



# THE POINT ABSORBER



The generation of electricity from sustainable energy sources is nowadays a priority for many industrial countries. Among the most promising resources you can certainly identify the one due to sea waves, the machine that exploits them is the **point absorber**!

# WAVES

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Waves are created by the wind which in turn is caused by the Sun.  
This makes wave energy a renewable resource

# LIGHT

A flashing beacon on top of device alerts passing ships.



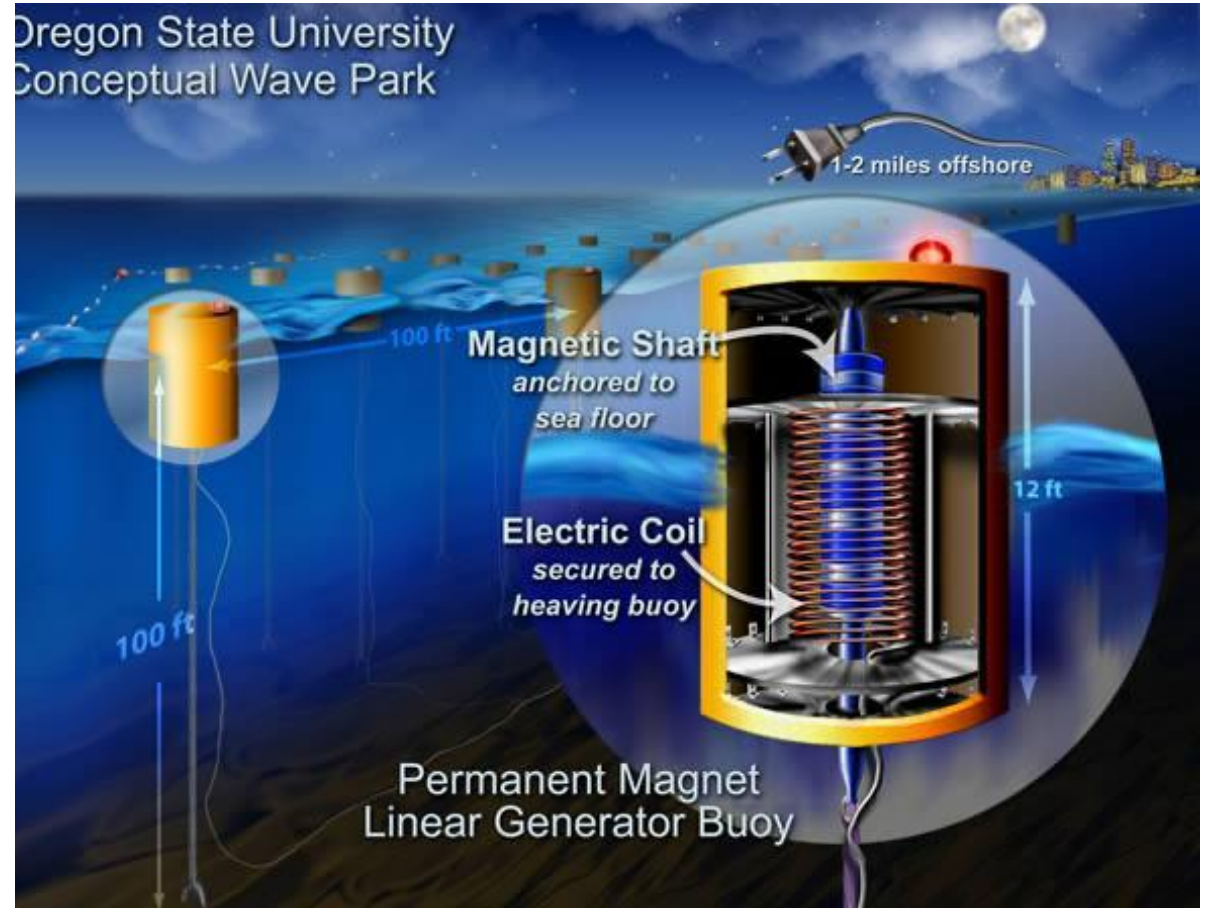
# FLOAT

As the surface of the water moves up and down, the float moves with the waves while pulling on a cable below.



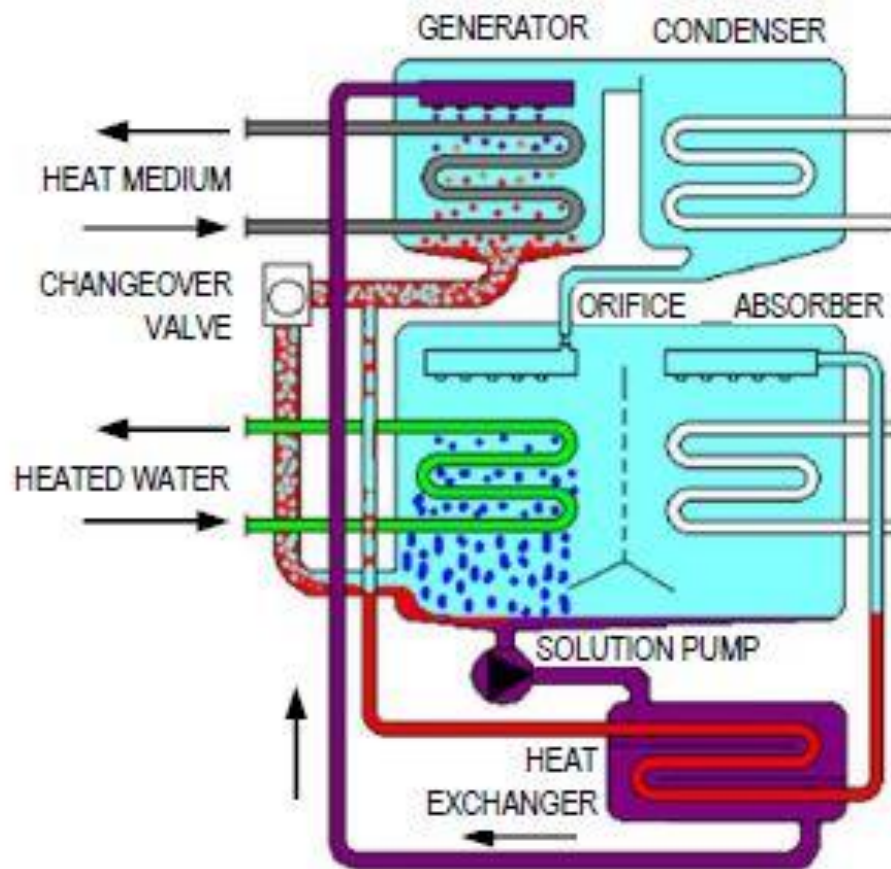
# MAGNETS

The column of magnets moves up and down with the waves inside the generation coils.



# GENERATOR COILS

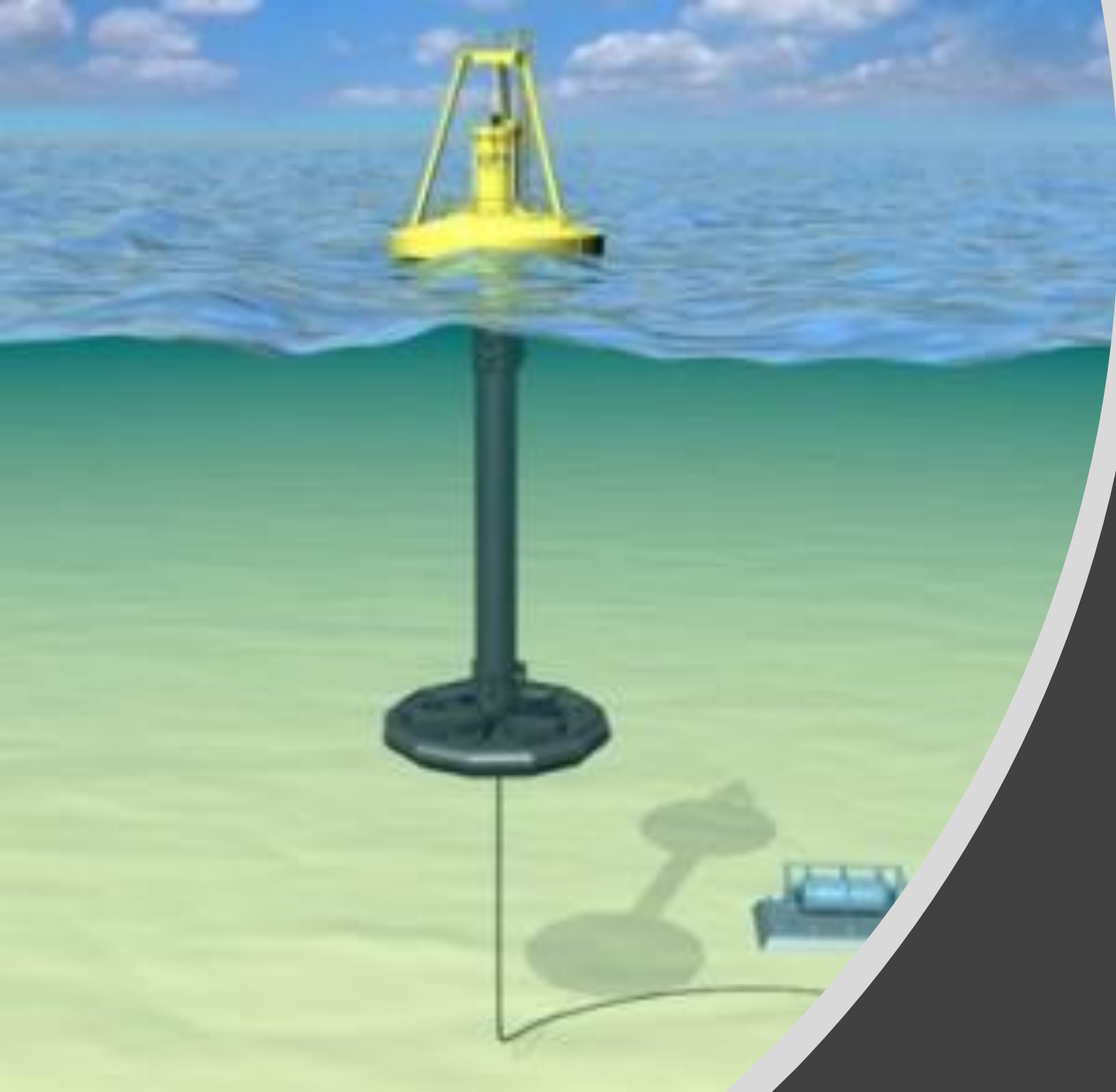
An electric current is induced in the coils of wire as the magnets move up and down



**IMPORTANT!**

**Cooling water**  
**MUST NOT FLOW** during  
**Heating Mode!**

-  Dilute Solution
-  Semi-Concentrated Solution
-  Concentrated Solution
-  Refrigerant Vapor
-  Refrigerant Liquid
-  Heated Water
-  Heat Medium



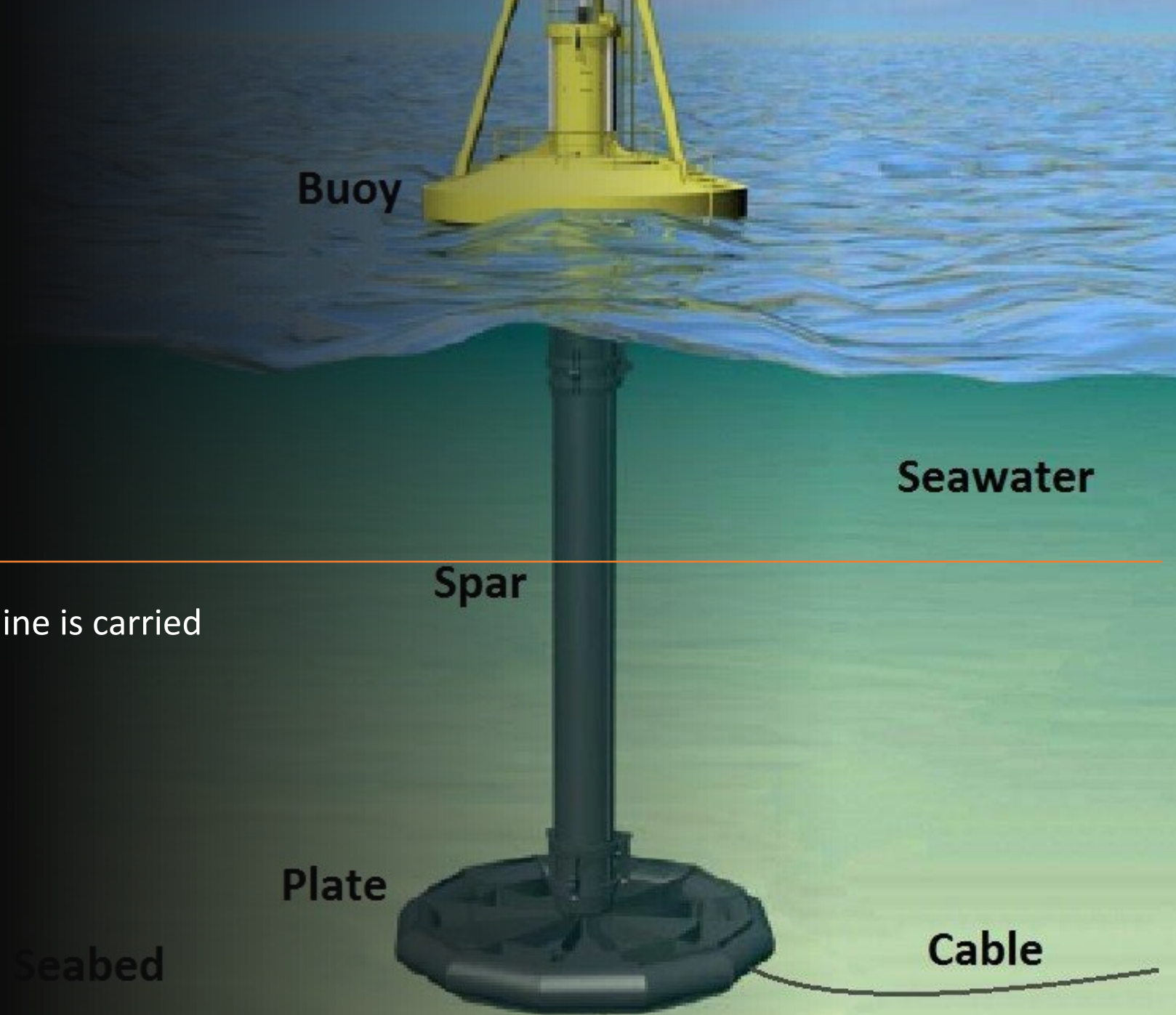
# FOUNDATION

The wave energy machine is securely anchored to the seabed



# CABLES

The electric current from the machine is carried through cables to the shore



# PROS & CONS

## Pros:

- Producing a renewable energy;
- It could provide energy in isolated regions;
- Waves travel long distances with little energy loss

A wide expanse of blue ocean under a clear sky. The horizon is visible in the distance, and the water has a textured surface with small waves.

Cons:

- **Potential navigation hazard for ship**
- **The energy produced is not constant because the sea is not always rough**
- **The amount of energy produced is less than that produced with the use of fossil fuels**



THANK YOU  
FOR  
YOUR ATTENTION