



14 MAR, 2023

## BIG ENERGY POTENTIAL IN DEEP SEAS

New Straits Times, Malaysia



Page 1 of 2

### HYDROGEN POWER

# BIG ENERGY POTENTIAL IN DEEP SEAS

**T**HE world wants to use green hydrogen as clean energy. The way to produce green hydrogen is to electrolyse water using electricity from renewables such as solar and wind.

Many countries are racing ahead to embrace the hydrogen economy. We do not want to be left behind. We should launch our own hydrogen blueprint soon.

Experts predict many economic opportunities from the hydrogen business.

In the United Kingdom, wind power is harnessed to generate hydrogen.

One scheme talks about fitting floating wind turbines with desalination equipment to remove salt from seawater, and electrolyzers to split the resulting freshwater into oxygen

and hydrogen.

This idea has sparked great interest as governments are looking to embrace greener energy systems within the next 30 years, under the terms of the Paris Agreement.

Hydrogen is seen as an important component in these systems.

But for that to happen, the production of hydrogen, a gas which produces zero greenhouse gas emissions when burned, will need to dramatically increase in the coming decades.

It has been reported that wind turbine maker Siemens is investing US\$145 million in the development of an offshore turbine with a built-in electrolyser.

Other engineering companies are doing the same.

Large-scale hydrogen electrolyzers are becoming more available

while the cost of installing wind turbines has fallen dramatically.

Many think the time is right to kick-start large-scale hydrogen electrolysis at sea, though the idea has been around for many years.

In Malaysia, tapping wind energy is not so viable because of lower wind speeds here.

Scientists are nevertheless working on a different wind turbine technology to do that.

Not many are aware that in the deep seas around Sabah and Sarawak lies a potential energy source waiting to be developed.

I refer to ocean thermal energy technology, which is fast gaining interest in the global search for renewables.

We have a team based at Universiti Teknologi Malaysia researching and

developing the ocean thermal idea. Sadly, the funding for this plan is not strong.

We know energy is critical for the country. We also know that we cannot depend on our fossil sources forever. We need to diversify.

It is unfortunate that our energy research and development, as is true for most R&D, is fragmented and lacks focus.

The call for more collaboration has fallen on deaf ears. We will live to regret this attitude.

What we need is to have better coordination of our energy R&D.

Most of this is done in universities, where the motivation is more to publish rather than upscale into an industry of economic standing.

Businesses are seldom consulted. This disconnect remains a challenge

despite various initiatives to connect.

It is time to establish an energy R&D alliance among R&D centres, where new initiatives like ocean thermal energy must feature.

The alliance must incorporate industry input to remain relevant to the economy.

The only way to make this happen is through political will.

We can no longer count on ministries and institutes to make this change. They remain stuck in a silo working mentality.

Looking at the way the new government is pushing for reform, we may have a chance.

**PROFESSOR DATUK DR AHMAD IBRAHIM**

Tan Sri Omar Centre for STI Policy  
UCSI University