

NEWSLETTER

August 2026

2026–2027 Term | Issue 01

***Building on Our Legacy,
Advancing Our Future*** 

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President's Message

Building on Our Legacy, Advancing Our Future



Mr. Kozen Law Kok Zhen
President
ASHRAE Malaysia Chapter
2025-2027

Dear ASHRAE Malaysia Chapter Members, Friends and Partners,

It gives me great pleasure to welcome you to the first issue of the ASHRAE Malaysia Chapter Newsletter for the 2026-2027 term.

As we begin another exciting chapter in our journey, I would first like to express my sincere appreciation to our Board of Governors, committee chairs, volunteers, members, industry partners, student branches and supporters who have contributed their time, knowledge and passion to the Chapter. The strength of ASHRAE Malaysia has always been our people, and it is through this spirit of volunteerism and collaboration that we continue to grow.

The past term has demonstrated the tremendous energy of our Chapter. From technical programmes and industry engagement to government affairs, membership development, research promotion, student activities and Young Engineers in ASHRAE (YEA), our committees have continued to create meaningful opportunities for knowledge sharing and professional networking. The celebration of our 40th Anniversary was particularly significant, reminding us of four decades of contribution by generations of ASHRAE members who have helped build the Chapter into what it is today.

As we move into the 2026-2027 term, our goal is not merely to organise more activities, but to create greater impact and lasting value for our members and the HVAC&R industry.

Three areas will receive particular attention. First, we will continue strengthening our training and professional development initiatives, providing relevant technical knowledge and competency development that respond to the evolving needs of our industry. Second, we will place greater emphasis on our YEA members and students. They represent the future of ASHRAE, and we want to provide them with more opportunities to learn, lead, network and contribute. Third, we will continue improving our Chapter's financial and administrative practices to ensure that our activities remain sustainable and that the Chapter is well positioned for long-term growth.

We also have an exciting calendar ahead. The ENGINEER Exhibition in September 2026, together with key technical and regional programmes, will provide an important platform to connect our members with professionals, industry leaders and the wider ASHRAE community. We also look forward to celebrating our 41st Anniversary and continuing signature activities such as our Durian Festival, which bring together professional networking and the fellowship that makes our Chapter unique.

Beyond events and numbers, however, I believe the true measure of our success lies in the connections we create, the knowledge we share and the next generation of professionals we inspire.

I therefore encourage every member to become involved. Attend an activity, contribute to a committee, share your expertise, mentor a young engineer or student, or simply introduce a colleague to ASHRAE. Every contribution, regardless of size, strengthens our community.

Together, let us continue to build upon the strong foundation established over the past four decades while embracing new ideas, new technologies and new opportunities.

Let us make 2026-2027 a year of greater engagement, stronger collaboration and meaningful impact.

Thank you for your continued trust and support. I look forward to meeting many of you throughout the year and working together to advance the mission of ASHRAE in Malaysia.

Warmest regards,
Mr. Kozen Law Kok Zhen
President, 2025-2027
ASHRAE Malaysia Chapter

"Let us make 2026-2027 a year of greater engagement, stronger collaboration and meaningful impact."



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Chapter Officers 2026-2027

ASHRAE Malaysia Chapter leadership and committee portfolio holders



President
Mr. Law Kok Zhen



President-Elect
Mr. Lim Tiong San



Vice President
Ms. Irin Kang Siew Foon



Honorary Treasurer
Dr. Hui Kar Hoo



Honorary Secretary
Dr. Victor Bong Nee Shin



**Immediate Past President /
BOG / Chapter
Scholarship Chair**
Mr. Tee Tone Vei



BOG / Historian
*Ir. Dr. Leow Chee Huan,
Keith*



BOG / Newsletters Editor
Ts. Dr. King Yeong Jin



**BOG / Student Activities
Co-Chair**
Mr. David Gan Yue Yang



**Membership Promotion
Chair**
Ms. Tan Chiew Fen



**Research Promotion
Chair**
Mr. Missbichler Max



**Government Affairs Chair
/ Nominating Committee**
Mr. Chea Swei Keong



Student Activities Chair
Mr. Lim See Boon, Jeffrey



YEA Chair
Mr. Tan Kok Yan



Refrigeration Chair
Mr. Chew Soon Jin



**Electronic Communication
Chair**
Ms. Shirley Chong



**Honors & Awards Chair /
Government Affairs Co-
Chair/ Nominating
Committee**
Ir. Leong Siew Meng



**Librarian / Special Event
Chair**
Ts. Ng Wen Bin



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Chapter Officers 2026-2027

ASHRAE Malaysia Chapter leadership and committee portfolio holders



**Sustainability Committee
Chair**
Dr. Chin Wai Meng



Internal Auditor
Ir. Tan Chioo Bin



Technology Transfer Chair
Ir. Denise Lim



**Internal Auditor/
Nominating Committee**
Ir. Ong Ching Loon



Penang Section Chair
Dr. Ng Wei Lin, Jack



**Membership Promotion
Co-Chair**
Mr. Teoh Wah Chung, Adrien



**Electronic Communication
Co-Chair**
Mr. Lai Ching Sheng



**Research Promotion
Co-Chair**
*Mr. Senthilnathan
Shanmugavel*



CTTC Co Chair
Mr. Leow Chee Kong



**Sustainability Committee
Co-Chair**
Ir. Ng Yong Kong

The new term brings together Chapter officers, Board of Governors members, committee chairs, section leadership and volunteers across membership, student activities, government affairs, research, sustainability, refrigeration, communications, YEA and technical programmes.



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Starting the 2026-2027 Term

Leadership, partnership and recognition

14 JUL | FIRST BOG MEETING

The first Board of Governors meeting of the 2026-2027 term marked the start of a new cycle of goals, plans and volunteer service. The meeting provided a platform to align Chapter priorities and committee activities for the year ahead.

30 JUL | ENGAGEMENT WITH MACRA

ASHRAE Malaysia Chapter held discussions with MACRA Malaysia on future talent development, knowledge sharing and closer industry collaboration, with the shared aim of strengthening the HVAC&R community and inspiring the next generation of professionals.

STUDENT ACHIEVEMENT | SCHOLARSHIP

Peh Kyung Kit, Mechanical Engineering, Universiti Malaya, was recognised in the Chapter's submitted information as a recipient of the Prem Jain Scholarship, reflecting ASHRAE's continuing support for promising engineering students.

2026-27 SOCIETY DIRECTION

ASHRAE Society President Sarah E. Maston's theme, "Changing the Game: Retrofitting for Resilience," focuses on improving the efficiency, performance and resilience of existing buildings through teamwork, codes, retro-commissioning and workforce development.

The Chapter will continue to build bridges among professionals, government agencies, academia, students and related industry associations throughout the 2026-2027 term.

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Hands-on Learning Across Malaysia

July training activities strengthened practical ACMV and energy-efficiency capability



July 2026 technical development activities in Penang and Kelana Jaya.

PRACTICAL LEARNING IN FOCUS

The Level 1 O&M programme combined classroom learning with hands-on activities using real tools and equipment, helping participants connect refrigeration-cycle theory with service procedures and troubleshooting practice.

14-15 JUL | ENERGY EFFICIENCY MANAGEMENT FOR ACMV - PENANG

Olive Tree Hotel, Penang. A two-day programme focused on practical understanding of ACMV systems, cooling-load analysis, ventilation requirements and energy-efficient design strategies.

17-19 JUL | O&M OF ACMV SYSTEMS - LEVEL 1

ASHRAE Malaysia Secretariat, Kelana Jaya. A three-day hands-on competency course covering refrigeration fundamentals, vacuuming, charging, troubleshooting and safe, efficient operation. Trainer: Ts. Ng Wen Bin.



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Design of Pressurization Systems

ASHRAE Distinguished Lecturer Wei Sun brings global cleanroom expertise to Malaysia

KUCHING SECTION | 10 AUGUST 2026

ASHRAE Kuching Section, in collaboration with The Institution of Engineers, Malaysia (IEM) Sarawak Branch, hosted a Distinguished Lecturer talk on the design of pressurization systems.

Wei Sun is an ASHRAE Fellow and Distinguished Lecturer, President of Engsysco (USA), lead author of the ASHRAE Cleanroom Design Guide, and a contributor to ISO TC209 and cleanroom testing activities.

The session addressed technologies in room/suite pressure control, performance evaluation and design practices for healthcare facilities, cleanrooms, laboratories and other critical environments.

NEXT STOP: KUALA LUMPUR - 12 AUGUST 2026

The Chapter will also host Wei Sun at the ASHRAE Malaysia Secretariat, Kelana Jaya, on 12 August 2026 from 2:30 pm to 4:30 pm. The programme will cover room/suite pressure control, performance evaluation and best practices for critical environments.



COLLABORATION BETWEEN



PROUDLY PRESENTS

DL TALK

Design of Pressurization Systems

— CPD APPLIED —





WEI SUN

- ASHRAE Fellow/Distinguished Lecturer
- ISO 14644-USA Delegate
- Chief Executive Officer, Engsysco, USA

EXECUTIVE SUMMARY

Wei Sun is President of Engsysco (USA), ASHRAE Fellow, and lead author of the ASHRAE Cleanroom Design Guide.

He serves on ISO TC209 and NEBB's Cleanroom Testing Committee, and previously chaired ASHRAE's Environmental Health Committee and IEST.

He is a global leader in cleanroom and HVAC system design.

Join us for an insightful DL Talk on the latest technologies, performance evaluation methods and best practices in the design of pressurization systems for healthcare, cleanrooms, laboratories and other critical environments.

KEY TOPICS TO BE COVERED

Technologies in Room/Suite Pressure Control

Performance Evaluation

Design Practices

REGISTRATION FEE

ASHRAE / IEM Member

RM 70

Non-Member

RM 100

* Seats are limited. Register early to avoid disappointment.

CONTACT US FOR MORE INFORMATION

Nur (+6011-1574 4931)

Victor (+6016-856 9850)

SCAN TO REGISTER



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2nd A.C.E Conference 2026

Applied HVAC & R, Comfort & Efficiency - optimising operation and maintenance for smarter, energy-efficient and resilient buildings

24 SEPTEMBER 2026 | KL CONVENTION CENTRE | 9:00 AM - 5:00 PM

A.C.E Conference 2026 brings together HVAC&R and building-services professionals from across Asia to explore smarter operations and building performance. Now in its second edition, the conference focuses on turning best practices into real operational results.

OPENING KEYNOTE

Chandra Sekhar, PhD - Professor, Department of the Built Environment, National University of Singapore; ASHRAE Distinguished Lecturer and Fellow.

KEY DISCUSSION AREAS

- Future-ready HVAC&R operations
- Energy infrastructure and cooling performance
- Operational excellence across building types
- Standards, skills and the right approach

REGISTRATION

Early bird until 31 August: ASHRAE members RM950 | Non-members RM1,200 | Students RM400.

Standard: ASHRAE members RM1,300 | Non-members RM1,550 | Students RM600.

All tickets are subject to 8% SST; group rates are available.

Jointly organised by ASHRAE Malaysia Chapter and CIS. The brochure indicates 5 BEM CPD hours and 10 CIDB CCD points.

PROGRAMME AT A GLANCE

Opening keynote: Smarter Buildings, Healthier Spaces - The Future of HVAC&R Operations in Asia's Tropical Built Environment

- Keeping Data Centres Running: maintenance, reliability and performance in Malaysia's critical infrastructure.
- High Performance in Practice: what operational excellence really looks like across Asia.
- In Sequence, In Control: how mechanical-system operations drive HVAC&R efficiency and reliability.
- Right Tool, Right Job: applying HVAC&R standards and best practices for reliable, efficient operations.
- High-Stakes FM: maintaining HVAC&R performance across large-scale mixed-use developments.



ASHRAE Malaysia Chapter

2ND A.C.E CONFERENCE 2026
APPLIED HVAC & R, COMFORT & EFFICIENCY CONFERENCE

OPTIMISING HVAC&R OPERATION AND MAINTENANCE FOR SMARTER, ENERGY-EFFICIENT AND RESILIENT BUILDINGS

24 SEPT 2026
KL CONVENTION CENTRE, MALAYSIA
9AM - 5PM

A.C.E Conference 2026 brings together HVAC&R and building services professionals from across Asia to explore smarter operations and building performance. Now in its second edition, it's the region's platform for turning best practices into real operational results.

OPENING KEYNOTE BY
CHANDRA SEKHAR, PHD.
Professor, Department of the Built Environment, National University of Singapore.
Fellow ASHRAE, ISAQ and Engineers Australia.
ASHRAE Distinguished Lecturer
ASHRAE Vice President and Board Member (2023-2025)

KEY DISCUSSION AREAS

- FUTURE-READY HVAC OPERATIONS
- ENERGY INFRASTRUCTURE & COOLING PERFORMANCE
- OPERATIONAL EXCELLENCE ACROSS BUILDING TYPES
- STANDARDS, SKILLS & THE RIGHT APPROACH

AND MANY MORE...

REGISTRATION

CATEGORY	UNTIL 31 ST AUG	STANDARD
ASHRAE MEMBERS	RM 950	RM 1,300
NON-MEMBERS	RM 1,200	RM 1,550
STUDENTS	RM 400	RM 600

All tickets are subject to 8% SST.
*Group rates are available in the registration link.

REGISTER NOW

Held Concurrently with:
ENGINEER 9+12 SEP 2025 KLCC
5 BEM CPD HOURS 10 CIDB CCD POINTS

Jointly Organised by:
ASHRAE Malaysia Chapter CIS

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ASHRAE Region XIII Forum

Engineering the Future: Retrofitting Legacy Data Centers for Modern Day Demands

ASHRAE Region XIII Regional Forum will be held on 23 September 2026, from 1:00 PM to 5:00 PM at Hall 5, KL Convention Centre, in conjunction with ENGINEER 2026. With the theme ***“Engineering the Future: Retrofitting Legacy Data Centers for Modern Day Demands,”*** the forum will bring together distinguished ASHRAE leaders and industry experts from across Region XIII to share insights on upgrading existing data centres to meet evolving demands for energy efficiency, reliability, sustainability and performance. The programme will be followed by the Region XIII Business Network Forum (BNF) from 5:00 PM to 6:00 PM.

The Forum date scheduled on

Date: **23rd September 2023**

Time: **1.00 pm to 5.00 pm**

Business Networking Session: 5.00 pm to 6.00 pm



23 SEPT 2026
1:00PM – 5:00PM

POWER SPACE 5 HALL 5
KL Convention Centre, Malaysia

ASHRAE Region XIII
Regional Forum

Business Network Forum of Region XIII (BNF)*. Time 5.00pm to 6.00pm

 Mr. Chen Thiam Leong ASHRAE Malaysia Chapter Past President	 Mr. Bill Wang Wei-Dong ASHRAE Malaysia Chapter Past President and GTIC Regional Liaison	 Mrs. Herlin Herlanika ASHRAE Region XIII Electronic Communication Regional Chair and ASHRAE Indonesia Chapter Immediate Past President
 Mr. Suwattchai Joongitdamrong ASHRAE Chapter Professional Engineer (ACPE)	 Mr. Gerald Hew Yoon Loong ASHRAE Singapore Chapter President (2026-27)	 Mr. Mark Lester Baranda Salvador ASHRAE Philippines Chapter President (2026-27)
 Mr. Barry Lau ASHRAE Hong Kong Chapter President (2026-27)	 Mr. Lee Jinyoung ASHRAE South Korea Chapter Research Promotion Chair	 Mr. Andrew Huang Principal Researcher of DC Cooling System, Deep Knowledge Community
 Mr. Ong Ching Loon ASHRAE Region XIII Director and Regional Chair	 Mr. Chea Suel Keong ASHRAE Society Research Promotion Vice Chair	

Engineering The Future: Retrofitting Legacy Data Centers for Modern Day Demands

Held Concurrently with:

ENGINEER
An Event of IEM CONVENTION

22-25 SEPT 2026
10AM – 6PM

KLCC
KL CONVENTION CENTRE, MALAYSIA



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Smash, Learn & Connect

A 2026-2027 YEA programme blending networking, active participation and practical HVAC&R learning

YEA 2026-2027 ACTIVITY PIPELINE

Planned next activities include a second YEA Short Talk at Universiti Malaya and “Rally Your Cool” Pickleball & HVAC-R Pocket Cards in January/February 2027. A YEA Technical Leadership Retreat in Genting Highlands is also under planning, with the date to be reconfirmed.



ASHRAE Malaysia Chapter
YEA (Young Engineers in ASHRAE)

SMASH, LEARN & CONNECT

BADMINTON GAME WITH HVAC-R POCKET CARDS

LOCATION:
THE HOOD
41, Jalan Rahmat, Jalan Ipoh,
50350 Kuala Lumpur,
Wilayah Persekutuan Kuala Lumpur

DATE:
13th SEPTEMBER 2026
(SUNDAY)

TIME:
10:00 AM - 12:00 PM
+ Free Lunch Session at Robin's

MODE OF TRANSPORT AVAILABLE:
Taking LRT to PWTC LRT Station
& Free Parking

TARGET PARTICIPANTS:
OPEN TO ALL ENGINEERS
& UNIVERSITY STUDENTS

EQUIPMENT INFO:
✓ Racquets are NOT provided.
✓ Please bring your own racquet.
✓ Shuttlecocks are provided.

PRICE PER PERSON:
RM25

FLASH CARDS READ DURING TIMEOUT!

PLAY HARD. LEARN SMART. BUILD CONNECTIONS. LET'S GROW TOGETHER!

For more info: YEA Chair - Tan Kok Yan (012-3332195) | Secretariat - Nur (011-15744931)
www.ashrae.org.my | ASHRAE Malaysia Chapter

13 SEP 2026 | BADMINTON + HVAC-R POCKET CARDS

Venue: The Hood, 41 Jalan Rahmat, Jalan Ipoh, Kuala Lumpur
| 10:00 am - 12:00 pm | RM25 per person. Open to engineers and university students, with badminton, networking, HVAC-R Pocket Cards and a free lunch session.



ASHRAE Malaysia Chapter
Young Engineers in ASHRAE

YEA SHORT TALK

Bridging University Learning with Real HVAC Facility Experience

Learn. Share. Grow.
FOR UNIVERSITY STUDENTS, YOUNG ENGINEERS & THOSE WHO ARE INTERESTED CAN JOIN!

REAL STORIES From the field
PRACTICAL LESSONS Beyond textbooks
BETTER SYSTEMS better buildings
SMARTER ENERGY for the future

SESSION 1 2:00 PM - 2:45 PM
NOBODY TOLD ME THIS: HVAC MISTAKES YOU ONLY DISCOVER IN REAL BUILDINGS

SESSION 2 2:55 PM - 3:40 PM
HOW FACILITY ENGINEERS ACTUALLY SAVE ENERGY?

QUIZZIZ WITH PRIZES!
DATE: 4 NOVEMBER 2026 WEDNESDAY
TIME: 2:00 PM - 4:00 PM (REGISTRATION FROM 1:30 PM)
VENUE: UNIVERSITI TUNKU ABDUL RAHMAN (UTAR)
Jalan Sungai Long, Bandar Sungai Long, 43000 Kajang, Selangor

SPEAKER & YEA CHAIR
TAN KOK YAN
HVAC-R Facility Engineer
Genting Highlands
3 years of hands-on experience in operating and maintaining a wide range of HVAC-R systems including chiller plants, AHUs, FCUs, heat pumps, refrigeration systems and more.

FREE REGISTRATION
SCAN TO REGISTER

For more info: YEA Chair - Tan Kok Yan (012-3332195) | Secretariat - Nur (011-15744931)
yea.malaysia@ashrae.org | www.ashraemalaysia.org | ASHRAE Malaysia Chapter YEA

4 NOV 2026 | YEA SHORT TALK @ UTAR

Bridging University Learning with Real HVAC Facility Experience. Sessions include real-building HVAC mistakes, how facility engineers save energy, and a Quizizz segment with prizes. Time: 2:00 pm - 4:00 pm.



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3rd ICBE&S 2026

International Conference on Built Environment & Sustainability | 23 October 2026 | Connexion Conference & Event Centre, Bangsar South, Kuala Lumpur





ASHRAE Malaysia 3rd International Conference
on Built Environment & Sustainability (ICBE&S) 2026

PROGRAMME A:

NET-ZERO & FUTURE-READY DATA CENTRES FOR THE AI ERA

NET-ZERO AI-READY WATER-SMART RELIABILITY HIGH EFFICIENCY

SESSIONS

- Net-zero energy strategies and policies/guidelines to power AI sustainability
- Energy- & water-smart cooling: Rethinking thermal management in the AI era
- High-efficiency infrastructure and operational strategies to support AI workloads
- Advanced technologies for reliability and high-efficiency processing in the AI-driven landscape

CONFERENCE DATE
Friday, 23 October 2026
CONFERENCE PROGRAMME TIME
8:15 a.m. – 5:30 p.m.

VENUE
Connexion Conference & Event Centre
Bangsar South,
Kuala Lumpur

PARTICIPATION FEES

Non-ASHRAE Members	RM150
ASHRAE Members	RM80

CONFERENCE SPONSOR


PANEL OF SPEAKERS
DATA CENTRE WORLD-LEADING RESEARCHERS & DESIGN & OPERATION EXPERTS

 **ASHRAE DISTINGUISHED LECTURER**
More than 25 years of experience in design and commissioning

 **DATA CENTRE DESIGN & OPERATION EXPERT**
Specialist in data centre planning, design and mission-critical operations

 **LIQUID COOLING & FILTRATION DESIGN EXPERT**
Expert in advanced liquid cooling systems and filtration for high-density IT loads

 **BESS DESIGN EXPERT**
Specialist in Battery Energy Storage Systems for resilience and sustainability

REGISTER HERE!
Scan the QR code or visit the link to secure your spot today!



FOR MORE INFORMATION | mashrae@ashrae.org.my | +6018-351 8550 (FAIZAH) | www.ashrae.org.my

The **3rd ICBE&S 2026** will be held in conjunction with ASHRAE Malaysia's **41st Anniversary Dinner**. Against the rapid expansion of data-centre development and AI-driven demand, the conference will address sustainability challenges in energy consumption, water utilisation, system reliability and the wider built environment.

PROGRAMME A | NET-ZERO & FUTURE-READY DATA CENTRES FOR THE AI ERA

A strategic platform for resource-efficient, reliable and future-ready data-centre solutions. Focus areas include net-zero energy strategies and policies, energy- and water-smart cooling, high-efficiency infrastructure and operations for AI workloads, and advanced technologies for reliability and efficient AI processing.

PROGRAMME B | TOWARDS NET ZERO: SUSTAINING OUR FUTURE

A platform for academics, industry professionals, policymakers and students to exchange ideas on sustainable development in the built environment, with emphasis on strategies, technologies and policies that contribute to net-zero carbon emissions.



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World Refrigeration Day 2026

Cool Intelligence: sustainable cooling, technical learning and partnership

Date	1 July 2026
Venue	Multipurpose Hall, SEGi University, Kota Damansara
Organised by	ASHRAE Malaysia Chapter, SEGi University and UniKL MFI
Government agency	Department of Environment Malaysia
Report by	Ts. Dr. King Yeong Jin
Participation	515 participants from government agencies, universities, polytechnics, colleges and industry

ASHRAE Malaysia Chapter collaborated with SEGi University and UniKL MFI to organise World Refrigeration Day 2026 under the theme “Cool Intelligence.” The programme brought together more than 500 participants and featured technical presentations, educational and industry exhibitions, student activities and networking.

A major highlight was the keynote address by Mr Ryan Ooi Chean Weai, Ketua Penolong Pengarah Kanan, Bahagian Udara, Department of Environment Malaysia, reinforcing collaboration on environmentally responsible and sustainable cooling practices.



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National Energy Survey in Malaysia

Supporting a stronger evidence base for national energy-efficiency policy

Engagement date	16 July 2026
Venue	ASHRAE Malaysia Chapter office
Organisation	Energy and Environment Centre, SIRIM Berhad
Government context	SIRIM appointed by Suruhanjaya Tenaga; Ministry of Investment, Trade and Industry (MITI)
MASHRAE representatives	Ir. Leong Siew Meng, Mr Law Kok Zhen and Mr Chea Swei Keong
SIRIM participants	Dr Rohaya Binti Zin, Saiful Azam Bin Mahmud and Muhammad Asraf Bin Ja'apar



SIRIM has been appointed by Suruhanjaya Tenaga (ST) as consultant for a National Energy Survey covering Malaysia's commercial, manufacturing and residential sectors. The project is funded by the Akaun Amanah Industri Bekalan Elektrik (AAIBE) and aims to establish a comprehensive national energy database.

- Create a stronger national evidence base for future energy-efficiency initiatives and policy development.
- Engage industry stakeholders and technical bodies on relevant data and sector perspectives.
- En Zaharin Zulkfli of Suruhanjaya Tenaga was identified in the submitted report as Project Leader.



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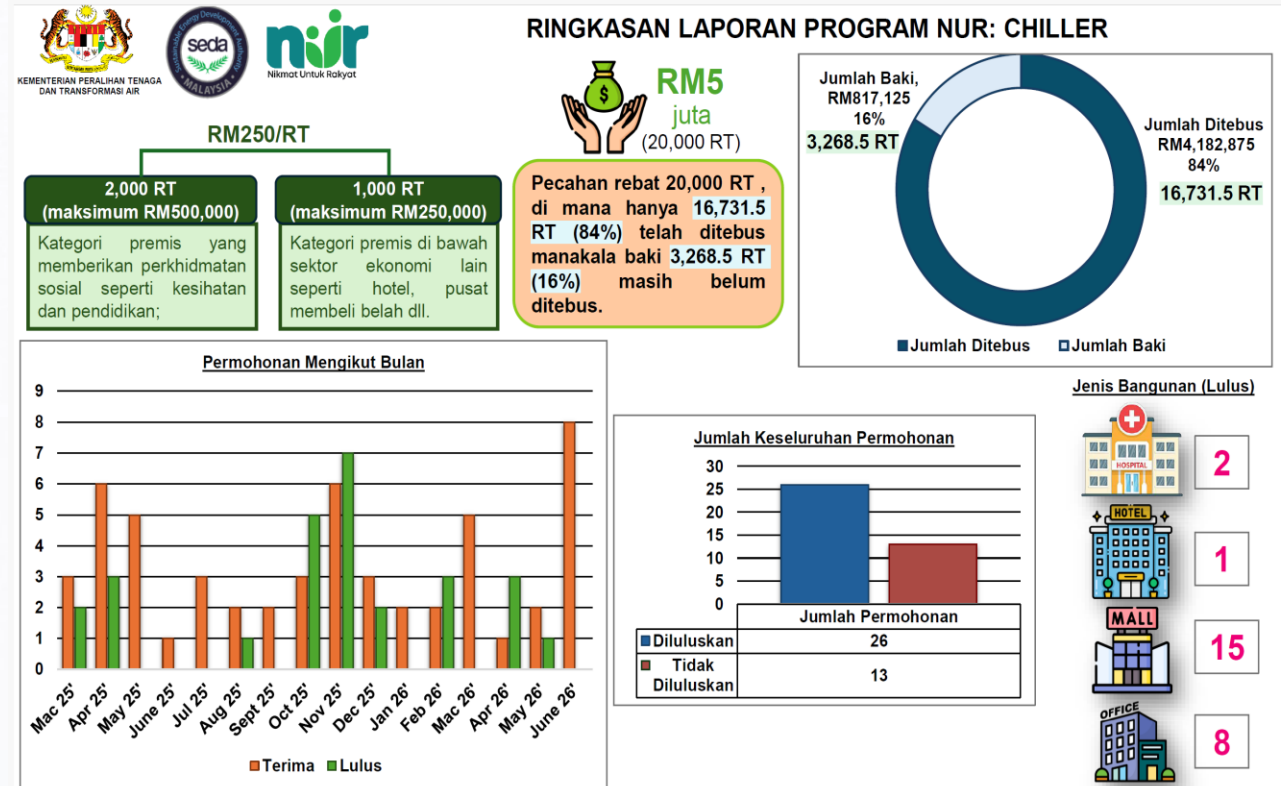
SAVE 5.0 - Chiller Rebate Program

Latest progress of the national chiller rebate programme and related energy-efficiency initiatives

Engagement date	22 July 2026
Venue	Hybrid Meeting
Organisation	Sustainable Energy Development Authority (SEDA)
Government Agency	Ministry of Energy Transition and Water Transformation (PETRA)
MASHRAE representatives	Ir. Chen Thiam Leong
Participants	PETRA, SEDA, ACEM, MASHRAE, IEM, SIRIM

Update on NUR SEDA Chiller Rebate programme

- For the AAIBE's 5 million, all 5 million is now subscribed with the last approved project only receiving less than 50% entitlement due to oversubscription.
- 2 new projects, though qualified, have missed the boat.
- Approved projects are reminded to be completed by 31 Dec 2026 for payment of approved incentive sum.
- SEDA will check on the progress of printing the revised ACMV publication used for the SEDA-MASHRAE ACMV 2-day course.



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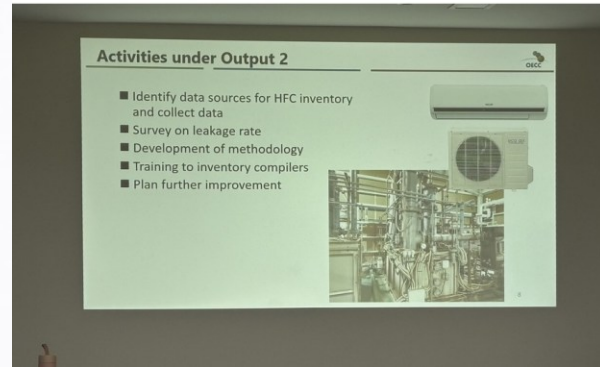
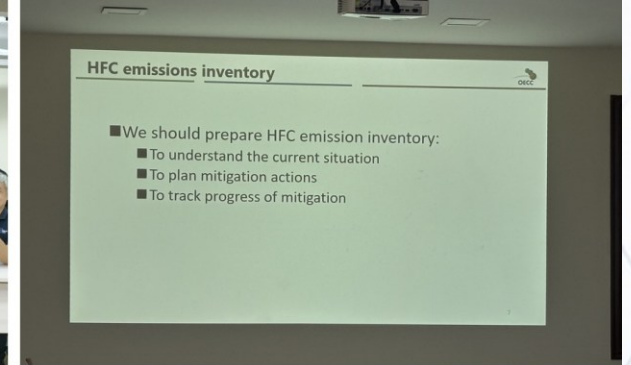
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HFC Refrigerant Emission Inventory Engagement

Technical collaboration on data, standards and climate reporting

Engagement date	23 July 2026
Venue	ASHRAE Malaysia Chapter office
Lead organisation	Japan International Cooperation Agency (JICA)
Government agency	Ministry of Natural Resources and Environmental Sustainability (NRES)
Partners	NRES, SIRIM, OECC, JICA, UTM and ASHRAE Malaysia Chapter
MASHRAE representatives	Ir. Chen Thiam Leong, Ir. Leong Siew Meng, Dr Chin Wai Meng, Mr Lim Tiong San and Mr Chea Swei Keong

The engagement explored potential technical collaboration and mutual interest related to refrigerant data, standards and climate reporting. A key objective is to strengthen Malaysia's capacity to meet national reporting obligations to the UNFCCC under the Enhanced Transparency Framework.



Proposed HFC inventory action plan

- Identify data sources and collect information for the HFC inventory.
- Survey refrigerant leakage rates and develop an appropriate inventory methodology.
- Provide training for inventory compilers.
- Use implementation results to plan further improvement.



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Malaysia Engineering Council Stakeholder Engagement

Exploring a common platform for Malaysia's engineering institutions and societies

Date	28 July 2026
Venue	Dewan Tan Sri Mahfoz Khalid, Ministry of Works Malaysia, Kuala Lumpur
Convened by	Board of Engineers Malaysia (BEM)
Government agency	Ministry of Works Malaysia
MASHRAE representative	Mr Lim Tiong San, President-Elect
Participants	Engineering institutions and societies including IEM, MySET, ACEM, SEEM, MFPA, MAE, IMM, MOGSC and TAM, among others



- Participants highlighted duplication of programmes and the absence of a common focal point for shared national engineering agendas.
- MyEC could enable joint programmes, partnerships and cross-disciplinary sharing of best practices, standards and research.
- ASHRAE Malaysia Chapter could connect MyEC with ASHRAE's global standards, technical communities and collaboration networks.
- Most institutions indicated willingness to nominate specialists, participate in technical committees and contribute to policy and standards.
- The concept is intended to create shared value without replacing or competing with existing institutions and societies; continued stakeholder engagement is required.



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Professional Development Calendar

Upcoming Chapter, YEA and conference programmes

DATE	PROGRAMME	VENUE	TIME
27 AUG 2026	Beyond Lubrication: The Science of Refrigeration Oils	ASHRAE Malaysia Chapter Secretariat	2:00 pm - 4:30 pm
5-7 SEP 2026	Independent Specialist (iCxS) Competency Course #2/2026	ASHRAE Malaysia Chapter Secretariat	8:45 am - 5:30 pm
13 SEP 2026	YEA: Smash, Learn & Connect - Badminton + HVAC-R Pocket Cards	The Hood, Jalan Ipoh, Kuala Lumpur	10:00 am - 12:00 pm
24 SEP 2026	2nd A.C.E Conference 2026	KL Convention Centre	9:00 am - 5:00 pm
5-6 OCT 2026	Basic Course of ACMV - Cooling Load Calculation and System Design	IntEC, Kuching, Sarawak	830 am - 530 pm
10-11 OCT 2026	iCxS Examination	ASHRAE Malaysia Chapter, Kelana Jaya	Examination dates
12-13 OCT 2026	Energy Efficiency Management for ACMV - Final Intake 2026	ASHRAE Malaysia Chapter Secretariat	8:30 am - 5:30 pm
23 OCT 2026	3rd ICBE&S 2026 + 41st Anniversary Dinner	Connexion Conference & Event Centre, Bangsar South	Conference day
4 NOV 2026	YEA Short Talk: Real HVAC Facility Experience	UTAR, Sungai Long	2:00 pm - 4:00 pm
27-29 NOV 2026	Operation & Maintenance of ACMV Systems Level 1 - Penang	Olive Tree Hotel, Penang	8:30 am - 5:30 pm

Selected programme details

Beyond Lubrication features Mr Rei Saito, Senior R&D Leader in Refrigeration Lubricants. September adds the YEA “Smash, Learn & Connect” event and the 2nd A.C.E Conference at KLCC, while October features the final 2026 ACMV energy-efficiency intake and the 3rd ICBE&S 2026.

The iCxS course is supported by Green Building Index (GBI). ICBE&S 2026 will be held on 23 October in conjunction with ASHRAE Malaysia’s 41st Anniversary Dinner, with Programme A focused on future-ready data centres for the AI era and Programme B on sustaining a net-zero future.

The professional-development calendar is complemented by YEA activities designed to connect young engineers and students through technical learning, practical facility experience and networking.

REGISTRATION & ENQUIRIES

Visit www.ashrae.org.my for current programme information. Chapter Secretariat: mashrae@ashrae.org.my | +603-7887 5886 | +6011-1574 4931 (Pn. Nur) | +6018-351 8550 (Pn. Faizah).



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Refrigeration - Defrosting

Article by Mr. Chew Soon Jin, Life Member ASHRAE, Refrigeration Chair 2025 - 2027

Background

Did you know that early household refrigerators required manual defrost? It was necessary to stop the fridge when the refrigerator is not cold. This is due to ice build-up at the evaporator (usually the evaporator where they place the ice-trays). In order to melt the ice, you had to open the refrigerator door, allow the evaporator to warm and melt the ice off. Once the ice melted, the refrigerator was re-started for the cooling effect. Today, defrost cycles are automated and you do not have to manually stop the fridge anymore. Here's some equipment that typically uses defrost.

Defrosting Air-Side Evaporators

Finned-tube air-side evaporators used in low temperature chillers or cold rooms operating below +4°C may require some form of defrost. This is because if room temperatures held at +4°C, the evaporator temperature may

be operating around -3° to -6°C (depending on design), and at these temperatures, ice starts to form at the fins. Once ice forms, it can block air flow and acts like an insulation layer and degrade efficiency. These are typical defrost schemes for air-side evaporators:

Defrost Type	Areas of Application	Cost Impact
Air Defrost	Room temp above +5°C	Lowest cost, easiest defrost scheme
Electric Defrost	Room temp below +4°C (usually from 0° to -35°C)	Low cost, high power consumed
Water Defrost		Low cost, water brine or glycol splashing or "steaming" risk
Hot-Gas Defrost		Higher cost, complex valve stations

Defrost schemes may be activated by a simple thermostat, or timer. Low temperature applications usually employ a timer to initiate and terminate defrost. Modern electronics also allow sensors that detect thickness of ice of the finned surface and initiate/terminate defrost. A typical defrost sequence are as follows:

Defrost Stages	Valves & Fans	Typical Sequencing
Initiate Defrost	Liquid solenoid valve closes. Fan continues to operate.	When liquid solenoid closes, the compressor draws remaining refrigerant out of the evaporator or is "pumped" out. About 2-5 mins (depending on size of evaporator/system)
Defrost	Liquid solenoid valve close. Fans stop to operate.	Electric heaters energized, hot-gas, water (brine or glycol) is sent into the evaporator. The heaters, warm water, brine or glycol or hot-gas heats up the evaporator and melts the ice. About 3 to 30 mins (depends on size of evaporator/system). Air defrost allow fans to draw air thru the finned-tube area and clear any ice (but careful not to allow water splash-over)
Drip-Down Time	Liquid solenoid valve close Fans stop.	Electric heaters de-energized, hot-gas, water or brine flow stops. The time allows any remaining water to drip off the fins and drain away. About 3 to 5 mins (depends on size of evaporator/system).
Fan Delay	Liquid solenoid valve opens. Fans Stop	The liquid solenoid valve allows refrigerant to flow thru the evaporator cooling it and freezing any remaining water droplets. This prevents water from splashing out of the evaporator when fan starts. About 3 to 5 mins
Freezing	Liquid solenoid valve opens Fans Start	The liquid solenoid valve remains open allowing refrigerant to flow and cooling cycle begins. Fans are allowed to operate.



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Defrosting Ice Machines

On many kinds of ice machine, water is dripped over cold metal surfaces (like tubes or plates). As water flows over the cold tubes or plate surfaces, the water turns into ice over time. Such ice machines operate around -6° to -12°C . Once the required ice thickness is achieved, a hot-gas cycle is initiated. This hot-gas cycle sends warm gas from the compressor discharge into the tubes or plates to heat it up, releasing the ice. After ice has been released from the cold surfaces of the evaporator, the machine resumes the cooling cycle to produce the next batch of ice.

There are ice harvesting machines that use warm water to defrost and making ice without being “wet”. This kind of ice machine provides ice that is dry and hard.

Pic. 1 – Hard, dry ice from water defrost ice harvester



Many cube-ice machines used for bar or restaurant service also uses hot-gas or warm water to heat up the ice cube trays and release the ice into a bin. Block or flake ice machines do not require a defrost cycle to generate ice. Many ice systems used for thermal storage such as ice builders, ice balls, or slurry ice also do not require defrost cycles. However, ice harvesters like Tube- or Plate Ice require defrost schemes. (**Pic.1** shows the hard, drier ice from a warm water defrosted ice harvester machine)

Ice Machine Performance Comparison

The table below shows how ice machines compare when they operate with and without defrost and it's possible to achieve good efficiency even with defrost.

	Flake Ice	Tube-Ice	Plate-Ice
Rated Ice Capacity Mg/24h	15 Mg	16.8 Mg	16.4 Mg
Refrigerant	Ammonia	Ammonia	Ammonia
Evaporating Temperature	-28°C	-7° to -10°C	-7° to -10°C
Freezing Capacity Req'd	83 kW	115 kW	95 kW
Installed Compressor-Motor	45 kW	37 kW	37 kW
Defrost	Not Required	Required	Required
kW per Mg of Ice kW/Mg	3.00	2.20	2.25

1. Water inlet $+15^{\circ}\text{C}$ and actual ice capacity varies with warmer or colder inlet water temperatures;
2. Tube- and Plate-Ice capacities include water blow-down rates for clear, hard ice production;
3. Flake Ice with economized screw and Tube or Plate-Ice with reciprocating compressors.



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Many ice thermal storage plants use ice builders or ice-on-coil systems that circulate cold glycol fluid to build ice and do not require defrost. There are also ice-harvesting systems that use water but require defrost cycles such as Tube- or Plate-Ice machines.

Defrost Issues

It is essential that defrost schemes are designed well and applied for efficiency. Every defrost cycle must completely clear the finned-tube areas of ice. There should be no “steaming” of the evaporator during defrost cycles. If you see “fog” being generated during defrost, it is a sign of “steaming”. The “steamy” vapor would then deposit itself on cold surfaces and turn into ice. Such ice, if not removed would eventually build-up over time.

Another component for a successful defrost is the condensate drain-pipe heating system. A blocked drain-pipe could cause water to back-up into the drain-pan which will spill over into the room and refreeze as solid ice. Solid ice would be extremely stubborn and difficult to remove.

Incomplete defrost would see ice build-up (see **Pic.2**) and could eventually damage the evaporator unit. So, any good defrost scheme needs to be carefully designed and orchestrated to ensure it's efficient. On **Pic.3** you can see the finned areas of the Evaporator is free of ice, even after 8+ years of operation.

Some finned-tube air-side evaporators may use a warm brine or glycol loop to provide heat for defrosting the ice off the fins. This warm brine or glycol loop may have a heat source from the compressor discharge lines or oil cooling.

On ice machines like Tube- or Plate-Ice, it is critical that every defrost clears the ice. Any remnant ice remaining in the tubes or plates affects the next freezing cycle and impacts ice production.

Also, the defrost cycle needs to clear ice as fast as possible to ensure rated ice capacity.



Pic. 2 – Excessive Icing on Evaporator



Pic. 3 – No Icing on finned surfaces.



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In Summary

Whichever type of defrost, whether air-, water, brine or glycol, electric or hot-gas. Each defrost scheme has its pros and cons including it's own unique challenges to overcome. The most complex is hot-gas defrosting schemes but if done properly, it can be effective, safe and efficient. It is important that each defrost cycle clears the ice for the next subsequent cycle to ensure efficiency is maintained.



Mr. Chew Soon Jin
Life Member ASHRAE
Refrigeration Chair 2025 -
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Contributions, event reports, photos and committee updates for future issues may be channelled through the Chapter's newsletter portfolio.



Advancing the arts and sciences of heating, ventilation, air conditioning and refrigeration in Malaysia.

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Editorial note: information in this issue is based on Chapter-submitted reports and materials, supplemented with programme details available on the ASHRAE Malaysia Chapter website as at 20th August 2026.



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