

# OCEAN POWER WORD SEARCH

O A H X D Q G I F P I Q Y C R  
W F W E Q O E O E A B G R N X  
G K C S J F E T C C R O O M A  
P R R T U R B I N E L M A P R  
S E V G X N T D N E A Z E Y Z  
Z N I A H E L E R J R N I T P  
T E C H N O L O G Y I S X Z C  
C W L I N H O E M P R C T G H  
G A K A A N D F N X O I O V E  
C B R N P N O M B P L F H S A  
H L R B I A K O R I S O S M R  
E E E W O V S U E D D I P T V  
A L G A E N E K E E N G C O T  
P C E V N T O E F L S E A W N  
F Q T E A C L K O D I S U E E

*Below are some words that describe the energy that comes from the ocean and some of its many benefits. See how many you can find in the puzzle!*

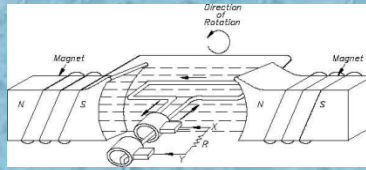
algae  
carbon  
cheap  
clean  
energy  
farm  
kinetic  
ocean  
renewable  
sun  
technology  
tide  
turbine  
wave  
wind

## HOW IS ELECTRICITY MADE?

- Parts needed:

- 1) **Conductor:** loop of wire

- 2) **Magnetic field:** created by electromagnets



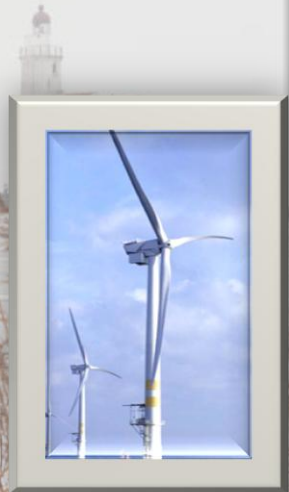
- Electricity is generated when the conductor moves within the magnetic field

- Either the conductor or the magnets can move

- Most commonly the conductor rotates through the magnetic field as in the diagram shown here

## WIND

- Wind blows consistently offshore
- Technology is available to harness wind to generate clean, renewable energy
- Building offshore wind farms could create many jobs and eliminate many tons of CO2 from being released into the air
- Harnessing offshore wind could produce 20% of Virginia's electricity needs



## WAVE

- Waves are an unlimited source of energy
- The North Atlantic Ocean is very wavy and is where most technology is being developed
- There are many technologies being developed to harness the energy in waves – land-based, floating buoys, walls, and more.



## TIDE

- As the tides rise and fall the movement of the water contains much energy
- Turbines, like those used in wind energy generation, can convert the energy of moving water to electricity
- Energy from tides is clean and renewable

