



3-5 February 2015 in Tokyo

## Plug-in Hydrocarbon Showcase

Natural refrigerants for commercial freezers  
Introduction and Practical experience

**Kazuhiro Tatewaki**  
REI-TECH Co., Ltd.

## Service of REI-TECH has penetrated into the life and every industries.

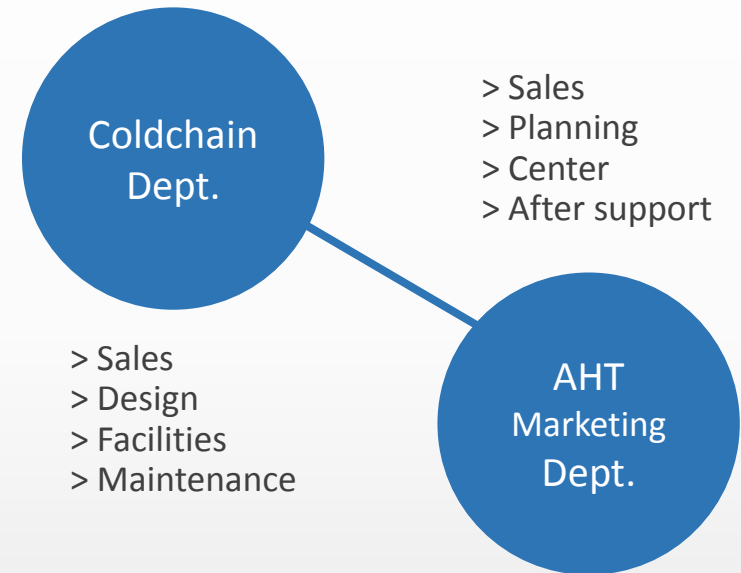
REI-TECH provides wide range services to store and housing from logistics center.

### Company Profile

Corporate name	REI-TECH Co., Ltd.
President	Yasuo Fujiki
Founding	April, 1979
Capital stock	30 million yen
Location	Tokyo

REI-TECH supports all customer's demands by our wide range service.

REI-TECH is certified according to ISO9001 and we provide reliable quality.



## REI-TECH has sold AHT Cooling Systems Showcases in Japan.

Hydrocarbon R290 and Variable Speed compressor



**SYDNEY**

New Model



**MANHATTAN**



**PARIS**

Renewal

High energy savings compared to conventional integrated systems.

Electrical consumption can save about 50% compared with the R404A model.

Ecologically sound through use of the natural refrigeration R290.

Small refrigerator, which uses natural refrigeration, assists to make "clean store".

Highly flexible : Can be used as a stand alone unit or combine an island.

Do not need pipe laying work. Every unit operates self-contained and it is easy to maintenance.

### Triple solution

- 1) High energy saving
- 2) Ecologically
- 3) User friendly

## Safety and environmentally friendly are the condition.

Gained strict safety certification. 530,000 units of experience in all over the world.



### R290 Benefit

GWP

3

ODP

0

High  
Efficiency

Low  
Cost

NO  
Toxicity

### Safety is certified by IEC.

If enclose capacity of refrigeration is under 150g, there is no combustibile risk. It is certified by IEC60335. Capacity of refrigeration of Hydrocarbon Showcase which REI-TECH provides is 120g at a maximum.

### Hydrocarbon Showcases are certified according to VDE.

Hydrocarbon Showcases are certified according to VDE which is German electronic safety certification. AHT Cooling Systems passes factory inspection every year.

You know?

Hydrocarbon refrigeration is commonly-used in Japan. Household refrigerators use hydrocarbon, R600a, which is same as R290. R290 is accessible refrigerant.



## REI-TECH has got results widely in all over Japan

Our products successfully used in supermarkets, convenience stores, and home centers.



We have begun sales of Hydrocarbon showcase since 2013.

The performances of environmental improvement and sharp power reduction earn a good reputation. Moreover, we have got introduction examples in convenience stores in all over Japan, mainly in Save On convenience stores.



## REI-TECH's products absolutely will reduce running costs.

Introduction of examples in Save On convenience stores.

### HC vs HFC

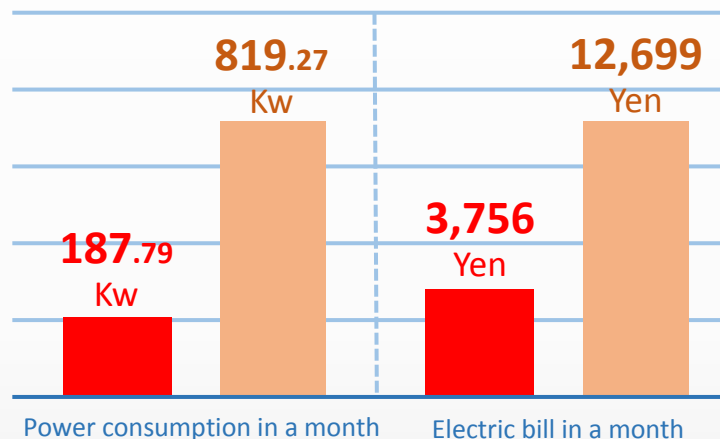
#### Hydrocarbon showcase (1φ200V)

Store : Maebashi-Rikimaru  
 Model : MANHATTAN210(U)AD  
 Content : 572 Liter  
 Length : 2102mm  
 Refrigerant : R290 120g

#### HFC showcase (3φ200V)

Store : Tsurugashima-Ohtagaya  
 Model : N/A  
 Content : 320 Liter  
 Length : 1800mm  
 Refrigerant : R404A 1400g

Measurement term : 1 month  
 Inside store temp. : 25 deg C  
 1φ200V = 20.00Yen 3φ200V = 15.50Yen



Energy consumption  
**-77.1%**  
 631.48 Kw gap

Electricity charges  
**-70.4%**  
 8,943 Yen gap

### Additional benefit

To reduce the food disposal and complaints by keeping food's quality.

Foods disposal or complaints of melted ice creams has been reduced because the closed type refrigerator has less susceptible of fresh air.

Initial costs has been reduced by increasing capacity of display.

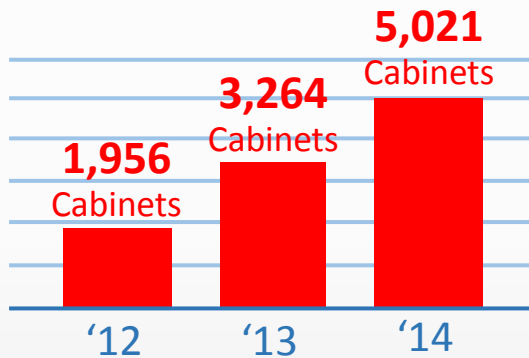
Because of the small machine room and the large storage capacity, to display quantities of two units food to only one unit has become able.

# Sales amount has been increasing for 35% annually in the world.

Introduction of result examples of Plug-in hydrocarbon showcase which is manufactured by AHT in Asia.

## Shipments of the past 3 years.

In ASIA



### The strictness of laws and regulations

European country which is the leading region in enforcing the compliance of ecological friendly product, and environment protection policy is increasingly strict. Moreover, in Asia, the strict laws about environment protection of China has been enforced. Therefore, we estimate the laws or regulations will be strictly enforced in the same way in most of country which will result in increase of shipment of hydrocarbon showcase in Asia.

### The ability to meet the necessary of the laws and regulations

AHT R290 refrigeration technology will fulfill the requirement of the global official environment legislation.

In-addition AHT have target to improve & resolve other related issues such as best energy conservation, lowest carbon foot-print & minimum service & maintenance waste.

## Main customers.

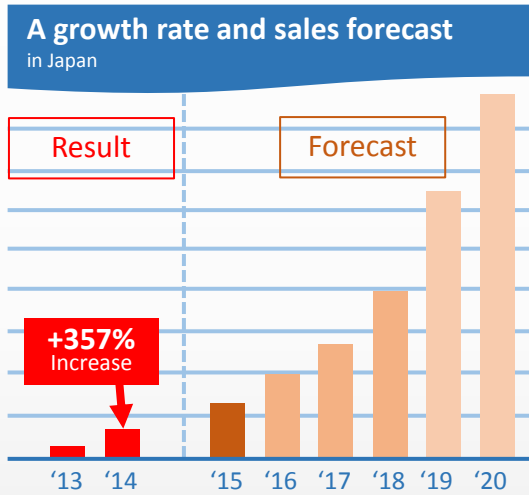
In ASIA



AHT is not only conform with the law and environment but also develops products emphasizing functionality and safety.

# REI-TECH will pursue whatever we can do for environment.

We will increase the shipping ratio of Hydrocarbon showcase until 2020.



We began sales of MANHATTAN in 2013 in Japan.

## Marked +357% growth in 2014.

Since the interests in environmental issue has increased recently, the recognition of natural refrigerant also increased. After two years since we began sales of MANHATTAN model R290, the growth rate marked +357% vs YA.

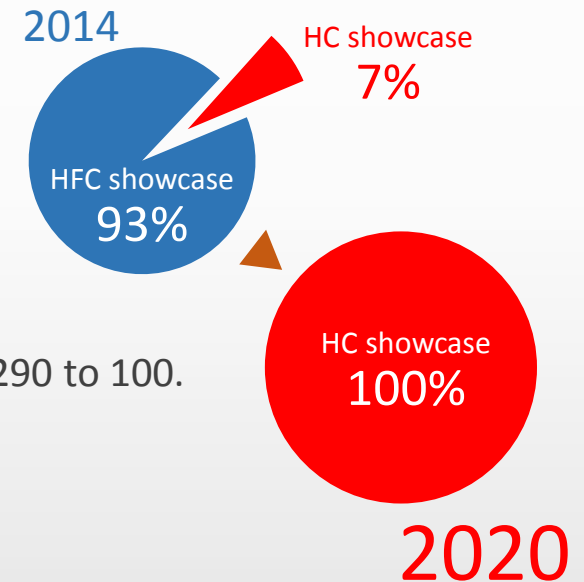
## To launch the latest model in 2015.

By adding the latest model of AHT Cooling "SYDNEY", and adding model R290 of "PARIS", which is the key commodities of REI-TECH, we aim to increase the number of shipments +100% vs YA.

## To increase the shipping ratio of model R290 to 100.

While HFC showcase accounts for 93% of total of the shipping ratio, we're going to reduce the number to 0% until 2020. On the other hand, we will increase the shipping ratio of model R290 to 100% in Japan, which is essential model of natural refrigerant to solve environmental issues.

## The target of shipping ratio until 2020



**Using Hydrocarbon showcase of AHT company, making ALL NATURAL STORE will be able!**





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**Thank you for listening!**

We will continue to create an ecologically store.

Information

We will exhibit a Hydrocarbon showcase at the  
**Supermarket Trade Show 2015**  
10-12 February 2015 in Tokyo Big Sight



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スーパーマーケット・トレードショー-2015  
SUPERMARKET TRADE SHOW