

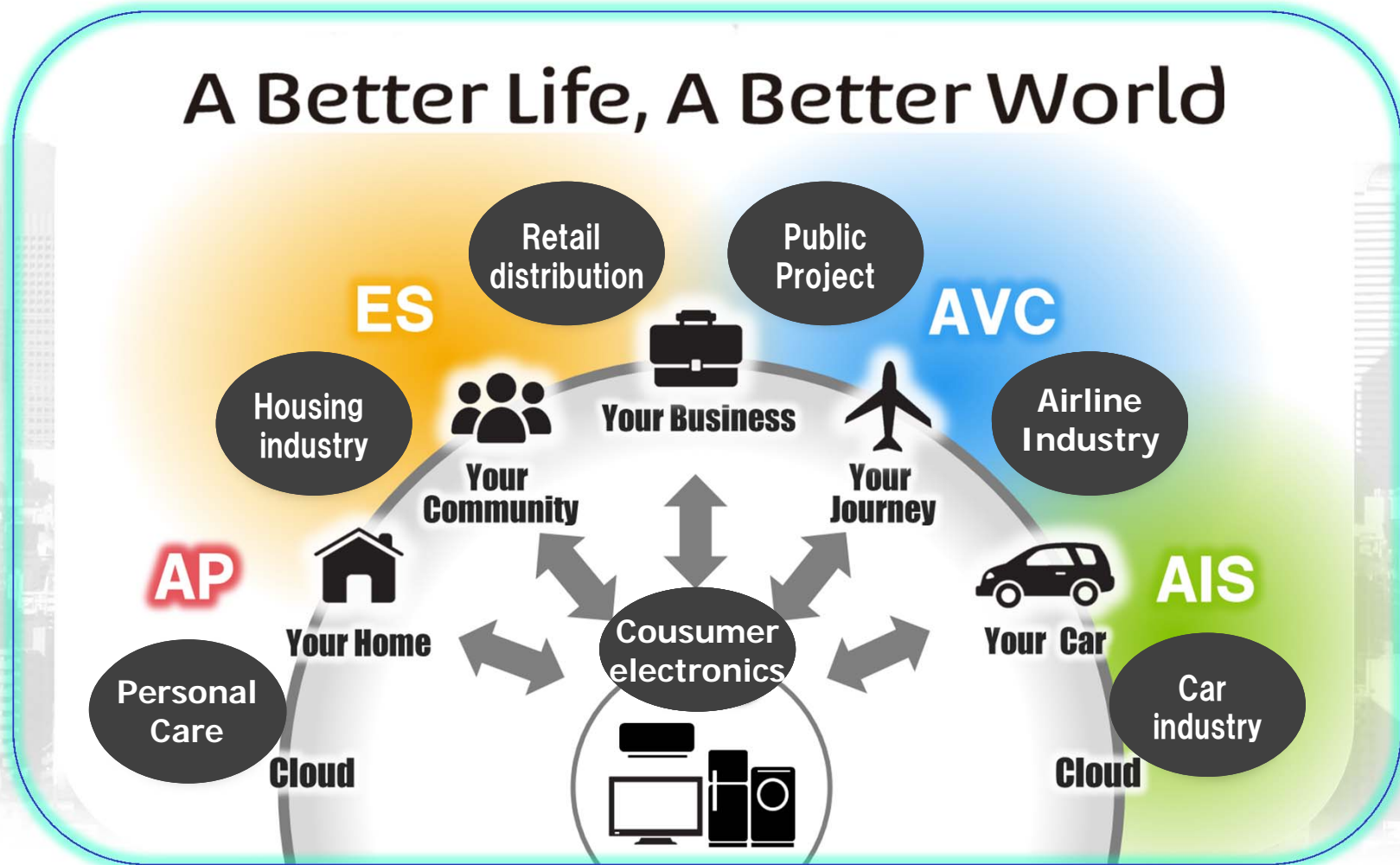


An Introduction of Panasonic CO₂ refrigeration system and further development

Tetsuro Homma
Executive Officer, Panasonic Corporation
Senior Vice President, Appliances Company

Our Vision

Expanding customers "Better Life" in their next with our DNA as a consumer electronics manufacture



Panasonic environmental approach

Contribution for environmental problems through the business & expanding eco-activity with social empathy



Panasonic natural refrigerant products

Consumer Market

Heat pump water heater

Refrigerator

2001~



CO2

refrigerant

2002~



HC

Commercial Market

Absorption Chiller

Beverage Cooler

Vending machine

Retail Store System

1971~



H2O

refrigerant

2004*~



HC*/CO2

*HC introduced for Vending machine since 2004

2007~



2010~



CO2

Our challenge in Commercial Business

Various products and services for Eco-friendly shop

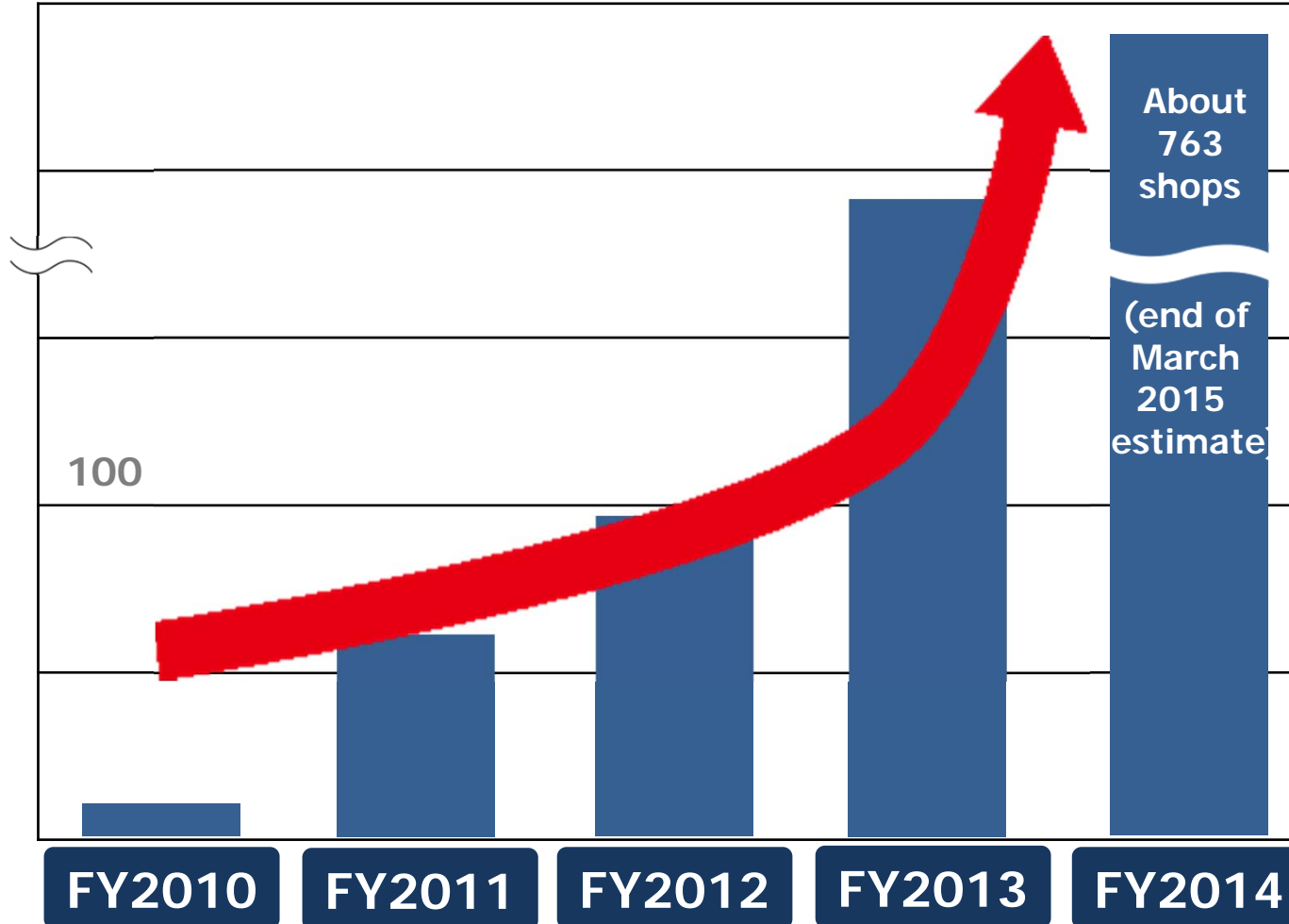


2010

Launch of Refrigeration system adopting CO2 refrigerant

※In 25th of May 2010

Rapid penetration of Panasonic natural refrigerant products in Japan



Supported by METI

Supported by MOE

CO₂ refrigeration system Customer portfolio in Japan

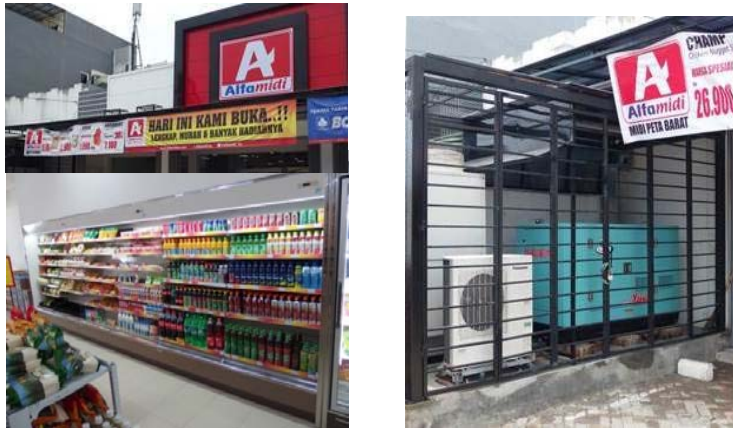
Supermarket • Department store • Convenience store



CO₂ refrigeration system adopting shops in SE Asia

3-5 February 2015 in Tokyo

**Alfa midi Peta Barat
(Supported by METI)**



**Alfa midi Raden Sareh
(Supported by MOE)**



**Alfa midi Kebagusan
(Supported by MOE)**



Next Generation Products

“Pressure adjust control type”



20HP/15HP



10HP

Available from
April 2015




10HP
Side flow type

Features of Pressure adjust control type CO₂ refrigeration system

New! Combination of 2 step expansion cycle & split cycle

1 Smaller & Lighter

Space saving design by body size change
 Lighter & Smaller than same output R404A model!



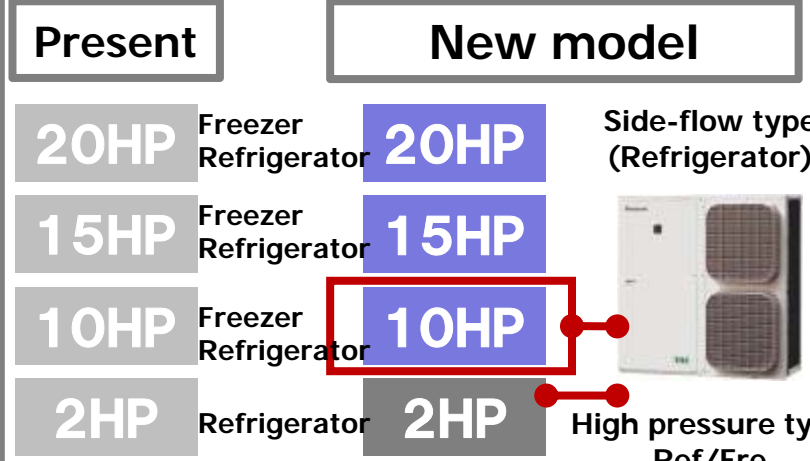
Size decrease 34%

Weight decrease 20%

Present New model

3 Upgraded variation

Present		New model	
20HP Freezer Refrigerator		20HP	Side-flow type (Refrigerator)
15HP Freezer Refrigerator		15HP	
10HP Freezer Refrigerator		10HP	High pressure type Ref/Fre
2HP Refrigerator		2HP	



2 Utility & installation improvement

(1) Reduction of Pipe weight & cost

Weight decrease 31%

Cost decrease 18%

(2) Easy installation by thinner pipe thickness
 (3) Easier tuning of refrigerant volume

4 Upgraded showcase lineup

272 models → 651 models



※may 2015 start order receiving



Aim to realize Natural refrigerant town, Tokyo in Olympic year 2020

3-5 February 2015 in Tokyo



Panasonic natural refrigerant products

Official Worldwide Olympic Partner
Panasonic

8KM
10KM

ヘリテージゾーン

東京ベイゾーン

Lawson

From "The Tokyo Organising Committee of the Olympic and Paralympic Games"HP



solutions for asia
natural refrigerants

3-5 February 2015 in Tokyo

Thank you very much!