MALAYSIAN
Gas
ASSOCIATION

ANNUAL REPORT 2022

LEAD ADVOCATE FOR THE MALAYSIAN GAS INDUSTRY

The Malaysian Gas Association (MGA) promotes a vibrant and sustainable gas industry to fuel Malaysia's socio-economy growth

ADVOCATING GAS THROUGH STAKEHOLDER ENGAGEMENTS

MGA engages policymakers, regulators, government agencies and other key stakeholders to advocate gas as a clean fuel to ensure the nation's energy security and economic growth.

POSITIONING GAS THROUGH COMMUNICATION AND DIALOGUES

MGA uses multiple communication channels to position gas as the cleanest and most efficient fossil fuel complementing the growth of renewable energy.

PROVIDING HIGH LEVEL NETWORKING PLATFORMS

MGA offers purposeful networking opportunities with key stakeholders to shape opinions as well as social activities and forums to enhance interaction amongst members.

ENCOURAGING WOMEN IN INDUSTRY AND STUDENTS IN STEM

As the secretariat for the Malaysia Women in Energy (MyWiE), MGA encourages diversity and inclusivity in a condusive environment. We also offer students interactive sessions in STEM.

Established in 1986 as a non-profit organisation, MGA's corporate members span the entire natural gas value chain with mission to promote the advancement of sustainable Malaysian gas industry through advocacy, communication and education.

For information, please email to secretariat@malaysiangas.com or visit www.malaysiagas.com

MALAYSIAN GAS ASSOCIATION

WWW.MALAYSIANGAS.COM

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FOREWORD FROM MGA PRESIDENT

ABDUL AZIZ OTHMAN

Dear Members,

The most significant impact to the global gas industry in 2022 amidst the multi-facetted crisis would be the realisation that natural gas still remains relevant in ensuring long term energy security and clean energy transition in both the developed and developing economies alike.

For several decades in Malaysia, natural gas have been driving socio-economic development and has continously ensured long term energy security for the nation. In 2019, natural gas remains the single largest source of energy for Malaysia with 42% share of the total primary energy supply (TPES).

Its long term role in ensuring clean energy transition in Malaysia is widely recognised. The National Energy Policy (NEP) 2022-2040 expects natural gas to contribute 39% of TPES in order to achieve the Low Carbon Nation Aspiration (LCNA) by 2040 and the Malaysian Energy Transition Outlook (METO) published by International Renewable Energy Agency (IRENA) forecast natural gas to contribute approximately 35% of TPES in 2050.

As the lead advocate for the Malaysian gas industry, MGA plays an important role in promoting the important attributes of natural gas that are critical in addressing national priorities and in ensuring a pragmatic energy transition. Effectively playing the widely recognised role as the bridge between policymakers and industry and participation in national level committees have enabled MGA to be deeply involved in shaping policies relating to energy.

MGA is committed to deliver our mission of promoting the advancement of sustainable Malaysian gas industry through advocacy, communication and education on behalf of our members and our nation.

MGA started 2022 very early with a briefing to MGA members in late 2021 on its position on the role of natural gas in Malaysia for 2022.

Abdul Aziz Othman
President of MGA

Guided by this position and its mission, MGA organised activities that were anchored on the following three pillars of its mission;

- Advocacy: We regularly engaged policymakers, regulators and key stakeholders directly, spoke at conferences and organised intellectual discourse sessions.
- Communications: we used multiple media platforms including television, mainstream media and social media.
- Education: We organised a bi-monthly industry talks for our members and student outreach programs.

As a result, natural gas remained an important fuel for the nation as identified in the NEP 2022-2040. We are also on the right path towards a vibrant and sustainable gas industry with the impending release of the Natural Gas Roadmap and possible establishment of a regional gas market hub in Malaysia.

The policies on natural gas for Malaysia became more inclusive with the launch of Sabah Gas Masterplan and Sarawak Gas Roadmap in 2022.

MGA President speaking at the World Gas Conference 2022

To foster camaraderie amongst MGA members, we organised annual networking events. After a lapse due to COVID-19 pandemic, we are relieved that we were permitted to organise our much anticipated events such as Malaysian Gas Golf Challenges, Industry Gala Dinner and Hari Raya Open House.

On the international front, MGA continues to gain recognition within International Gas Union (IGU) with several leadership roles. Most notably, the IGU President for the new triennium 2022-2025 has appointed me as its Regional Coordinator for the South & Southeast Asia; home to more than 30% of the world's population.

We could not have achieved so much without the strong support from MGA members. On behalf of the MGA Council, I would like to record our sincere appreciation for your keen contribution and active participation in our activities.

I also would like to take the opportunity to thank my fellow Council members for their trust and support.

Thank you to all the volunteer members of Working Committees and Taskforces for driving MGA's activities.

Last, but definitely not least, we proudly commend the outstanding performance by the MGA Secretariat, led by our Secretary General, Rosman Hamzah, for exceeding the Council's expectation. They are the gas turbine behind all of MGA's activities.

With 2022 ending on a high, we look forward to an even more impactful 2023 for MGA.

Abdul Aziz

1 ABOUT THE ASSOCIATION

Malaysian Gas Association (MGA) is Malaysia's lead advocate for the natural gas industry, playing a prominent role in promoting engagement, discourse and dialogue with key stakeholders to develop a vibrant and sustainable gas industry, fueling Malaysia's socio-economic growth.

It is a non-profit organization representing 139 corporate members comprising companies serving the entire value chain of the gas industry, from upstream, to midstream and to downstream.

Vision

Promoting a vibrant and sustainable Malaysian gas industry

Mission

To promote the advancement of a sustainable Malaysian gas industry through advocacy, communication and education on behalf of its members and the nation

Objectives

1.Advocate for gas-related issues
To be the advocate for gas-related issues that are the priorities of members and the gas industry and to contribute to the development of the associated legislation, policies, and/or standards.

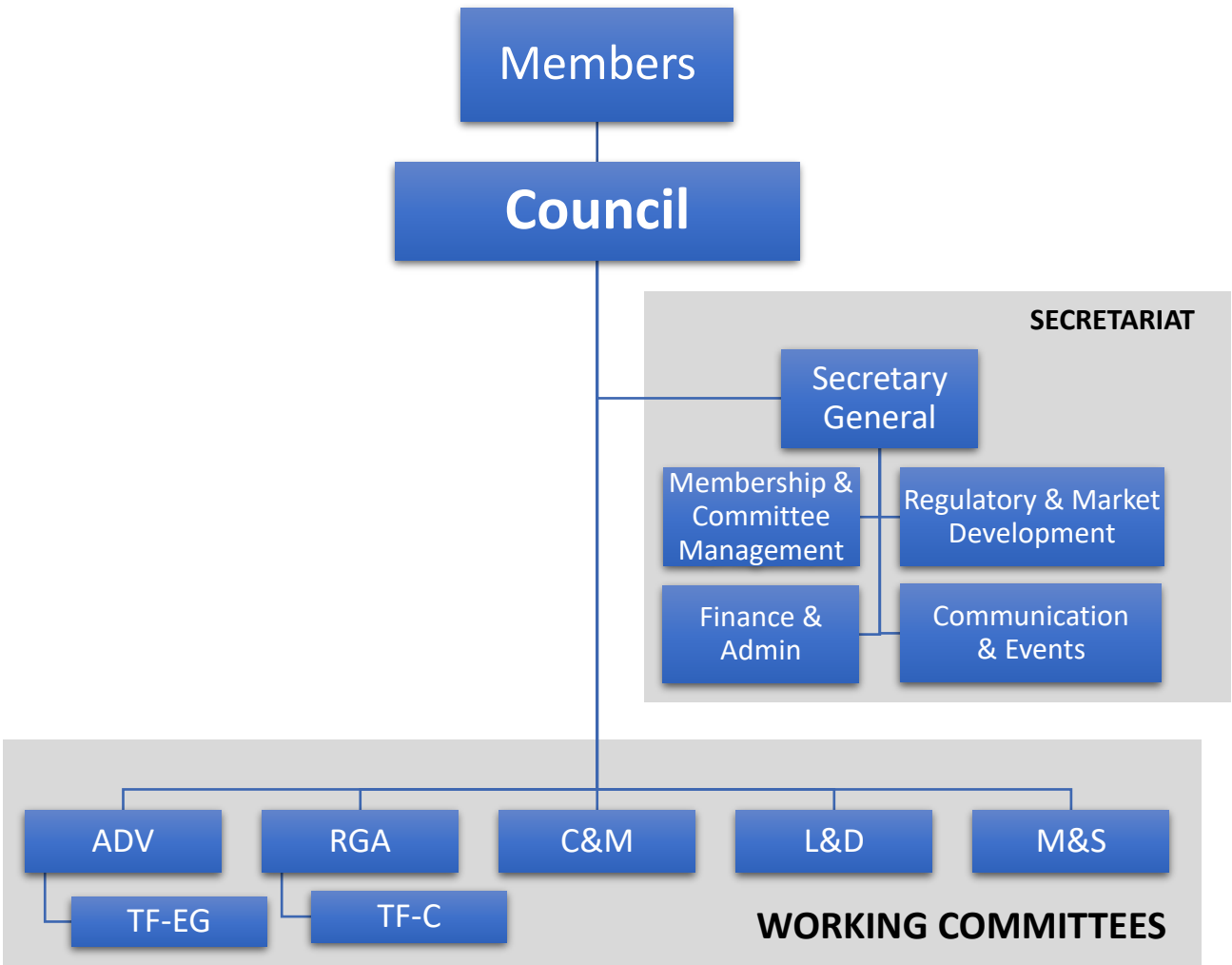
2.Advance knowledge and learning
To advance knowledge and learning across the gas value chain on the safe, efficient and sustainable use of gas among members, gas professionals and students.

3.Disseminate industry information and insights
To provide platform for thoughts leadership and to produce and maintain gas related information, insights and statistic on the gas industry.

4.Enhance public's understanding on gas
To enhance understanding of the general public on the role and uses of gas as a clean, safe, and efficient energy.

5.Promote business networking and collaboration
To organise activities that facilitate networking among members and stakeholders involved in gas related activities.

MGA STRUCTURE IN 2022



ADV	Advocacy
RGA	Regulatory & Government Affairs
C&M	Communications & Multimedia
L&D	Learning & Development
M&S	Membership & Social
TF-C	Taskforce on Promoting Cogeneration
TF-EG	Taskforce on Emerging Gases

MGA COUNCIL 2022/2023

PATRON
YM Tan Sri
Tengku Muhammad Taufik
Tengku Kamadjaja Aziz

VICE PRESIDENT
Choong Yen Li
SHELL

PRESIDENT
Abdul Aziz Othman
PETRONAS

TREASURER
Mustaffa Kamal
DIALOG BERHAD

Lai Shangvoon
CONOCOPHILLIPS

M Syahril Hussin
EXXONMOBIL

Ahmad Hashimi Abdul Manap
GAS MALAYSIA BERHAD

Md Ezamuddin Mohd Said
PTTEP

Hafiz Azzad Zubir
PETRONAS CARIGALI

Zahid Osman
MISC BERHAD

Ramanrao Abdullah
DELEUM BERHAD

Yusri Mohamad
VALSER SYNERGY

Mohd Helmy Ibrahim
SEGARI ENERGY VENTURES

WC WORKING COMMITTEES IN 2022

Advocacy (ADV WC)

ADVISOR

Abdul Aziz Othman

(PETRONAS)

LEADER

M Afiq Abu Zarim

(PETRONAS)

MEMBERS

Bryan Tan
(Dialog)
Marina M. Yusoff
(PETRONAS)
Faisal Rashid
(PEGT)
Nidhi Bhardwaj
(Shell)
Farhana Rokhani
(ExxonMobil)
Shaik Mohamed Jamil Haja
(Hibiscus Petroleum)
Syahril Nizam Datuk Mohd Hisham
Baharudin Mohd. Ali
(GMES)
Mohamed Siraj Abdul Razack
(MIR Valve Sdn Bhd)
Dinesh David Cheryan
(HESS)
Eric Chua
(Velesto Energy)

Regulatory & Government Affairs (RGA WC)

ADVISOR

Zahid Osman

(MISC Berhad)

LEADER

Abd Razak Saim

(DIALOG)

MEMBERS

Farrah Fazlina Mustapa
(Dialog)
Stefanie Khaw
(BCG)
Dr. Lim Daw Yuen
(Sime Darby Energy Solutions)
Aileen Chew
(Hess)
Mohd Izzam Ismail
(MISC Berhad)
Amni Hidayah Mohd Tauffick
(GMD)
Adlan Arshad
(Shell)

Learning & Development (L&D WC)

ADVISOR

Choong Yen Li

(Shell)

LEADER

Sukiman Mohamed

(ExxonMobil)

MEMBERS

Mohamad Asrul Ayob
(MISC Berhad)
Ir. Ts. Hj. Hassan Mudin
(Sabah Energy Corp.)
Nija Amri Jemari
(ROSEN Asia Pacific)
Yam Hui Nee
(Shell Malaysia)
Lee Vee Meng
(Accenture)

Communication & Multimedia (C&M WC)

ADVISOR

Ramanrao Abdullah

(Deleum Berhad)

LEADER

Cindy Lopez

(Shell)

MEMBERS

Dayang Kamariah Datuk Bistari
(Sabah Energy Corp.)
Florence Oh Yeok Kim
Nor Iliani Ahmad Nordin
(PGB)
Fifinaz Nareeman Faizal
Cassandra Lee Shu Ing
Choo Yao Chang
(PETRONAS)
Nor Azura Mohd Annas
(GMB)

Membership & Social (M&S WC)

ADVISOR

Yusri Mohamad

(Valser Synergy)

LEADER

Nurul Aznin Mamat

(Deleum Berhad)

MEMBERS

Yuha Ismail
(Malakoff)
Hazry Zaini
(Dialog)
Hamidah Salleh
(Velesto Energy)
Norayus M Yussof
(MISC Berhad)
Nal Azizi Nawawi
(PETRONAS)
Ummi Aiman Sajidah Mahmud
(Valser Oil & Gas)
Mohd Khairul Anuar Mohd Nashir
(Deleum Berhad)

TF

TASKFORCES IN 2022

Task Force on Promoting Cogeneration (TF-C)

LEADER

Dr. Lim Daw Yuen
(Sime Darby Energy Solutions)

MEMBERS

Donna Lee
(*Kawasaki Gas Turbine Asia Sdn Bhd*)
Zainal Abidin B. Jalil
(*DNeX*)
Bernard Ryan Simon
Wong Yin Kee
Guillaume Darmayan
Renaud Caillaud
Tan Kit Hang
(*ENGIE Services Malaysia*)
Henry Tey
(*BHGE)*
Adam Janusz Paruzel
(*Siemens Energy*)
Mohd. Shariff Lubis
(*GMEA)*
Jasveen Pasricha
Anand Ramakrishnan
(*Invest Energy Sdn. Bhd.)*
Lionel Fok Whye Sern
(*Malakoff Utilities*)
Haneeza Abd Halim
Dr. Mohd Hafiz Ibrahim
Mohammad Safuan Mohd Mustamil
(Pendinginan Megajana Sdn. Bhd.)
Rohizat Ismail
(Dana Engineering)
Sue-Ann Goh
Teh Khim Choon
(Mackenzie Industries Sdn Bhd)
Mohd Rozi Othman
(SP Energy Sdn Bhd)
Zakaria Hassan
(Gas District Cooling (M) Sdn Bhd)
Naquiyudin Maharuddin
(IHI Corporation)

Taskforce on Emerging Gases (TF-EG)

LEADER

Rosman Hamzah
(Acting)

MEMBERS

Adam Paruzel
Bent Fei Lew
(Siemens Energy)
Sunildeep Dhaliwal
(Handal Energy Berhad)
Mohd Ali Alias
(Aker Solutions)
Zenko Tsutsui
Ir. Azhan Salleh
(TOYO Engineering)
Mohd Helmy Ibrahim
Shajaratuddur Mohd Ibrahim
Hema Selanduray
(Malakoff)
Mohd Zahir Muda
(GMB)
Yuspikarl Adnan
(Baker Hughes)
Mohd Izzam Ismail
(MISC Berhad)
Dr. Lim Daw Yuen
(Sime Darby Energy Solutions)
Donna Lee
(*Kawasaki Gas Turbine Asia Sdn Bhd*)

THE SECRETARIAT TEAM IN 2022

Rosman Hamzah
Secretary General

Sarah Musfirah Mohd Joha
Membership & Committee Management

Hasniza Mokhtar
Finance & Admin

Nabilah Zulkefli
Communications & Events

Nur Syarafana
Iltizam Trainee
(Regulatory & Market Dev)

Nur Amira
Iltizam Trainee
(Regulatory & Market Dev)

Afrina Ghaffar
Communications & Events

Advancing Secretariat Competency Through Professional Certification

Afrina, Rosman, Sarah & Nabilah
became Certified Professional Association Executives (CPAE) in Nov 2022 upon successful completion of a comprehensive training course by the Philippines Council of Association and Association Executives (PCAAE).

2 MEMBERSHIP INFORMATION

MEMBERSHIP

FULL CORPORATE MEMBERS

(as at 31 Dec 2022)

1. ConocoPhilips Asia Pacific Sdn Bhd
2. ExxonMobil Exploration and Production Malaysia Inc
3. Gas Malaysia Berhad
4. Hess Exploration & Production Malaysia B.V.
5. Hibiscus Petroleum Berhad
6. Malaysia LNG Sdn Bhd
7. Petroliam Nasional Berhad
8. PETRONAS Carigali Sdn Bhd
9. PETRONAS Gas Berhad
10. PTTEP Sarawak Oil Limited
11. Sabah Energy Corporation Sdn Bhd
12. Shell Malaysia Limited

MEMBERSHIP

ORDINARY CORPORATE MEMBERS

(as at 31 Dec 2022)

1. ABB Malaysia Sdn Bhd
2. Accenture Solutions Sdn Bhd
3. Advanced Isolation and Testing Services Sdn Bhd
4. AEM Energy Solutions Sdn Bhd
5. Aker Solutions Malaysia Sdn Bhd
6. ASEAN Bintulu Fertiliser Sdn Bhd
7. Aspen Aerogels Inc
8. Axianergy (M) Sdn. Bhd.
9. Baker Hughes
10. Bintulu Port Berhad
11. Borneo SeaOffshore Sdn Bhd
12. Boston Consulting Group
13. Bumi Armada Berhad
14. Bumi Wangsa TMS Sdn Bhd
15. Bureau Veritas (M) Sdn Bhd.
16. Carigali-Hess Operating Company Sdn Bhd
17. Cekap Technical Services Sdn Bhd
18. CPP Petroleum Engineering Sdn Bhd
19. Crescent Engineering (M) Sdn Bhd
20. Dagang Nexchange Berhad
21. Dana Engineering Sdn Bhd
22. Deleum Berhad
23. Deloitte Consulting (SEA) Sdn Bhd
24. Dialog Group Berhad
25. Diamond Gas Holdings Sdn Bhd
26. E&E Gas Sdn Bhd
27. EEW Malaysia Sdn Bhd
28. Emerson Process Management (M) Sdn Bhd
29. ENGIE Services Malaysia Sdn Bhd
30. Enserv Sdn Bhd
31. ERE Consulting Group Sdn Bhd
32. Essem Group Sdn Bhd
33. Excellent EE Sdn Bhd
34. G&P Professionals Sdn Bhd
35. Gas District Cooling (M) Sdn Bhd
36. Gaztransport & Technigaz – GTT Sea Pte. Ltd.
37. H Rosen Engineering (M) Sdn Bhd
38. Haluan Cekap Sdn Bhd (HSCB)
39. Hammer Engineering Sdn Bhd
40. Handal Energy Berhad
41. Hemat Marine Sdn Bhd
42. Highbase Strategic Sdn Bhd
43. Hitachi Asia (M) Sdn Bhd
44. Hong Leong Investment Bank Berhad
45. IHI Corporation
46. Indigo Software Asia Pacific Limited
47. Integrated Petroleum Services Sdn Bhd
48. Into Solutions Sdn Bhd
49. Invest Energy Sdn Bhd
50. Isma Pro Solution Sdn Bhd
51. JX Nippon Oil & Gas Exploration (M) Ltd
52. KAB Energy Power Sdn Bhd
53. Kawasaki Gas Turbine Asia Sdn Bhd
54. Kebabangan Petroleum Operating Company Sdn Bhd
55. Kejuruteraan Jayagas Sdn Bhd
56. KROHNE-Emas Oil and Gas Sdn Bhd
57. Kuala Langat Power Plant Sdn Bhd
58. Lloyd's Register Technical Sdn Bhd
59. Mackenzie Industries Sdn Bhd
60. Maps & Globe Specialist Distributor Sdn Bhd
61. Mentor Solutions & Resources Sdn Bhd
62. Metertek Sdn Bhd
63. MIR Valve Sdn Bhd
64. MISC Berhad
65. Mitsui & Co. (Asia Pacific) Pte Ltd.
66. MSTS Asia Sdn Bhd
67. Mubadala Petroleum
68. Muhibbah Engineering Sdn Bhd
69. Multi-Engineering & Management Sdn Bhd
70. Mumtaz Energy Sdn Bhd
71. N.U.R Power Sdn Bhd
72. newGAS Floating Solutions Sdn Bhd
73. Newwin Engineering (M) Sdn Bhd
74. NGC Energy Sdn Bhd
75. North Consult Engineering Sdn Bhd
76. PBJV Group Sdn Bhd
77. Penaga Dresser Sdn Bhd
78. Pendingin Megajana Sdn Bhd
79. Perfect Combustion Sdn Bhd
80. Petra Energy Berhad
81. PETROFAC (Malaysia-PM304) Limited
82. Petrolife Aero Sdn Bhd
83. PETRONAS Chemicals Ethylene Sdn Bhd

84. PETRONAS LNG Sdn Bhd
85. PETRONAS NGV Sdn Bhd
86. PETRONAS Research Sdn Bhd
87. Pioneer Pegasus Sdn Bhd
88. Plentitude Energy Sdn Bhd
89. RB Spectra Sdn Bhd
90. Riken Keiki (M) Sdn Bhd
91. Rinnai (Malaysia) Sdn Bhd
92. RMA Fiventures Malaysia Sdn Bhd
93. ROC Oil Sarawak Sdn Bhd
94. Romstar Sdn Bhd
95. Sabah Electricity Sdn Bhd
96. Sabah International Petroleum Sdn Bhd
97. Sapura Baker Hughes TPS Sdn Bhd
98. Sapura Energy Berhad
99. SapuraOMV Upstream (Sarawak) Inc.
100. Schlumberger WTA (M) Sdn Bhd
101. Sedia Engineering Works Sdn Bhd
102. Sedia Teguh Sdn Bhd
103. Segari Energy Ventures Sdn Bhd (Malakoff)
104. Shapadu Energy Services Sdn Bhd
105. Shell MDS (M) Sdn Bhd
106. Siemens Energy Sdn. Bhd.
107. Sime Darby Energy Solutions Sdn Bhd
108. Solar Alert Sdn Bhd
109. SP Energy Sdn Bhd
110. Technip Energies (M) Sdn. Bhd.
111. Tokyo Gas Asia PTE. LTD
112. Totalmas Holding Sdn Bhd
113. Toyo Engineering & Construction Sdn Bhd
114. Trans Thai-Malaysia (Malaysia) Sdn Bhd
115. Transwater API Sdn Bhd
116. TÜV SÜD Malaysia Sdn Bhd
117. United Electric Controls Company
118. Upstream Downstream Process & Services Sdn Bhd
119. Valser Synergy Sdn Bhd
120. Velesto Energy Berhad
121. VSD Automation Sdn Bhd
122. Wasco Energy
123. Wood Mackenzie Malaysia Sdn Bhd
124. WZS Misi Setia Sdn Bhd
125. Yokogawa Kontrol Sdn Bhd
126. YTL Power Generation Sdn Bhd
127. Zaidun-Leeng Sdn Bhd

HONORARY MEMBERS

(as at 31 Dec 2022)

1. Tan Sri Dato' Hassan Marican
2. Dato' MB Hashim
3. En. Ahmad Hafifi bin Ibrahim
4. Tuan Syed Hashim Ahmad
5. Dato' Zenorai bin Rambli
6. Hamid Ibrahim
7. Datuk Abdul Rahim Hashim
8. Datuk V.V. Nathan
9. Tan Sri Dr. Ngau Boon Keat
10. Ir. Pramod Kumar Karunakaran
11. Mr. Ho Sook Wah
12. Tan Sri Dato’ Seri Shamsul Azhar Abbas
13. Tan Sri Wan Zulkiflee Wan Ariffin
14. Hazli Sham Kassim

Malaysian Gas Map

About the Map

- The first time all the gas infrastructure in Malaysia in shown in a single document.
- Produced by Maps & Globes Specialist (MGS) in collaboration with Malaysian Gas Association (MGA)
- First displayed to the industry on 13-15 September 2022 at the Oil & Gas Asia (OGA) 2022 held at Kuala Lumpur Convention Centre where 1,000 maps were distributed.

What it Shows

Is Softcopy Available?

- Planning to upload a softcopy of the Map onto MGA website by end of 2022
- Before that, the Map is only available in hardcopy from MGA

Sponsors

We thank the following sponsors for making this Map a reality;

Gold Sponsors

petrolife aero LNG

GAS A Member of MMC Group

PTTEP

sapura energy

DIALOG

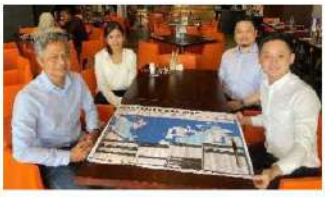
Silver Sponsors

ConocoPhillips

valser

A Historic Start to the Journey

Production



The production team from MGA & MGS

The first draft

Distribution

1,000 hard copies were distributed at OGA 2022 Exhibition

Recognition at Highest Level

The Map was viewed by YAB Dato' Sri Ismail Sabri, Prime Minister & YB Dato' Sri Mustapa Mohamed, Minister in Prime Minister's Dept (Economy) at the launch of the National Energy Policy (2022-2040) on 19 September 2022.

3 2022 HIGHLIGHTS

Content for Highlights

Mission Pillar 1 – ADVOCACY

Mission Pillar 2 – COMMUNICATIONS

Mission Pillar 3 – EDUCATION

NETWORKING: Enhancing Value Propositions Through Networking

INTERNATIONAL: Recognition Beyond Malaysian Borders

TRANSFORMATION: Towards a More Inclusive Culture

Mission Pillar #1

ADVOCACY

As the voice of the Malaysian gas industry and the bridge to policymakers, MGA's views and inputs were continuously being sought in various capacity from participation in industry related national committees to being invited for speaking engagements. Guided by the Council Members, and assisted by the secretariat, MGA advocacy efforts were the carried out by the following working committee and taskforce :

- **Advocacy Working Committee (ADV WC)**
- **Regulatory & Government Affairs Working Committee (RGA WC)**
- **Taskforce on Promoting Cogeneration (TF-C)**
- **Taskforce on Emerging Gases (TF-EG)**

and delivered via the following modus operandi

- Policy Shaping
- Engaging Policy Maker and Stakeholders
- Intellectual Discourse
- Speaking Engagement
- Communications (Refer to Mission Pillar 2 for details)

Advocacy through POLICY SHAPING

By being proactive member of several national level committees on natural gas and energy, MGA played an influential role in shaping the national policies in Malaysia.

NATIONAL COMMITTEE	*LEAD ORGANIZATION*
Invitee to the Technical Committee on National Energy Policy (NEP) & Natural Gas Roadmap (NGR) *The NEP 2022-2040 was released in September 2022.*	Economic Planning Unit (EPU)
Steering and Technical Committee on Developing the Hydrogen Technology & Economy Roadmap (HETR) 2021-2050 *HETR was completed by year end and scheduled for release in 2023.*	Ministry of Science, Technology and Innovation (MOSTI)
Technical Committee on Preparation of Roadmap on Establishing Malaysia as Regional Gas Market Hub *The study was completed and submitted for consideration of the Malaysian govt.*	Economic Planning Unit (EPU)
Member of VBIAF's 2nd Cohort Sectoral Guide Working Group for the Oil & Gas Industry *"VBIAF" is Value-based Intermediation Financing and Investment Impact Assessment Framework - Guidance Document. The sectoral guides, released in early 2022, provide and in-depth impact-based risk assessment toolkit for financial institution.* *Project was completed.*	Bank Negara Malaysia (BNM)
Member of the Committee on National Standards for Petroleum & Gas .	SIRIM Berhad
Member of the Technical Committee on Development of Training Module for Thermal Energy	Sustainable Energy Development Authority (SEDA)
Member of the Industry Expert Committee (IEC)	Human Resources Development Fund (HRDF)

STAKEHOLDER ENGAGEMENTS

Advocacy through STAKEHOLDERS ENGAGEMENT

Key stakeholders and policy makers are constantly and actively engaged to position gas as the main source of energy to drive the nation's socio-economic growth. Below are some of the key engagements made throughout the year:

DATE	*ENGAGEMENT*
20 Jan 2022	MGA Secretariat participated in the Technical meeting of EPU's Technical Committee on Preparation of Roadmap on Establishing Malaysia as Regional Gas Market Hub to review the draft inception report.
21 Jan 2022	MGA Secretariat participated in the Technical meeting of MOSTI's Technical Committee on Developing the Hydrogen Technology & Economy Roadmap to review the final report.
16 Feb 2022	MGA's RGA WC met MyPOWER to explore how MGA can participate in the review of MESI.
23 Feb 2022	MGA Secretariat participated in the meeting of BNM's VBIAF's 2nd Cohort Sectoral Guide Working Group for the Oil & Gas Industry.
1 Mar 2022	MGA organised a meeting between MyWiE and US Embassy to discuss collaboration.
15 Mar 2022	MGA's TF-C met MDEC to promote cogeneration for Data Center.
31 Mar 2022	MGA's TF-C met Bursa Malaysia to find out Bursa's plan on carbon trading
1 Apr 2022	MGA Secretariat participated in the Technical meeting of MOSTI's Technical Committee on Developing the Hydrogen Technology & Economy Roadmap to review the final report.
14 Apr 2022	MGA's TF-C met TF-C met Deputy Secretary General (Environment), Ministry of Environment & Water (KASA), to discuss cogeneration.
26 Apr 2022	MGA's TF-C organised for MDEC to visit a cogeneration plan in Putrajaya.
24-27 May 2022	MGA's President and Council met delegates from EPU, ST and MPRC at the World Gas Conference 2022 held in Korea.

DATE	*ENGAGEMENT*
Syawal 2022	MGA attended Hari Raya Open Houses organised by key stakeholders including KeTSA and ST
19 May 2022	MGA Secretariat participated in the meeting of EPU's Technical Committee on Preparation of Roadmap on Establishing Malaysia as Regional Gas Market Hub to review the draft interim report.
15 Jun 2022	MGA participated the TPA Access Arrangement Amendment Workshop organised by ST
17 Aug 2022	MGA participated in the Editorial Workshop on Natural Gas Roadmap (NGR) organised by EPU
25 Aug 2022	MGA attended the Industrial Dialogue in Oil & Gas organised by SIRIM
25 Aug 2022	MGA attended the virtual Seminar on Energy Conservation Guideline Organised by KeTSA in collaboration with Energy Conservation Center, Japan
2 Sep 2022	MGA met Northern Corridor Investment Authority (NCIA) to learn about plans to develop the Northern Corridor Economic Region (NCER).
3 Sep 2022	MGA President participated in the Networking Golf organised by SEDA in conjunction with 5th ISES.
12 Sep 2022	MGA Secretariat participated in the meeting of EPU's Technical Committee on Preparation of Roadmap on Establishing Malaysia as Regional Gas Market Hub to review the draft final report.
19 Sep 2022	MGA participated the Launch of National Energy Policy (NEP) 2022-2040 by the Prime Minister who viewed MGA's Malaysian Gas Map displayed at the event.
5 Oct 2022	MGA's Secretariat met EPU to discuss date and platform for the launch the Natural Gas Roadmap (NGR).
11 Oct 2022	MGA Council met MPRC for briefing on the Study & of Roadmap on Establishing Malaysia as Regional Gas Market Hub
15 Oct 2022	MGA attended the Opening Ceremony of IGEM officiated by Minister of KASA.

DATE	*ENGAGEMENT*
17 Oct 2022	MGA Secretariat participated in the meeting of MOSTI's Steering Committee on Developing the Hydrogen Technology & Economy Roadmap to review the draft final report. MGA was appointed to the Steering Committee on 13 Sep 2022.
19 Oct 2022	MGA's RGA WC met the new Director of Energy Division at EPU
17 Nov 2022	MGA's TF-C met ST to discuss status of policy & initiatives on cogeneration.
25 Nov 2022	MGA's Secretariat met PEMANDU who has been appointed by Sabah government to draft its Sabah Energy Policy & Masterplan (SEPM)
8 Dec 2022	MGA's RGA WC met MyPOWER to learn the direction for MESI after change of Federal government.
9 Dec 2022	MGA attended the Launch event for Malaysia's Voluntary Carbon Market Exchange by Bursa Malaysia.

Advocacy through SPEAKING ENGAGEMENT

As lead advocate to Malaysia's natural gas industry, MGA was invited by local and international organisations to speak and provide insights on the Malaysian gas industry. Below are some of the speaking engagements in 2022;

DATE	*EVENT*	*MGA SPEAKER*	*PRESENTATION/ SESSION TOPIC*
28 Jan 2022	Astro Awani's LINC Webinar Series	Secretary General	Panel Session on Energizing Malaysia's Future, with Gas
23 Mar 2022	Offshore Technology Conference Asia (OTC Asia)	President	Growing Demand for Offshore Gas
26 May 2022	World Gas Conference (WGC 2022)	President	Current Debates Session #: CD1 on Has the Momentum from the Glasgow Summit Faded in the Face of High Energy Prices and Concerns About Energy Security
9 Jun 2022	9th Sabah Oil & Gas Conference & Exhibition (SOGCE)	President	Panel Session on "Energy Transition"
14 Sep 2022	MOGSEC Conference	President	Plenary 3 on Future Energy
15 Nov 2022	OSEA 2022	Council Member Ramanrao Abdullah	Panel Session on "LNG – Transformation Touchpoints for the Gas Industry"

SPEAKING ENGAGEMENT

Advocacy through INTELLECTUAL DISCOURSE

MGA organised several key platforms for discussion on energy and related topics amongst policy maker, industry players and other key stakeholders.

Below are some of the key intellectual discourses that took place in 2022 :

DATE	*EVENT*
6 Mar 2022	MGA supported organization of MyWiE's Talk on "Wanita Tanpa Sempadan" on 6 March 2022 at Kuala Lumpur Convention Center in collaboration with PLWN and SPE. The talk is part of a carnival organised by Ministry of Women, Family and Community Development.
24 Mar 2022	MGA supported organization of MyWiE's Programme @ OTC Asia. Held on the side of OTC Asia on 24 March 2022 at KL Convention Centre. It is a half-day programme comprising: ○ Panel Session on "Adapting to a Changing World and D&I future trends" featuring the following panelists; ▪ Marina Taib, Vice President, Treasury, PETRONAS ▪ Choong Yen Li, General Manager, Sarawak Shell Berhad ▪ Ramanrao Abdullah, Group Chief Executive Officer, DELEUM Berhad ▪ And moderated by Fadzleen Md Hanipah, SWAN and Nabilah Zulkefli, MGA ○ Group Speed Mentoring for sharing sessions on challenges & opportunities in D&I by professional women leaders in the energy sector The event was officiated by Datuk Yatimah Sarjiman, Deputy Director General (Sectoral), Economic Planning Unit (EPU)
7 Dec 2022	MGA's TF-C organised a Workshop on Benefits of Cogeneration to the Digital Industry in collaboration with MDEC in Cyberjaya. It was attended by at least 35 participants comprising data center investors and technical consultants. There was also a strong representation from TF-C with 27 attendees who came to promote their products and solutions.
Bi-Monthly	MGA also organize a bi-monthly industry talk series. Refer to Mission Pillar 3 for details.

Natural Gas in Energy Transition

Malaysia is blessed with its own indigenous natural gas resources. Due to its versatility and being low-carbon fuel, gas is envisioned to play a long-term role in pragmatic energy transition pathways.

With advantageous characteristics, natural gas remains critical in securing energy for the nation today and powering Malaysia's energy transition tomorrow.

Cleanest Burning fossil fuel

Natural gas emits **50% CO_2** compared to coal and **hardly any pollutants**

Ensure Energy Security

Energy security is ensured with indigenous natural gas and Liquefied Natural Gas (LNG) to supplement the high demand that can be sourced **from > 20 countries**

A Reliable Source of Energy

With multiple sources and proven reliable infrastructure, gas expands energy access to consumers via distribution and virtual pipelines

Efficient Utilisation

The new gas plant's efficiency exceeds **60%** and event **85% efficiency** with the Cogeneration application.
This helps save energy by **8% in 2025** and cut Greenhouse Gas (GHG) emissions by **45% in 2030**

Drive Socio-Economic Development

As the largest energy source for decades, natural gas has been driving the rapid socio-economic development of Malaysia.
Today, the industry brings in **RM135 billion** annually to the wider economy and provides **>80,000 jobs**

Accelerates Growth of RE

The best partner to grow RE that powers the energy transition towards a low carbon future.
Gas will reduce carbon emissions in the power sector by **60% in 2035(*)**

Enables Broader use of Green Gases

Enables quicker growth and integration of low carbon and Renewable gases such as Hydrogen and Biogas into the energy transition

MALAYSIAN Gas ASSOCIATION

Speak to MGA?
Visit us at
www.malaysiangas.com

Potential to Decarbonise

With conscious efforts to reduce methane emissions and deployment of Carbon Capture, Utilisation & Storage (CCUS), natural gas industry is on the right path to decarbonise

Source:
*Malaysia Renewable Energy Roadmap (MYRER)

#Naturalgas - Fueling a Sustainable Future

Mission Pillar #2

COMMUNICATIONS

To reach out to the wider public, MGA leveraged its advocacy on several communication platforms including social media, mainstream media and exhibitions to advocate the benefits of gas and its important role in fueling the nation's progress.

The committee responsible for this Pillar is **Communications & Multimedia (C&M WC).**

Media PRESS RELEASE AND MEDIA COVERAGE

The following are the press releases issued by MGA in 2022:

PRESS RELEASE/COVERAGE	*No of Coverage*
MGA was mentioned in media news coverage on Online Astro Awani & Buletin Astro Awani on 29 Jan 2022.	2
MGA was mentioned in a press statement by newly joined MGA member on 28 Apr 2022.	3
MGA issued a press statement on MGA President speaking session at World Gas Conference on 25 May 2022	4
MGA was featured on TV3 Money Matters that were aired on 10 and 24 Sep 2022.	2
MGA issued a press statement on Malaysia's achievements in LNG as covered by IGU's 2022 World LNG Report on 7 July 2022	14
MGA issued a press statement in support of the National Energy Policy (NEP) 2022-2040 underscoring the role of gas on 20 Sep 2022.	21
MGA issued a press statement on its PRESTIGE programme on 21 Oct 2022.	3
MGA was mentioned in news coverage on TV3 Money Matters interview on 26 Oct 2022.	1
MGA issued a press statement on its Cogeneration Workshop on 7 Dec 2022.	7

IN THE NEWS

BUSINESS

Energy security, affordability remain high priorities in SEA - MGA President

From left: Panellist at World Gas Conference (WGC2022) Current Debates Session 1, Kevin Gallagher, Managing Director & CEO, Santos, Abdul Aziz Othman, President, Malaysian Gas Association (MGA), Olalekan Ogunleye, Deputy Managing Director, Nigeria LNG & the Moderator, Marcel Kramer, President, Energy Delta Institute. Credit : Malaysian Gas Association

25/05/2022 12:47 PM

EXCLUSIVE PRESS

Cogeneration Can Help Malaysia To Achieve Its Energy Efficiency Targets

Abdul Aziz Othman, President, Malaysian Gas Association

EXCLUSIVE PRESS

Fuelling a Sustainable Future, Natural Gas Remains Significant in National Energy Policy

Rosman Hamzah, Secretary General of MGA presenting the first Malaysian Gas Map to YAB Prime Minister & YB Dato' Sri Mustapa Mohamed during launching of NEP in Putrajaya.

20/09/2022 05:01 PM

NEP initiatives have high impact on natural gas demand — MGA

Bernama

KUALA LUMPUR (Sept 20): At least half of the initiatives outlined in the National Energy Policy (NEP) (2022-2040) will have a significant impact on the demand for natural gas, said Malaysian Gas Association (MGA) president, Abdul Aziz Othman.

He said the MGA lauds the launch of the new NEP, which has come at the right time, given the ongoing global energy crisis.

"A comprehensive NEP is important for our country as we address the energy trilemma and embark on a pragmatic and orderly energy transition towards achieving sustainability and net zero carbon emission," he said in a statement on Tuesday.

He said the MGA is delighted to note that the role of natural gas was highlighted as a key component in the NEP to continue driving Malaysia's sustainable socio-economic growth.

"We are proud to be part of the technical committee that developed the NEP and eagerly look forward to the upcoming launch of the Natural Gas Roadmap (NGR) to complement the NEP," he added.

Abdul Aziz said the NGR is expected to chart the direction and future-proof the gas industry by ensuring supply security and optimisation of supply, as well as increasing demand in pursuit of a vibrant and sustainable Malaysian gas industry.

MGA said since the formulation of the first NEP in 1979, which was followed by the Four Fuel Diversification Policy in 1981, the supply and consumption of natural gas have grown rapidly and become the single largest source of energy in 1998, overtaking oil.

"For decades, natural gas has played a key role in driving the nation's socio-economic development, where the rapid rise in the gross domestic product was in tandem with the growth of natural gas consumption.

"Today, natural gas remains the single largest energy source in Malaysia, accounting for around 42% of its total primary energy supply in 2019," it said, adding that the Malaysian gas industry has also created over 80,000 jobs for the wider economy.

BUSINESS

MGA to develop, attract new talents to O&G sector with PRESTIGE programme

Dr. Mohd Hafiz Ibrahim, General Manager of Pendingin Megajana Sdn Bhd (a Member Company of MGA) with Students during Technical Visit Megajana Plant in Putrajaya. Credit : Malaysian Gas Association / Persatuan Gas Malaysia

22/10/2022 01:58 PM

Malaysia kekal pengeksport LNG ke-5 terbesar pada 2021

Menurut MGA, Asia Pasifik kekal sebagai rantau pengeksport LNG terbesar, dengan 131.2 juta tan LNG dieksport tahun lep

KUALA LUMPUR: Malaysia mengeksport 24.9 juta tan setahun (MTPA) gas asli cecair (LNG) pada 2021, menjadikannya kekal di kedudukan tahun sebelumnya sebagai pengeksport LNG kelima terbesar selepas Austral Qatar, Amerika Syarikat dan Rusia, kata Persatuan Gas Malaysia (MGA).

Memetik laporan tahunan ke-13 World LNG Report 2022 yang dikeluarkan oleh Kesatuan Gas Antarabangsa (IGI pada Rabu, MGA berkata eksport tahun lepas sebanyak 24.9 MTPA, meningkat sedikit daripada 23.9 MTPA pada

Media

MEDIA INTERVIEW

As the voice of the gas industry, MGA has been invited to speak in various media interviews as one of the platforms to reach a wider audience to raise public awareness on the important role of the natural gas industry and as the cleanest source of fuel for Malaysia's sustainable energy transition.

The following are the interview with the media in 2022;

DATE	*MEDIA*	*MGA SPOKESPERSON*	*TOPIC*
7 Feb 2022	The Edge Malaysia & The Edge CEO Morning Brief	President	Natural Gas Market Liberalisation
31 Mar 2022	BERNAMA	President	The Importance of Gas Market Liberalisation and Pragmatic Energy Policies
10 & 24 Sep 2022	TV3 Money Matters	Secretary General	Role of natural gas in Driving Malaysia's Socioeconomic Growth & Energy Transition

Media

ADVERTORIAL

Additionally, to amplify MGA's advocacy messages, the following advertorials were published;

DATE	*MEDIA*	*TOPIC*
28 Nov 2022	The Edge Malaysia (ESG magazine)	NATURAL GAS Accelerates Pragmatic ENERGY TRANSITION Towards NET ZERO

MEDIA INTERVIEW

Exhibitions

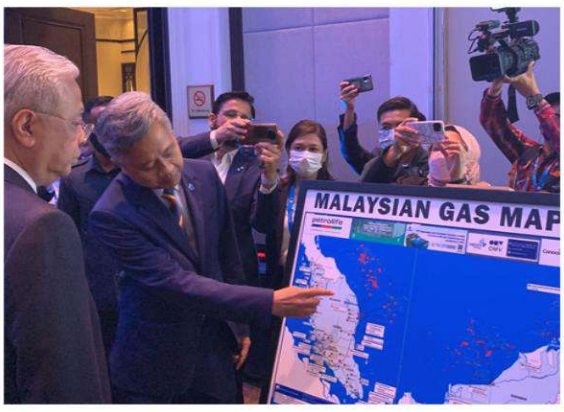
PARTICIPATION IN EXHIBITIONS

MGA actively participated in several energy related exhibitions in Malaysia. The aim of MGA's participation in these exhibitions was to showcase MGA's role as the lead advocate for the Malaysian gas industry and to raise awareness about the benefits of natural gas as a clean and efficient energy source. MGA also used these opportunities to attract new members expanding its vision and mission of advancing a vibrant gas industry in Malaysia.

Below are the exhibitions that MGA participated in 2022;

DATE	*EVENT*	*Exhibit*	*As Supporting Organisation*
22-25 Mar 2022	Offshore Technology Conference Asia (OTCA) 2022	✓	
9-10 Jun 2022	9th Sabah Oil & Conference & Exhibition 2022	✓	✓
20-21 July 2022	2nd Clean Power and New Energy (CPNE)	✓	✓
29-30 Aug 2022	The International Sustainable Energy Summit (ISES)	✓	✓
14 Sep 2022	The Oil & Gas Asia (OGA) 2022	✓	✓

EXHIBITIONS



Social Media ADVOCACY CAMPAIGN

Podcasts on MyGAS2021

Awareness campaign to promote Cogeneration

Newsletter QUARTERLY UPDATES

MGA published periodic newsletter/bulletin in the form of Quarterly Updates to keep members informed on its activities and updates on the natural gas industry in Malaysia.

Quarter 1, 2022

Quarter 2, 2022

Quarter 3, 2022

Quarter 4, 2022

MGA's newsletter was revamped for the Quarter 4 issue to reflect the dynamic nature of MGA and the gas market. The new look and feel were re-designed for more captivating and easier digital viewing.

INDUSTRY TALKS

Mission Pillar #3

EDUCATION

Educational activities fall mainly under the purview of **Learning & Development Committee (L&D WC**) The main focus of this pillar is to advocate and provide gas industry insights to the members and intended stakeholders through technical visit, forums, talks and educational outreach program.

Members

INDUSTRY TALKS

The following bi-monthly industry talk series were organised:

DATE	TALKS
04 Mar 2022	MGA successfully organised its 1st edition of #MGAIndustryTalk on 4 Mar 2022. Exclusively to MGA members, the Webinar titled "Global Gas Outlook and Impact to Malaysia" delved into an insightful discussions on the gas supply and consumption, as well as their future prospects for this year and how it will be impacting the Malaysian gas industry. Registered by 163 and attended by 139 participants, the first MGA Industry Talk was co-moderated by Rosman Hamzah, Secretary General of MGA and Afiq Zarim, Leader of MGA Advocacy Working Committee. The webinar began with exclusive presentations by the professional Analysts from Wood Mackenzie, featuring first panelist, Valery Chow, Vice President and Head of APAC Gas & LNG kicked off the presentation particularly on the Global Gas Markets Outlook. It was then followed by the second panelist, Asti Nuraini Asra, Principal Analyst, Gas & LNG presented on the Southeast Asia Gas Markets Outlook.
27 Apr 2022	On 27 Apr 2022, MGA has organised second #MGAIndustryTalk webinar exclusively to MGA members titled "Impact of Green Energy Policy to Malaysia Gas Industry." The one-hour insightful conversation delves into discussion to promote the advancement of greening the natural gas industry in ensuring a smooth and just energy transition for Malaysia. Registered by 85 and attended by 80 participants. The audience was welcomed by the emcee, Nur Syarafana Alias. The Webinar then followed with a presentation session by an experience professional's speaker who received an Individual Excellence Award in Energy Management under the ASEAN Energy Awards 2021, Wong Tin Song. He had worked in various government agencies including Ministry of Energy and Natural Resources (KeTSA). The webinar continued with moderated panel session by En. Sukiman Mohamed as the moderator, Leader of Learning & Development Working Committee, MGA.
20 Jun 2022	MGA organised the first full physical after two years in the form of the 3rd Industry Talk on 20 Jun 2022 exclusively for MGA members titled "Malaysia's Domestic Gas Resources & Demand Outlook." Held in conjunction with the 36th AGM, the 3rd Industry Talk was welcomed by the emcee, Nabilah Zulkefli. The one-hour conversation was moderated by Choong Yen Li, Vice President of MGA. The Panel Session featured the following professional panellists: • Mohd Khairuddin Ab Khalik, CEO, PETRONAS Energy & Gas Trading (PEGT) • Hisham bin Maaulot, Head of Business Development & Commercial, Petronas Gas Berhad Khairuddin Khalik kicked off the conversation by sharing the current supply demand outlook in Peninsular Malaysia and how has it been impacted by COVID-19. The conversation then continued with Hisham Maaulot shared his insights on the role of Petronas Gas Berhad in the Malaysian gas market. The moderator continued the conversation with the moderated panel discussion and took questions from the audience during the Q&A session.

DATE	TALKS
08 Sep 2022	On 8 Sep 2022, MGA successfully organised its fourth #MGAIndustryTalk titled "Decarbonising Malaysia: Is Carbon Capture & Storage (CCS) The Solution?". Exclusively to MGA members and invited guests, the one and half hour insightful conversation aimed to provide important information on the CCS, its potential opportunities to help Malaysia to reduce emissions and achieve its 2050 net zero aspirations. We were very pleased to have such an overwhelming response with 235 registrations and it was one of the highest attended #MGAIndustry Talk with 182 participants during the event. The audience was welcomed by the emcee, Nur Amira Mohamad and followed by exclusive presentations by Emry Hisham Yusoff, Senior General Manager of Carbon Management Upstream, PETRONAS. The webinar then continued with Q&A session moderated by Sukiman Mohamed, Leader of MGA's Learning & Development Working Committee. The presentation successfully capture the audience's interest in CCS, the session also seen overwhelming questions from the audience during the Q&A session.
16 Nov 2022	In Budget 2022 the Government of Malaysia (GoM) announced the implementation of a voluntary carbon market (VCM) as one of the key initiatives to address the climate change agenda. The VCM is an initiative under the purview of the Ministry of Finance (MoF) and Ministry of Environment and Water (KASA) and Bursa Malaysia Berhad has been mandated to implement a VCM Exchange by end of 2022. On 16 Nov 2022 MGA has organised its 5 th series of Industry Talk titled "Malaysia's First Exchange for Voluntary Carbon Market (VCM) MGA members and invited guests were fortunate to have Dr Wei Nee Chen, Executive VP and Head of Carbon Market, Bursa Malaysia Berhad as the speaker to talk about VCM in Malaysia and how carbon credit will platform will benefit and help Gas industry players supplement their emissions-reduction.
30 Nov 2022	Malaysia's National Energy Policy (2022- 2040) launched on 19 Sep 2022 sets the vision of energy sustainability towards achieving shared prosperity, reflecting the role of energy as a significant contributor to enable other key sectors of the economy to thrive on the country's economic development 12 strategies and 31 action plans have been identified to achieve the goals of the NEP Also embedded within the NEP is the Low Carbon Nation Aspirations (LCNA) 2040. Following to the launch of NEP, MGA organised its 6 th series of Industry Talk on 30 Nov 2022 titled "The National Energy Policy Natural Gas Its Prominent Future Role The one hour insightful webinar, featuring Mohd Fauzi Mustafa, D eputy Director of Energy Division, Economic Planning Unit, Prime Minister's Department who is in charge of Oil Gas policy as a speaker. The questions from the participants were very encouraging especially on the future role of natural gas in the NEP and how natural gas as the cleanest fuel will accelerate Malaysia's energy transition towards low carbon future economy.

NATURAL GAS Accelerates Pragmatic ENERGY TRANSITION towards NET ZERO

MALAYSIA has benefited greatly from its indigenous natural gas for several decades. Malaysia's GDP grew in tandem with the increase in gas consumption, thus demonstrating the pivotal role of gas in driving socio-economic development. A Malaysian gas industry with a comprehensive value chain from upstream, midstream to downstream ensured sufficient and reliable supply of natural gas. In 2019, gas remains the largest fuel with a 42% share of total primary energy supply (TPES) and the gas industry brings in more than RM135 billion annually and employs over 80,000 in the wider economy.

Natural Gas in National Policies

The 12th Malaysia Plan (12MP) 2021-2025 emphasised the role that natural gas will play in driving economic growth during that 5-year period. The gas subsector is expected to continue to play an important role in supporting the growth of the mining sector in tandem with the rising demand from industry. A natural gas roadmap is being developed to chart the direction of the natural gas industry in optimising demand growth, ensuring the security of supply and liberalising the market to enhance efficiency and competitiveness.

The role of natural gas as a primary energy source for the nation was further underlined by the National Energy Policy (NEP) 2022-2040. It is observed at least half of the initiatives outlined in the NEP will have a high impact on demand for natural gas. Launched in September 2022, the long-term and comprehensive Policy will be a consolidated pathway to ensure energy security, affordability and sustainability towards achieving Low Carbon National Aspirations (LCNA) by 2040 and eventually net-zero emission by 2050.

Addressing Energy Trilemma

Natural gas plays an important role in both navigating the energy transition and balancing the energy trilemma. As a country, Malaysia is at a juncture where it needs to make the right decisions to ensure a clean, secure and sustainable energy future. It needs to balance between energy security, ensuring affordability, and at the same time achieving its emission reduction targets.

Energy security is ensured with indigenous natural gas that is supplemented by Liquefied Natural Gas (LNG) that can be sourced from at least 19 countries. Gas expands energy access with efficient delivery to consumers via the extensive network of gas pipeline infrastructure with reliability exceeding 99%. By ensuring energy security and energy access, natural gas is expected to continue driving Malaysia's socio-economic development and is expected to contribute nearly RM400 billion to the public finances over the next decade.

The Malaysian government has set a commendable target of 31% of renewable energy (RE) share in the national installed capacity mix by 2025 with solar photovoltaic (PV) expected to form 66% of the total capacity of RE (without large hydro). However, the intermittent nature of solar photovoltaic (PV) will require a reliable and flexible backup in the form of combined cycle gas turbine (CCGT) power plants. With ability to react quickly, modern CCGT with plant efficiency exceeding 62% is a reliable baseload solution to the intermittency of solar PV and provides security of supply when the sun doesn't shine. Natural gas also facilitates the introduction of renewable and low-carbon gases such as biogas and hydrogen into the national energy ecosystem.

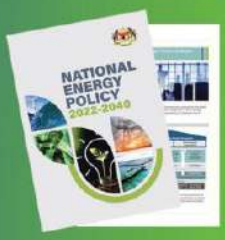
Pragmatic Energy Transition Fueled by Natural Gas

The future of the clean energy transition in Malaysia must pivot around natural gas. With the right economic and energy policies in place to future proof the entire energy ecosystem, the path towards net-zero emission can be pragmatic and equitable.

The Power Development Plan for Peninsular Malaysia 2021-2039 released by the Energy Commission recognised the role of natural gas in decarbonizing the power sector where combined growth of renewables and natural gas will reduce carbon emissions in the power sector by 60% by 2035. A report by World Wildlife Fund (WWF) on "Securing Our Future: Net Zero Pathways for Malaysia", where natural gas will complement renewables by forming 39% of the generation installed capacity in Peninsular Malaysia, underlined the role of natural gas in Malaysia's pathway towards net-zero emission by 2050.

The vital role of natural gas in ensuring energy security, driving socio-economic growth and charting the path of pragmatic energy transition is undeniable. As committed in the 12MP, the upcoming launch of the Natural Gas Roadmap (NGR) will provide medium and long-term directions towards a sustainable gas industry necessary to fuel a sustainable future for Malaysia towards net-zero emission.

The importance of **Natural Gas** in addressing **Energy Trilemma** and in pragmatic **Energy Transition** is embedded in various **National Policies**



As appeared in The EDGE Special Issue: ESG 2022 on 28 Nov 2022.

Students

EDUCATIONAL OUTREACH

The following are education outreach programmes for students organised in 2022;

DATE	PROGRAMME
21-23 Oct 2022	MGA's annual flagship PRESTIGE program that was rebranded as Program on Energy Sustainability Transition and Insights to Graduate Engineers (PRESTIGE) took place from 21-23 October 2022 in Putrajaya. The three day residential program saw MGA host 60 final year engineering students from 6 universities in the central region of Peninsular Malaysia as follows; 1. Monash University Malaysia 2. Universiti Malaya (UM) 3. Universit Kebangsaan Malaysia (UKM) 4. Universiti Teknologi Malaysia (UTM) 5. Universiti Tenaga Nasional (UNITEN) 6. Universiti Teknologi MARA (UiTM) The aim of PRESTIGE 2022 is to provide a platform to bridge the industry with university students towards enhancing awareness of the whole value chain of the natural gas industry, the importance of Health, Safety and Environment (HSE) and career opportunities, in the hope of increasing their employability rate and preparedness in joining the industry upon graduation. They were also been divided into group comprising students from different universities, the students delivered Poster Talks on the "Benefits of Natural Gas to Malaysia and its role in the Energy Transition towards achieving Net Zero Emission by 2050. Industry leaders from MGA member companies came forward to share their expertise experience. Their strong support greatly contributed towards the success of the program. This year's sponsors were Gas Malaysia and ExxonMobil.
06-08 Dec 2022	From 6-8 December 2022 MGA organised its Energy & Environment Program (EEP) a Students Outreach Program designed to promote STEM to students from the secondary school Held virtually, EEP was participated by 250 lower secondary students from 21 schools in Johor, Pahang, Terengganu Selangor. EEP utilised the Science of Smart Communities SoSC Program facilitated by STEM Research Enculturation Centre, Universiti Kebangsaan Malaysia (UKM). In SoSC program, students connect and apply science principles and knowledge with technology, engineering, and mathematics to tackle challenges we face and to solve real world problems In science, students generally conduct and experiment to test hypothesis not to engineer a solution for a real world problem. SoSC Program Objectives: • To nurture students' interest in Science, Math and other STEM related subjects • To increase awareness of students on sustainable development of their own environment and community • To develop students to be more innovative, creative, inventive and competitive to compete in the 21 st century economy and industry revolution • To develop student's 21 st century skills in communications, collaboration, critical thinking/problem solving, creativity, teamwork, interpersonal, leadership, ICT literacy and scientific Literacy In a STEM lesson, students take information and use it to design product or process that might lessen the detrimental effects or problems. They design, implement, evaluate and communicate the findings and at the same time the use of critical thinking skills, inquiry thinking skills and Higher Order Thinking Skills (HoTs) in engaging STEM at each stage is essential. Divided into groups, participants were given exposure to knowledge about transportation, energy, wireless communication and urban infrastructure. The group formed will combine the knowledge learned to build a smart city using the Cospaces virtual reality application. Through a 3 minute pitching, each group will present its VR smart city to the jury and answer questions The winner will be selected through the highest score given by the jury.

EDUCATIONAL OUTREACH

PRESTIGE 2022 – Participating Universities

Universiti Kebangsaan Malaysia (UKM)

Universiti Malaya (UM)

Universiti Teknologi MARA (UiTM)

Universiti Teknologi Malaysia (UTM)

Universiti Tenaga Nasional (UNITEN)

Monash University Malaysia

Networking

ENHANCING VALUE PROPOSITIONS THROUGH NETWORKING

Networking activities are under the purview of **Membership & Social Working Committee.** After missing out in 2020 & 2021 due to the COVID-19 pandemic, the following MGA's physical made comebacks in full force;

DATE	*EVENT*
18 Apr 2022	**Hari Raya Open House** Held on 18 May 2022 at 10 Binjai Restaurant, Perdana Kuala Lumpur City Centre with the theme "Riang Ria Aidil Fitri". The event was attended by more than 150 MGA members, policymakers and key stakeholders
6 Aug 2022	**Malaysia Gas Golf Challenge** Held on 6 August 2022 at Glenmarie Golf & Country Club and was participated by 128 golfers (32 flights)
23 Nov 2022	**Industry Gala Dinner** Held on 23 Nov 2022 at Hotel Intercontinental in collaboration with MOGSC with the theme Roaring 20s. Attended by more than 650 industry players, the event was sold out.

NETWORKING

GLENMARIE GOLF & COUNTRY CLUB
MALAYSIAN GAS GOLF CHALLENGE

INDUSTRY GALA DINNER

International

RECOGNITION BEYOND MALAYSIAN BORDERS

Beyond the Malaysian borders, MGA continues to play an impactful role through its charter membership in the International Gas Union (IGU) and its presence in the Steering Committee of GASEX.

IGU INTERNATIONAL GAS UNION (IGU)

MGA is a charter member of IGU; representing Malaysia in the global gas fraternity.

MGA President spoke at the World Gas Conference (WGC 2022) in Daegu, Korea in the Current Debates Session #: CD1 on "Has the Momentum from the Glasgow Summit Faded in the Face of High Energy Prices and Concerns About Energy Security". The conclusion of WGC 2022 held from 23 to 27 May 2022 marked the beginning of a new IGU Triennium (2022-2025) under the leadership of Li Yalan (China) and Andrea Stegher (Italy) as President and Vice President respectively.

MGA and its members continue to play active roles in this new triennium that include the following;

- MGA President, Abdul Aziz Othman, remains as IGU's Regional Coordinator (RC) for South & Southeast Asia and sits in IGU Executive Committee (EXC), the highest decision making body in IGU. Abdul Aziz also sits in Audit & Risk Committee and Compensation Committee.
- Mohd Khairuddin Ab Khalik as Chair of the Gas Market Committee.
- Aidid Chee Tahir as Vice Chair of the Exploration & Production Committee.

As the RC, MGA plays an important role in creating awareness on the unique challenges and opportunities in this region. MGA presented its three-year plan for the region at an RC meeting in Lima, Peru in Oct 2022 and regularly provides region's updates in IGU's quarterly magazine (Global Voice of Gas).

As EXC member, MGA attended the following EXC meetings
- May 2022: Daegu, Korea
- Oct 2022: Lima, Peru

And several virtual EXC meetings throughout the year.

As Charter member of IGU, MGA attended the following Council meetings;
- May 2022: Daegu, Korea
- Oct 2022: Lima, Peru

Jan 2022 also saw the appointment of IGU's new Secretary General, Milton Catelin, who is based in IGU's headquarters in London.

MGA in IGU

IGU

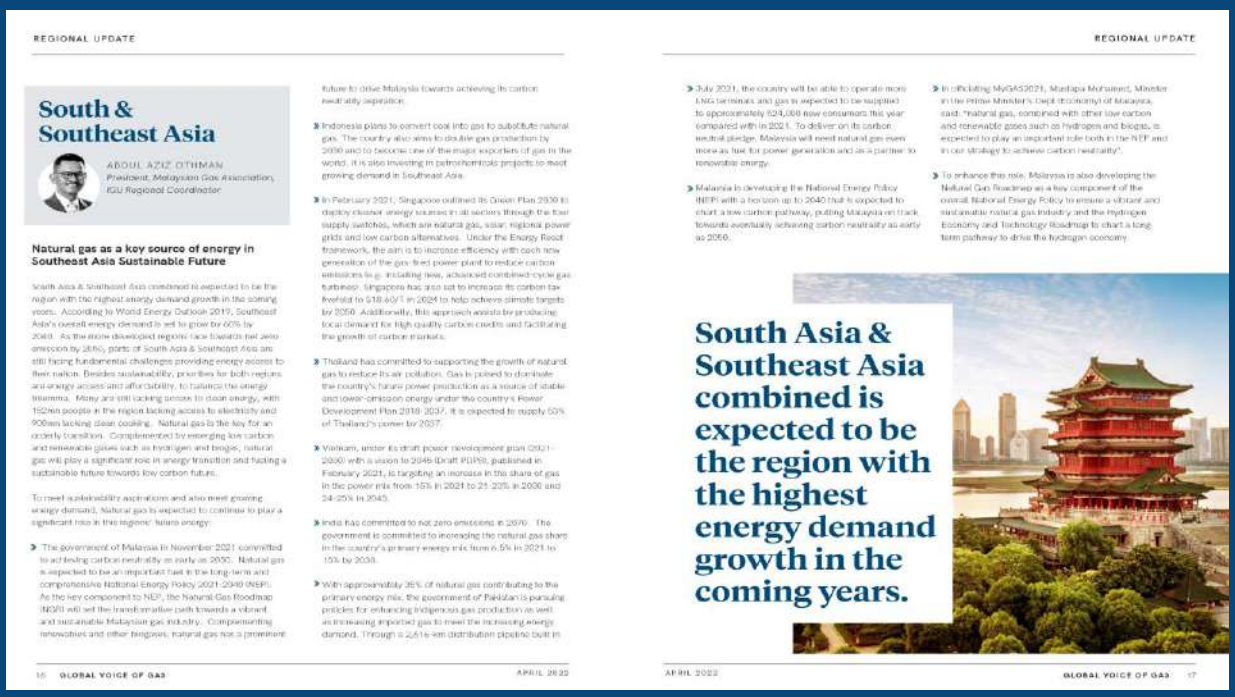
IGU
IGU Council Meeting
Malaysia

WGC2022

Kevin Gallagher
Managing Director & CEO Santos
Olalekan Ogunleye
Deputy Managing Director Nigeria LNG
Abdul Aziz Otheman
President Malaysian Gas Association
Marcel Kramer
President Energy Delta Institute
IGU
WGC2022
28th WORLD GAS CONFERENCE
DAEGU, KOREA 23-27 MAY

IGU
WGC2022
IGU Triennial Work Program 2022-2025

Regional Updates by MGA in IGU Magazine (GVG)


REGIONAL UPDATE

South & Southeast Asia

ABDUL AZIZ OTHMAN
President, Malaysian Gas Association, IGU Regional Coordinator

Natural gas as a key source of energy in Southeast Asia Sustainable Future

South Asia & Southeast Asia combined is expected to be the region with the highest energy demand growth in the coming years. According to World Energy Outlook 2019, Southeast Asia's overall energy demand is set to grow by 60% by 2040. As the more developed regions race towards net zero emission by 2050, parts of South Asia & Southeast Asia are still facing fundamental challenges providing energy access to their nation. Besides sustainability, priorities for both regions are energy access and affordability, to balance the energy trilemma. Many are still lacking access to clean energy, with 152mn people in the region lacking access to electricity and 908mn lacking clean cooking. Natural gas is the key for an orderly transition. Complemented by emerging low carbon and renewable gases such as hydrogen and biogas, natural gas will play a significant role in energy transition and facing a sustainable future towards low carbon future.

To meet sustainability aspirations and also meet growing energy demand, Natural gas is expected to continue to play a significant role in this regions' future energy:

- The government of Malaysia in November 2021 committed to achieving carbon neutrality as early as 2050. Natural gas is expected to be an important fuel in the long-term and comprehensive National Energy Policy 2021-2040 (NEP). As the key component to NEP, the Natural Gas Roadmap (NGR) will set the transformative path towards a vibrant and sustainable Malaysian gas industry. Complementing renewables and other biogases, natural gas has a prominent future to drive Malaysia towards achieving its carbon neutrality aspiration.
- Indonesia plans to convert coal into gas to substitute natural gas. The country also aims to double gas production by 2030 and to become one of the major exporters of gas in the world. It is also investing in petrochemicals projects to meet growing demand in Southeast Asia.
- In February 2021, Singapore outlined its Green Plan 2030 to deploy cleaner energy sources in all sectors through the four supply switches, which are natural gas, solar, regional power grids and low carbon alternatives. Under the Energy Reset framework, the aim is to increase efficiency with each new generation of the gas-fired power plant to reduce carbon emissions (e.g. installing new, advanced combined-cycle gas turbines). Singapore has also set to increase its carbon tax threefold to $18-40/T in 2024 to help achieve climate targets by 2050. Additionally, this approach assists by producing local demand for high quality carbon credits and facilitating the growth of carbon markets.
- Thailand has committed to supporting the growth of natural gas to reduce its air pollution. Gas is poised to dominate the country's future power production as a source of stable and lower-emission energy under the country's Power Development Plan 2018-2037. It is expected to supply 53% of Thailand's power by 2037.
- Vietnam, under its draft power development plan (2021-2030) with a vision to 2045 (Draft PDP8, published in February 2021, is targeting an increase in the share of gas in the power mix from 15% in 2021 to 21-22% in 2030 and 24-25% in 2045.
- India has committed to net zero emissions in 2070. The government is committed to increasing the natural gas share in the country's primary energy mix from 6.5% in 2021 to 15% by 2030.
- With approximately 35% of natural gas contributing to the primary energy mix, the government of Pakistan is pursuing policies for enhancing indigenous gas production as well as increasing imported gas to meet the increasing energy demand. Through a 2,616-km distribution pipeline built in

- July 2021, the country will be able to operate more LNG terminals and gas is expected to be supplied to approximately 624,000 new consumers this year compared with in 2021. To deliver on its carbon neutral pledge, Malaysia will need natural gas even more as fuel for power generation and as a partner to renewable energy.
- Malaysia is developing the National Energy Policy (NEP) with a horizon up to 2040 that is expected to chart a low carbon pathway, putting Malaysia on track towards eventually achieving carbon neutrality as early as 2050.
- In officiating MyGAS2021, Mustapa Mohamed, Minister in the Prime Minister's Dept (Economy) of Malaysia, said: "natural gas, combined with other low carbon and renewable gases such as hydrogen and biogas, is expected to play an important role both in the NEP and in our strategy to achieve carbon neutrality".
- To enhance this role, Malaysia is also developing the Natural Gas Roadmap as a key component of the overall National Energy Policy to ensure a vibrant and sustainable natural gas industry and the Hydrogen Economy and Technology Roadmap to chart a long-term pathway to drive the hydrogen economy.

South Asia & Southeast Asia combined is expected to be the region with the highest energy demand growth in the coming years.

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Natural gas remains key in fuelling Southeast Asia's future

REGIONAL UPDATE

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Natural gas retains its significant role in Southeast Asia

REGIONAL UPDATE

South & Southeast Asia

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Natural gas remains key for balancing the energy trilemma

ASEAN joint statement to COP27

REGIONAL UPDATE

Striking a balance between energy security, affordability, and achieving reductions in emissions remains a high priority for the Southeast Asia region.

REGIONAL UPDATE

The Southeast Asia region has developed rapidly over the past decades and is expected to continue its major contribution to global economic growth. Against the backdrop of new uncertainties and net zero ambitions in the gas market globally, the priority to balance the energy trilemma between energy security, energy equitability and environmental sustainability remains high for Southeast Asia.

REGIONAL UPDATE

Regional Development on Carbon Capture and Storage (CCS)

Countries around the South & Southeast Asia region are continuously making progress to address the energy trilemma to ensure greater energy security with reliable, affordable and sustainable supply, while at the same time accelerating the pathway towards a low carbon future. Several countries have also pledged to achieve their sustainability goals by pushing for investment in renewable energy sources, boosting the use of natural gas to provide electricity and cutting the use of coal.

Regional Development on Carbon Capture and Storage (CCS)

GASEX GAS INFORMATION EXCHANGE IN THE WESTERN PACIFIC AREA

MGA is part of the Steering Committee for GASEX - a biannual conference that offers GASEX members the platform to congregate and share updates, exchange knowledge and discuss common issues. Members of GASEX comprised of countries in the Asia Pacific and Australia region.

Gas Information Exchange in Western Pacific (GASEX) has 16 members. They are;

1. Australian Gas Industry Trust;
2. Brunei Energy Association;
3. China Gas Association;
4. The Chinese Taipei Gas Association;
5. The Hong Kong and China Gas Company Ltd.;
6. India Natural Gas Society
7. Indonesian Gas Association;
8. The Japan Gas Association;
9. Korea Gas Union;
10. Malaysian Gas Association;
11. PNOC Exploration Corporation;
12. Department of Petroleum & Energy of Papua New Guinea;
13. The Gas Association of New Zealand (Inc);
14. Gas Association of Singapore;
15. PTT Public Company Limited;
16. Vietnam National Oil & Gas Group;

Due to the COVID-19 pandemic, the GASEX Conference scheduled for 2020 in China has been postponed indefinitely.

MyWiE MALAYSIA WOMEN IN ENERGY

As the secretariat to Malaysia Women in Energy (MyWiE), MGA played an active role to propagate and advocate diversity and inclusion agenda within the Energy communities.

Formed in January 2018, MyWiE aims to increase participation and ensure equitable career development for women in the energy sector. MyWiE also offers a platform for cross-industry networking and sharing with like-minded peers, diversity leaders and change-makers on ideas, perspectives, and approaches related to diversity and inclusion.

In 2022, MyWiE organised and collaborated several events for MyWiE community as follows;

1. "Hari Wanita Tanpa Sempadan" was organised by PETRONAS Leading Women Network (PLWN) in collaboration with Malaysia Women in Energy (MyWiE) & Society of Petroleum Engineers (SPE), in conjunction with the International Women's Day 2022. Themed "Gender Equality Today For A Sustainable Tomorrow", the panel session has provided great insights on:
    - The opportunity & challenges in Women professional's career journey, especially in the male-dominant energy industry.
    - Sending an important message to the audience in raising more awareness about Diversity & Inclusion for future generations.
    - Most importantly, spotlighting women's significant role in driving the energy transition for a sustainable future.

2. MyWiE organised MyWiE Programme @ OTC Asia on 24 Mar 2022 which was held comprised of a high-level panel session & group speed mentoring.

3. On 31 Mar 2022, MyWiE organised Direction Workshop at Malakoff Training Centre, Plaza Sentral. The Hybrid Workshop was called to discuss MyWiE future direction. Attended by MyWiE leaders, the workshop also discussed MyWiE's existing structure for setting up effective activities to benefit the community.

4. On 30 Sep 2022, MyWiE in collaboration with the US Embassy in Malaysia organised the 'Women in Energy' Reception. The Reception, held at the US Ambassador's Residence, was attended by women leaders from MyWiE community including Petronas Leadership Women Network (PLWN), SHELL Women Action Network (SWAN) and ExxonMobil Women Interest Network (MyWIN). The event aimed to foster cross-industry collaborative efforts, especially in strengthening the D&I initiative for women in the energy sector.

MyWiE

MyWie Programme @ OTC ASIA 2022
Thursday | 24th March 2022 | Hall 6A, Level 1 | KL Convention Centre

MyWiE

MyWiE
MyWiE Direction Workshop
31st March 2022

Group Speed Mentoring | 11:00 am -12:30 pm

HARI WANITA 2022
Ikhlas Dari Jelwet

MyWiE

4 OTHER HIGHLIGHTS

Statutory Meetings

COUNCIL MEETING

5 Council Meetings were held in 2022 as follows :-

- 132nd Council Meeting – 13 Jan 2022
- 133rd Council Meeting – 9 Mar 2022
- 134th Council Meeting – 1 June 2022
- 135th Council Meeting – 29 Aug 2022
- 136th Council Meeting – 15 Nov 2022

Statutory Meetings

ANNUAL GENERAL MEETING (AGM)

The 36th Annual General Meeting (AGM) was held on 20th June 2022 in Kuala Lumpur. It was the first physical AGM since the onset of the pandemic in 2020. It was an encouraging turnout with a total of 33 corporate member companies represented.

In recapping the activities in 2021, MGA President highlighted the roundtables on LNG market and Third Party Access organised by MGA as platforms of discourse for policymakers, regulator, energy experts and market participants in preparation for the full market liberalisation. Another major platform of discourse organised by MGA was the Malaysian Gas Symposium (MyGAS 2021).

With the country recovering towards endemic, MGA President was pleased to share that more physical networking events will be organised in 2022 including Malaysian Gas Golf Challenge, Industry Gala Dinner and Technical Visit.

MGA President also urged MGA members to jointly advocate MGA's positions on natural gas in our communication with key stakeholders.

AGM Proceedings & Decisions

Agenda 1:	The Minutes of 36th Annual General Meeting was confirmed
Agenda 2:	The Annual Report 2021 was adopted.
Agenda 3:	The Audited Statement of Accounts for FYE 31 Dec 2021 was adopted
Agenda 4:	The following Council members were elected; Full Corporate Members • Choong Yen Li, Shell • Muhamad Syahril Hussin, ExxonMobil • Md. Ezamudin Mohd Said, PTTEP Ordinary Corporate Members • Ramanrao Abdullah, Deleum Berhad • Mohd Helmy Ibrahim, Segari Energy Ventures
Agenda 5:	The meeting appointed BDO Malaysia as auditor until the next AGM
Agenda 6	There was no resolution submitted for consideration
Agenda 7:	No other business was raised

Membership

NEW MEMBERS ON BOARD

In 2022, the Council approved membership applications from the following 15 new ordinary members :

1. AEM Energy Solutions Sdn Bhd
2. Aspen Aerogels Inc
3. Axianergy (M) Sdn. Bhd.
4. Bureau Veritas (M) Sdn Bhd.
5. Crescent Engineering (M) Sdn Bhd
6. Gaztransport & Technigaz – GTT Sea Pte. Ltd.
7. Indigo Software Asia Pacific Limited
8. Isma Pro Solution Sdn Bhd
9. Mumtaz Energy Sdn Bhd
10. North Consult Engineering Sdn Bhd
11. Pioneer Pegasus Sdn Bhd
12. RB Spectra Sdn Bhd
13. Riken Keiki (M) Sdn Bhd
14. RMA Fiventures Malaysia Sdn Bhd
15. TÜV SÜD Malaysia Sdn Bhd

MGA's membership, as at 31 December 2022, stood at 139 Corporate Members, comprising 12 Full Corporate Members and 127 Ordinary Corporate Members, and 14 Honorary members.

5 FINANCIAL STATEMENTS

STATEMENT OF FINANCIAL POSITION

(as at 31 December 2022)

	Note	2022 RM	2021 RM
ASSETS			
Non-current assets			
Plant and equipment	6	16,665	8,414
Right-of-use asset	7	225,378	284,172
		242,043	292,586
Current assets			
Trade and other receivables	8	246,074	248,105
Cash and cash equivalents	9	1,596,005	1,579,955
		1,842,079	1,828,060
TOTAL ASSETS		2,084,122	2,120,646
FUNDS AND LIABILITIES			
Funds			
Accumulated members' fund		1,399,209	1,273,260
LIABILITIES			
Non-current liability			
Lease liability	7	175,190	231,549
Current liabilities			
Trade and other payables	10	453,364	562,120
Lease liability	7	56,359	53,717
		509,723	615,837
TOTAL LIABILITIES		684,913	847,386
TOTAL FUNDS AND LIABILITIES		2,084,122	2,120,646

Financial

STATEMENT OF INCOME AND EXPENDITURE

(for the year ended 31 December 2022)

	Note	2022 RM	2021 RM
Income			
Revenue	11	676,500	388,150
Other income		86,403	28,300
		762,903	416,450
Less: Expenditure			
Expenses for events and forums		(340,146)	(106,193)
Administration expenses		(78,046)	(59,332)
Audit fee		(5,000)	(4,500)
Bad debts written off		-	(22,830)
Bank charges		(986)	(1,257)
Depreciation		(64,247)	(13,266)
External communication		(4,052)	-
Meetings		(23,859)	(1,680)
Net loss on impairment of financial assets		(7,500)	-
Workshop expenses		(12,045)	(94)
Professional services		(4,396)	(4,813)
Subscription to International Gas Union		(84,394)	(89,114)
Interest expense		(12,283)	(2,295)
		(636,954)	(305,374)
Surplus of income over expenditure before tax		125,949	111,076
Tax expense	12	-	(150)
Surplus of income over expenditure after tax		125,949	110,926

How Natural Gas Shapes the World We Lived in Today

GLOSSARY

Glossary

ADV WC	Advocacy Working Committee
BNM	Bank Negara Malaysia
C&M WC	Communications & Multimedia Working Committee
CCS	Carbon Capture and Storage
CPAE	Certified Professional Association Executives
D&I	Diversity and Inclusion
EEP	Energy & Environment Program
EPU	Economic Planning Unit
EXC	IGU Executive Committee
GASEX	Gas Information Exchange in Western Pacific (GASEX)
GoM	Government of Malaysia
HETR	Hydrogen Technology & Economy Roadmap
HOTs	High Order Thinking Skills
HRDF	Human Resources Development Fund
HSE	Health, Safety and Environment
IEC	Industry Expert Committee
IGEM	International Greentech & Eco Products Exhibition and Conference Malaysia
IGU	International Gas Union
IRENA	International Renewable Energy Agency
ISES	International Sustainable Energy Summit
KASA	Ministry of Environment and Water
KeTSA	Ministry of Energy & Natural Resources
L&D WC	Learning & Development Working Committee
LCNA	Low Carbon Nation Aspiration
LNG	Liquefied Natural Gas
M&S WC	Membership & Social Working Committee
METO	Malaysian Energy Transition Outlook
MOF	Ministry of Finance

MOSTI	Ministry of Science, Technology & Innovation
MGA	Malaysian Gas Association
MPRC	Malaysian Petroleum Resources Corporation
MyGAS	Malaysian Gas Symposium
MyWiE	Malaysian Women in Energy
NCIA	Northern Corridor Investment Authority
NCER	Northern Corridor Economic Region
NEP	National Energy Policy
NGR	Natural Gas Roadmap
NZE	Net Zero Emission
PCAAE	Philippines Council of Association and Association Executives
PRESTIGE	Program on Energy Sustainability Transition and Insights to Graduate Engineers
RC	Regional Coordinator
RGA WC	Regulatory & Government Affairs Working Committee
SEDA	Sustainable Energy Development Authority
SEPM	Sabah Energy Policy Masterplan
STEM	Science, Technology, Engineering and Mathematics
SoSC	Science of Smart Communities
ST	Energy Commission of Malaysia
TF-C	Taskforce on Promoting Cogeneration
TF-EG	Taskforce on Emerging Gases
TPA	Third Party Access
TPES	Total Primary Energy Supply
VCM	Voluntary Carbon Market
WGC	World Gas Conference

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Gas
ASSOCIATION

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