Neowave Energy

Marine energy technologies and services.

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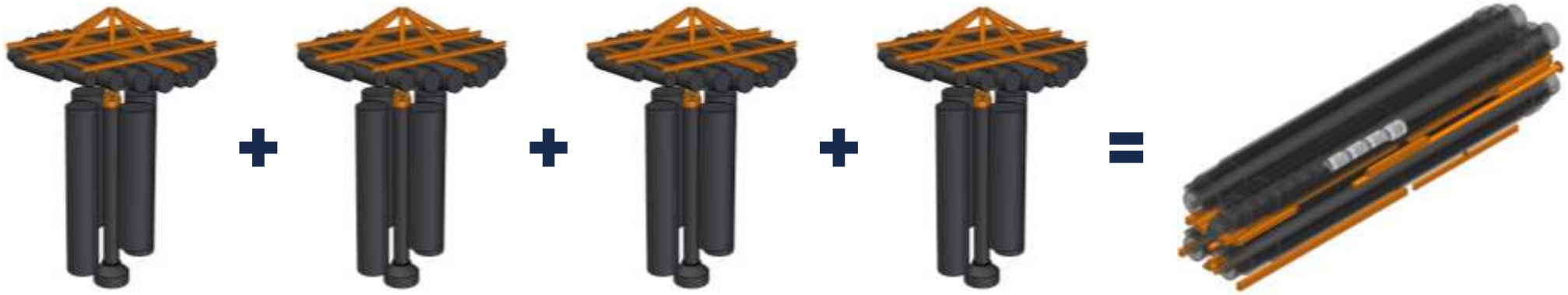
Technology

- A ‘new way’ to obtain energy from waves, inspired by the breathing dynamics.
- Point absorber type.
- TRL 3 [1]
- Basic, standard, industrialized and commercial components.
- Special parts’ fabrication by suppliers with traditional manufacturing technologies.
- Less dynamic parts and only seawater as fluid for power transmission.
- No gears, gear racks, cams, pulleys, chains, or bands for generator speed increase.
- Remotely operated systems for control (ROCS), and maintenance (ROMS) designed and with patent pending processes.

[1] ORE Catapult, “Neowave Energy Project – Technology and Development Path Assessment” Feb. 2022.

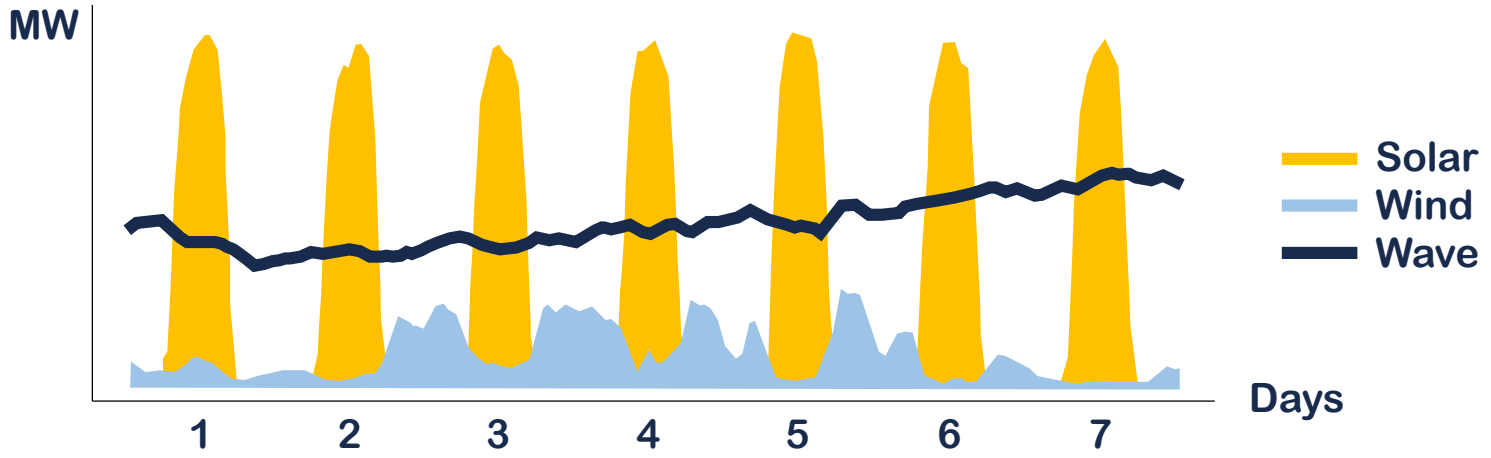
Technology

- Dismountable design for pieces change and reparations.
- Scalable design: From small units to big ones in energy parks.
- Stackable design: Four 1:2 scale units in one 40’HQ container, up to 35 MWh per month and better logistics.



Sector potential

- Waves have a 29.000 TWh/year theoretical potential energy [2].
- Close to the coasts, a practical availability rounds the 2.900 TWh/year.
- Waves can travel for kilometers with virtual no loss of energy.
- From sun and wind but more predictable and consistent than solar or wind.
- “The biggest battery on earth” [3]:

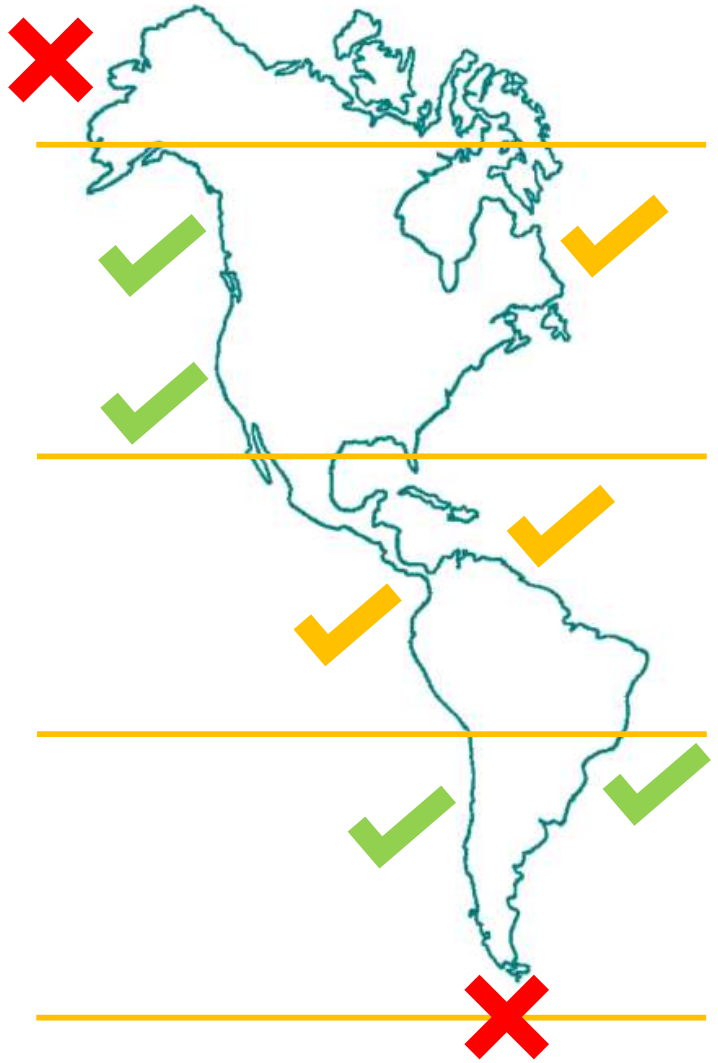


[2] IRENA, “Innovation Outlook: Ocean Energy Technologies” Dec. 2020. [Online] Available: https://www.irena.org/publications/2020/Dec/Innovation-Outlook-Ocean-Energy-Technologies
[3] CorPower Ocean. “Consistent Power Profile” Jan. 2024. [Online] Available: https://corpowerocean.com/wave-energy/

Sector potential

- Greater waves are mainly found between the tropics and the polar circles, with a best energy potential.
- Optimal in offshore waters with 40 meters depth [2].
- Other potential locations thanks to Neowave's scalability.

- Household and industrial consumption.
- Aquaculture, fishing, shipping, coastal protection, oil & gas, desalination, mining, clean hydrogen.
- Vertical business model: Assembly, installation, O&M, generated energy sales.



[2] IRENA, "Innovation Outlook: Ocean Energy Technologies" Dec. 2020. [Online] Available: https://www.irena.org/publications/2020/Dec/Innovation-Outlook-Ocean-Energy-Technologies.

Commercial deployment

- No new technologies needed for first demonstrations.
- No special materials or manufacturing processes.
- Access to computational simulations.
- Structural and flux evaluations.
- Bench, thank and field tests.

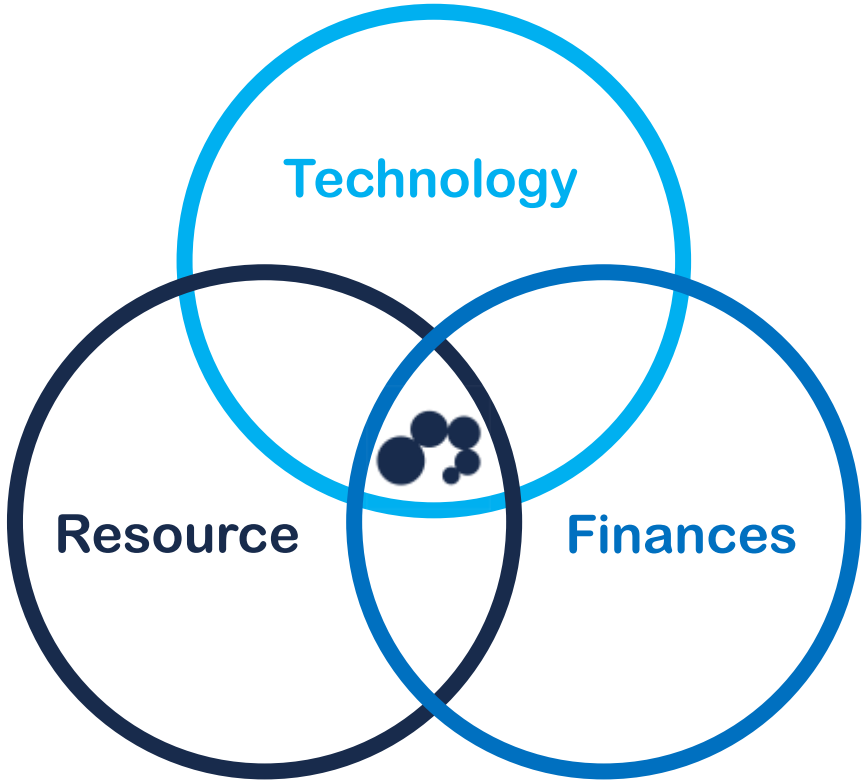
- How soon? As possible.

Deployment justification

- Neowave complies with all Principles of Balance for the development of any renewable energy technology [2].

- Better capacity factor thanks to it's ROS.
- More potential LCoE reductions.

- Construction and installation in developed and many developing countries.
- Hibryd projects with communities.



[3] G. Lavidas, "Selection index for Wave Energy Deployments (SIWED): A near-deterministic index for wave energy converters" Journal of Energy, vol. 196, 2020.

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Thank you!

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