



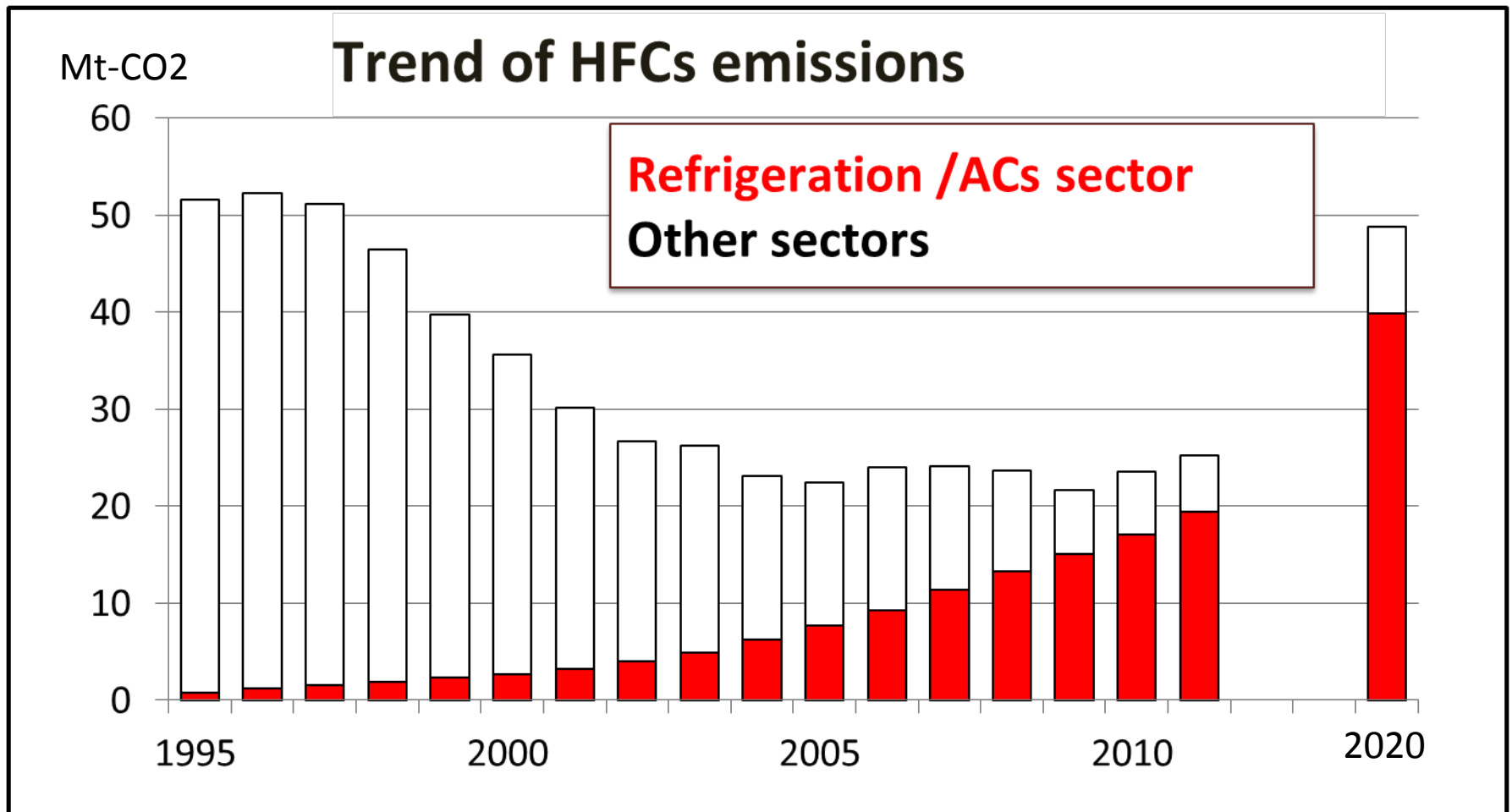
Scheme for Prevalence of Natural Refrigerants Equipment

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MOEJ

Trend of HFC Emissions

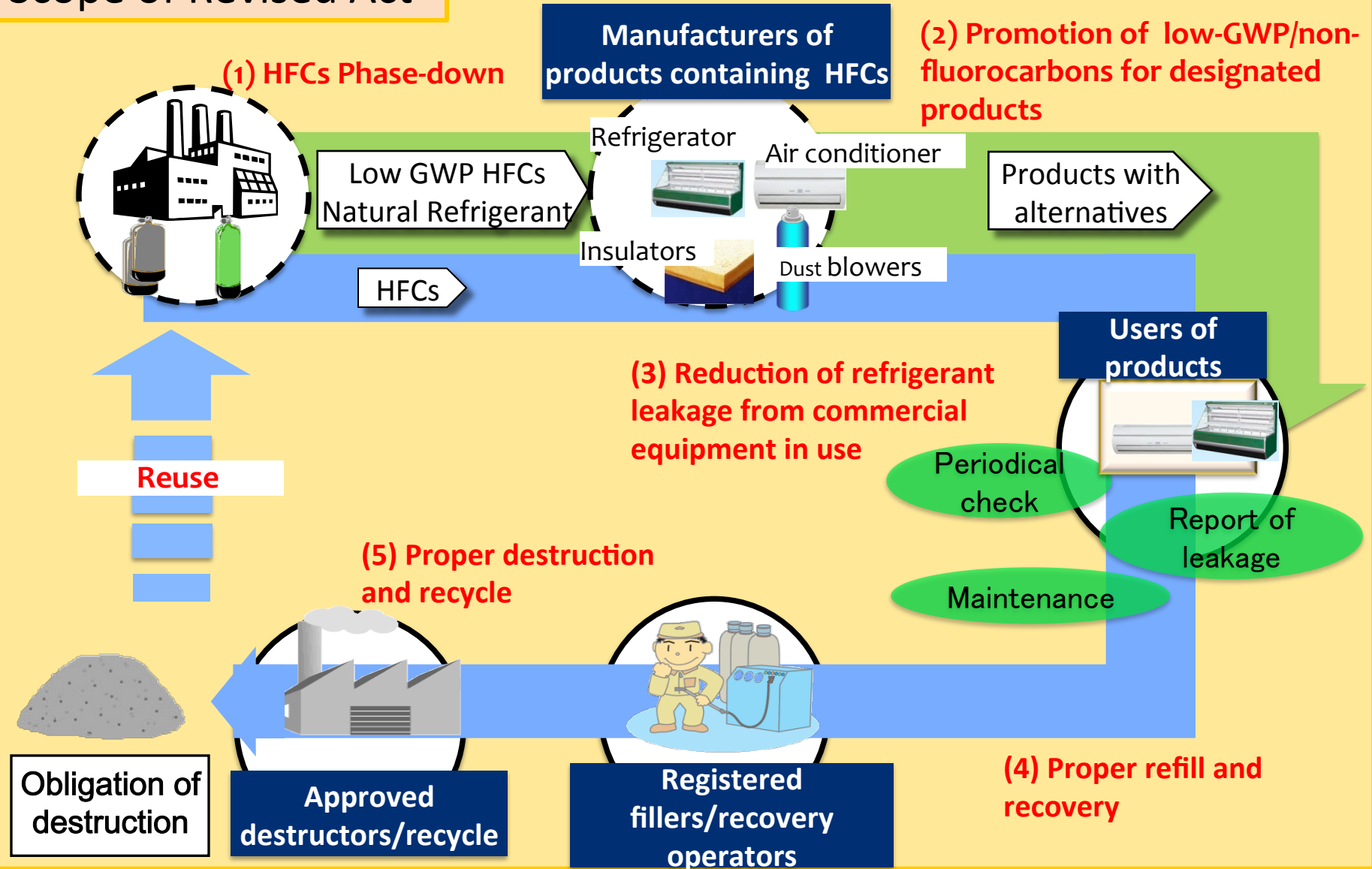
HFC Emissions from refrigeration / AC sector are rapidly increasing and the trend will continue.



After Revision of the F-gas regulation; Targeting F-gas's Whole Life Cycle

promulgated in June 2015, to be activated in April 2016

Scope of Revised Act



Subsidy for natural refrigerants

Budget of FY 2014 :JPY 5.0 billion
FY 2015 (Requested):JPY 6.2 billion

Technology of using natural refrigerants has been improved in efficiency and safety, but not yet spread widely.

To address this situation, MOE financially supports installations of high efficiency equipment with natural refrigerants.

Fy2015, this subsidy will include food manufacture sector.(1/3 of fees)

Coverage (FY 2014)				No. of subsidies in FY 2014 (as of Oct. '14)
Sector	Equipment	Fee	Ratio	
Cold storage warehouse	freezers/ refrigerators	machinery and construction fees for replacements and/or newly installations	1/2 of fees	36 (34 companies)
Food retailing	display refrigerators		1/3 of fees	417 (21 companies)

Case of Ultra-low Temperature Cooling System (refrigerant: Air)

- Annual Saved Energy: 1,115,063kWh/year (34% reduction)
- Annual CO2 Emission Reduction: 559 t-CO2/year
 - reduction of energy-related carbon dioxide emissions 380 t/year
 - *electricity 0.341 kg- CO2 /kWh
 - potential leakage of refrigerants: 179 t/year



the Project to Save More Energy at Natural Refrigerants Equipment

Since FY2015, Japan Ministry of the Environment will conduct a project to save more energy at natural refrigerants equipment by establishing covers or doors over showcases.

At this project the rate of energy saving, public awareness, challenging issues for their promotion etc. will be surveyed.

Now proposals for this project are invited from supermarkets, convenience stores etc.

● Application Period

From January 29 (Thu) 2015 to March 9 (Mon) 2015 5pm or

From April 1 (Wed) 2015 to May 11 (Mon) 2015 5pm

Details are posted on the MOE website below.

<http://www.env.go.jp/earth/ozone/ozone.html>

● Briefing sessions of this projects will be holded for possible applicants (supermarkets, convenience stores etc).

Date : Feb 13 (Fri) 2015 and April 3 (Fri) 2015 2pm-3pm

Place : Ministry of the Environment (Tokyo)

Contact:

Office of Fluorocarbons Control Policy,

Global Environment Bureau

Ministry of the Environment (Takahashi, Iguchi)

Tel: +81-3-3581-3351

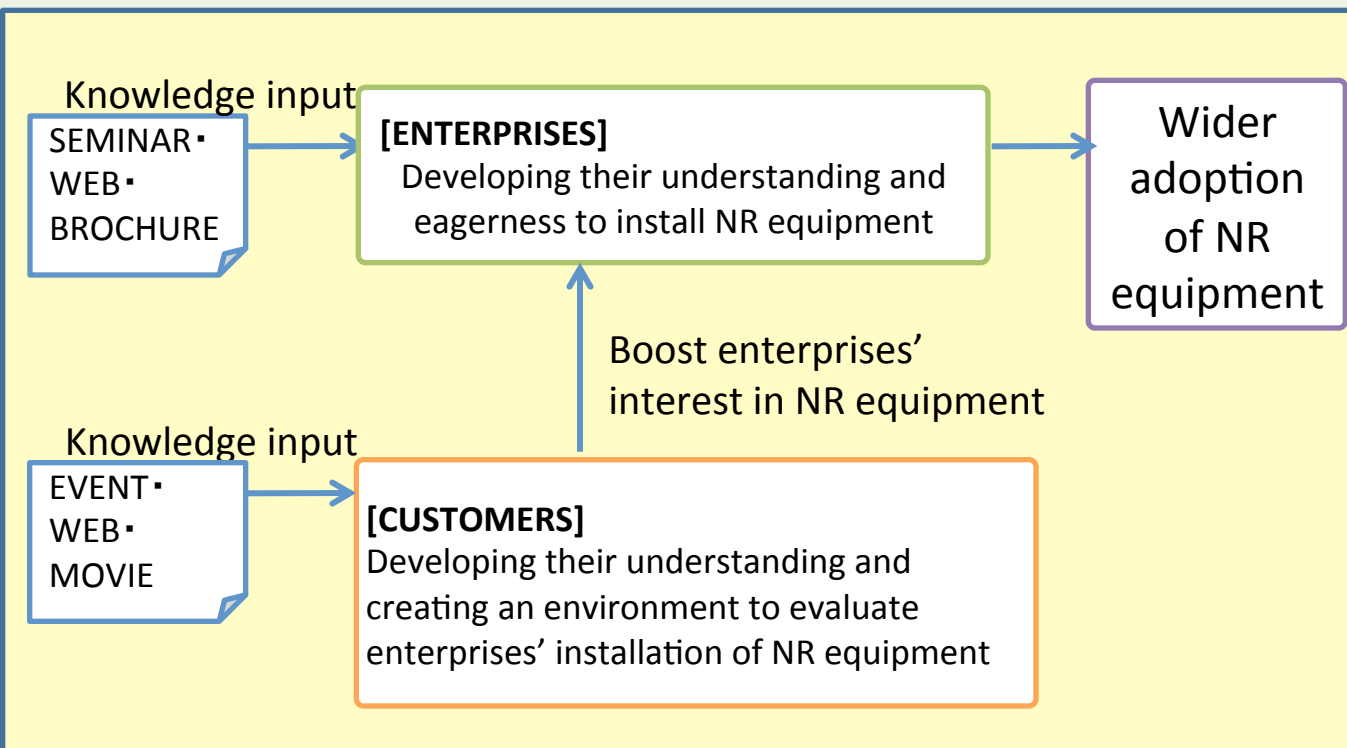


Example of establishing doors at natural refrigerants equipment (Lawson)

New Project for Leading Wider Spread of Natural Refrigerants

MOE just launched a new project for encourage civil and enterprises to realize an importance and necessity of energy saving equipment with natural refrigerants to combat the global warming.

In this project, civil and enterprises are getting knowledge of energy saving NR equipment mainly through a project web site, a special short movie, and brochures.

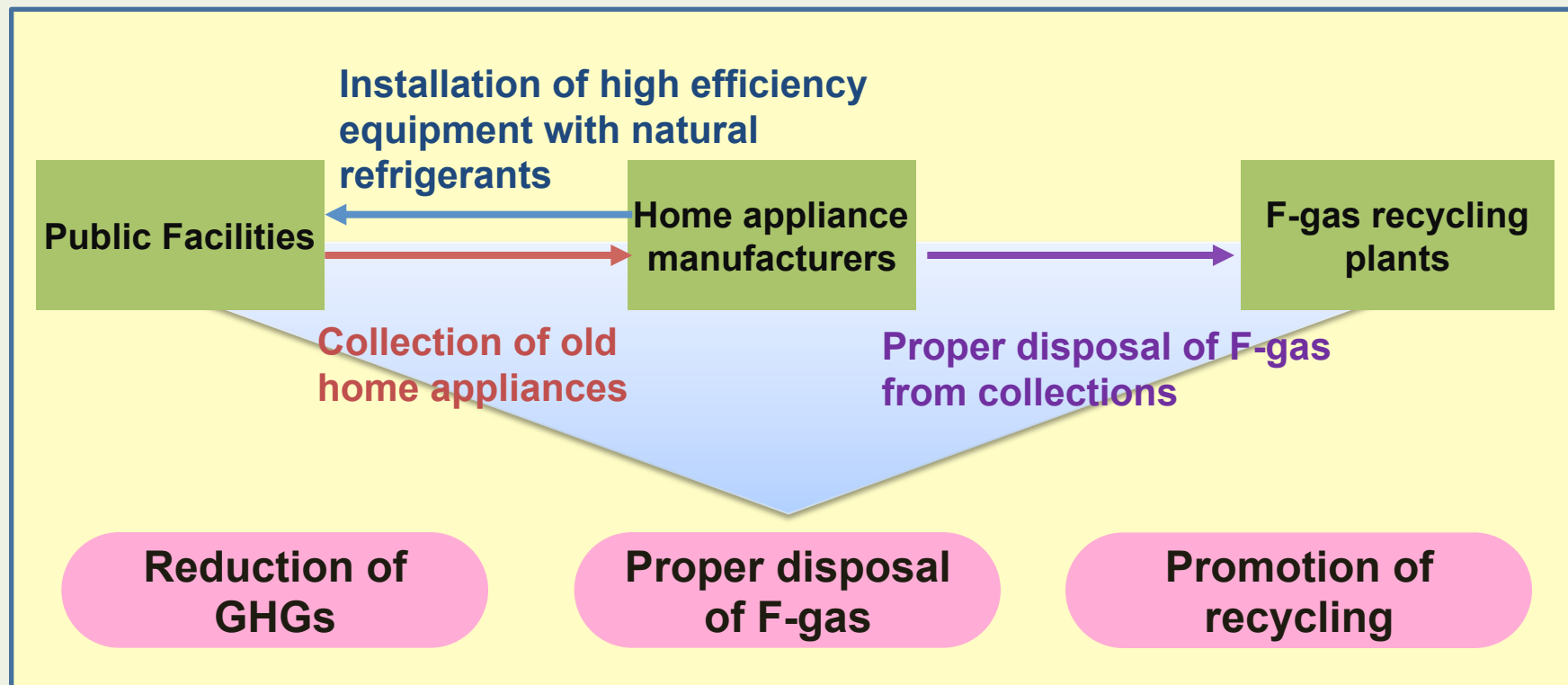


Scheme of Proper F-gas Disposal in Developing Countries

FY 2015 (Requested): JPY 100 million

For protecting the ozone layer, addressing the global warming and promoting recycling, not only installing Japanese superior technology into developing countries, a scheme of proper treatments for old home appliances with fluorinated gases is needed.

In FY 2015, a feasibility study for establishing the scheme, below, is planned;



JCM Model Projects in 2013~14 by MOEJ

— Natural Refrigerants Equipment Relations —

The Joint Crediting Mechanism (JCM) is facilitating diffusion of leading low carbon technologies in developing countries, and appropriately evaluating contributions from Japan to GHG emission reductions in a quantitative manner, by applying measurement, reporting and verification (MRV) methodologies, and use them to achieve Japan's emission reduction target.

Budget of FY 2014 :JPY 1.2 billion
FY 2015 (Requested):JPY 2.4 billion

Indonesia:

◆ Energy Savings at Convenience Stores

The latest high-efficiency chillers with natural refrigerant (**CO2 refrigerant**), inverter-controlled air-conditioners, and LED lighting will be introduced in convenience stores. Rooftop photovoltaic power generation systems will also be introduced.

◆ Energy Efficient Refrigerants to Cold Chain Industry

The advanced energy efficient non-fluorocarbon cooling system using **NH3 and CO2** will be introduced in the food industry and logistics industry. A screw compressor and an IPM (interior permanent magnet synchronous) motor are adopted and operated integrally, to achieve high efficient operation of the cooling facility.



Thank you for your attention.

