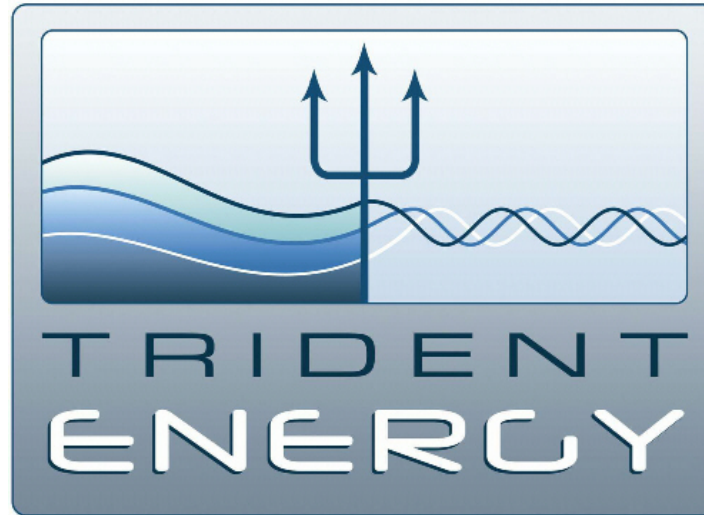


# *All-Energy '09*

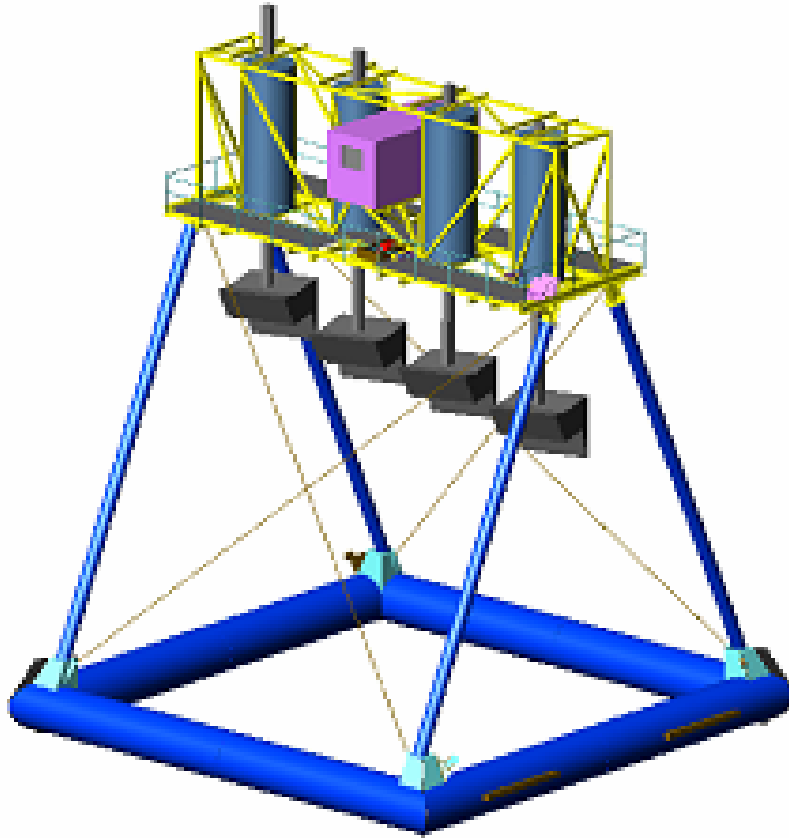


Technology update

Malcolm van den Bergh  
Engineering Director

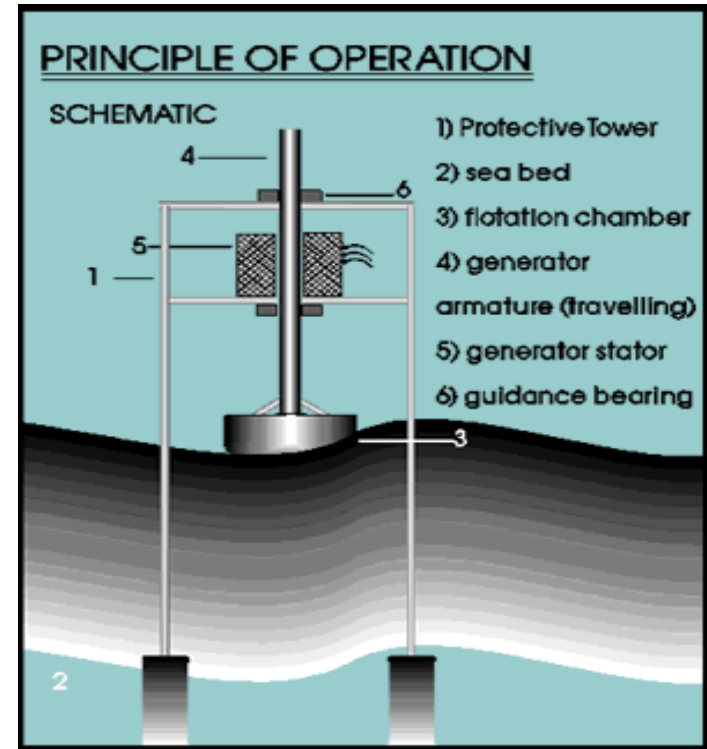
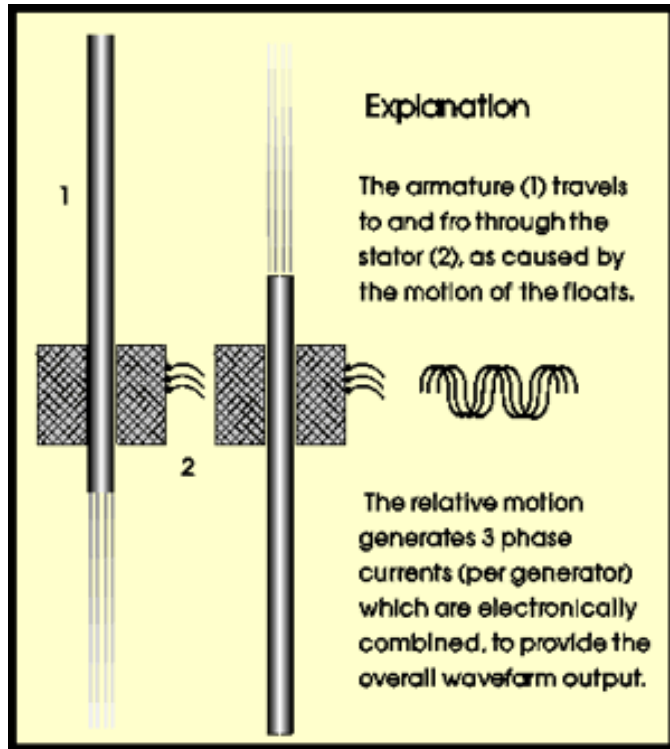


# Point Absorber Platform – 6 elements



- 1) Tubular linear generators  
(proprietary technology)
- 2) Power conditioning
- 3) Rig
- 4) Floats
- 5) Mooring system
- 6) Grid connection  
(not for demo system)

# Tubular Linear Generator (TLG)



# NaREC Wave Tank trials

Linear  
generators



# Advantages of TLGs

- No stick
- Mechanically Efficient
- No hydraulics or compressors
- Electrical efficiency similar to rotary generators
- Insensitive to speed
- Tuneable
- Scalable to suit variety of conditions

# Demonstration Platform

- To demonstrate that -
  - TLGs work and survive at sea
  - The mechanism is cheap, simple, has wide tolerances
  - Can be designed to be maintenance free
  - It is possible to generate commercially in the North Sea
  - Does not rely on piling or a seabed structure for efficient generation in deep water

# Where are we now?



# Powering up a TLG on the dockside

