

"WAVE DESALINATION AND ELECTRIC PLANT OF OVSYANKIN DESIGN"



Offshore Wave Stations designed by Ovsyankin to improve Climate resilience of countries and regions. Desalination of sea water and production of electricity due to environmentally friendly renewable energy of sea waves, excluding emissions of CO2 into the atmosphere.



Marine wave stations designed by Ovsyankin will make a significant contribution to achieving the Sustainable Development Goals for climate change!

Climate change is driving significant increases in water consumption in most countries around the world, according to the latest United Nations reports. (https://www.un.org/en/sections/issuesdepth/water/index.html). The growing shortage of water resources can only be compensated for by industrial desalination of seawater. The existing desalination technologies require high energy costs up to 10 kW per 1 m3 of water. The production of one kilowatt of electricity from hydrocarbons leads to emissions of 0.5 kg of CO2 into the atmosphere. Therefore, increasing the production of fresh water by the traditional method of desalination significantly increases CO2 emissions into the atmosphere and,as a result, accelerate negative climate change.





One wave desalination station designed by Ovsyankin, the capacity of which for the ocean water area is up to 1000 m3 per hour of fresh water, will avoid CO2 emissions in the amount of more than 30,000 tons per year.



Wave desalination and power plants designed by Ovsyankin operate due to the environmentally friendly, renewable energy of sea waves and currents.

Wave stations are an anchored floating object capable of submerging under water to the required depth and, depending on the need, generate fresh water or electricity.

The project is based on the use of patented innovative technical solutions transforming ecological clean, renewable energy of sea waves and currents for the production of fresh water and electricity.



The efficiency of a wave station is provided by its basic properties, such as:

- the presence of a flexible self-adapting energy-absorbing element, which changes its shape from a flat longitudinal body to a spatial spiral under the influence of each incident wave;



- the design of the station is permeable to waves and has the ability to dive to a depth into the zone of action of the calculated wave parameters;

- the main structural elements of the station are made of composite polymer materials;

- the presence of a hydraulic system that provides the supply of seawater under pressure to the desalination sections or to the hydraulic turbine.



Station models have passed multiple tests in the wave basin of the Institute of Hydromechanics of the National Academy of Sciences of Ukraine and in natural conditions in the Black Sea.



Where they have clearly demonstrated their effectiveness



https://www.youtube.com/watch?v=fV0632i4 pM&feature=youtu.be

WIPO GREEN: <u>https://www3.wipo.int/wipogreen-</u> database/SearchDetailPage.htm?id=9593

Site: https://krok-1.com/en





12 February 2020 Olakai Overantin Krok-1

Dear Ofebail Overantin,

Woh this letter we wish to thank you and to applaud your vision and leadership in andersing the UN Exclusion Compact's CEO Water Mandate

Now are among a select group of buckness leaders who recognize the everyrowing importance of sound water management and water streambling, indeed, the growing cross is both water and sanisation in many parts of the world poses a minge of roles – and, in some instances, opportunities – for comparise in writtely all industries.

The CEO Water Maintape is designed to statust companies in the development, implementation, and disciplings of compensations even strategies and policies. It also provide a platform for companies to partner with like-minided bolimosos. (Wildgenois, public authorities, oxil society organizations, and other kits plateholders.

We wish to braw your advantion to three important angaignment aspects and opportunities related to the CDD Water Manufate:

- <u>Annual Working Conference</u>. The CEO Water Mandate convents a global high-value working conference each year Toocoad an a special aspect of water stawarthing. We hope your company will actively participate in this important forum, through attendance by the relevant operational antifier statework) offices.
- 2) <u>Communication on Progress</u>. All embranes of the CED Water Mandate are required to develop empail "Communications on Progress – Water" related to the Implementation of the CED Verset Mandate 1 elements: We toger your company will fundance traff as some a possible and this requirement, which in this described in the Transperset, Policy of the EED Water Mandate, [See, <u>http://jopus/seerment.dow.org/lies/Sermerement_Princy.pdf</u>)

Completed "CEO Water Mentlets Communications on Progress" are to be sent each year to: communication/products/communications

3) <u>Partnering with Statistications</u>: One of the functions of the CEO Water Mandate is to facilitate isofaboration between endomers and relevant statistication of the areas of water and sentetion. We hope you will explore such calaboration opportunities. In particular, we would like to draw you' attention to the Manilato's Water Action Hub, an on-Ime platform to edvance water and contaction projects at the local level. [See www.wateractionhub.org]

If you have not shreely done to, we would appreciate if your iffice could complete - as soon as possible - this short 7 minute ordisarring survey which will help to understand how best to assist your water stewardship efforts.

In addition, endatters are attrangly encouraged to set up a salf with the Mandate Tecretarias to learn about the Without's current focus areas, upcoming activities and events. To learn more about the Mandate's on-going activities and to schedule a call, please contact Mr. Peter Schulte at: <u>minuted Scound.org</u>.

In learning about the Mandata's activities, we also hope that you will consider joining the <u>Water</u> Security through <u>Elevandorian Action Patrime</u>. The Action Platform is selvera all of the Mandata's programmatic work and working provide are Accioned in the cone media-seconthosign which comparison. UN-entities, governments, NEDs, and other statisticiders work together to: II trust, refine, and scale conting edge water stewardship proctions and 20 hoster local partnerships, collective actions, and polys engineeriest.

Think you again for endorung the CEO Water Mandata. We are confident that you will generate significant value from this indicative.

Security.

harbom

Lila Karbasii Chief of Programmes UN Global Compact







This is to certify that

Krok-1

has become a Partner of the Global Water Partnership

> Date 2020-06-29

low

Peter Repinski, Interim Executive Secretary & CEO Global Water Partnership



The Global Water Partmership's vision is for a water secure world. Its mission is to support the sustainable development and management of water resources at all levels. The network currently comprises 13 Regional Water Partnerships and more than 84 Country Water Partnerships in over 167 countries.