

Modular Wave Energy Converter (MWEC)

Nolan Machines LLC

Cover Sheet

This modular Wave Energy Converter can power our coasts where it is most needed. This device can be almost entirely from recycled materials, and 1 Jelly Fish WEC should provide between .3-.5 W per wave. The Jelly Fish WEC overcomes where other WEC devices failed as it is cheap, a single module can be manufactured for less than 20 USD. At approximately one wave every 6 seconds at Myrtle Beach SC, and an estimated .3 per wave, a single module doesn't do much. About 4.32KW per day. Or 180 wH. The idea is to have large amounts of them in a line or grid, so that each wave moves each Jelly Fish WEC. 200 can be made for 40,000 USD approximately, and can produce 36 KWH. Or 864,000 KW per day. These can begin to be deployed immediately, and can be added onto later. These can also be used to deploy and recharge a Sea Craft EV, such as a submersible.

All concepts from Nolan Machines LLC are made with deployability in mind. These can be made and deployed right away. When a module malfunctions, there will need to be a replacement, and the old one recycled (easier to do with a "Line" configuration)

An inner and outer Floatation device made of recycled plastic. Attached to the inner float is a plastic (weighted) rod, with permanent magnets spaced on it. When a wave moves the WEC, the rod of permanent magnets will be pulled through a coil, creating a small amount of charge. In large numbers, the Jelly Fish WEC can produce reliable, green energy for our grid, 24/7.

This concept was made with the Net Zero Emissions by 2050, Circular Economy, and Blue Economy Development goals in mind.

This device, coupled with the Nolan Piston (other submission) can be used to rise to the top of the ocean, deploy a net to charge, deflate and fall back to a receiver plate to empty its charge, then repeat.

This would be a good use of 2 of Nolan Machines Concepts to help build the Blue Economy.