

Invitation to the CO₂ Reduction and Hydrogen Project to Prevent Global Warming

Hydro Energy α : Low-cost, on-demand hydrogen generation system of CO₂ utilization

Introduction

Future Environment Energy Co., Ltd. has reached a stage where it can provide practical solutions to the global warming, based on its long years of research and development. The following is an outline of our proposal for the collaboration with related organizations and companies.

1. Background and view

When the pace of global warming accelerates, the world will pay a tremendous price to fight against rising sea levels and climate change in spite of all the CO₂ reduction efforts currently made. Various measures have been initiated at the national and corporate levels, however, the following problems and issues are expected to arise..

(1) Nuclear power generation

Nuclear power is the best way to prevent global warming, except for the risk of disasters, terrorism and war, as seen in the Fukushima nuclear accident. However, in order to completely eliminate the risk, it would be better to build an underground space of more than 300 meters near the coast or a major river, with the underground facility to flood abundant water and lock it in at the time of an accident.

(2) Current use of hydrogen

The fact that we have entered an era of full-scale use of hydrogen is a wonderful reality, but the economic waste of extracting hydrogen from natural gas and lignite using energy from thermal power generation overseas, and transporting it from overseas on large ships powered by fossil fuels, contradicts the purpose of the principle of energy self-sufficiency.

2. Our approach

(1) Hydrogen

Hydrogen can be produced by electrolysis of water, but it is too costly and unrealistic. Our proposed solution is based on Rutherford* Theory of about 110 years ago that nitrogen molecule (N) in the atmosphere is decomposed and divided into hydrogen (H) and oxygen (O), with the use of Helium-derived α particle radiation.

*Dr. Ernest Rutherford (1871-1937), 1908 Nobel Prize winner in chemistry

Since then, it has been studied by many scientists around the world, but it has not been realized in spite of the unpredictable needs of today's rapid hydrogen supply.

Our company has focused on the ability of α particle radiation that can instantly disassociate all gaseous molecular bonds on earth, and as a result of years of research and development, the

following solutions have been prototyped and demonstrated.

- Decomposition and detoxification of toxic gases and odors: Adopted by a company involved in the treatment of the Fukushima nuclear power plant accident, and currently in operation.
- Extraction of hydrogen from steam generated by combustion engines: Installed in our biomass gasification plant, AMATERAS
- Hydrogen (H) is obtained by decomposing atmospheric nitrogen (N): Reproduction technology of Rutherford's theory

These can be realized by the patented device " Hydro Energy α : Molecular Separation and Binding Device". The main feature of this device is that it requires almost no electricity, heat, pressure, and it is safe and easy to handle. Hydro Energy α is made of highly pure thorium, which emits alpha particle energy for 14 billion years.

The initial cost is necessary but the running cost is almost zero. This will open up a dream era in which hydrogen can be supplied on demand as there is abundant nitrogen (N) in the atmosphere.



Hydro Energy α : Molecular Separation



ESP Electrostatic precipitator gas purifier and Binding Device

(2) CO₂ reduction

Currently operating facilities and equipment that generate large amounts of CO₂, such as thermal power plants, coal and oil-fired plants, can use the same fuel as they currently do, and "collect all the CO₂ emitted, instantly convert it to CO gas using a large Hydro Energy α device and system, and use it as an auxiliary fuel for circulation. The CO₂ emitted from these facilities can be completely eliminated and the combustion efficiency can be improved through the use of recycled energy.

3. Main target markets (domestic and overseas)

Hydrogen market

- (1) Automobile companies
- (2) Fuel cells

CO₂ market

- (1) Companies and organizations around the world
- (2) Municipalities with incineration facilities
- (3) Companies seeking to reduce CO₂ emissions: oil- and coal-fired power plants, factories, and other

companies that require CO₂ reductions.

(4) Sites where our biomass system “AMATERAS” are installed

4. Information on business collaboration

Hydro Energy α is very unique and the only device of its kind, so the CO₂ reduction technology that is most needed in the world today can be developed into the world's only one and number one business

We would like to invite you to join us in this project, and we hope that you will lend us your support in developing a wonderful business that will have the greatest effect on mutual prosperity and the prevention of global warming.

Business collaboration

- (1) Manufacture of Hydro Energy α equipment
- (2) Promotion and sales of Hydro Energy α equipment, and global sales network building
- (3) Installation and construction of Hydro Energy α equipment
- (4) Maintenance of Hydro Energy α equipment: CO₂ reduction measurement, equipment inspection, replacement, etc.
- (5) Lease and rental of equipment related to Hydro Energy α
- (6) Trading of CO₂ reduction emission credits in London, Hong Kong and other global markets
- (7) Consulting business for installation

5. Conclusion

We have explained the outline of this project and the formation of the collaboration. In order to promote this project on a large scale, we need to collaborate with many partners. If you have any questions or requests, please do not hesitate to contact us.

Future Environment Energy Co., Ltd.
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