

# Member Briefing – JAPAN

Hideaki Kasahara  
JRAIA  
ICARHMA Seoul  
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- 1) Top 3 Issues in 2017 – JRAIA
- 2) Legislation / Regulations in Japan
- 3) Global air conditioner market overview

# 1) Top 3 issues in 2017 - JRAIA

1. Ratification status of “Kigali Amendment”
2. Revision of the legislation under “Kigali Amendment”
3. Promote “Act on Rational Use and Proper Management of Fluorocarbons”
  - Seminars for users and reclaim companies organized by JRECO\*1 approx. 100 times in 2015-2016
  - Seminar organized by JSRAE\*2 4 times in 2015-2016, 2 times in 2017
  - Conduct analysis of implementation of the Act

\*1 JRECO : Japan Refrigerants and Environment Conservation Organization

\*2 JSRAE : Japan Society of Refrigerating and Air Conditioning Engineering

# Trend of legislation and Protocols

## 1) Overview of Legislation in Japan

### Legislation on refrigerants

“Ozone Layer Protection Act” (1988)



*will be revised in early 2018*

- Regulation on production and consumption of CFC and HCFC (abbr. OLP Act)
- Maximum allowance of refrigerant consumption similar to Kigali agreement

“Act on Rational Use and Proper Management of Fluorocarbons” (revised in 2015)

- Regulation on emission of HFC/HCFC/CFC refrigerants (abbr. Fgas Act)
- Target GWP and year for each product group

“High Pressure Gas Safety Act” (revised in 2016)

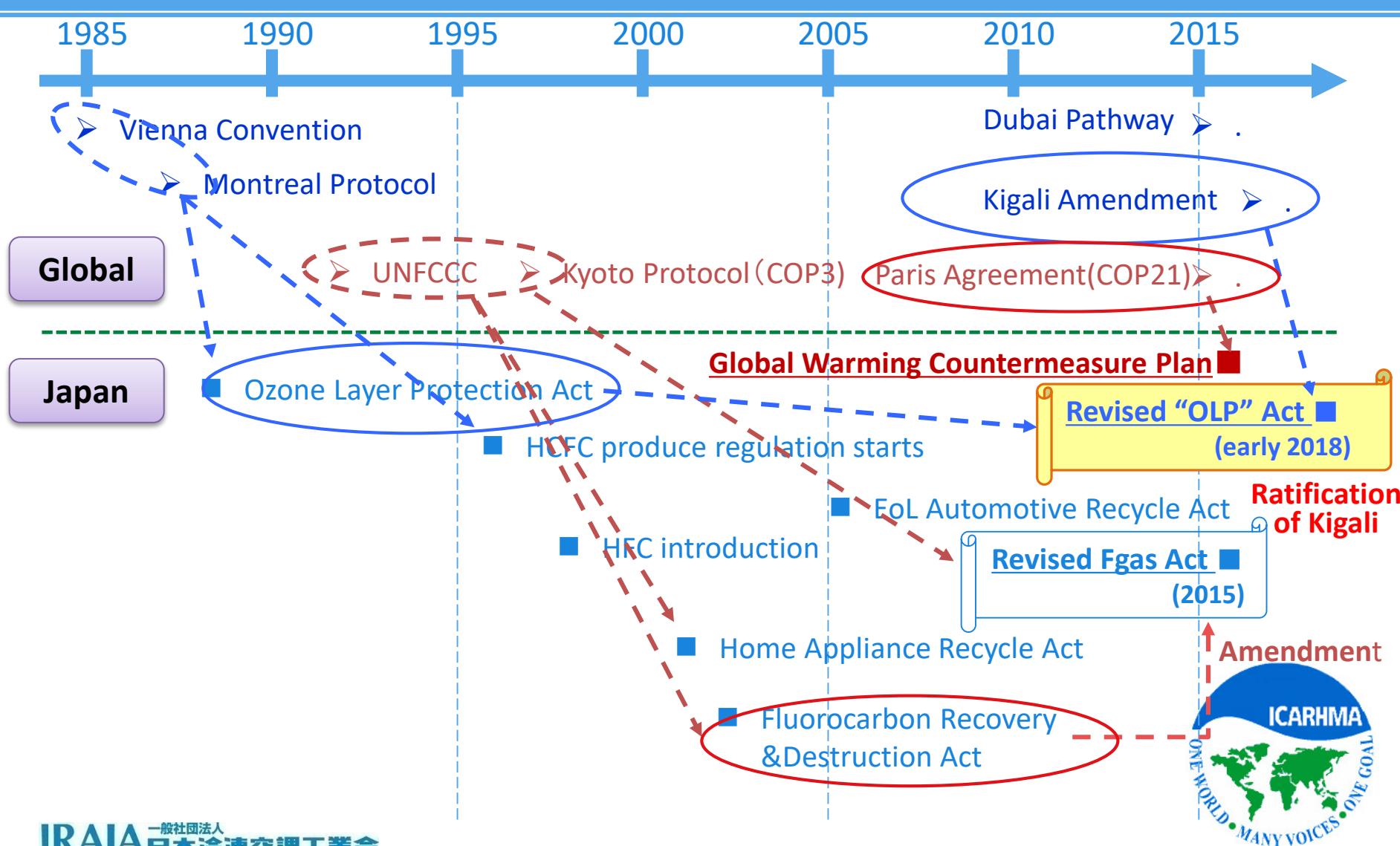
- Regulation on safety of flammable (toxic) gas
- Method of safe use of products and refrigerants
- A2L refrigerants are included as “particular inert gas”

“Global Warming Countermeasure Plan” (Cabinet Decision in 2016)

- Regulation on emission of energy origin CO<sub>2</sub>

# Trend of legislation and Protocols

## 2) Timeline



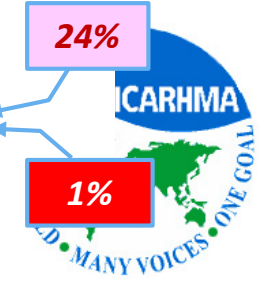
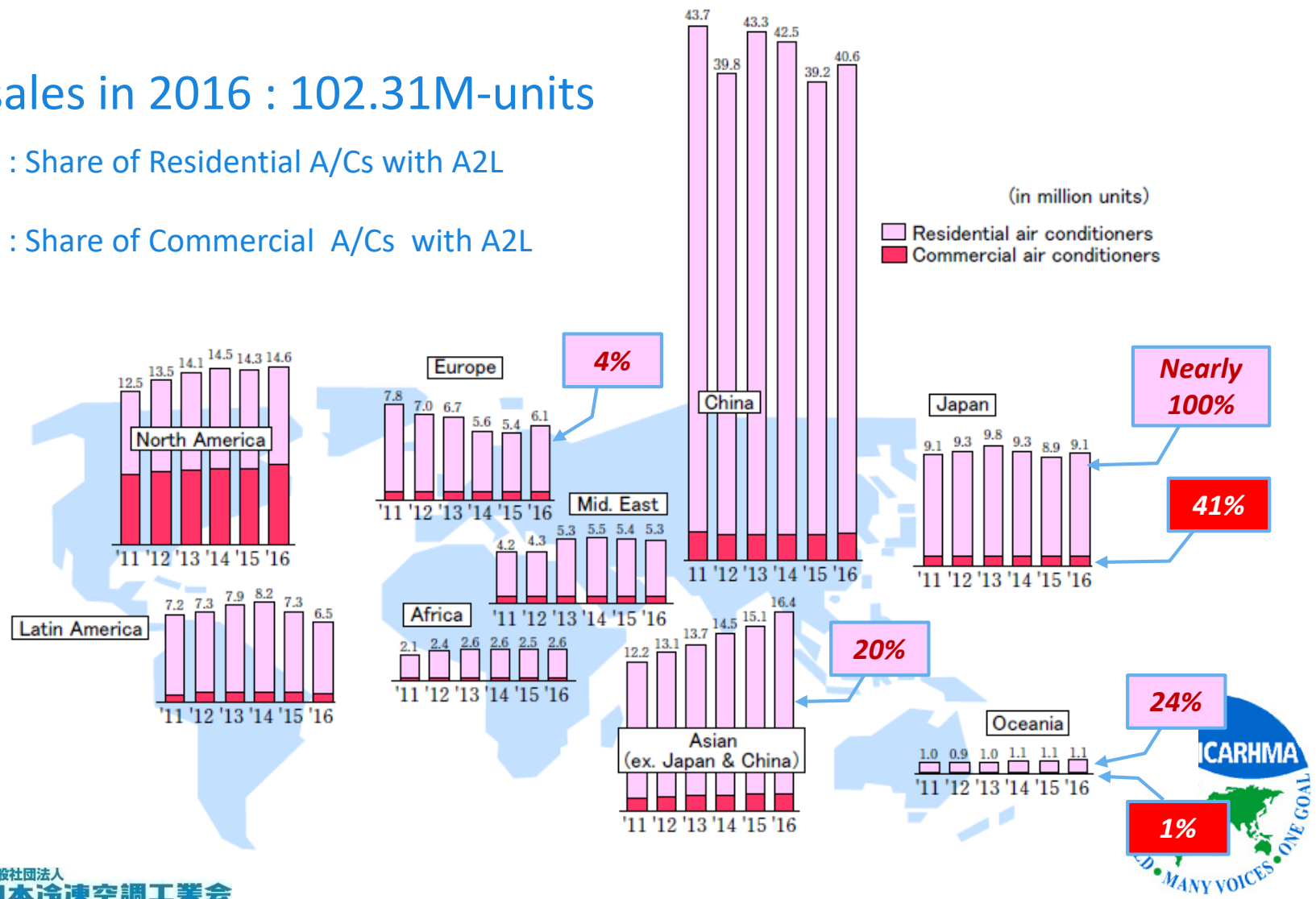
# 3. Market trend

## 2) World market trend of Residential & Commercial A/Cs

Global sales in 2016 : 102.31M-units

**xx%** : Share of Residential A/Cs with A2L

**yy%** : Share of Commercial A/Cs with A2L



# Global air conditioner market statistics

[http://www.jraia.or.jp/english/World\\_AC\\_Demand.pdf](http://www.jraia.or.jp/english/World_AC_Demand.pdf)

## World Air Conditioner Demand by Region

April 2017

JRAIA 一般社団法人 日本冷凍空調工業会

The Japan Refrigeration and Air Conditioning Industry Association



# Global air conditioner market statistics

[http://www.jraia.or.jp/english/World\\_AC\\_Demand.pdf](http://www.jraia.or.jp/english/World_AC_Demand.pdf)

## (3) Breakdown for RAC demand

	2014		2015		2016	
	Window-Type	Split-Type	Window-Type	Split-Type	Window-Type	Split-Type
<b>World total</b>	14,384	76,320	13,879	72,365	13,119	75,688
Japan		8,500		8,104		8,352
Overseas	14,384	67,820	13,879	64,261	13,119	67,336
China	325	40,000	303	36,800	309	38,100
Asian countries	1,846	11,350	1,840	11,884	1,730	13,193
India	703	2,971	705	3,142	620	3,662
Indonesia	9	2,189	9	2,100	9	2,200
Vietnam						
Thailand						
South Korea						
Taiwan						
Malaysia						
Philippines						
Pakistan						
Hong Kong incl. Mac						
Myanmar						
Bangladesh						
Singapore						
Cambodia						
Sri Lanka						
Others						
Middle East						
Saudi Arabia						
UAE						
Iran						

## (4) Packaged Air Conditioners (PAC)

	2011		2012		2013		2014		2015		2016	
				(VRF)		(VRF)		(VRF)		(VRF)		(VRF)
<b>World total</b>	12,226	12,488	994	12,935	1,104	13,075	1,180	13,110	1,156	13,503	1,312	
Japan	778	784	125	804	126	836	134	795	129	794	131	
Overseas	11,448	11,704	869	12,131	978	12,239	1,046	12,315	1,027	12,709	1,181	
China	2,304	2,087	500	2,160	597	2,152	653	2,119	611	2,178	710	
Asian countries	1,151	1,242	174	1,293	171	1,342	181	1,422	195	1,488	220	
India	164	167	26	187	22	188	25	216	30	225	32	
Indonesia	50	89	6	93	7	88	9	93	7	91	8	
Vietnam	27	40	5	42	6	51	8	61	10	72	12	
Thailand	78	84	4	91	5	112	5	120	6	138	8	
South Korea	592	568	101	568	100	568	100	586	103	586	103	
Taiwan	22	48	8	51	8	54	9	55	10	55	10	
Malaysia	67	78	5	81	5	87	5	89	6	93	7	
Philippines	46	48	3	56	4	59	4	66	6	69	7	
Pakistan	27	30		30		32		31		41	5	
Hong Kong incl.	34	32	3	33	4	33	5	32	5	33	8	
Myanmar	5	6		6		6		7		9		
Bangladesh	12	14		14		18		19		19		
Singapore	21	22	8	23	7	27	7	28	8	28	9	
Cambodia	2	2		3		4		5		7		
Sri Lanka	6	6		7		7		7		7		
Others	8	8		8		8		8		16	8	
Middle East	607	598	13	633	14	658	20	685	22	657	24	
Saudi Arabia	142	144	3	175		175	3	184	3	180	3	
UAE	156	151	3	143	3	160	4	169	5	161	5	
Iran	37	42		37		43		54	3	52	3	
Israel	102	98		97		97	4	99	4	94	6	



# Proposal

Is it possible for each association to share AC market statistics of each region for the following product field?

## 1) Room air conditioner

### a) Small-sized Split type ACs

including Residential-use multi systems

### b) Window type ACs

## 2) Package air conditioner

including Commercial-use medium/large-sized split type ACs,  
Remote condenser type ACs,  
Single packaged ACs,  
VRF systems,  
and Unitary type (U.S.)

**27 February – 2 March 2018 @ Makuhari Messe**

**Japan's Biggest HVAC&R Expo!**

**Air Conditioning**

**Renewable Energy**

**Cogeneration**

**Freezing Facilities**

**ZEB/ZEH BEMS/HEMS**

**Refrigerants**

**Let's meet at Japan!**

**Chillers**

**Heat Pump**

**ESCO**

**EMS**

**4 days. Once every 2 years.**

**ECO**

**40th**

**HVAC&R JAPAN 2018**

The 40th Heating, Ventilating, Air-Conditioning and Refrigerating Expo.

2018.2.27 [Tue] ~ 3.2 [Fri]

HVAC&R JAPAN Search

HVAC&R JAPAN  
Organized by The Japan Refrigeration and Air Conditioning Industry Association (JRAIA)

<http://www.jraia.or.jp/english/exhibition/index.html>

<https://www.m-messe.co.jp/en/>

**JRAIA** 一般社団法人  
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