



Scientists have found vast amounts of natural gas frozen into the seabed, potentially containing more energy than all the world's known coal, oil and gas reserves combined.

The methane gas is mixed with water, and frozen solid by the high pressure and low temperatures in the deep sea. Methane hydrate, as the substance is known, has long been regarded by oil and gas companies as a nuisance because it can block marine drilling rigs.

The gas hydrate is a crystalline solid, similar in appearance to ice, but consists of molecules of gas surrounded by a mesh of water molecules. The first samples of methane hydrate, obtained on board oceanographic vessels showed an appearance similar to a fragment of white ice. Fragments of hydrates "melt" quickly, in response to changing pressure and temperature, transforming into water and methane gas. The chunks of ice collected from the seabed are unique in that they swell when a flame is approached, hence the nickname "Flammable Ice." Although many of the known gases have the ability to form hydrates, including carbon dioxide and sulfuric anhydride; only the methane hydrate is abundantly displayed on the seabed.

Now new studies suggest it should be reclassified as a major fuel resource, with enough buried in the oceans to power the world for decades or even centuries. It is said that the energy content of methane occurring in hydrate form is immense, possibly exceeding the combined energy content of all other known fossil fuels

However, such claims will anger environmentalists, who fear global exploitation of the deep seabed would put marine life at risk, especially whales and dolphins, which are sensitive to noise. It would also mean an increase in the burning of fossil fuel.

Huge reserves are already believed to lie off China, South Korea and India, countries that are all reliant on imports. There could be such reserves around Sri Lanka as well.