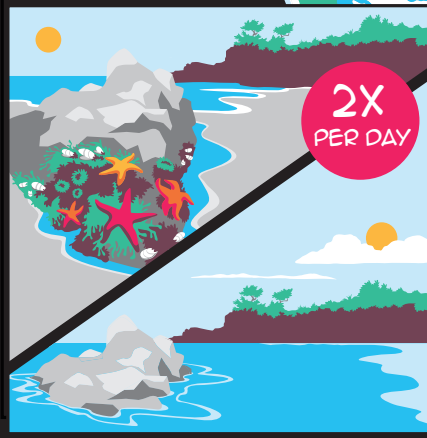
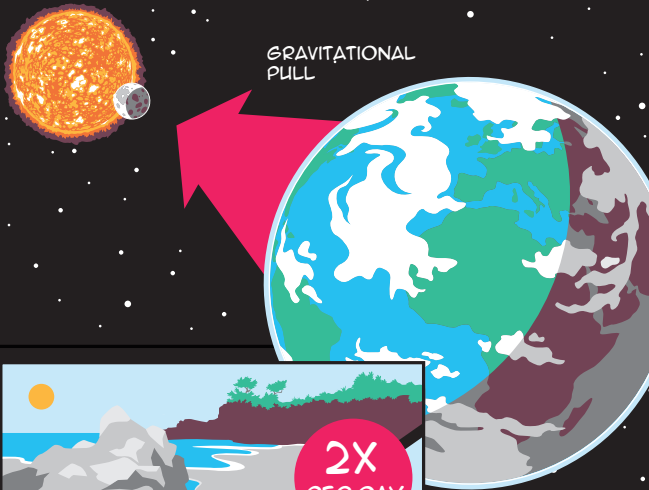


TIDAL

TIDAL ENERGY HARNESSES THE POWER OF OCEAN TIDES, WHICH ARE CAUSED BY THE GRAVITATIONAL PULL OF THE MOON AND SUN, AS WELL AS THE ROTATION OF THE EARTH. TIDAL ENERGY IS RENEWABLE, MEANING THAT THE WATER USED FOR ENERGY PRODUCTION IS NOT USED UP IN THE PROCESS.



TIDAL POWER STATIONS ARE INSTALLED ALONG COASTLINES IN AREAS WITH A LARGE TIDAL RANGE. TIDAL ENERGY IS RELIABLE BECAUSE TIDES HAPPEN TWICE A DAY — TWO LOW TIDES AND TWO HIGH TIDES WITHIN ABOUT 24 HOURS.

ANAPOLIS TIDAL STATION

NEW BRUNSWICK
MAINE (U.S.A.)
NOVA SCOTIA
BAY OF FUNDY
ATLANTIC OCEAN

ELECTRICITY IS GENERATED FROM OCEAN TIDES WHEN WATER PASSES THROUGH A BARRAGE OR DAM.

BARRAGE
TIDAL BASIN
TURBINE
OCEAN

THE CHANGE BETWEEN LOW TIDE AND HIGH TIDE CAUSES WATER TO FLOW THROUGH A TURBINE. THIS KINETIC ENERGY TURNS THE TURBINE, WHICH IN TURN POWERS A GENERATOR, CONVERTING MECHANICAL ENERGY INTO ELECTRICITY.

STATOR
WICKET GATES
ROTOR
TURBINE

