

## **Succeeded in retrofit of conventional diesel engines into hydrogen-fueled diesel engine!**

Following the success of our development to convert gasoline engine into hydrogen-fueled engine, we have also developed hydrogen-fueled diesel engine by retrofit of conventional diesel engine. Utilizing by-product hydrogen to generate electricity will bring us virtually cost-free fuel resource. In addition, there will be various benefits as follows;

1. Lower your electricity bills
2. Increase profit by selling electricity
3. Virtually cost-free fuel resource and it brings you "Zero cost unit of CO<sub>2</sub>"
4. Electric generation with "Zero cost unit of CO<sub>2</sub>" vests you with CO<sub>2</sub> emission rights
5. Gain in earnings by emissions rights trading

This hydrogen-fueled retrofit diesel engine is powered by Hydrogen, Air, and Water. And we named this epoch-making system **H.A.W. System™** for the abbreviation of **H**ydrogen, **A**ir, and **W**ater.

We proudly present this environmental friendly product, Hydrogen-fueled electric generator operated **H.A.W. System™**, as one of the ideal solutions for global warming, using renewable and sustainable energy during we need to take some measures against greenhouse effects. This provides us the entire grid clean energy, which eliminates our concern.

There will be a big demand for this product all over the world. Therefore, it is likely becoming a great business opportunity and its contribution to society will be much growing. We are the only company, which has developed the hydrogen-fueled electric generator and made it into practical-use.

Now, we are seeking the distributors of our products for the world including Japan ahead.

**For Inquiries**

Contact us

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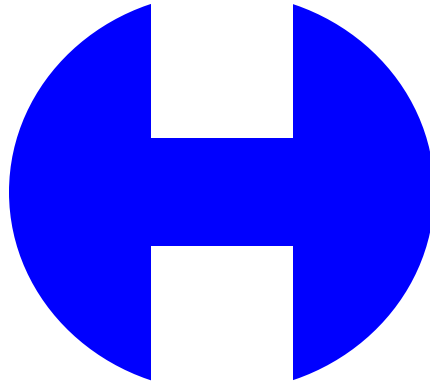
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~Business Model~

# Hydrogen-Fueled Electric Generator

~Utilize By-product Hydrogen Gas to Generate Electricity~



H.E.L.P.

**Hydrogen Energy Laboratory Project Co., Ltd.**

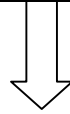
## The Fact of Internal Combustion Engine Fuels

- The internal combustion engine explodes and burns the petroleum fuel in the cylinder, and takes out that power.
- There are various internal combustion engine fuels, and we have successfully developed [H.A.W. System](#) as one of the internal combustion engine fuels.
- We are the only company that invented [Hydrogen-Air-Water](#) operated Engine all over the world (H.A.W. System)

## About the Hydrogen-fueled Internal Combustion Engine

- Convert Regular Electric Generator into “H.A.W. System-operated Generator” by replacing the dynamo part with hydrogen-fueled engine.
- Utilize by-product hydrogen gas effectively; e.g. Factories emitting by-product hydrogen gas can utilize that virtually cost-free fuel resource to generate electricity, so that they can lower the electricity bills.
- We retrofitted conventional gasoline engine car, Nissan Elgrand (3,500cc), into the hydrogen-fueled car in July, 2006 and it was authorized to run on public roads by Ministry of Land, Infrastructure, Transport and Tourism.

Where by-product Hydrogen Gas is abandoned



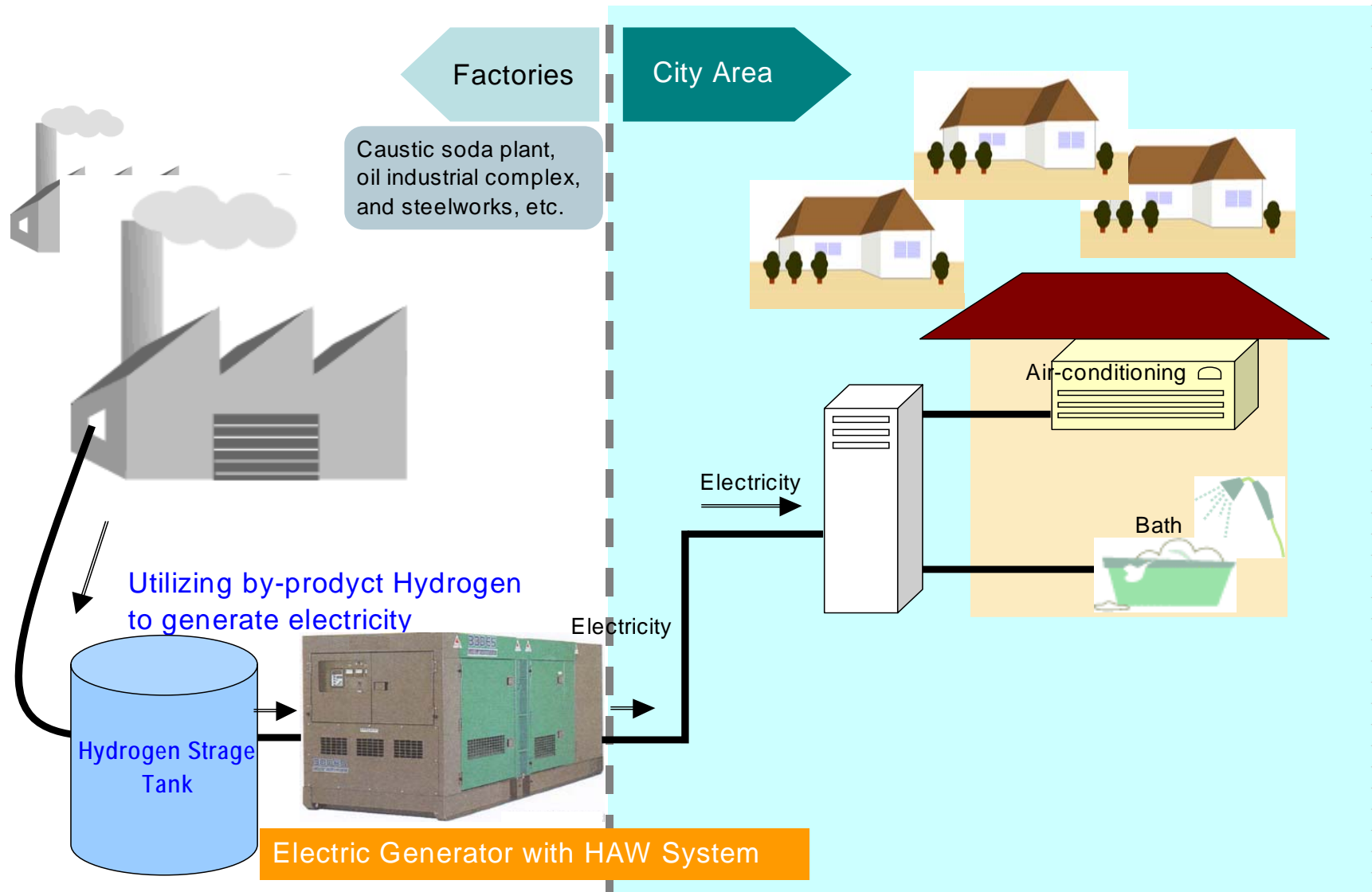
Caustic soda plant, oil industrial complex, steelworks,  
and oil fields, etc.



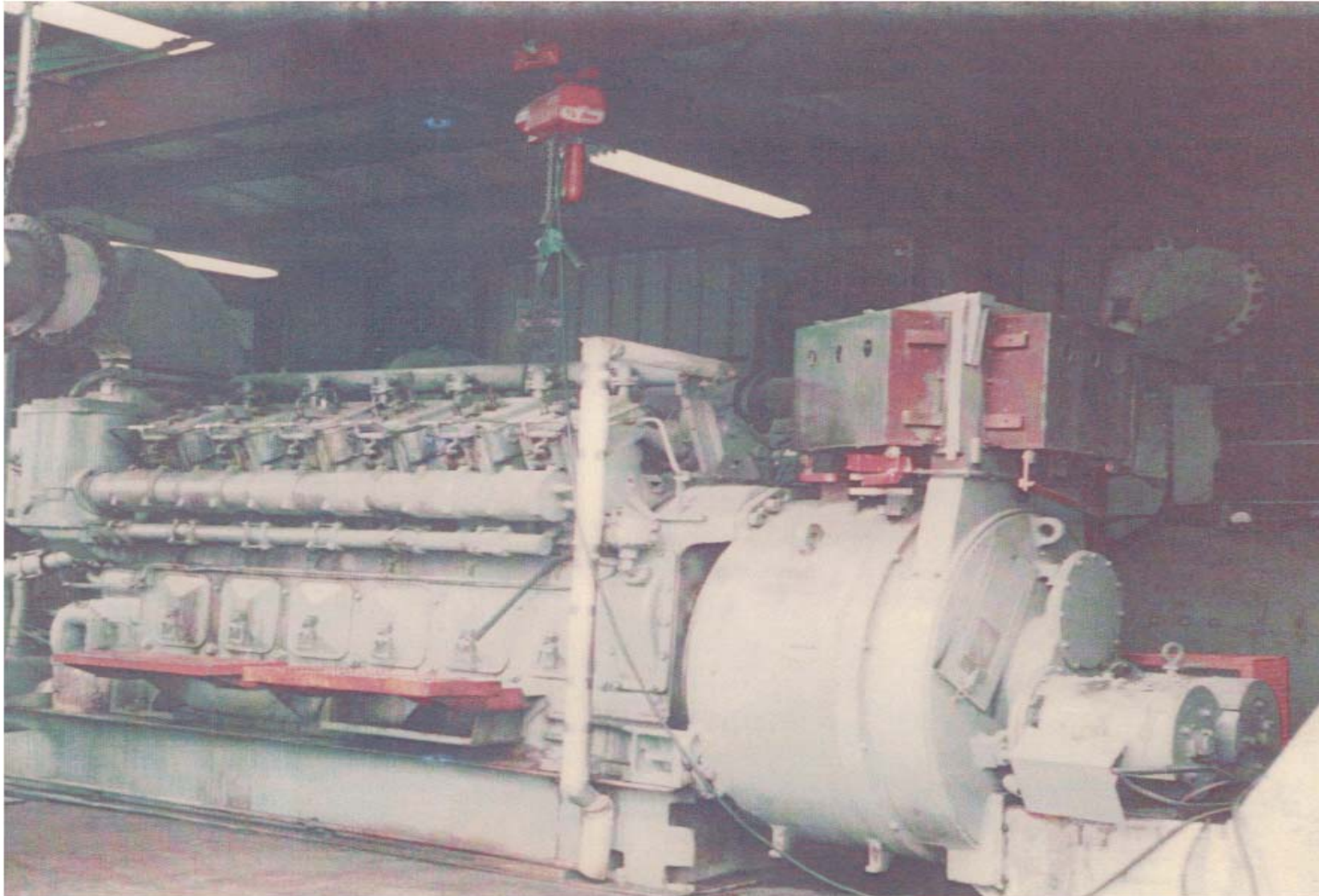
# ~The Blueprint with H.A.W. System~

## Electric generator utilizing by-product Hydrogen gas

### Model Town of by-product Hydrogen Business



# Hydrogen-fueled Retrofit Electric Generator





# The Proposal from our company

\*Install H.A.W. System to utilize by-product hydrogen gas effectively to generate electricity

Consequently



- Lower electricity expense
- Increase profit by selling electricity
- Reduce CO<sub>2</sub> emissions with this measure against global warming

Environmentally Friendly  
Environmentally Friendly