which clearly has synergy effects of OCE's

activities. This synergy will lead to that everybody in the partnership will obtain a positive contribution through the sales of power stations. The cooperation between industry, development environments and academia make for a simultaneously good way of entry to leading scientific environment and can follow up and participate in FoU activities both nationally and international. This means that the company always will be in the front when it comes to implementation of new technology when it is developed.

For the customer this will mean that OCE will secure their investments through updating and continuous development of their products through a dynamic development strategy.

The products are designed out of a life span though where new technology can be implemented as soon as it is developed. The modularity of the product leads to the possibility to enlarge a wave energy power station without having to invest in costly infrastructure from the initial investment. This gives the customers an economic forecast and maximal flexibility letting them fit the investment to the market's needs.

### **OCE's offer to their customers**

OCE will offer a value chain of services around the product. Shortly summed up, the following might be on offer:

1. Projecting services for enlargement of existing power station, handling and maintenance
2. Project handling for planning, implementing and running
3. Delivery of equipment
4. Delivery of maintenance handling
5. Updating of new technology as soon as it is available
6. Periodic control and verification of power station with a status report to follow; i.e. a report of the state of the equipment.

Totally, these services will secure the customers' in-

vestments and give the customer a predictable cost of operation. I.e. a considerable increase of value for the customer. Other customer-related services will be developed as the customers' requirements occur.

### **Maintenance of customer-relations**

OCE's relation to their customers is of essential importance. Through these relations the groundwork for further product development is created. The delivery of the equipment is therefore just an element in the buildup of the customer relations.

The follow up of equipment delivered, meetings with the customer and gatherings with customer get-together will be held to strengthen the relations with the customers.

Digital media will be utilized as much as possible, as one also sees the personal contact between the companies is of essential significance. Mechanisms to take care of this will be developed.

### **Flow of income**

The immediate flow of income will be generated through the sale of systems; see budget.

The remaining services as mentioned above will as time goes by be more important and will improve the flow of income. The intention is that 30-40% of the total income will come from these services after a few years. More about this under the sequence about budget.

Secondary cash flow will be income which will flow evenly, not influenced by the ups and downs in the market. This will greatly strengthen the Company's cash flow and rentability.

### **Key resources and critical success factors**

OCE have today built a Board of Directors with administration which has a broad industrial and marketing professional background. This ensures the Company's decisions are made by people who has relevant competence. Outside all this, the Company has contact with industrial cooperation partners with industrial weight and FoU environment with important competence within the branch of business where the Company professional is.

The Company's critical success factor is built on the human resources we have tight cooperation with. The Administration feels it safe with these resources

to be a base for further national and international expansion. Through the contact net we have built and through the cooperation partners we have chosen, the administration is of the meaning that we are well equipped with even more leading competence with our field of business.

### **Environmental Claims**

The Company's products will be certified in accordance with relevant environmental rules and regulations. If CE labelling is necessary, this will be implemented. The Company's suppliers will also be certified in compliance with the environmental standards in question.

OCE themselves wish to be environment certified. Other relevant standards and EU directives will be implemented and actively utilized in the marketing of the company.

### **Responsibility towards the Society**

OCE will compose a special document, Corporate Governance which will be written by the Company's administration.

### **Market Perspective in connection with the Company's development**

*Short term perspective – 2-4 years.*

In the short-term market perspective; i.e. the first 3-5 years, the goal will be to create a strong market profile which will secure further market penetration via the developed marketing planning.

Within this time limit, we will simultaneously build and establish OCE as a natural proprietary goods within its own market segment for «green», renewable and carrying power for energy production with wave power as our business segment. The Company will simultaneously position themselves in the market as the leading market operator in their own segment. The Company's market share shall be dominant, and a price profile is to be developed which entails the desired earning power is to be obtained and upheld.

The Company's earning and system for primary and secondary earning slow should be secured and we will also prepare prognosis for the future earning flow so that a stable business can be expected.

Through a steady growth and a predictable flow of income, the Board of Directors will estimate if the Company's earning power will be in accordance with the market expectations, and that we as a minimum has the same level as other companies in the same business segment. The formal activities which must be carried out by an exchange introduction, will be taken care of by the process that will go before the exchange introduction, and this will start when the given goals are obtained after the 4 first years. The Company's organization will thereafter be structured in such a manner that an exchange introduction can be carried out in the following period.

A detailed activity plan with milestones for the introduction to the exchange will be prepared in the last part of this period.

*Long term perspective - 5-7 years.*

An exchange introduction is planned for this period. This presuppose that OCE will arrive at their goal when it comes to liquidity and own capital and that the Company's market value reaches those claims as is necessary to obtain a future exchange introduction. This will entail that the Company's accounts are rewritten according to the IFRS' rules and regulations and that these rules are implemented at the end of the proceeding period.

The report structure of the Company will be developed in such a manner that the report obligations which follows an exchange introduction, is carried out to the satisfaction of all involved parties. Professional consultant assistant will be utilized in the preparation of the Oslo Exchange introduction prospect.

This work will be started towards the end of the preceding period, so that the Oslo Exchange introduction can be carried out in the current period.

## 9. The Board of Directors and key personnel

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### **Chairman – Kjell Lybek Jørgensen**

Norwegian citizenship, resident of Norway.

Officer educated as fighter plane pilot in the Royal Canadian Air Force and the Norwegian Air Force. Fighter pilot in the Norwegian Air Force for the period 1954 – 1959, the 332 Squadron at Rygge Airfield. Thereafter employed as captain and instructor in the Braathen SAFE Air Company up to 1993. Has also in periods worked as leader of the Braathen SAFE's Pilot organisation. Founded and lead the company Buco Invest AS as a KS with shares within shipping, among others co-owner of Sol Safe AS (Sig. Bergesen), Stavanger, Larsen and Hagen Shipping, Sandnes and member of the Boards of these companies for many years. Was also co-founder and chairman of the company West Computers AS and Norwegian Petroleum AS, has generally long experience in company Board work and member of several Boards. Has cooperated with Spanish partners in sales and development of properties in the Alicante area, and has today a considerable network in Spain.



### **Vice President and founder Tov Ole-Jacob Westby**

Norwegian citizenship, resident in Norway, born 1960. Founder of the Company, 1982 B.Sc. in information technique at the College in Molde. Westby today works mainly as a private investor but wishes to lead this project – which is his «baby» up to the point that the company has proven to be a success.

After his education was fulfilled in 1983, and he was one of Norway's largest PC operators in the 1980's and started in 1990 together with Eilert Hanoa (today CEO and main shareholder of Kahoot!) the later stock-exchange noted Company Mamut ASA, with 460 employees. The company Mamut ASA was one of Europe's leading companies in SMB-software and is today represented i 16 countries with more than 400 000 users. Mamut was purchased by VISMA for 780 mill. NOK in 2012 and taken off the Exchange. Westby has considerable experience with development projects within hardware and software, among others as development director in Telenor, and later as marketing manager for Telenor Satellite Services, Multimedia, and that he also has experience, mechanical and maritime during his younger years. This is the spring of inspiration around the invention of the Wave Inductor, the Storm Buoy, and the Balanced System together with his partner, Asbjørn Skotte,

As a determined founder he has quite a few successful projects behind him and he has the know-how to find the correct key personell for the respective projects in order to reach the goal of the Company.



### **Board member Carl Einar Ianssen**

Norwegian citizen, resident in Norway, born 1972

Education:

1991: The Army's Command School

1996: Trondheim College of Economics, TØH

Work experience:

More than 18 years' experience from various positions in the Armed Forces. Has since 2011 worked in Svalbard for Avinor, Svalbard Airport, and then as a consultant.



### **Board member Hallgjerd Håbakk Ravnås**

Norwegian citizen, resident in Norway, born 1977.

Education :

2001: Cand.mag, Nature and Environmental Studies, University of Sogn og Fjordane  
2005: Master's degree in Geosciences, University of Bergen

Work experience:

More than 17 years' experience as a geologist both offshore and onshore.



### **CEO Asbjørn Skotte**

Norwegian citizen, resident in Norway, born 1957.

Founder of the company.

Education: 1979 Ålesund Maritime School

1989 Cand.mag. University of Bergen 1995 Cand.jur. University of Bergen.

Has many years of experience from the oil and energy sector, and as leader of several international companies. Drew the first sketch of a wave power station as early as 1979. Co-innovator of the patents administrated by OCE.



### **Direction secretary Tone Misund**

Norwegian citizen, resident in Norway.

Her education is with administration and commerce.



### **Production development and FoU, Lars Bystrøm**

Swedish citizen, resident in Sweden, born 1953.

Civil engineer in technical physics from The University of Uppsala 1980. Earlier member of the Board of Directors in Telenor Satellite Service BV in Holland and CEO in Telenor Satellite Services AB in Sweden. Today consultant in his own company, Svenska Rymdbolaget AB and the mining company LKAB as their main customers. Has a long and wide experience in project management and follow-up of large projects of IT implementing.



### **Project developer and PR responsible, Jan Høvik**

Norwegian citizen, resident in Norway, born 1954.

Cand. mag. in the growth of society related subjects 1979. Economist from University of Bergen, studies for the degree of Cand. mag, 1982.

Considerable experience as CEO in Norwegian daughter company of large international media company. Member of the Board of Directors in branch organizations and the Board of Directors in Telenor Media. Long experience in business development, new technology and sales administration.



### **Finance and strategy advisor, Fredrik Stange**

MBA from the Business School in St. Gallen, Switzerland. Core competence in senior management, business development and M/A from Manufacturing and Process Industries, Banking and Finance. Operational management experience from top management of entities with many subsidiaries and from International and domestic board positions.



### **Project leader Jon Sletthaug, senior company consultant**

- Civ.eng/Dr. eng. from NT 1970
- Electromechanical industry, NEBB AS, EGA/AEG
- CEO of SINTEF hydroelectric and maritime lab.
- Established and CEO of the seed corn company ASEV AS and Norwegian New Establishments AS.
- CEO in the venture capital company Trøndelag Growth
- Member of the Boards of several high-tech companies.



### **Chairman of the Board of directors, Egil Holland OCEAN ENERGY TECHNOLOGY AS**

Norwegian citizen, resident in Norway, born 1946.

He is educated engineer as basis with addition of economy and shipbuilding studies. He has a very large network in maritime subjects as he has a wide maritime experience as he has the whole of his career worked with maritime industry, shipyards and ships equipment. He has also worked for Norges Eksportråd (Innovation Norway) and Mercuri Urval. He was for 15 years branch manager for the Maritime side of the Technology Companies' Union, later Norwegian Industry. At the time his work was to organize best possible conditions for Norwegian maritime industry in Norway and the EU. He has also had as a special project to lead the CIMAC 2010 which gathered more than 1000 participants in conferences and exhibitions in The Grieg Hall in Bergen. After he retired in December 2013, he has in a starting phase been the chairman for the Board of Maritime Battery Forum (engaged by the Norwegian Veritas) and is now in Ocean Energy AS. He is also chairman in several organizations.



### **Advisory Board, Hallgeir Skorpen**

Norwegian citizen living in Norway born 1957.

One of the Norwegian pioneers (together with the family) for the production and casting of boats in polyester. Grounds of their own business; Westplast AS in Herøy (Møre and Romsdal.)

The company has developed and produced a few dozen «Yellow Boats» (pickup boats for the mother ship) for the seismic fleet. The «Yellow Boats» are specially designed for this purpose, and have been sold worldwide.

## 11. Important Cooperation Partners



Ocean Energy has also engaged **Leiv Eiriksson Nyskaping (LEN)** in Trondheim as an important shareholder in the Company.

LEN has many years of experience with industrializing and commercializing of technical business areas and with a close relationship with NTNU (The SINTEF area).

See: [www.len.no](http://www.len.no)

Through LEN, the Company has obtained Dr. ing Jon Sletthaug as project coordinator for our project. Dr. Sletthaug has for many years been attached to NTNU and his Dr. Thesis is within the field EI-generators. The Company's wish is that we through him actively can pull in persons and institutes from NTNU as soon as the project is up and going. These persons have been implemented during the process up to now, and they represent the best competence Norway has to offer within this field, within linear-generator technology with angularity towards wave energy poser.

These contain:

### **Production of the «Storm Buoy»**

West Plast AS in Herøy, has entered into an agreement of production of the floating buoys to the project. Together with local sub-suppliers of winch technology placed locally, they will produce, mount 2 pcs «Storm Buoy» with a complete mounting of the tighten- and submerging functions according to the OCE specification for rapid delivery.



West Plast is a much successful and specialized plast producer in Sunnmøre. The company has among

other goods produced robust measuring buoys made of plast for the Coastal Authorities for years. The company had in 2009 a yearly sale of NOK 95 million, and after this the profit was NOK 25 mill.

See: [www.westplast.no](http://www.westplast.no)

### **Software, low voltage electronics and communication**

CTM Lyng Utvikling AS in Klæbu, are going to design the steering software for the submerging and tightening system and assist in weak current interface onshore for 24 hours based on monitoring over IP-protocol/Internet together with the acoustic communication between the buoy and generator.



The development manager in CTM, Mr. Kjell Inge Iversen has worked together with our group in several different projects since back to 1983 with great success. The founder of CTM, Mr. Sverre Lillemo, has himself worked with maritime electronics for the fish-farming industry, and he developed a new instrument for precise ebb tide and flood tide predictions as our solution to implement in the steering algorithmic for the «Storm Buoy».

See: [www.ctmlyng.no](http://www.ctmlyng.no)

Implementing and adjustment of the concept towards existing Norwegian el-network, el- power plants, authorities – as well as potential customers:



The union of small producers of electricity – Volda Branch represented by Trond Ryslett, is the Norwegian organization for independent el-producers which consists of independent el-producers, mostly single farmers who has the right to produce electricity on their own land and rivers. This union has during the years through the juridical courts got the possibility to produce their own electric power. The chairman and founder of the union is Trond Ryslett who is one of Norway's best experts in this field and he wants actively to participate in the development, so that in the future the concept can be adapted to all sorts of independent customers.

See: [www.kraftverk.net](http://www.kraftverk.net)

The advertisement features a blue background with a 3D rendering of a buoy-based wave energy converter. The buoy is a yellow and blue structure on a white base, connected by a vertical cable to a larger, dark blue, wing-like structure floating on the surface. The text "BWEC® particulars" is on the left, and technical specifications and a design goal are on the right.

**BWEC®  
particulars**

Sea depth  
20m – 40m.

Power production  
50 kVA per buoy.

Designed to ensure reliable  
operation.

## Appendix

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Rules and regulations of OCE, 01.09.2022

§ 1.

The name of the Company is Ocean Energy AS.

§ 2.

The Company's offices are in Ålesund.

§ 3.

The goal of the Company is production developments, and thereby also related activities. The Company information such as annual report, company's yearly accounts and calling to the General Assembly will be posted in the Company's web page without postal distribution.

§ 4.

The Share Capital is NOK 12.245.000,00 distributed on 244.900.000 shares, every share with a face value of NOK 0,05. In the General Assembly one share has one vote.

§ 5.

The Company's Board of Directors consists of five members of the Board. The Company's

signature is the chairman alone, or two of the Board members together.

§ 6.

The Company's shares are freely negotiable.

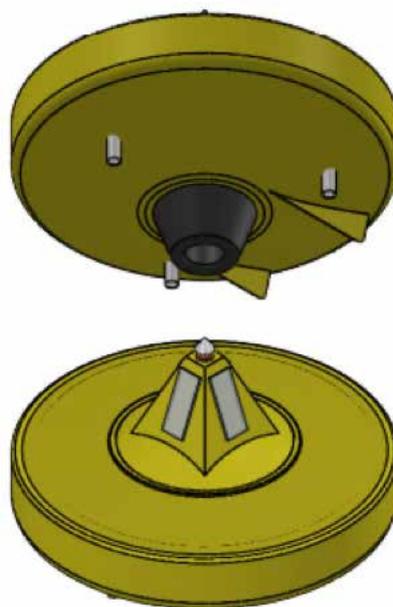
§ 7.

In the normal General Assembly, the following items are up for discussions and processing:

- a) The appointment of the Company's yearly result accounts and balance.
- b) Application of the Company's profit or covering of deficit, in connection with the fixed balance, and distribution of profit.
- c) Election of Board of Directors and Auditor.
- d) Other items which belong in the General Assembly's agenda.

§ 8. The Company's shares should be registered in the Verdipapirsentralen (VPS).

The Law concerning shares are otherwise prevailing.



*Ocean Energy's submersible and patented floating buoy (The Storm Buoy)*

## Addresses etc.

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### The Company

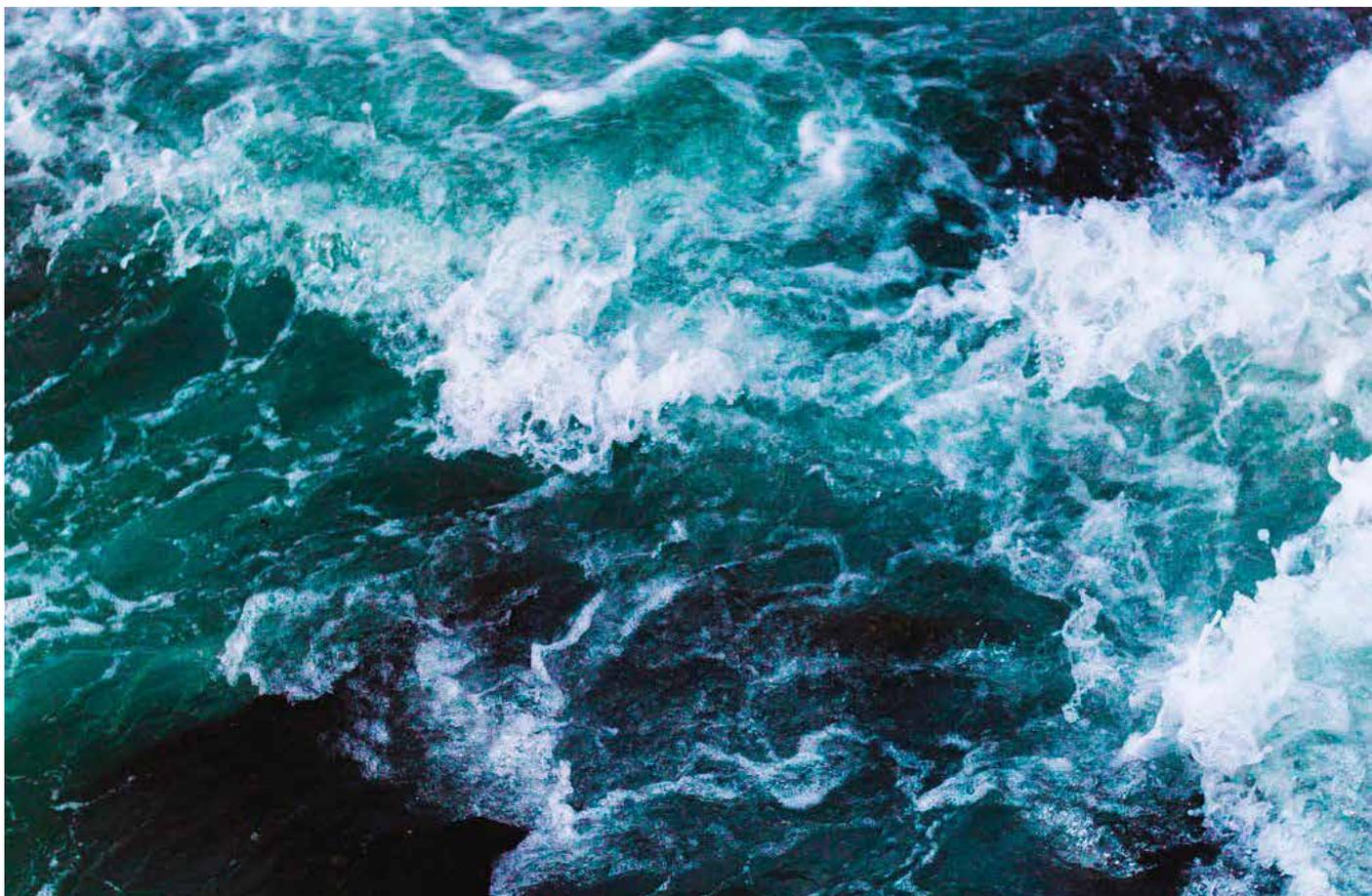
Ocean Energy AS  
Hatlevegen 1  
NO-6240 Ørskog - Norway

Foretaksnummer: NO 991 996 575  
Foretaksregisteret

### Share holders' service

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E-mail: [oce@oce.as](mailto:oce@oce.as)  
Web: [www.ocean-energy.no](http://www.ocean-energy.no)



The  
United  
States  
of  
America



**The Director of the United States  
Patent and Trademark Office**

*Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.*

*Therefore, this*

**United States Patent**

*Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.*

*If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.*

*If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.*

*Director of the United States Patent and Trademark Office*



US007444811B2

(12) **United States Patent**  
**Skotte et al.**

(10) **Patent No.:** **US 7,444,811 B2**  
(45) **Date of Patent:** **Nov. 4, 2008**

(54) **WAVE POWER DEVICE**

(76) **Inventors:** Ashjorn Skotte, Høien 1, N-6240  
Oslo (NO); Tor Westby, Aarstabben 1,  
N-0381 Oslo (NO)

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** 10/999,481

(22) **PCT Filed:** Apr. 1, 2005

(86) **PCT No.:** PCT/NO2005/000112

§ 371 (c)(1),  
(2), (4) **Date:** Feb. 22, 2007

(87) **PCT Pub. No.:** WO2005/095791

**PCT Pub. Date:** Oct. 13, 2005

(65) **Prior Publication Data**

US 2007/0193265 A1 Aug. 23, 2007

(30) **Foreign Application Priority Data**

Apr. 2, 2004 (NO) ..... 20041374

(51) **Int. Cl.**  
*F83C 1/00* (2006.01)

(52) **U.S. Cl.** ..... 60/498; 60/497; 60/500

(58) **Field of Classification Search** ..... 60/495-498,  
60/500

See application file for complete search history.

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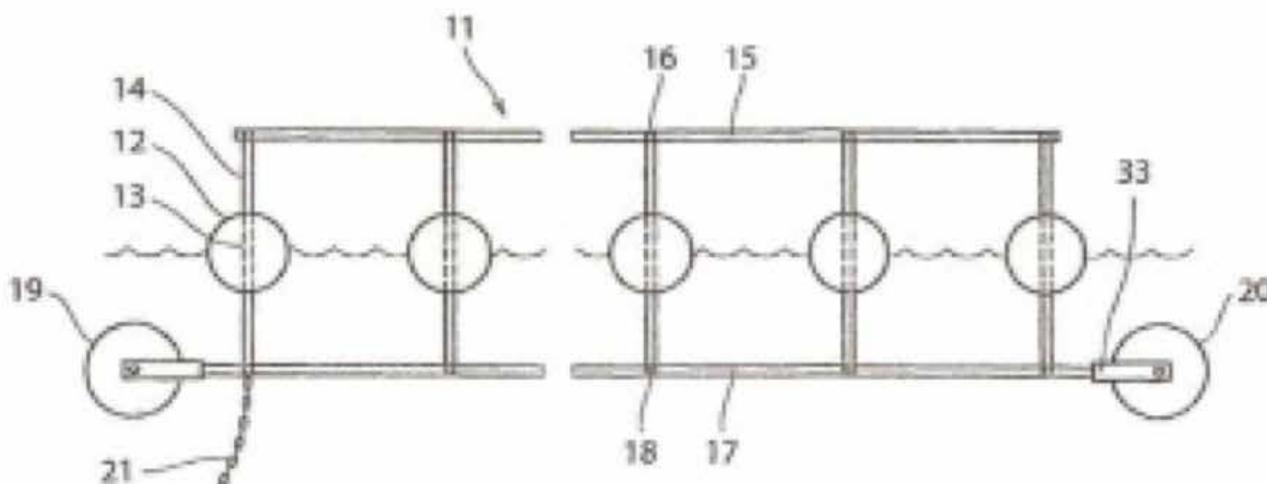
*Primary Examiner*—Hoang M Nguyen

(74) *Attorney, Agent, or Firm*—Derrison, Schultz &  
MacDonald

(57) **ABSTRACT**

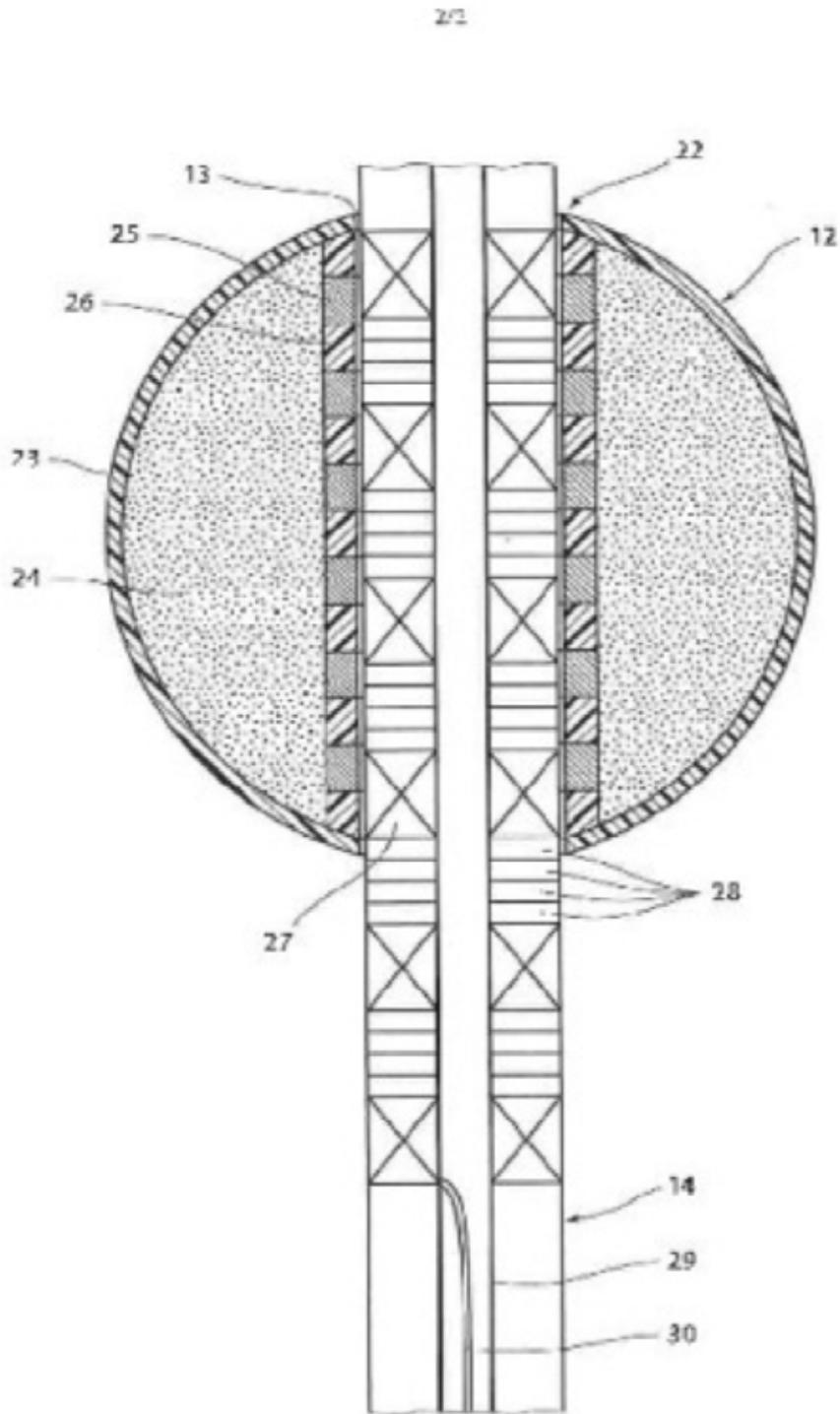
Wave-power device, with a plurality of floating bodies (12) arranged in at least two parallel rows for vertical movement caused by wave movements. Each floating body is connected to a generator (22) for the generating of electrical energy during the vertical movement. The floating bodies are joined to a raft (11) which can be relocated on the water and can be moored at an arbitrary place of use. The floating bodies (12) are connected to vertical supporting bars (14), which are held between an upper lattice-like structure (15, 16) and a lower lattice-like structure (17, 18), and each of the vertical supporting bars (14) is connected to an electric generator (22).

**13 Claims, 2 Drawing Sheets**



Patentet omhandler som verdens første løsning neddykning ved ekstremvær for å unngå havari.

*The Patent also deals with the basic principle with direct linear induction in wave energy solution.*



**Fig. 3**



# Registrebrev

Certificate of Registration

KONGERIKET NORGE  
The Kingdom of Norway

Patent nr.: 331603

*Patent No.*

I henhold til patentloven av 15 desember 1967 er Deres patent meddelt med opplysninger som angitt i vedheftet patentskrift.

This is to certify that the Norwegian Patent Office, in accordance with the Patents Act No. 9 of 15 December 1967, has granted a patent for the enclosed invention

Toril Foss

Toril Marie Foss

direktor



(12) PATENT

(19) NO

(11) 331603

(13) B1

NORGE

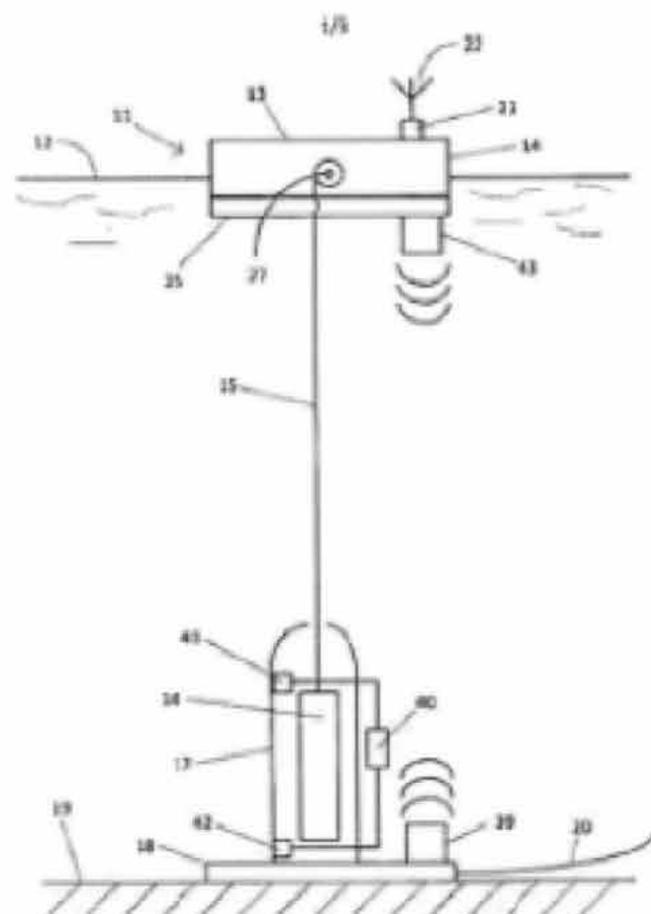
(51) Int Cl.  
H38 13/18 (2006.07)

### Patentstyret

(21)	Søknadsnr	20093401	(86)	Int innng-dag og søknadsnr
(22)	Inng-dag	2009.11.24	(85)	Videreføringssag
(24)	Løpedag	2009.11.24	(30)	Priority
(41)	Ans-dag	20 1.08.28		
(45)	Meddel	20 2.02.08		
(73)	Innehaver	Aasjøm Skutte, 6240 ØRSKOG, Norge Tor Westby, Åsustubben 1, 0381 OSLO, Norge		
(72)	Oppfinner	Aasjøm Skutte, 6240 ØRSKOG, Norge Tor Westby, Åsustubben 1, 0381 OSLO, Norge		
(74)	Fulmektig	Civo AS, Industriveien 53, 7060 HEIMDAL, Norge		

(54)	Benevnelse	<b>Framgangsmåte for drift av bølgekraftkonverter samt bølgekraftverk</b>
(56)	Anførte publiseringer	US 7863608 B2, WO 2009064854 A2, US 7826214 B2
(57)	Sammendrag	

Framgangsmåte for stormmanøvrering av et flytelegeme (13) for en bølgekraftkonverter som er anbrakt i sjøen under flytelegemet med en wireforbindelse (15) til dette. Flytelegemet er tilordnet en tank for regulering av en ballastmengde. Flytelegemet (13) vekt reguleres ved tilførsel/utførsel av vann/luft til en ballasttank (25) og ved drift av en strammevinsj (27) tilknyttet wireforbindelsen (15), for å kunne senke flytelegemet under ekstremvær. Videre er det angitt et bølgekraftverk med et flytelegeme (13) som er forbundet med en for eksempel mekanisk-elektrisk omformer (16) under flytelegemet ved hjelp av et wireorgan (15). Flytelegemet er tilordnet en ballasttank (25) for regulering av flytelegemets neddykking. Den omfatter en kompressor (30) tilkoblet en eller flere ventil (31, 33) for utslipp og innslipp av vann/luft til ballasttanken, en strammevinsj (27) for stramning av forankringswiren (15), en energikilde for drift av disse elementene, et styresystem (34) som gjennomfører ventil- og kompressorstyring og for opprettholdelse av oppdrift og wirestramning





## Certificate of registration of patent

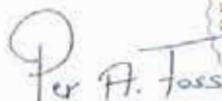
Patent number: 340893

Proprietor: Tov Westby  
Asbjørn Skotte

The patent was granted in Norway in: 2017.07.10

Inventor: Tov Westby, Åsstubben 1, 0381 OSLO, Norge  
Asbjørn Skotte, Hatlevegen 1, 6240 ØRSKOG, Norge

This is to certify that the Norwegian Industrial Property Office,  
in accordance with the Norwegian Patents Act of 15 December 1967,  
has granted a patent for the enclosed invention.

  
Per A. Foss  
Director



Gjør ideer til verdier

patent trademark design  
Norwegian Industrial  
Property Office 



(12) PATENT

(19) NO

(11) 340893

(13) B1

NORWAY

(51) Int Cl.

F03B 13/12 (2006.01)

F03B 13/18 (2006.01)

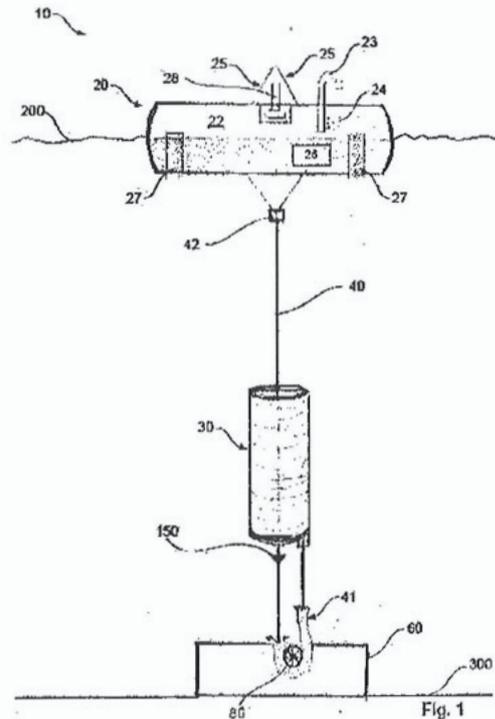
**Norwegian Industrial Property Office**

(21)	Application nr.	20160894	(88)	International Filing Date and Application Number
(22)	Date of Filing	2016.05.25	(85)	Date of Entry into National Phase
(24)	Date of Effect	2016.05.25	(30)	Priority
(41)	Publicly Available	2017.07.10		
(45)	Granted	2017.07.10		
(73)	Proprietor	Tov Westby, Åsstubben 1, 0381 OSLO, Norge Asbjørn Skotte, Hatlevegen 1, 6240 ØRSKOG, Norge		
(72)	Inventor	Tov Westby, Åsstubben 1, 0381 OSLO, Norge Asbjørn Skotte, Hatlevegen 1, 6240 ØRSKOG, Norge		
(74)	Agent or Attorney	Curc AS, Vestre Rosten 81, 7075 TILLER, Norge		

(54)	Title	<b>Balanced wave power converter system</b>
(56)	References Cited:	NO 321085 B WO 2015070869 A
(57)	Abstract	

Balanced wave power converter system including at least one surface buoy (20) and at least one submerged buoy (30), the buoys (20, 30) being connected to each other by means of a wire (40), wherein the wire (40) is connected to a three-phase generator (50) via a fly-wheel (80) between the two buoys (20, 30), wherein the generator (50) is arranged in a housing (60) at a seabed (300) under the buoys (20, 30), and which surface buoy (20) is provided with at least one ballast tank (22) for adjustment of the buoyancy of the surface buoy (20), wherein

- the submerged buoy (30) is arranged for accommodating the wire (40), and that the wire (40) is fixed to the surface buoy (20) and extends down from the surface buoy (20), through the submerged buoy (30), around the fly-wheel (80) and up to the submerged buoy (30) where it is fixed,
- the submerged buoy (30) exhibits a buoyancy being lower than the buoyancy of the surface buoy (20), and
- a magnetic lead screw (70) is arranged between the fly-wheel (80) and the generator (50).





## URKUNDE

Es wird hiermit bescheinigt, dass für die in der Patentschrift beschriebene Erfindung ein europäisches Patent für die in der Patentschrift bezeichneten Vertragsstaaten erteilt worden ist.

## CERTIFICATE

It is hereby certified that a European patent has been granted in respect of the invention described in the patent specification for the Contracting States designated in the specification.

## CERTIFICAT

Il est certifié qu'un brevet européen a été délivré pour l'invention décrite dans le fascicule de brevet, pour les États contractants désignés dans le fascicule de brevet.

Europäisches Patent Nr.

European patent No.

Brevet européen n°

1747372

Patentinhaber

Proprietor of the patent

Titulaire du brevet

Skotte, Asbjörn  
Hatlen 1  
6240 Ørskog/NO

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Aastubben 1  
0381 Oslo/NO

EP/1501/015 2021 0230

München, den  
Munich,  
Fait à Munich, le

21.10.15

Benoît Battistelli  
Präsident des Europäischen Patentamts  
President of the European Patent Office  
Président de l'Office européen des brevets



**Intellectual  
Property  
Office**

**Patents Form 51**

Patents Act 1977 (Rule 101)

Concept House  
Cardiff Road  
Newport  
South Wales  
NP10 8QQ

**Appointment or change of agent**

(See the notes on the back of this form)

1	Your reference	NGS/2504568
2	Patent application or patent number(s) (see note(d))	EP2504568
3	Full name, address and postcode of the or of each person who you are authorised to act for	Westby, Tov Aastubben 1 0381 Oslo / NO  Skotte, Asbjörn Hatlevegen 1 6240 Ørskog / NO
	Patents ADP number (if you know it)	
4	"Address for service" in the European Economic Area or Channel Islands to which all correspondence should be sent (see note (e))	A A Thornton & Co 10 Old Bailey London EC4M 7NG
	Patents ADP number (if you know it)	0000075001
5	Have you been authorised to act in all matters relating to the above application(s) or patent(s)?	YES
	If 'no' please give details of the extent of your appointment	
6		I/We declare that I/we have been appointed by the person(s) named in part 3 above to act as agent as stated in part 5 above
		Signature <span style="float: right;">Date 10.12.18</span>
		
7	Name, e-mail address, telephone, fax and/or mobile number, if any, of a contact point for the applicant	Rebecca M Astbury – 0207 440 6892 grant@aathornton.com



MINISTERIO  
DE INDUSTRIA, ENERGIA  
Y TURISMO



Oficina Española  
de Patentes y Marcas

## JUSTIFICANTE DE PRESENTACIÓN ELECTRÓNICA

Este documento es un justificante de la solicitud de protección definitiva de una patente europea concedida que designa España.

Número de envío:	300300078	
Número de solicitud:	E10833629	
Fecha de recepción:	18 diciembre 2018, 13:17 (CET)	
Oficina receptora:	OEPM Madrid	
Su referencia:	EP 2504568	
Solicitante:	TOV WESTBY	
Número de solicitantes:	2	
País:	NO	
Título:	MÉTODO DE UTILIZACIÓN DE UN CUERPO FLOTANTE DE UNA CENTRAL UNDIMOTRIZ Y CENTRAL UNDIMOTRIZ	
Documentos enviados:	es-ep-request.pdf (2 p.) validation-log.pdf (1 p.) SPEC.pdf (16 p.) OLF-ARCHIVE.zip	package-data.xml es-ep-request.xml application-body.xml es-ep-fee-sheet.xml validation-log.xml
Enviados por:	CN=Maria Duran Benejam 40836	
Fecha y hora de recepción:	18 diciembre 2018, 13:17 (CET)	
Codificación del envío:	8A:3A:BC:5F:83:1A:45:A8:B9:B4:55:3A:F4:D8:93:9C:11:57:2E:B3	
Validación de tasas:	-Tasa ET04 (909992100200188194035870): Validación de tasas correcta.	

# Diploma as finalist at DNB's Innovation Prize 2012

Dear finalists!

There has been a great interest in DNB's Innovation Prize 2012, a total of 695 submitted contributions. The final candidates for the regional round of DNB's Innovation Prize are now ready, and we have the pleasure of telling that their idea is one of 4 finalists who are continuing to the regional final in Oslo. Congratulations!

Trygve Lunde and Erle Heli Project managers for DNB's Innovation Prize 2012.



## DNB INNOVASJONS-PRIS 2012

Gratulerer som finalist i region Oslo

For bidrag til innovasjon og utvikling av norsk næringsliv

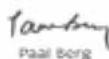
*Ocean Energy AS*

  
Einar Kyving

  
Anne Lise Aulnes

  
Karl Kristian Sundt

  
Jørgen Mortensen

  
Paal Borg

  
Bank fra A til A

# Ethical rules and regulations for Ocean Energy AS

Ocean Energy AS honestly demands, integrity, loyalty and honesty in all connections with our company's activities. All employees and honorary officers are expected to promote the Company's basic rules.

## Responsibility

Every employee is expected to handle him/or herself attentively and carefully towards customers, official authorities and towards cooperating companies' representatives and persons from competitive companies. Loyalty towards the Company must be a matter of course in every situation. We always must behave in upright and honest manner. We must through our own actions create confidence and security. We must behave professionally and trustworthy.

**Ethical instructions for Ocean Energy AS** Ocean Energy AS demands honesty, integrity, loyalty of all their employees. All employees and honorary officers in the Company would encourage all to follow the Company's values.

## Responsible

Every employee should behave with vigilance and honesty towards customers, authorities and towards cooperation, competitive companies should be a matter of course in all situations, and we should always appear in an honest and credible way. Through our actions we will see to that confidence and security is created. We must appear professionally and with reliability.

## Customer oriented

We must always keep the focus on the customer through being competitive, available and quality conscious.

## Cooperation oriented

We must secure that a total appraisalment through the whole value chain. We wish to appear as an attractive cooperation partner.

Employees and honorary officers shall, in their work follow all current laws and regulations in accordance with good trade (business) custom, our basic values and the ethic principles which is the basic for this document.

Ethical rules and regulations are important in order to create confidence, loyalty and responsible behaviour in Ocean Energy AS.

Ethical rules and regulations shall also protect us, our employees and honorary officers against accusations of unethical behaviour.

Ocean Energy AS underlines the need for an open and honest dialogue about questions and problem-approaches which comprises our ethical rules and regulations and that one on requirement is seeking guidance from one's nearest boss, personnel officer or the Company's administrative leadership.

If an employee or honorary officer get to know about such circumstances, which are against law and regulations, they are duty bound to report the case to the nearest boss in line, eventually the boss next in line, the Company's leaders or to a revision committee.

## Personal appearance

Everybody in Ocean Energy are required to behave with respect and integrity towards business partners, customers, colleagues and all others they are in contact with through his or her work in the Company. The Company's leadership has a special responsibility to encourage openness, loyalty and respect.

Ocean Energy will not accept any form of harassment, discrimination or other forms of behaviour which can be regarded as threatening or demeaning. Ocean Energy AS has as a goal to be an attractive workplace with a good, solid working conditions, with a variety of people and a balanced number of both women and men.

## Conflict of interest

Employees of Ocean Energy AS and honorary officers should do their utmost to avoid conflicts between their own employees, conflicts of a personal or environmental nature or conflicts regarding the Company's business. Employees with authority to purchase for the Company have a special demand for objectivity and integrity, so that there can be no doubt about the person's reliability and ability. Ocean Energy AS expects all employees to be loyal to the Company and forbid all employees to run any business in competition with the Company. Persons who are in possession of confidential information, are expected to exercise a conscientious relation to this, and loyally respect the signed secrecy form.

### **Anti-corruption**

Ocean Energy's employees or honorary officers shall never, directly or indirectly offer, promise or ask for money gifts or other business advantages above gifts of an insignificant value or other contributions of little or no value.

The closest boss should always be asked for advice when there is doubt. This prohibition is also in work when it comes to invitations, travels or participation in arrangements with suppliers or business partners unless this has been approved by your nearest boss.

Reference is made to the current, valid, travel regulations.

Appointments with consultants, agents or brokers of any kind or go-betweens should be used to channel payment or other reimbursements to anyone, so that Ocean Energy AS' rules and regulations for bribes or corruption are avoided.

### **Competition**

Ocean Energy AS is supporter of a fair and open competition. Our employees shall never under any circumstances, cause breakage of the competition rules, through for example illegal price cooperation, illegal market division or other behaviour that will hinder limit or twist the competition in controversy to current rules and competition laws.

### **Professional Secrecy**

The employee is bound to tell all information he/she might be in knowledge of regarding the Company confidential. When the employee

during his work gets hold of company secrets, or will have at his or hers disposal documents or information regarding the business or the running of the business, or the company's customers, the employee must not use such information or bring it further to persons not concerned,

### **Connection to Mass Media**

Statements, reports or other information from the Company have the goal to make the rest of society capable to form their own correct opinion of Ocean Energy AS. All information to mass media about the Company's business should be given by the CEO or another representative which the CEO will delegate to.

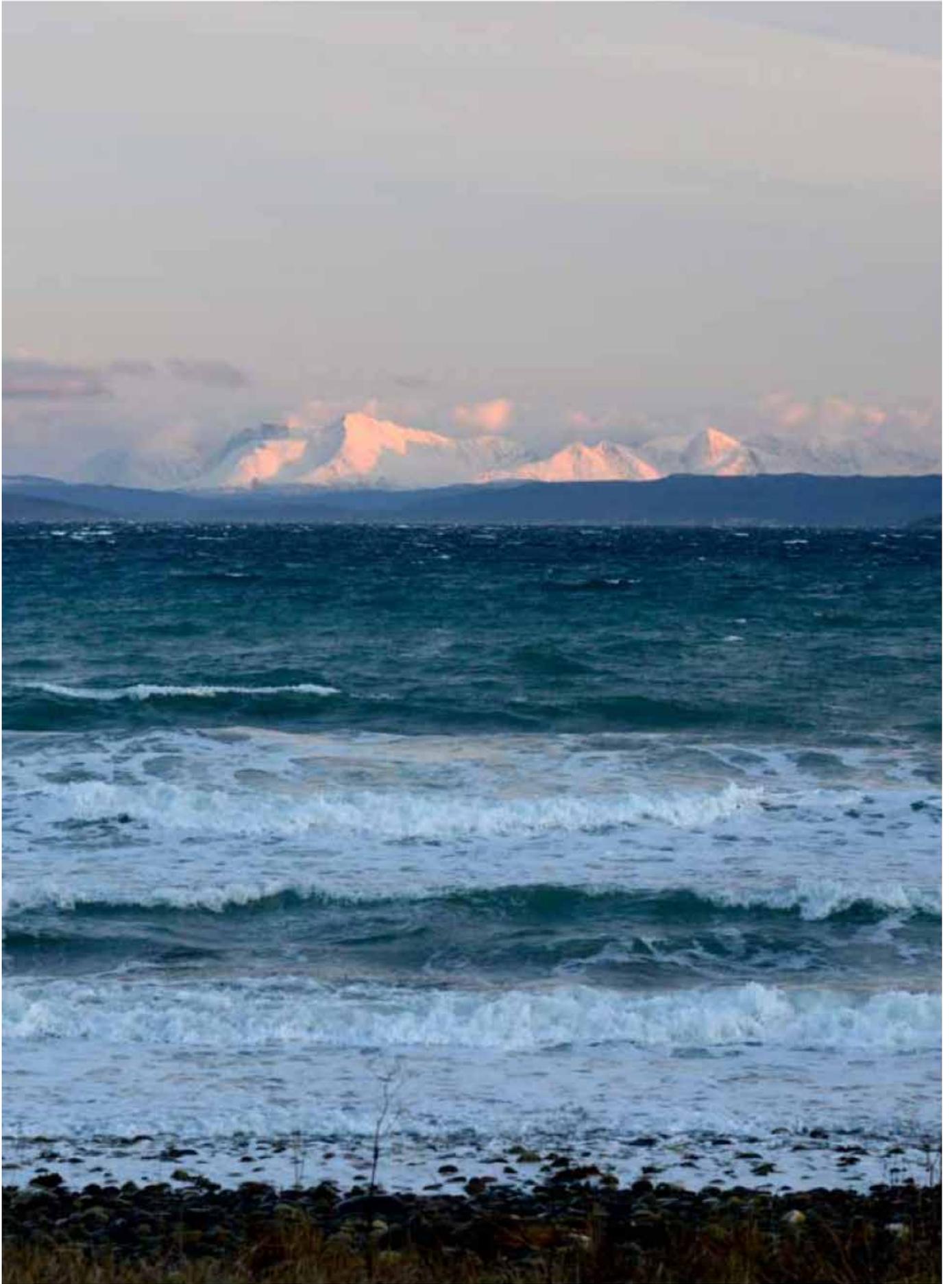
All other representatives can only give statements within their own area of responsibility, when they are specially given such tasks.

Sanctions by break of the ethical regulations behaviour in conflict with the ethical regulations may have large consequences for Ocean Energy AS and any infringements in this connection will be followed up. For employees this will have consequences in the form of oral or written warnings, and in more serious cases, dismissal or discharge.

Proved by the Board of Directors

16, May 2015





# Her ser du en enorm mulighet for miljøet – og for deg selv

## Bølgekraft – et lovende, norsk og miljøvennlig industrieventyr DU kan ta del i.

Nå kan du bli med på neste, spennende steg for det norske selskapet Ocean Energy! Med ren energi fra bølgekraft skal vi skape verdier både du og miljøet vårt kan tjene på. Her har også du som vanlig småsparer og investor mulighet til å ta del i den videre utviklingen av et industrieventyr med en grønn og bærekraftig profil!

### Vi har kommet langt. Nå venter trinn 2:

Det norske miljøteknologiselskapet Ocean Energy har kommet langt i å utvikle det som kan bli en av fremtidens viktigste energikilder: Bølgekraft. Alle viktige patenter for løsningen «Det Balanserte System» er nå på plass. Teknologien er testet av ledende fagmiljøer, og vil utvikles videre i samarbeid med Universitetsmiljøet i Trondheim. Vi har tidligere fått støtte via statlige støtteordninger og blitt nominert til DNBS Innovasjonspris. Der andre aktører strever med



*Vil du investere i utviklingen av grønn energi/bølgekraft? Les mer om «The Storm Buoy» på [www.ocean-energy.no](http://www.ocean-energy.no)*

**Motta komplett informasjon:** Send e-post til [oce@oce.as](mailto:oce@oce.as), ring oss på 88 00 30 40, eller send inn kupongen.

tekniske problemer med ekstremvær, har vi løsninger som takler møtet med naturen. Det har krevet mye arbeid gjennom mange år. Men nå står vi foran et gjennombrudd – til glede både for våre investorer og ikke minst for kloden vår.

### Det haster å gjøre noe – og du kan bidra.

FNs Klimapanel er tydelige på at det må utvikles nye energikilder for å nå bærekraftsmålene. Bølgekraft er en av de mest lovende og rene mulighetene da den utnytter de uendelige kreftene i havet, på en miljøvennlig måte. Mens f.eks. vindmøller kan skjemme naturen og skade sårbart fugleliv, er kraft fra havet «usynlig» og skånsom. Bølgekraft er trygg og grønn energi for fremtiden.

**Vil du være med og investere i den videre utviklingen? Les mer på [www.ocean-energy.no](http://www.ocean-energy.no)**



**JA, DETTE ER FREMTIDEN OG DET VIL JEG VÆRE MED PÅ!  
SEND KOMPLETT INFORMASJON TIL:**

Navn: \_\_\_\_\_

Adresse: \_\_\_\_\_

Postnr. / Sted: \_\_\_\_\_

Telefon: \_\_\_\_\_

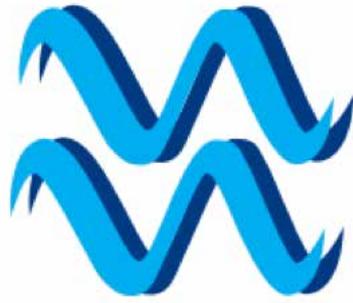
E-post: \_\_\_\_\_



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**Ocean Energy AS**  
Svarsending 8636  
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**And the aesthetic alternative to windmills...**

