

# ENERGY BEACH

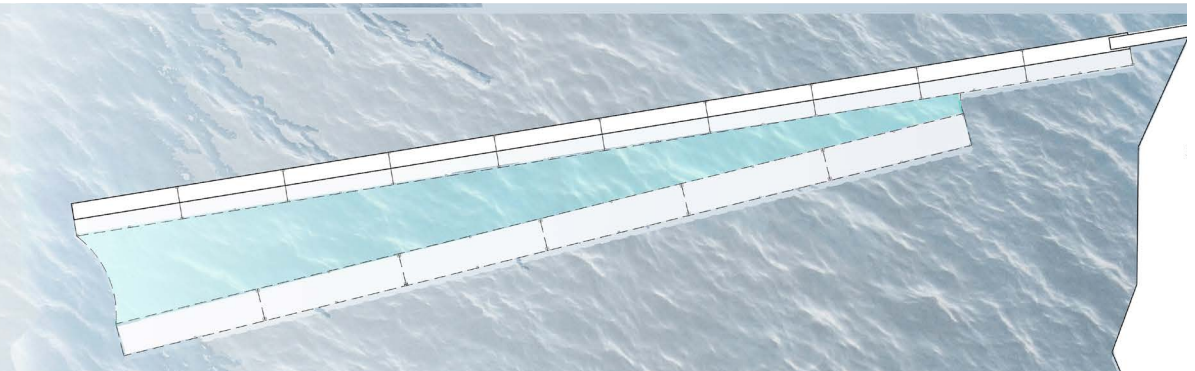
## **SPEED INCREASING MECHANISM**

high tork and slow rotation are converted to low tork and fast rotation to run the generator

## **COMPUTER CONTROLLED RIGGING SYSTEM**

to keep the water level even the cable rigging speed is synchronised maintaining the stability and level of the pontoon

The computer controlled height synchronizing system aligns the pontoons, allowing the vegetation and water level to remain at a constant level. The electrical generator has a speed increasing mechanism to transfer the force of lifting to rotation.



## ***CALCULATION of POWER GENERATED***

Volume above the water level  
 $3.0\text{m} \times 70.1\text{m} \times 18.6\text{m} \times 103 \times 33 \text{ pontoons} = 1.29 \times 108 \text{ kg}$

Buoyancy (the floating power)  
 $9.8 \times 1.29 \times 108 \text{ kg} = 1.26 \times 109 \text{ N}$

Potential energy between low tide and high tide  
 $2.5 \text{ m} \times \text{buoyancy} = 3.15 \times 109 \text{ J}$

Electric energy (90 % efficiency) generated twice a day  
 $3.15 \times 109 \text{ J} \times 0.9 \times 2 \text{ times} = 5.7 \times 109 \text{ J / day}$