

When hydrogen and oxygen gases react, heat and light are released. This reaction produces no pollutants since the chemical product is water. Hydrogen is extremely plentiful on Earth, since two hydrogen atoms are contained in each molecule of water. A congressional committee has recently been studying the possibility of using the hydrogen in sea water as the new energy source for our civilization.

Explain the key pros and cons of that idea.

The key fact is that it takes just as much energy to dissociate H_2O into H_2 and O_2 as ones gets in return when they recombine. One cannot get something for nothing.

Hydrogen is not an energy source but it can be used to convert energy to other forms.

Energy from the sun, reactors, *etc.* can be used to dissociate H_2O into H_2 and O_2 and H_2 can then be used as an energy source for an engine.

p.s. if you forget everything but one fact from this course, please make the answer to this problem be the one fact you remember.