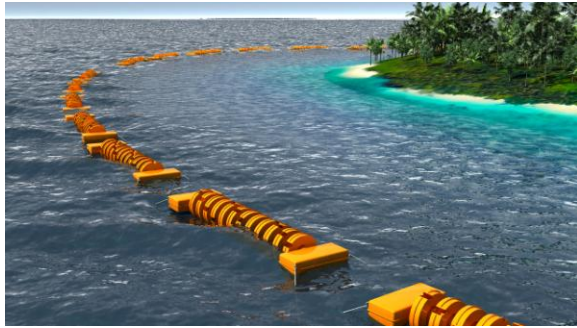


ENERGY-ABSORBING BREAKWATER



INTRODUCTION

Fresh water and energy - the main problem of the millennium, but it turns out that to address them only need the sea and the waves!

IDEA

The use of Energy-absorbing breakwater for autonomous generating electricity and desalination of sea water.

SOLUTION

We would say that people have long been engaged in the decision of the wave energy conversion problems, and for some reason they have decided that a device for converting wave power will swing on the waves. And for many years stubbornly repeating the same mistakes. Our technology enables to convert wave energy into rotation of working mechanism immediately, Figure 1.



Figure 1. CROSS-SECTION

It is much more efficient than pendulum, because there is no loss of energy to overcome the alternating loads. When wave rising atmospheric force provide of torsion torque and when wave diminishing - gravity. Moreover, the rotation is initiated in the same direction. Individual modules coaxial are collected in the section that provides increase in the power and smoothness of operation.

Currently, we have completed the creation of the industrial design installed capacity of 5kW.

Tests on the Azov Sea have shown stable operation of the prototype under real wind waves and confirmed that our technology has a number of advantages over the known solutions in the segment of renewable energy, Figure 2.



Figure 2. SEA TEST

The obtained efficiency allows expecting LCOE about 5cents/kWh and practically free desalination of sea water.

If we are able to raise €100k, then we will be able to complete the stage of MVP - manufacturing and marine tests of an industrial sample with an installed capacity of 5kW, and also complete the patenting process of PCT application.

The next stage is the preparation of production and the manufacture of a device with an installed capacity of 100kW. This requires one year of time and €500k. According to our calculations, this will allow to produce about 700MWh of electricity and up to 200,000m³ of drinking water per year.

After that, our company annually will be able to produce equipment with a total capacity of more than 10MW at a price of about 2,000 €/kW. Economically justified market price will be at least twice as much!

CONCLUSIONS

The authors of many projects in the wave energy sector were able provide investors with amazing economic calculations. They are united by one thing in common: they were all very ambitious and costly. The trouble is that none of them was unable to confirm its technical viability. Our intentions are more pragmatic - we want to present to the market a small but efficient equipment. And only then to begin scaling.

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