



9 & 10 February, 2016 – Tokyo



Ministry of the Environment

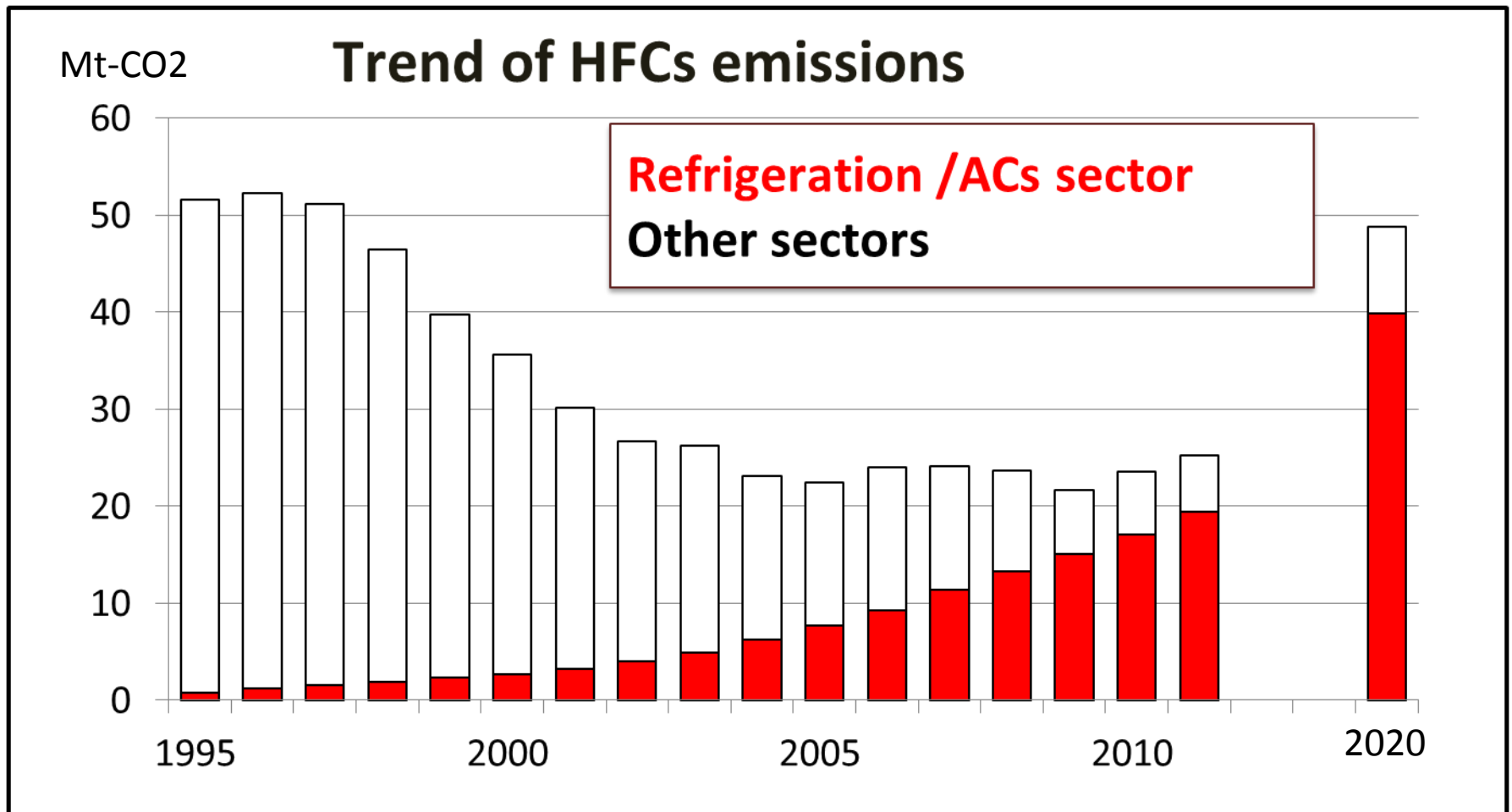
# Key Measures to Achieve F-gas Reductions in Japan

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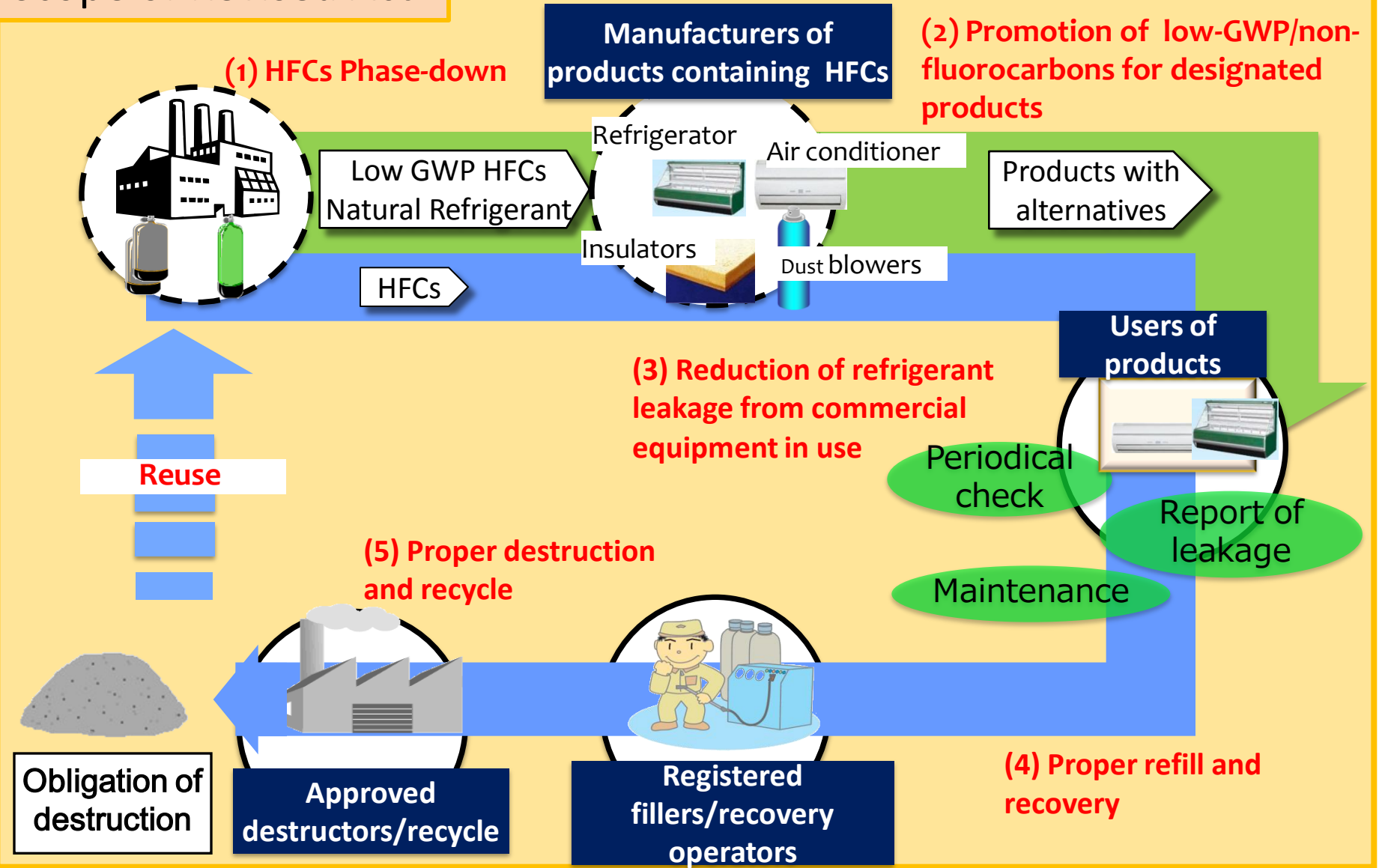
# Trend of HFC Emissions

HFC Emissions from refrigeration / AC sector are rapidly increasing and the trend will continue.



# After Revision of the F-gas regulation; Targeting F-gas's Whole Life Cycle promulgated in June 2013, to be activated in April 2015

## Scope of Revised Act



# Effect of the Amendment on Reduction of HFC Emission

(Preliminary calculation by the Council of MOE and METI)

\* To be revised along with the development of details of the operating policy such as schedule of promotion of low GWP alternatives.

(unit = 10,000 t-CO<sub>2</sub>)

year	BAU	Promotion of low GWP equipment and products	Containment from commercial equipment in use	Total reduction
2010	1,713			
2020	4,020	▲ 390 ~ 660	▲ 530 ~ 950	▲ 970 ~ 1,560
2030	4,810	▲ 2,210 ~ 2,730	▲ 270 ~ 560	▲ 2,550 ~ 3,180

# Subsidy for Natural Refrigerant Equipment

FY 2015 (Budget) :JPY 6.2 billion  
 FY 2016 (Requested):JPY 7.3 billion

Technology of adopting natural refrigerants, instead of F-gases, has been improved in efficiency and safety.

This high technology can bring 3 good reductions; of energy use, of CO2 emissions and of F-gas emissions leaking from equipment.

But in Japanese market it has not yet spread widely, mainly because of a high initial cost.

Then MOE sets the stage by supporting financially so that the market become acceptable and autonomous.

Coverage				Numbers of subsidies (as of Nov. '15)
Sector	Equipment	Fees	Max Ratio	
Cold storage warehouse	Freezers / refrigerators	machinery and construction fees for replacements and/or newly installations	1/2 of fees	53 (51 companies)
Food manufacturing process	Freezers / refrigerators		1/3 of fees	
Food retailing	display refrigerators		1/3 of fees	507 (19 companies)
+				
Chemical manufacturing process	Freezers / refrigerators	Same as upper	1/3 of fees	In FY2016 covered sectors may be 5 in total (2 sectors added).
Ice skate rink	Freezers		1/3 of fees	

# Pilot Program of Doors in Refrigerated Cabinets and Program of Proper F-gas Disposal in Developing Countries

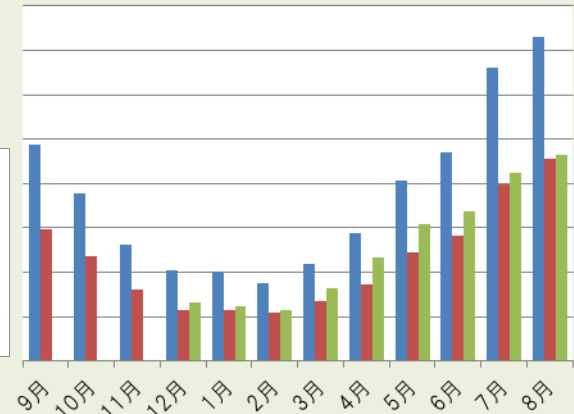
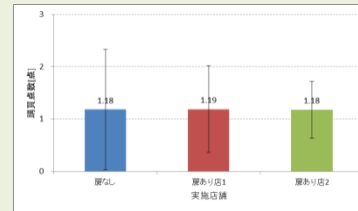
## Pilot program of Doors in Refrigerated Cabinets

Doors in refrigerated cabinets apparently reduce energy use by stopping cool air running away. They are, however, not familiar yet in Japan since business owners may believe they bring slow sales.



Then MOE set a pilot program to expand doors in refrigerated cabinets of natural refrigerants with high energy saving which are not familiar either.

In this FY 2015, 3 convenience stores are in this program, which shows great results so far. This program will continue in FY 2016.



Showing no slow sales (left) , 30% reduction of energy saving(right)

## Proper F-gas Disposal in Developing Countries

Proper disposal of old equipment with f-gas is essential so as adopting new technology for addressing the global warming and resource circulation. To have Japanese superior technology expand justly in developing countries, feasibility studies are executed in 4 countries now; Thailand, Vietnam, Malaysia and Indonesia for establishing a scheme of this good cycle.

# Project for Wider Spread of Natural Refrigerants

MOE launched a new project last year for encouraging civil and enterprises to realize an importance and necessity of energy saving equipment with natural refrigerants through a project web site (English page is coming soon), a special short movie, brochures and promotion events.



WEB



BROCHURE



Eco Product 2015

Exhibition	Venue	Special seminar
done Eco Products 2015	Date: 10-12, Dec. 2015 Booth: 1-027 (East Hall)	Mini presentation @ the booth
→ Super Market Trade Show	Date: 10-12, Feb, 2016 Booth: E1-408 (East Hall)	Date: 12th (fri.) 13:30-15:15 Place: East Hall No.2
→ HVAC&R	Date: 23-26, Feb, 2016 Booth: 2-318 (East Hall)	Date: 24th (Wed.) 14:00-14:45 Place: East Hall No.3

**We have 2 promotion events in Feb. 2016. Please come and see us there!**

Thank you for your attention.

