

# DESIGN OF A SCALED MODEL TO DEMONSTRATE WAVE POWER

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## ABSTRACT

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This report introduces on how a scaled model (prototype) is designed to be placed underwater that can harness the herculean power of water waves to generate electricity. The purpose of developing this scaled model is to provide an alternate renewable energy option in forming an eco-friendly environment and eliminate the emission of carbon dioxide. When the technical, economic and environmental factors are weighed up, water wave energy stands out as being very competitive. That is the reason why the water wave energy is projected as being one of the main energy supplies in the future.

The linear induction theory by faraday's law is applied in this scaled model in order to generate electricity. As we know, Faraday's law of induction is a basic law of electromagnetism predicting how a magnetic field will interact with an electric circuit to produce an emf. When the water wave produce an up and down movement, the magnet which is attached to the buoy will move within the stator which is made by a tightly wound coil of wire. Further details and information are provided in this report.