

# Image: Sight Wenue - Tokyo Big Sight F2 Feb 20 Image: Sight Wenue - Tokyo Big Sight Image: Sight Wenue - Tokyo Big Sight

Organizer: The Japan Refrigeration and Air Conditioning Industry Association(JRAIA)



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Find the future with HVAC&R



## HVAC&R JAPAN 2024

The 43rd Heating, Ventilation, Air-conditioning and Refrigeration EXPO 2024. 1.30TUE > 2.2FRI Tokyo Big Sight East Exhibition Hall 1, 2 Organized by: Japan Refrigeration and Air Conditioning Industry Association

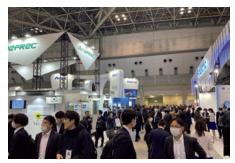
With the keywords "Find the future with HVAC&R", the EXPO showcased high-efficiency refrigeration, air conditioning, and heating technologies that are active in all temperature ranges. We successfully completed both the exhibition and the seminars.



Tokyo Big Sight Entrance



Information



In the exhibition hall



**Celebration Reception** 



Opening Ceremony



HVAC&R Awards Ceremony

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#### After HVAC&R JAPAN 2024

HVAC&R JAPAN 2024 (the 43rd Heating, Ventilation, Air-conditioning and Refrigeration EXPO) was held at Tokyo Big Sight for four days from January 30 (Tue) to February 2 (Fri) 2024 under the main theme of "Find the future with HVAC&R", and the event was a great success.

This exhibition is the only domestic specialty exhibition in the air conditioning and heating industry, and a very large number of visitors from overseas also visited, with a record 33,513 visitors, the highest ever number of exhibitors and organizations in the history of this exhibition at Tokyo Big Sight at 149, and 766 exhibition booths. I would like to express my sincere gratitude to the exhibiting companies and organizations who actively submitted proposals and exhibitions and to the many users who are interested in air conditioning and heating equipment.

Nowadays, environmental issues have become a common issue in the world, and awareness of carbon neutrality is increasing worldwide. At the exhibition booths of each company, many new technologies and devices that expand new business opportunities, such as the conversion to natural refrigerants that take into account future environmental regulations, the application of cutting-edge refrigerant technology and heat pump technology to various applications, the combination with various sensor and management systems, and the pursuit of energy conservation and comfort, were exhibited, and I think that the exhibits gave great hope for the future development of the air conditioning and heating fields.

We also held the third HVAC&R Awards ceremony this time. Products, solutions, services, and parts that were exhibited at HVAC&R Japan 2024 applied for the awards, and we comprehensively reviewed the corporate philosophy and business activities that created the exhibits, and commended the six most outstanding examples. The award-winning exhibits addressed issues such as carbon neutrality and refrigerant conversion, which are strongly required by society in recent years, and were recognized for their high technical capabilities. However, we expect all the products and services that applied to contribute to the development of the air-conditioning and heating equipment industry and the protection of the global environment in the future.

In addition, more than 2,100 people attended the special lecture by Tokyo Governor Yuriko Koike and numerous lectures and seminars by prominent lecturers on refrigerant trends. We also organized a facility tour of the Tokyo Gas Smart Energy Center, a student program for future air-conditioning and cooling industry personnel, and an international event, and many people participated.

Finally, I would like to express my deep gratitude for the support and cooperation of our exhibitors, relevant agencies, sponsoring organizations, academic associations and media organizations, as well as the many visitors for making the event such a great success. The next HVAC&R JAPAN 2026 will also be held at Tokyo Big Sight, and I would humbly like to ask for the support and cooperation of many companies and organizations.



Japan Refrigeration and Air Conditioning Industry Association Chairperson Yasumichi Tazunoki

#### Outline

Exhibition name	HVAC&R JAPAN 2024 The 43rd Heating, Ventilation, Air-conditioning and Refrigeration EXPO
Duration	Tuesday, January 30, 2024 - Friday, February 2, 10:00 - 17:00 (last day until 16:00)
Venue	Tokyo Big Sight East Hall 1,2
Organizer	Japan Refrigeration and Air Conditioning Industry Association
Supported by	Ministry of Economy, Trade and Industry
Exhibition Size	149 companies and organizations/766 booths
Admission fee	Free (registration required on the official website)

Official video https://youtu.be/rQGGOofaL9M



#### Sponsors

Japan Urethane Foam Association

Japan Federation of Construction Contractors Institute for Built Environment and Carbon Neutral for SDGs The Japan Society of Industrial Machinery Manufacturers The Japan Food Machinery Manufacturers' Association The High Pressure Gas Safety Institute of Japan The Energy Conservation Center, Japan Japan Auto-Body Industries Association Inc. **New Energy Foundation** Japan Vending System Manufacturers Association Japan Federation of Mechanical & Electrical Consulting The Japan Gas Association Japan Industrial Association of Gas and Kerosene Appliances **Firms Association The Japan Machinery Federation** Japan Solar Energy Society Japan Chain Stores Association Japan Electric Measuring Instruments Manufacturers' Association Japan Cooling Tower Institute The Japan Electrical Manufacturers' Association **Association for Electric Home Appliances** Japan Heating Industrial Association The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan Japan Heat Supply Business Association Japanese Association of Building Mechanical and Electrical Engineers Japan Valve Manufacturers' Association New Energy and Industrial Technology Development Organization Japan Foam Styrene Industry Association National Supermarket Association of Japan Japan Fluorocarbon Manufacturers Association National General Contractors Association of Japan Japan Thermal Insulation Association **Electrical Products Association of Japan** Japan Boiler Association Japan Solar Heat Association Japan Floor Heating Association of Hot-Water System The Federation of Electric Power Companies of Japan Japan Society of Refrigerating and Air Conditioning Engineers The Institute of Electrical Installation Engineers of Japan Japan Association of Refrigeration and Air-Conditioning Contractors Japan Electronics and Information Technology Industries Association Japan Frozen Food Association Japan Electro-Heat Center Japan Refrigerants and Environment Conservation Organization Japan Air Cleaning Association Japan Expanded Polystyrene Association Air Conditioning & Plumbing Contractors Associations of Japan Heat Pump & Thermal Storage Technology Center of Japan Japan Air Conditioning and Refrigeration Testing Laboratory Japan Prefabricated Construction Suppliers and Manufacturers Association (In no particular order)



Visitor Overview

Number of visitors Unit (per		
Date	2024 Number of visitors	
Tue, Jan 30 Sunny	5,631	
Wed, Jan 31 Sunny	7,464	
Thu, Feb 1 Sunny	9,705	
Fri, Feb 2 Sunny	10,713	
Total	33,513	



#### Number of overseas visitors

Number of overseas visitors Unit (persons)					
By country	Jan 30	Jan 31	Feb 1	Feb 2	Total for all days
South Korea	137	201	96	31	465
China	191	126	45	20	382
Taiwan	18	19	12	6	55
Thailand	12	7	7	4	30
Philippines	1	10	3	5	19
Singapore	2	5	9	2	18
Indonesia	0	10	2	0	12
UK	2	5	3	0	10
Malaysia	3	7	0	0	10
Germany	4	2	2	0	8
USA	1	1	2	3	7
Australia	1	1	3	0	5
India	0	2	1	0	3
Portugal	1	1	1	0	3
Republic of Maldives	0	0	3	0	3
United Arab Emirates	0	1	0	1	2
Netherlands	1	1	0	0	2
Switzerland	2	0	0	0	2
Türkiye	1	1	0	0	2
New Zealand	0	1	0	1	2
Norway	0	1	1	0	2
France	0	1	1	0	2
Italy	1	0	0	0	1
Finland	0	0	0	1	1
Mexico	0	1	0	0	1
Russia	0	1	0	0	1
Total	378	405	191	74	1,048

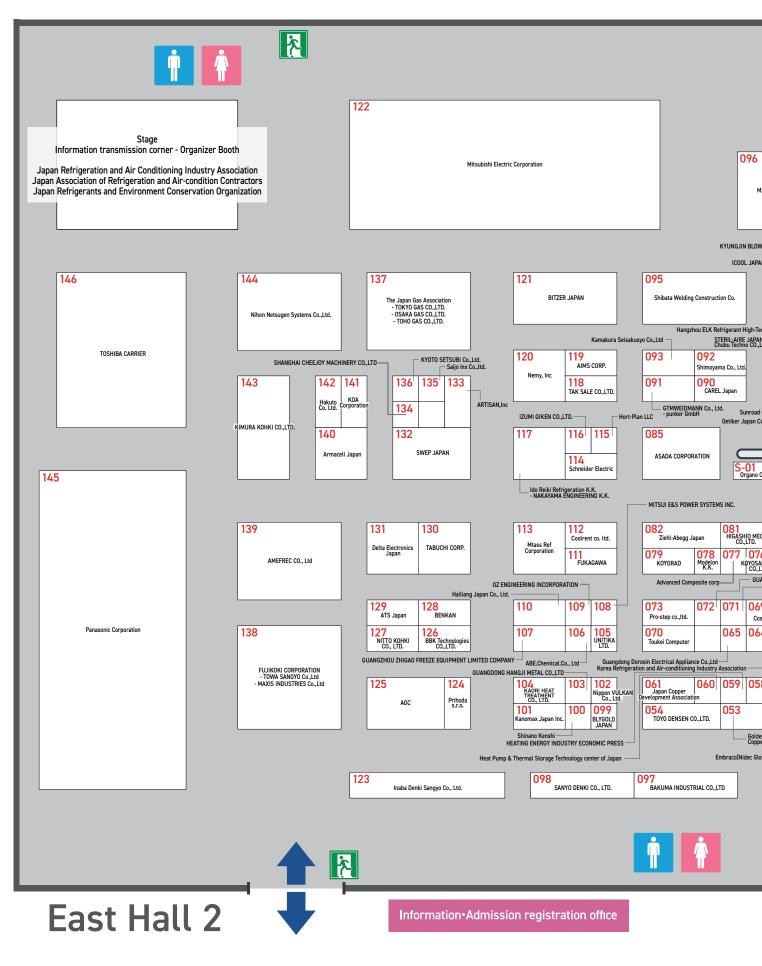
#### Industry breakdown

Facilities, electricity, plumbing, maintenance/ related services	8,622
Refrigeration and air conditioning manufacturers and related equipment manufacturers	8,406
Building, architecture, construction, builders	2,237
Trading companies, agencies, distribution, retail, wholesale	6,595
Government, local government, organizations, education/research institutions, etc.	581

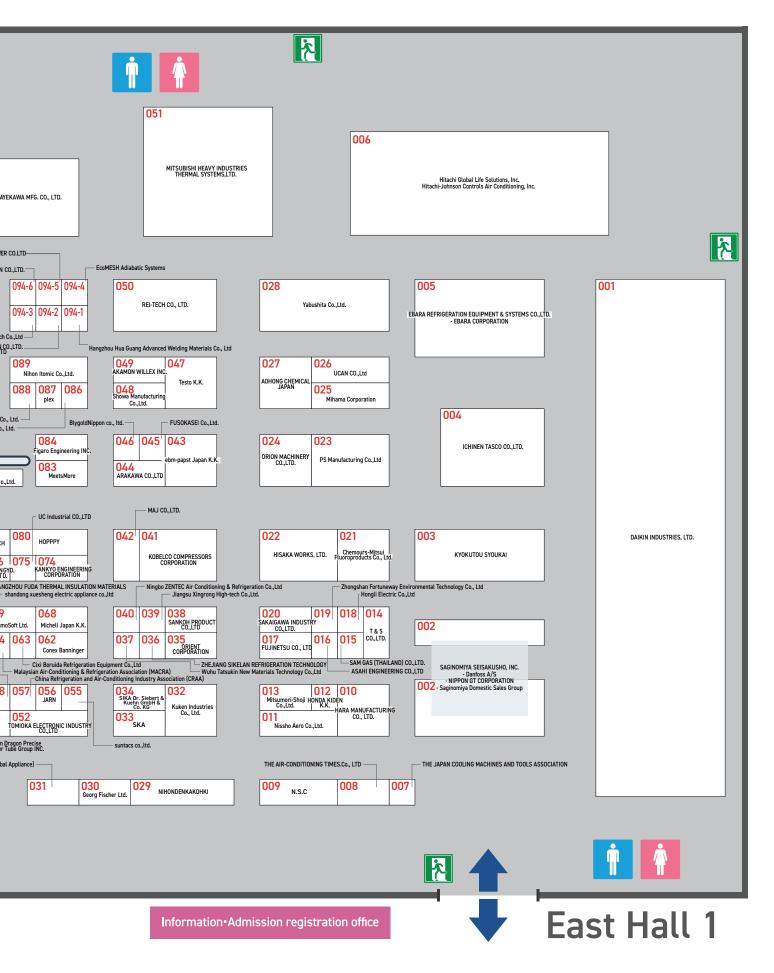
General manufacturing (business users other than those on the left)	3,193
Electricity, gas and energy providers	1,317
General non-manufacturing (business users other than the above)	501
News, media, publishing, and other press-related	182
Other	1,879
Total	33,513

Unit (persons)

#### Venue Map







## **Exhibitor List** 149 companies and organizations/766 booths

Α	ABE.Chemical.Co., Ltd Advanced Composite corp		Guangdong Dorosin Electrical Appliance Co.,Ltd		
			GUANGDONG HANGJI METAL CO.,LTD		
	AGC	_	GUANGZHOU ZHIGAO FREEZE EQUIPMENT LIMITED COMPANY		
	AIMS CORP.		Hailiang Japan Co., Ltd.		
	AKAMON WILLEX INC		Hakuto Co., Ltd.		
	AMEFREC CO., Ltd		Hangzhou ELK Refrigerant High-Tech Co.,Ltd		
	AOHONG CHEMICAL JAPAN		Hangzhou Hua Guang Advanced Welding Materials Co., Ltd		
	ARAKAWA CO.,LTD		HARA MANUFACTURING CO., LTD.		
	Armacell Japan		Heat Pump & Thermal Storage Technology Center of		
	ARTISAN,Inc		Japan		
	ASADA CORPORATION ASAHI ENGINEERING CO.,LTD ATS Japan		HEATING ENERGY INDUSTRY ECONOMIC PRESS		
			HIGASHIO MECH CO., LTD.		
			HISAKA WORKS, LTD.		
В	BAKUMA INDUSTRIAL CO.,LTD		Hitachi Global Life Solutions, Inc.		
	BBK Technologies CO.,LTD.		Hitachi-Johnson Controls Air Conditioning, Inc.		
	BENKAN		Hongli Electric Co.,Ltd		
	BITZER JAPAN		НОРРҮ		
	BlygoldNippon co., ltd.		Hort-Plan LLC		
С	CAREL Japan	1	ICHINEN TASCO CO.,LTD.		
	Chemours-Mitsui Fluoroproducts Co., Ltd. China Refrigeration and Air-Conditioning Industry Association (CRAA) Cixi Boruida Refrigeration Equipment Co.,Ltd		ICOOL JAPAN CO.,LTD.		
			Ido Reiki Refrigeration K.K.		
			- NAKAYAMA ENGINEERING K.K.		
			Inaba Denki Sangyo Co., Ltd.		
	Conex Banninger	J	IZUMI GIKEN CO.,LTD.		
	Coolrent co. ltd. CosmoSoft Ltd.		Japan Copper Development Association		
			Japan Refrigerants and Environment Conservation		
D	DAIKIN INDUSTRIES, LTD.		Organization		
	Delta Electronics Japan		Japan Refrigeration and Air Conditioning Industry		
Е	EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO., LTD.		Association		
	- EBARA CORPORATION		JARN		
	ebm-papst Japan K.K.		Jiangsu Xingrong High-tech Co.,Ltd.		
	EcoMESH Adiabatic Systems	K	Kamakura Seisakusyo Co.,Ltd		
	Embraco (Nidec Global Appliance)		KANKYO ENGINEERING CORPORATION		
F	Figaro Engineering INC.		Kanomax Japan Inc.		
	FUJIKOKI CORPORATION		KAORI HEAT TREATMENT CO., LTD.		
	- TOWA SANGYO Co.,Ltd		KIMURA KOHKI CO.,LTD. KOA Corporation		
	- MAXIS INDUSTRIES Co.,Ltd				
	FUJINETSU CO., LTD		KOBELCO COMPRESSORS CORPORATION		
	FUKAGAWA		KOYORAD		
	FUSOKASEI Co.,Ltd.		KOYOSANGYO. CO.,LTD.		
G	Georg Fischer Ltd.		Kuken Industries Co., Ltd.		
	Golden Dragon Precise Copper Tube Group INC.	KYOKUTOU SYOUKAI			
	GTMWEIDMANN Co., Ltd.		KYOTO SETSUBI Co.,Ltd.		
	- punker GmbH		KYUNGJIN BLOWER CO.LTD		



Μ	MAJ CO.,LTD.
	Malaysian Air-Conditioning & Refrigeration Association
	(MACRA)
	MAYEKAWA MFG. CO., LTD.
	MeetsMore
	Michell Japan K.K.
	Mihama Corporation
	Mitsubishi Electric Corporation
	MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.
	MITSUI E&S POWER SYSTEMS INC.
	Mitsumori-Shoji Co.,Ltd.
	Modelon K.K.
	Mtass Ref Corporation
Ν	Nemy, Inc
	Nihon Itomic Co.,Ltd.
	Nihon Netsugen Systems Co.,Ltd.
	NIHONDENKAKOHKI
	Nippon VULKAN Co., Ltd.
	Nissho Aero Co.,Ltd.
	NITTO KOHKI CO., LTD.
	NSC
0	Oetiker Japan Co., Ltd.
	ONDA KIDEN K.K.
	Organo Co.,Ltd.
	ORIENT CORPORATION
	ORION MACHINERY CO., LTD.
	OZ ENGINEERING INCORPORATION
Ρ	Panasonic Corporation
	plex
	Prihoda s.r.o.
	Pro-step co.,ltd.
	PS Manufacturing Co.,Ltd
R	REI-TECH CO., LTD.
S	SAGINOMIYA SEISAKUSHO, INC.
	- Danfoss A/S
	- NIPPON GT CORPORATION
	- Saginomiya Domestic Sales Group
	Saijo inx Co.,ltd.
	SAKAIGAWA INDUSTRY CO.,LTD.
	SAM GAS (THAILAND) CO.,LTD.
	SANKOH PRODUCT CO., LTD
	SANYO DENKI CO., LTD.
	Schneider Electric
	shandong xuesheng electric appliance co.,ltd

	SHANGHAI CHEEJOY MACHINERY CO., LTD
	Shibata Welding Construction Co.
	Shimoyama Co., Ltd.
	Shinano Kenshi
	Showa Manufacturing Co.,Ltd.
	SIKA Dr. Siebert & Kuehn GmbH & Co. KG
	SKA Co., Ltd.
	STERIL-AIRE JAPAN CO.,LTD.
	Chubu Techno CO.,LTD
	Sunroad Co., Ltd.
	suntacs co.,ltd.
	SWEP JAPAN
Τ	T & S CO.,LTD.
	TABUCHI CORP.
	TAK SALE CO.,LTD.
	Testo K.K.
	THE AIR-CONDITIONING TIMES.Co., LTD
	THE JAPAN COOLING MACHINES AND TOOLS
	ASSOCIATION
	The Japan Gas Association
	- TOKYO GAS CO.,LTD.
	- OSAKA GAS CO.,LTD.
	- TOHO GAS CO.,LTD.
	the Korea Refrigeration and Air-conditioning
	Industry Association
	TOMIOKA ELECTRONIC INDUSTRY CO., LTD
	TOSHIBA CARRIER
	Toukei Computer
	TOYO DENSEN CO.,LTD.
U	UC Industrial CO.,LTD
	UCAN CO.,Ltd
	UNITIKA LTD.
W	Wuhu Tatsukin New Materials Technology Co.,Ltd
Υ	Yabushita Co.,Ltd.
Ζ	ZHEJIANG SIKELAN REFRIGERATION TECHNOLOGY
	Zhongshan Fortuneway Environmental Technology
	Co., Ltd
	Ziehl-Abegg Japan

## **Opening Ceremony**

- Date and time Tuesday, January 30, 2024 9:50 - 10:00 Location In front of the entrance of Tokyo Big Sight East Hall 2 Tape cutter Director of Industrial Machinery Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry Atsushi Yasuda Japan Refrigeration and Air Conditioning Industry **Association Chairperson** Yasumichi Tazunoki Japan Refrigeration and Air Conditioning Industry Association Vice-Chairperson Katsuyuki Sawai Japan Refrigeration and Air Conditioning Industry Association Chairman of the Policy Council Yoshinori Watanabe
- Participants About 100

#### **Celebration Reception**

- Date and time Tuesday, January 30, 2024 11:15 12:00
- Location Ariake Central Tower 3F Reception 1
- Greetings from Japan Refrigeration and Air Conditioning Industry the Organizer Association Chairperson
- Bureau,
   Guest Greeting
   Director of Industrial Machinery Division, Manufacturing Industries Bureau,
   Ministry of Economy, Trade and Industry
   Atsushi Yasuda
- Participants About 60

#### Information dissemination corner

This time, we collaborated with the Japan Society of Refrigerating and Air Conditioning Engineers, the Japan Refrigeration and Air Conditioning Industry Association, and the Japan Refrigerants and Environment Conservation Organization, and developed the event as a PR venue for each organization.

In addition, we held the HVAC&R Awards Ceremony.





Yasumichi Tazunoki

After the international event, we held an exchange party with overseas industry association officials (MACRA/CRAA/KRAIA), exhibitors and visitors, and industry association officials in Ariake Central Tower. Toko Nakamura sang a song about the fluorocarbon method.





#### Tokyo Gas Smart Energy Center Facility Tour

Date and time	Tuesday, January 30 and Thursday, February 1, 2024	
Participants	Total 21	
First time14:40	Meet in front of Tokyo Gas Smart Energy Center Ends at 1 Participants: 10	6:30 Tour ends at site
Second time9:50	Meet in front of Tokyo Gas Smart Energy Center Ends at 1 Participants: 11	1:30 Tour ends at site

#### **Exhibitor Presentations**

On the stage in the Information Dissemination Corner, exhibitor presentations (4 times by 4 companies),

JRECO (Japan Refrigerants and Environment Conservation Organization) held 8 presentation stages.

Time	Lecture name	
▼Tuesday, Janua	ary 30	
13:00 - 13:30	Organizer information dissemination [JRECO] Presentation Stage 1-1	
15:00 - 15:30	Organizer information dissemination [JRECO] Presentation Stage 1-2	
▼Wednesday, Ja	anuary 31	
11:00 - 11:45	Exhibitor [SWEP JAPAN] Presentation Stage	
12:00 - 12:30	Organizer information dissemination [JRECO] Presentation Stage 2-1	
13:00 - 13:30	Exhibitor [Georg Fischer] Presentation Stage	
14:00 - 14:30	Organizer information dissemination [JRECO] Presentation Stage 2-2	
15:00 - 15:45	Exhibitor [Modelon] Presentation Stage	
▼Thursday, February 1		
11:00 - 11:30	Organizer information dissemination [JRECO] Presentation Stage 3-1	
▼Friday, Februa	ry 2	
11:00 - 11:30	Organizer information dissemination [JRECO] Presentation Stage 4-1	
12:30 - 13:00	Organizer information dissemination [JRECO] Presentation Stage 4-2	
14:00 - 14:45	Exhibitor [Mitsumori-Shoji] Presentation Stage	
15:30 - 16:00	Organizer information dissemination [JRECO] Presentation Stage 4-3	

#### **Premium Lounge**

Location

Ariake Central Tower

We used it as a space for those who had registered for social media as well as for breaks and business discussions.



#### **Student Program**

Special seminars were held to introduce unique companies and a booth stamp rally event in line with themes such as major exhibitions, special theme exhibitions, and HVAC&R award-winning products. The stamp rally was attended by 60 people, and special seminars were held by 2 companies.



#### Other

During the event, meetings were held between the chairperson and executives of Japan Refrigeration and Air Conditioning Industry Association and Korean KRAIA executives, and dinners were held with industry associations from four countries: CRAA in China and MACRA in Malaysia.

#### **Special Lecture**

#### **Thursday, February 1**

Special Lecture 10:15 - 10:30

Tokyo's Vision for a Sustainable Future



#### **Extraordinary Lecture**

**Tuesday, January 30** 

#### Extraordinary Lecture 13:00 - 13:45

Accelerated Decarbonization of Commercial Buildings (Decarbonized Building Renovation Project)

Assistant to the Chief of the Global Warming Countermeasures Division, Global Environment Bureau, Ministry of the Environment Yutaka Kikuchi

#### Keynote

#### **Tuesday, January 30**

Keynote | 14:00 - 14:45

The Internal and External Situation Surrounding Global Warming and Japan's Challenges Distinguished Professor, Graduate School of Public Policy, The University of Tokyo Jun Arima



#### Keynote II 15:00 - 15:45

Thursday, February 1

Accelerated Decarbonization of Commercial Buildings

Assistant to the Chief of the Global Warming Countermeasures Division, Global Environment Bureau, Ministry of the Environment Yutaka Kikuchi

(Decarbonized Building Renovation Project)

Extraordinary Lecture 13:00 - 13:45

About the FY2023 Package of **Energy-saving Support Measures** 

Ministry of Economy, Trade and Industry, Agency for Natural Resources and Energy, Department of Energy Conservation and New Energy Assistant to the Chief of the Energy Conservation Section Yuichi Watanabe



#### Keynote III 16:00 - 16:45

Building Multi-groups According to the JEC Standard Draft of the Institute of Electrical Engineering FastADR System N-Laboratory, Inc. President/Visiting Professor, Gifu University Chuzo Ninagawa



#### Wednesday, January 31

Keynote IV 11:00 - 11:45

Thursday, February 1

Keynote VI 11:00 - 11:45

How Should We Create a Sustainable Society?

Japanese Association of Science & Technology Journalists Chairperson Tetsuya Muroyama

**Global Climate Action Towards Net-Zero Emissions - Simultaneous** 

Reduction of Greenhouse Gases and Short-lived Climate Forcing Factors -Director of the Department of Social Systems, National Institute for Environmental Studies

Tatsuya Hanaoka



**Recent Situation and Prospects for Refriger**ants for Refrigeration and Air Conditioning Chief Senior Researcher, National Institute of Advanced Industrial Science and Technology Kenji Takizawa



#### Keynote VII 14:00 - 14:45

#### Architecture and Carbon Neutrality

Professor Emeritus, Chiba University Takaharu Kawase



#### Friday, February 2

Keynote VIII 11:00 - 11:45

**BEMS Trends in the Digital Society** and with Decarbonization Director, Toyota SI Engineer Office Takeji Toyoda



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# Keynote V 14:00 - 14:45





#### Lectures

#### **Tuesday, January 30**

#### Lecture (1) 14:00 - 14:30

Aiming for Carbon Neutrality 2050 **Issues and Responses in the Refrigeration and** Air Conditioning Industry

Japan Refrigeration and Air Conditioning Industry Association Managing Director Tetsuji Okada

#### Lecture (3) 16:00 - 16:45

Changes in Motor Technology of Air **Conditioners and Future Prospects** Akio Yamagiwa



#### Lecture (2) 15:00-15:45

Efforts to Adopt Low-GWP Refrigerants for Multi-air Conditioners for Buildings

Japan Refrigeration and Air Conditioning Industry Association A2L Multi-Joint Project for Buildings

# DAIKIN INDUSTRIES, LTD. Chief Engineer



#### Wednesday, January 31

#### Lecture (4) 10:00 - 10:45

**Condenser Units for R290 Compatible Multi-purpose Chillers** Mitsubishi Electric Applied Refrigeration Systems Specialist Keiko Hosaka

#### Lecture (6) 14:45 - 15:30

**Global Environmental Laws and Regulations and JRAIA's Global Activities** 

Japan Refrigeration and Air Conditioning Industry Association International Dept. General Manager Hideaki Kasahara

#### **Thursday, February 1**

Lecture (7) 10:00 - 10:45

#### Efforts to Adopt Low-GWP Refrigerants for **Multi-air Conditioners for Buildings**

Japan Refrigeration and Air Conditioning Industry Association A2L Multi-Joint Project for Buildings

#### Friday, February 2

#### Lecture (8) 10:00 - 10:45

Efforts to Adopt Low-GWP Refrigerants for Multi-air Conditioners for Buildings Japan Refrigeration and Air Conditioning Industry Association

A2L Multi-Joint Project for Buildings

## Lecture (5) 13:00 - 13:45

#### Efforts to Adopt Low-GWP Refrigerants for Multi-air Conditioners for Buildings

Japan Refrigeration and Air Conditioning Industry Association A2L Multi-Joint Project for Buildings

#### Lectures 15:00-15:45

#### Leveraging RaMS, a Fluorocarbons Emission Control Law Compliance and Electronic Management Tool

Japan Refrigerants and Environment Conservation Organization (JRECO) Director of Planning and Research Shusaku Noguchi

#### Lectures 16:00 - 16:45

#### **Recent Trends in the Fluorocarbons Emission Control Law**



Japan Refrigeration and Air Conditioning Industry Association Secretariat Tsutomu Osawa

#### Lecture (9) 13:00 - 13:45

#### **Current Situation and Future Prospects for Reducing the GWP of Turbo Refrigerators**

Chief Engineer, Design Section, Large Refrigerator Engineering Department, MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD. Yoshie Togano



**Technology Award Seminar** 

Thursday, February 1

Technology Award Seminar 13:00 - 15:30

#### **Technology Award Seminar**

Japan Society of Refrigerating and Air Conditioning Engineers

#### **International Event**

Wednesday, January 31

International Event 15:30 - 17:00

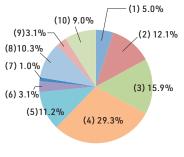
International Event

Lectures by Overseas Industry Associations

#### **Results of the Questionnaire**

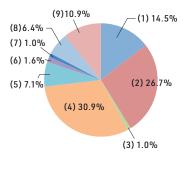
### Visitor Questionnaire (number of valid respondents: 580)

#### **Q1** Select your industry (attributes) below.



- (1) Government, local government, organizations, education/research institutions, etc. (2) Building, design, construction, builders
- (3) Facilities, electricity, plumbing, maintenance/related services
- (4) Manufacturer of refrigeration, air conditioning and heating equipment/ Related equipment manufacturer
- (5) Trading companies, agencies, distribution, retail, wholesale
- (6) Electricity, gas and energy providers (7) News, media, publishing, and other press-related
- (8) General (manufacturing) (9) General (non-manufacturing)
- (10) Other

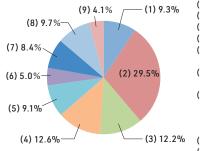
#### Q3 Where did you hear about HVAC&R JAPAN 2024?



- (1) From the Japan Refrigeration and Air Conditioning Industry Association (JRAIA) website
- (2) From the HVAC & R JAPAN 2024 official website (3) From the HVAC&R JAPAN 2024 official
- X (formerly Twitter) account (4) From an invitation letter (printed) from an
- exhibitor/organizer
- (5) From an exhibitor/organizer e-mail newsletter
- (6) From a newspaper/magazine article (print) (7) From the website of a newspaper/magazine, from
- Internet news
- (8) I didn't know about it in advance, I learned about it for the first time after registering to visit

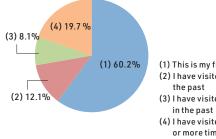
(9) Other

#### Q2 Please select your role (attributes) below.



- (1) Management/Executive (2) Sales
- (3) R&D
- (4) Design
- (5) Construction, production, manufacturing
- (6) Quality, technology management, inspection (7) Public relations, marketing,general
- affairs,corporate planning (8) Student
- (9) Other

#### Q4 How often have you visited HVAC&R JAPAN, including in the past?



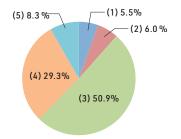
#### (1) This is my first time to visit (2) I have visited the venue once in (3) I have visited the venue twice (4) I have visited the venue three

or more times in the past

60%

80%

#### Q5 Were there any exhibits or information you wanted to see?



Q7 Of the following joint events, please select all that you participated in this time. ٥%

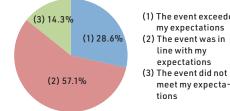
20%

40%

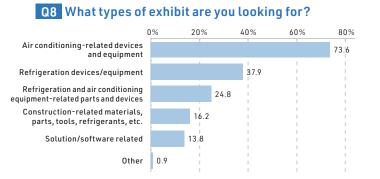
		0%	20%	40%	60%	80%
	HVAC&R Awards Ceremony 2024 (Held in the exhibition hall in the afternoon of February 1)		13.4			1
	HVAC&R Awards 2024 Winners Presentation (Following the award ceremony, held in the exhibition hall in the afternoon of February 1)	5.0	)			
	International event (JRAIA international activities held in the afternoon of January 31/ Overseas industry association introduction event)	1.9				
	Networking party (Exhibitor/visitor exchange party held after the end of the exhibition on January 31)	1.2				
	Student Program Chapter 1 (Stamp rally of major companies)	6.	2			
nation	Student Program Chapter 2 (Stamp rally of specific theme companies)	0.9				
near	Student Program Chapter 3 (HVAC&R Award winner stamp rally)	0.3				
t find it	Student Program Chapter 4 (Special seminar for new exhibitors held in the afternoon of January 31)	0.2				
ne net- exhibi-	Student Program Chapter 5 International events and exhibitor/visitor exchange party held in the afternoon of January 31)	0.3				
ter the 1).(n=7)	Student Program Chapter 4 (Special seminar for new exhibitors held in the afternoon of February 2)	0.2				
xceeded	Facility tour (Tokyo Gas Toyosu Smart Energy Center Tour held in the afternoon of January 30)	0.9				
tions vas in	Facility tour (held on the morning of February 1 (Tokyo Gas Toyosu Smart Energy Center Tour held in the afternoon of January 30)	0.9				
y ns lid not	l did not participate in any events	Ĺ				75 <mark>,</mark> 0

- (1) I plan to buy the product because it was there
- (2) I plan to request a quote because it was there
- (3) I obtained the materials or listened to the explanation in detail because it was there
- (4) There was no product display, but I was able to he the explanation, or obtained the materials
- (5) The product I wanted was not there or I could not

#### Q6 Please tell us your evaluation of the working party you attended (the ex tor/visitor exchange party held after end of the exhibition on January 31



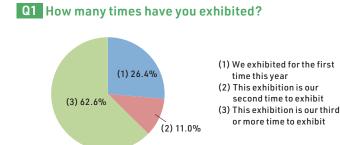




#### Views from Visitors

- I want it to be held every year
- I'm looking forward to the next event
- As an exhibition specializing in air conditioning, etc., I learned a lot about systems related to fluorocarbon laws and regulations.
- I gained various information and learned a lot.
- Thank you for hosting the event
- I want to know more about the refrigerant situation in Japan and abroad.
- I wanted to know some of the contents of the exhibition in advance.

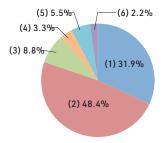
Exhibitor Questionnaire (number of valid respondents: 91)



#### Q3 Please tell us why you are exhibiting at the event. (Multiple answers allowed)



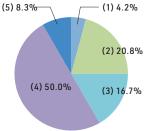
#### **Q5** How satisfied were you with the visitors?



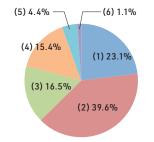
 (1) Above my expectation
 (2) As I expected
 (3) There were many visitors who did not match my business
 (4) Completely off target
 (5) There were many people in the same industry
 (6) Other

## **Q2** Please answer the next question if this is your first time exhibiting.

How did you hear about the exhibition? (n=24)



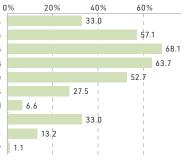
- (1) From the HVAC outline briefing session held in March 2023
- (2) From general announcements on the Internet
- (3) From the Japan Refrigeration and Air Conditioning Industry Association Vice-Chairperson website
- (4) I have visited in the past and I was considering exhibiting
   (5) Other
- Q4 Regarding the answer to the previous question, How did you feel compared to the number of people you expected?



- (1) There were much more people than I expected
- (2) There were more people than I expected
- (3) As I expected
- (4) There were somewhat less people than I expected
- (5) There were much less people than I expected
- (6) None of the above

## **Q6** Please indicate the industry of visitors you would like to visit.

Government, local government, organizations, education/research institutions, etc. Building, architecture, construction, builders Facilities, electricity, plumbing, maintenance/related services Refrigeration and air conditioning manufacturers and related equipment manufacturers Trading companies, agencies, distribution, retail, wholesale Electricity, gas and energy providers News, media, publishing, and other press-related General manufacturing (business users other than the above) General non-manufacturing (business users other than the above)



#### Views from Exhibitors

- The number of days can be 3 days. It could be every year (such as changing the venue), I plan to book a larger space next time.
- I would like to exhibit again if I have the opportunity.
- The free QR code reading service was very helpful. If it is available again next time, I would like to consider preparing a tablet and Wi-Fi environment.
- At the event, we acquired visitor information by scan-
- ning barcodes, and it was easy to use.

80%

791

70.3

70.3

60%

48.4

- I think that there were many visitors and we did not have enough time at the event. I felt it would be better if the event ran from 9:00 to 17:00.
- Thank you very much for your kind response to the staff of the Secretariat.
- The company name text on the name tag for entering was small and it was confusing. Some people were

hiding their name tag, so I think it was difficult to know whether they were an industry peer or a customer.

- I think that collaborations with other exhibitions held on the same date will provide a sense of unity for visitors.
- This was our first time exhibiting, and we would like to thank JRAIA for their support. As a result, we received a response that greatly exceeded our expectations, so it was a great success for us to exhibit.

#### HVAC&R Award Winners

A total of 6 products, technologies, and services from HVAC&R JAPAN 2024 exhibitors received awards in each of the following categories: "Products," "Solutions and Services," and "Parts, Devices, Construction Methods, and Others."

#### Product Category



## EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO., LTD. EBARA CORPORATION

## Development of hydrogen burning absorption chiller and heater

#### Selling Points

Aiming at the realization of a low-carbon and decarbonized society, this is the world's first hydrogen burning absorption chiller and heater that runs on hydrogen, a fuel that is expected to become widely used as a next-generation form of clean energy. By using hydrogen as the fuel, the CO<sub>2</sub> emissions associated with the combustion of the fuel are zero, and a NOx reduction equivalent to urban gas has been achieved in the total combustion area. The device has safety features for hydrogen, such as adding a backfiring prevention device to the hydrogen pipeline as standard in addition to the safety device for city gas, and adding a function to inject inert gas so that the gas pipe is not filled with a combustible mixture of hydrogen and air during shutdown. https://www.ebara.co.jp/corporate/newsroom/release/company/ detail/1215051\_1673.html

#### DAIKIN INDUSTRIES, LTD.

## Outdoor air treatment ventilation system "Saravia"

#### Selling Points

Saravia is a product developed for ZEHs (Net Zero Energy Houses).

It has an outdoor air treatment function that integrates a heat pump heat exchanger, and it can efficiently dehumidify and adjust the temperature before introducing high-temperature and high-humidity external air into the house during ventilation, which can suppress changes in temperature and humidity due to ventilation and maintain comfort.

These performances and functions won the "Minister of Economy, Trade and Industry Award", the highest ranking in the product and business model category of the Energy Conservation Award Grand Prize 2022.

#### **Solutions and Services Category**



#### ICHINEN TASCO CO.,LTD. Simple collection system from flammable (A3) refrigerant equipment

#### Selling Points

Flammable (A3) refrigerants must be safely discharged from the equipment to the outdoors when repaired or disposed of, but in particular, refrigerants could not be safely discharged in underground buildings, etc., where the equipment cannot be easily taken outdoors and there are no windows nearby. A system that safely clears these issues and promotes the conversion to low GWP refrigerants and their popularization.

## MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

#### An initiative for shifting away from boilers in factories using industrial heat pumps

#### Selling Points

This initiative is a seven-year activity that has converted the heat source for a factory's production equipment to an in-house-made industrial heat pump, achieving energy savings and a shift away from the steam boiler previously used at the factory. Under this initiative, MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS,LTD. not only replaced the heat source, but also intentionally tried multiple methods to measure the operating data, thereby obtaining knowledge that will contribute to the selection of heat source capacity and heat exchangers, and the use of cold exhaust air conditioning as an applied measure.

In terms of energy-saving results, a  ${\sim}40\%$  reduction of CO2 emissions was achieved in the equipment using the heat source.

Taking this thermal solution as a single package, MHI Thermal Systems will carry out sales activities to similar factories.

#### Parts, Devices, Construction Methods, and Others Category



#### SAGINOMIYA SEISAKUSHO, INC.

#### HSK type pressure sensor

#### Selling Points

With the need to realize a carbon-free society, SAGINOMIYA SEISAKUSHO developed a high-precision pressure sensor with high versatility that supports CO2 refrigerants with a low Global Warming Potential (GWP). CO2 refrigerant is a low GWP refrigerant, but requires ultra-high pressure, so a high level of safety is required.

In addition, since refrigerants are used in various temperature zones in applications such as heat pump hot water supply and refrigeration, they must be able to handle a wide temperature range from high to low temperature. In addition, since high-efficiency system operation is required from the perspectives of environmental performance and economics, higher precision pressure sensors are needed.

The HSK type pressure sensor achieves a high level of safety, compatibility with a wide temperature range, high precision, and versatility.

#### DAIKIN INDUSTRIES, LTD. Seismic stabilization bracket

#### Selling Points

Since the Great East Japan Earthquake, earthquake-resistant construction methods have been used for construction equipment, but a problem was that the earthquake-resistant construction method that requires the use of full-thread bolts for overhead suspension air conditioners took time.

The "seismic stabilization bracket" is a product developed by the industry's first air conditioner manufacturer. By adopting a new structure that does not use full-thread bolts, it can shorten the construction time by more than 50% compared to the conventional time and can withstand 150% of the seismic waves of the Great East Japan Earthquake.

It is a product that can be used with peace of mind in terms of both ease-of-construction and seismic resistance.



#### **Public Relations and Promotional Activities**

In addition to the promotion activities by JRAIA, multifaceted public relations efforts were carried out with the cooperation of various media and related companies and organizations.

#### Various public relations tools





#### ▲Visitor information





Event Poster

▲Brochure (Information for Exhibitors)

▲Website Top



#### **Overseas Promotion**

Exhibited at "Chillventa 2022 (Germany)", "MARVEX2023 (Malaysia)" and "HARFKO2022 (South Korea)" as a PR booth for HVAC&R JAPAN 2024. We conducted exchanges with companies in Asia and other countries around the world, and carried out a global exhibitor invitation and visit promotion campaign for HVAC&R JAPAN 2024.



Chillventa 2022 (Germany)



MARVEX2023 (Malaysia)



HARFK02022 (South Korea)

#### Advertisements and feature articles in newspapers, magazines, and online

#### Advertising Media

#### ▼Total number of media (21 companies)

No.	Media name	Publication date			
	Newspapers				
1	Nikkan Kogyo Shimbun	January 23			
2	Air Conditioning Times	December 6, January 1, January 17, January 24, January 30			
3	Keizai Sangyo Shinpo	December 25			
4	Denpa Shinbun	January 22			
5	Nihon Setsubi Kogyo Shinbun	January 15			
6	Netsu Sangyo Keizai Shinbun	January 1, January 5, January 15, January 25			
7	Kensetsutsushin Shinbun	January 23			
8	Denzai Ryutsu Shinbun	January 19			
9	Gas Energy Shinbun	January 15			
10	The Nihon Butsuryu Shinbun	January 10			
Professional Journals					
1	Energy Forum	January 1			
2	Smart House	January 20			
3	Reito	December 15			
4	Kuei	January 20			
5	The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan	January 5			
6	Refrigeration and Air Conditioning Equipment	January 15			
7	Monthly BE Construction Equipment	January 1			
8	JARN	November 25			
	WEB				
1	eJARN	December 1, 2023 - February 2, 2024			
	New Medi	a			
1	Construction Equipment and Piping Work	December 5, January 5			
2	Thermal Storage Information Magazine COOL&HOT	Early December			

#### Publishing Page (partial excerpt)

▼The Nihon Butsuryu Shinbun (January 10)



#### ▼Construction Equipment and Piping Work (December 5, January 5)



#### Visiting media

	Tuesday, January 30	Wednesday, January 31	Thursday, February 1	Friday, February 2	Total for 4 days
No. of media	22 companies	25 companies	12 companies	13 companies	72 companies
Number of people	30 people	32 people	18 people	21 people	101 people
Media number breakdown (companies)					
тν	1	0	0	0	1
Newspapers	14	12	4	5	35
Professional Journals	3	5	4	3	15
WEB	3	4	1	2	10
Other	1	4	3	3	11

#### ▼Other media list

Media name	Company Name/ Department Name
냉동공조저널 (HVAC&R Journal)	ACR MEDIA
Kharn	KHARN
coldchainnews	KHARN
SUUTA	SUUTA Co., Ltd.
Impact Japan	Impact Japan
Exhibition Channel	Exhibition Co., Ltd. Sales & Marketing
Kyodo Digital	UN Geneva
ATMOsphere	atmosphere.cool
Jiji Press	Jiji Press Ltd.
MODECOM	MODECOM Co.,Ltd.



▼Social	media	posts
* Juciut	meana	posts

X (formerly Twitter) \*Operated on the same account as for previous events "HVAC&R JAPAN" @hvacjraia

Operation period: June 19, 2023 - February 2, 2024 Total posts (tweets): 19 As of February 15

No.	Posting date	Content	Impressions
1	06/19/23	Early-bird Notice	4,830
2	07/25/23	Exhibitor Registration Notice	487
3	12/11/23	Visitor Registration Notice (1)	1,774
4	12/18/23	Visitor Registration Notice (2)	640
5	01/22/24	Special Lecture by Tokyo Governor Koike	381
6	01/29/24	Student Program Introduction Video	638
7	01/29/24	Award Decision Report	305
8	01/29/24	Award Decision Report (Reply)	258
9	01/29/24	Day Before Event post	14,369
10	01/30/24	Opening Ceremony post	313
11	01/30/24	Premium Lounge Introduction post	283
12	01/30/24	Information Dissemination Corner Introduction post	305
13	01/31/24	2nd Day Event Greeting	261
14	01/31/24	Seminar Introduction post	259
15	02/01/24	3rd Day Event Greeting	207
16	02/01/24	Award Announcement post	214
17	02/02/24	Last Day Greeting	163
18	02/02/24	Report on Special Lecture by Tokyo Governor Koike	160
19	02/02/24	Last Day/Thank You post	158

#### Post (excerpt)

▼No.3 Visitor Registration Notice (1)



#### ▼No.12 Information Dissemination Corner Introduction post



Virtual Booths

We have photographed each booth individually and released "virtual booths".



EBARA REFRIGERATION EQUIPMENT & SYSTEMS - EBARA CORPORATION







FUJINETSU CO., LTD



Schneider Electric



Hitachi Global Life Solutions, Inc. Hitachi-Johnson Controls Air Conditioning, Inc.





Information on the next event

## 2026.1.27<sub>TUE</sub> 1.30<sub>FRI</sub> HVAC&R JAPAN 2026

The 44th Heating, Ventilation, Air-conditioning and Refrigeration EXPO

Venue:Tokyo Big Sight

Organizer: The Japan Refrigeration and Air Conditioning Industry Association (JRAIA) (HVAC&R | Q)

Inquiries about the exhibition

#### HVAC&R Japan Secretariat E-mail: info@hvac-r.jp