

# Technisches Englisch

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“A town with 55,000 **inhabitants** would need half a **square kilometre** of seabed **covered** with 100 buoys to power it,” says Grey. He adds that they could be effective in the North Atlantic, from Scotland down to Portugal, along the Pacific US **shoreline**, from San Francisco in the US up to Vancouver in Canada, along the coast of Chile, and even in South Africa and New Zealand. But **calmer seas**, such as the **Mediterranean** do not have **enough** wave **height** to pump the buoy.

By courtesy of New Scientist

## Power-Generating Buoys Shelter in the Deep

They look a bit like underwater mines, but they have a far less **sinister purpose** – the first of these submarine wave-energy **devices** should **sprout up** off the UK coast in 2008. AWS Ocean Energy has **developed** an underwater **buoy** that **harnesses** wave energy from 50 metres **below** the **surface**. The British company says that because the **entire** device is underwater, it does not **suffer from** storms in the way that other **wave-power** devices do, and will not **interfere with** **shipping**. It will be anchoring its first five test buoys to the seabed in a **test site** off the Scottish coast next year. Wave power is nothing new. Perhaps the best known wave-power device is Pelamis – a red, **floating, snake-like** system that **undulates** on the surface of the sea, harnessing the energy of waves as they move up and down.

But surface generators are very **vulnerable** to **violent** storms. AWS's device, which is made from the same materials that are used in the underwater sections of **oil rigs**, sits in the **calm** of deeper waters. It harnesses wave energy at a distance, through the **changes in pressure** that waves **generate** by **increasing** and **decreasing** the **water column**. The buoys are **hollow** and filled with a **compressible** gas that **allows** the top half of the buoy to move up and down. When a wave passes over them at the surface, the additional water **stacked** on top of the buoy increases the local water pressure, and the upper half of the device is **pushed down**. Between waves, the water column is shorter, the pressure lower, and the upper-half **rises**. This **wave-driven** pump action is **converted** into electricity, which can be **fed** into the national **grid**.

**allow** erlauben, ermöglichen  
**anchor** ankern; Anker  
**below** unter, unterhalb von  
**buoy** Boje  
**calm** Ruhe, Stille  
**calmer seas** ruhigere Gewässer  
**changes in pressure** Druckunterschiede  
**compressible** komprimierbar  
**convert** umwandeln  
**cover ab-**, bedecken  
**decrease** absenken, verringern; Absinken  
**develop** (sich) entwickeln  
**device** Gerät, Vorrichtung  
**enough** genug, genügend  
**entire** gesamt, ganz

**feed, fed, fed** füttern, hier: einspeisen  
**float** treiben, schwimmen  
**generate** erzeugen  
**grid** Stromnetz  
**harness** nutzbar machen  
**height** Höhe  
**hollow** hohl  
**increase** ansteigen, erhöhen  
**inhabitants** Einwohner  
**interfere with** stören, beeinträchtigen  
**Mediterranean** Mittelmeer  
**off** vor  
**oil rig** Ölbohrinsel  
**purpose** Zweck  
**push down** nach unten drücken  
**rise** steigen, erhöhen  
**shelter** beherbergen, Schutz suchen  
**shipping** Schifffahrt  
**shoreline** Küste(nlinie)  
**sinister** düster, dunkel  
**snake-like** schlangenähnlich  
**sprout up** keimen, sprießen  
**square kilometre** Quadratkilometer  
**stack** aufstapeln, auftürmen  
**suffer from** leiden an, beeinträchtigen durch  
**surface** Oberfläche  
**test site** Versuchsgelände  
**undulate** wogen, wallen  
**violent** gewaltsam, stark  
**vulnerable** empfindlich, anfällig  
**water column** Wassersäule  
**wave-driven** Wasser (an)getrieben  
**wave-power** Wellenenergie

P. Zillmer

