

PARTNERSHIP TOWARDS SUSTAINABLE DEVELOPMENT

ANNUAL REPORT 2021



PARTNERSHIP TOWARDS SUSTAINABLE DEVELOPMENT

MGTC is a dynamic organisation that drives Malaysia's green technology and climate change action landscape. In the cover background, a circular pattern or water ripple effect denotes a cycle of continuity of MGTC playing an active role in driving the country's green agenda and sustainable development as well as reflecting the continuous partnership between MGTC and organisations to generate sustainable development.

Design also propagates MGTC's commitments to create change across all industries in Malaysia.

And ultimately, the ripples denotes MGTC's vision to become the primary and partner of choice for all stakeholders to partner with in creating ripples of change towards green growth and climate change mitigation, bringing about a green future that our country can look forward to. chargEV:

403 STATIONS successfully installed at over

200 PRIVATE AND PUBLIC LOCATIONS

POSITIVE IMPACT FROM THIS:

Estimated CO₂ emissions reduction

1,270,004 kgCO₂ CARBON sequestered by trees 29,754 TREES/YEAR

INTERNATIONAL HYDROGEN ECONOMY FORUM AND STRATEGIC LAB:

884 LOCAL & FOREIGN PARTICIPANTS and over

30 SPEAKERS from

8 COUNTRIES

Expanding Horizons through Green Research

MGTC prides itself in being at the forefront of green technology research to drive innovation and environmental benefits of green solutions.

MGTC TRAINING PROGRAMMES:

Over

7,000 PARTICIPANTS

have benefited since its inception

31 TRAINING PROGRAMMES were organised in 2021

GREEN JOBS MALAYSIA PORTAL:

Registered users in 2021:

79 GREEN TECHNOLOGY-RELATED companies &

289 JOB SEEKERS

Driving Human Capability Capacity

MGTC recognises the importance of human resources in driving a green mindset and enables effective training programmes for employees, adopting ESG guidelines for optimum efficiency within the organisation. NATIONAL ENERGY AWARDS (NEA):

77 MALAYSIAN COMPANIES awarded to-date

54 WON at ASEAN Energy Awards

AEA 2021 AWARDS:

25 COMPANIES represented Malaysia

12 NOMINATIONS WINNING at ASEAN level

Communities via Green Engagements

MGTC is on a mission to build awareness within the public communities by promoting the benefits of green technologies and drive understanding on their role in building a greener future for themselves future generations. MOU/MOI SIGNING AT VIRTUAL IGEM 2021 Captured over

RM4.6 BILLION in business leads and

RM5.77 BILLION MOU/MOC

EXPO 2020 DUBAI

26 WEEKLY thematic trade and business programmes

THE MALAYSIA PAVILION:

Welcomed over

500,000 VISITATIONS & over

100 OFFICIAL INTERNATIONAL VISITORS

Enabling Green Partnerships

Through strategic partnerships with key parties, MGTC is executing their mandate to drive the country's green technologies in key economic sectors toward a sustainable future for Malaysia's economy. ENVIRONMENTAL SUSTAINABILITY IN MALAYSIA 2020-2030 ROADMAP:

Successfully launched "STRATEGIC PLAN 2020-2030: ENVIRONMENTAL SUSTAINABILITY IN MALAYSIA"

LOW CARBON MOBILITY BLUEPRINT (2021 – 2030) developed

6 STRATEGIC ACTIONS

MGTC'S COMMITMENT:

To decrease the poverty line by BOOSTING MALAYSIA'S SOCIO-ECONOMY

.....

Create

230,000 GREEN JOBS BY 2030

Paving a Green Roadmap

MGTC is mandated to drive Malaysia's green technologies by introducing policies, programmes and incentives designed to elevate and accelerate the country's pathway to a greener future by 2030



Venue	Date	Time
	Thursday 30 June 2022	10.00 a.m.

FEEDBACK

This report is available to all stakeholders and can be downloaded from our corporate website at <u>https://www.mgtc.gov.my/</u>. MGTC welcomes comments from our stakeholders. For further enquiries or feedback, please contact:

 Tel
 +6019-308 8286 / +603-8921 0800

 Fax
 +603-8921 0801 / 0802

 Email
 comms@mgtc.gov.my

 WhatsApp
 +6019 308 8286

Corporate Communication Department Malaysian Green Technology and Climate Change Corporation

No. 2, Jalan 9/10, Persiaran Usahawan, Seksyen 9, 43650 Bandar Baru Bangi, Selangor Darul Ehsan



Scan the QR Code to view our Annual Report 2021.

What's Inside **Contents**

2 2021 Key Hightlights



6

Chairman's Statement

Chief Executive Officer's Strategic Review

17





20 Director's Profile Leadership Team



Leadership Team's Profile



Organisational Structure

Corporate Social Responsibility (CSR)



Strategic Thrusts Overview

- Promotion &
 Public Awareness 46
- Research, Development & Commercialism 62
- Human Capital 69
- Market Enablers 76
- Institutional Framework 99



Events 2021



Financial Statements



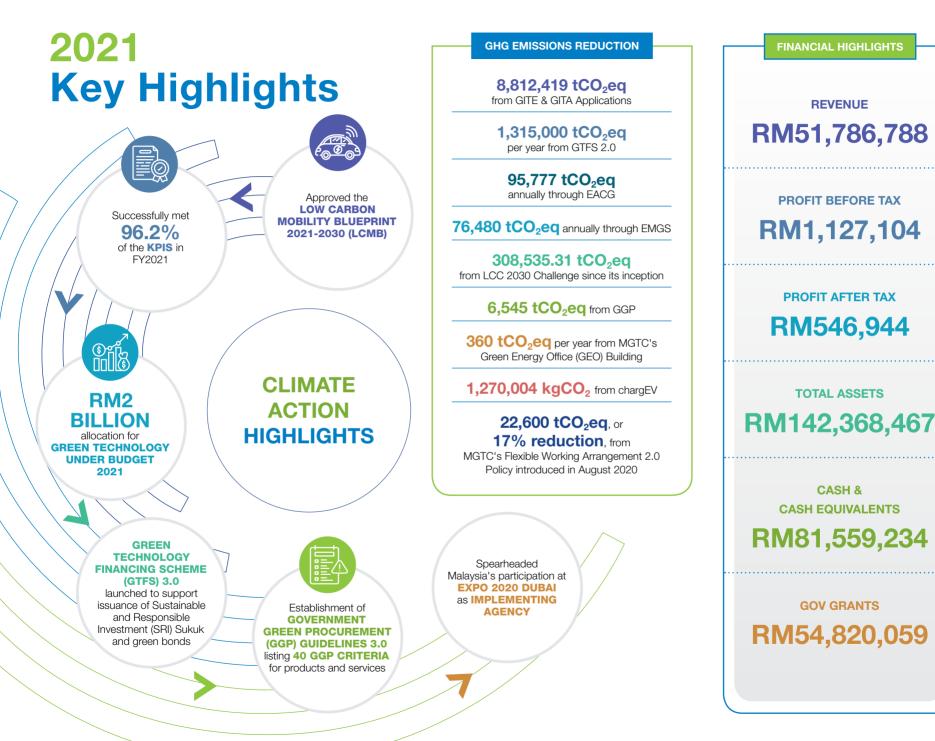
Notice of 24th Annual General Meeting











PROGRAMME HIGHLIGHTS

322 GREEN TECHNOLOGY TAX INCENTIVE applications approved todate have a potential of creating a total of

686 GREEN JOBS

Over 7,000 PEOPLE trained under ENERGY MANAGEMENT AND CLIMATE CHANGE PROGRAMME (EMCP)

Established 43 LOW CARBON ZONES with 69 LOW CARBON PARTNERS under the LOW CARBON CITIES 2030 CHALLENGE (LCC2030C) since its inception Annual International Greentech and Eco Products Exhibition and Conference Malaysia (IGEM) 2021

Hosted

144

CONFERENCE

SESSIONS



Over RM4.6 BILLION worth of business leads generated from VIRTUAL IGEM 2021

Low Carbon Cities (LCC) Award

13 LOW CARBON ZONES and 30 LOW CARBON PARTNERS awarded DIAMOND RECOGNITION

Attracted

195

EXHIBITORS

and over

500,000

VISITORS from

70

COUNTRIES

77 NATIONAL ENERGY AWARDS (NEA) WINNERS represent Malaysia to ASEAN Energy Awards

12 MALAYSIAN ORGANISATIONS recognised at the ASEAN ENERGY AWARDS (AEA) 2021 22 ENTRIES were awarded PROVISIONAL CERTIFICATES

Energy savings of 500,000 KWH per year from green innovations incorporated into MGTC'S GREEN ENERGY OFFICE (GEO) BUILDING

79 GREEN TECHNOLOGY-RELATED COMPANIES and 289 JOB SEEKERS have registered as users MYHIJAU MARK & DIRECTORY registered 9,747 PRODUCTS AND SERVICES from 567 PARTICIPATING COMPANIES

Developed LOW CARBON MOBILITY BLUEPRINT (LCMB)

2021 – 2030 to implement GHG and energy reduction measures for the land transport sector

Implemented **TRAVEL CALCULATOR** to gather data and compute emissions on GHG emissions

Introduced Leadership TRANSFORMATION SERIES (LTS) PROGRAMME, 25 key talents were selected at MGTC

Produced **5 WEBINARS**, reaching over **9,000 VIEWERS** and recorded over **18,000** ENGAGEMENTS Total of **288** ENERGY MANAGEMENT GOLD STANDARD (EMGS) certifications issued, realising savings of **RM48.34** MILLION annually from GHG reductions

MGTC & KASA achieved over **RM3.7** BILLION in potential trade

and business lead in **EXPO 2020 DUBAI**

RM127.215 MILLION in total investment under the ENERGY AUDIT CONDITIONAL GRANT (EACG) by 108 COMPANIES

chargEV

• Upgraded existing 48 CHARGING STATIONS across the nation

- 403 chargEV STATIONS installed total at over 200 PRIVATE AND PUBLIC LOCATIONS • 997 MWb
- of electricity delivered by chargEV network in 2021

About Malaysian Green Technology and Climate Change Corporation

Malaysian Green Technology and Climate Change Corporation (MGTC) is an agency of the Ministry of Environment and Water (KASA) mandated to drive the country in the scope of Green Growth, Climate Change Mitigation and Green Lifestyle.

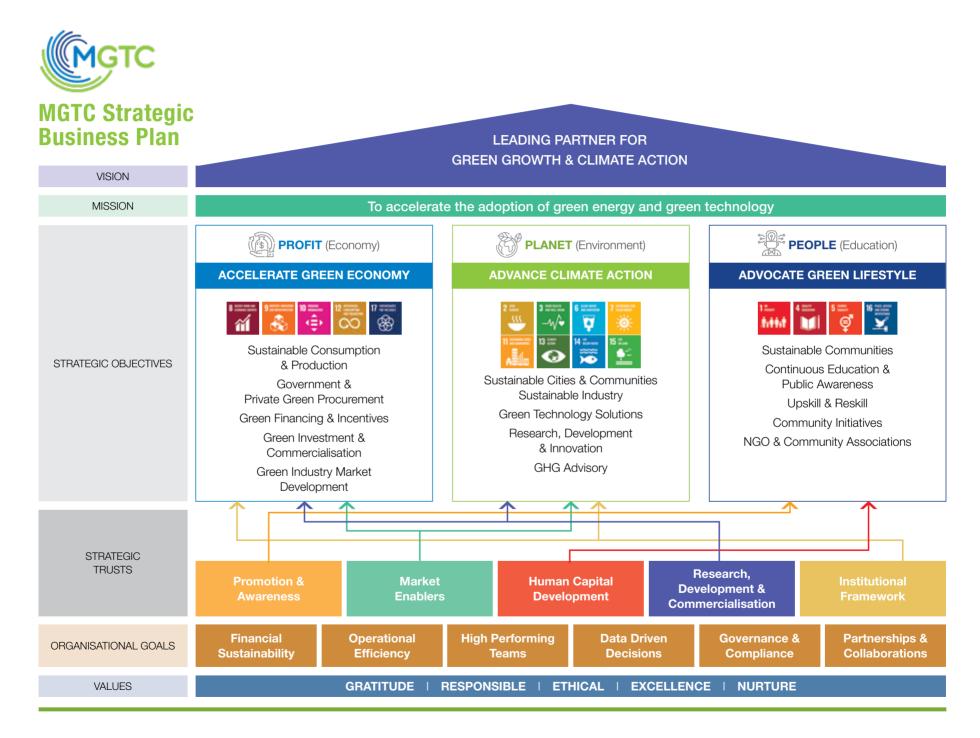
Three national policies, particularly the National Green Technology Policy (NGTP), the National Climate Change Policy (NCCP) and the Green Technology Master Plan (GTMP), regulated MGTC's role as a catalyst for green economic growth.

MGTC implements initiatives and programmes that provide specific details in achieving the long-term impact of the Nationally Determined Contribution (NDC) to reduce the intensity of greenhouse gas emissions by 45% based on Gross Domestic Product (GDP) compared to the intensity of emissions in 2005 by 2030, increasing the rate GDP from green technology of RM100 billion and the generation of 230,000 green jobs. MGTC performs three (3) roles, as shown below:

Drive climate change mitigation actions such as advocacy for energy efficiency and renewable energy, low carbon urban programmes and low carbon mobility.

Mainstreaming the Green Economy through green product and service expansion programmes such as the MyHIJAU Mark Certification Programme. The Green Technology Financing Scheme (GTFS) & Green Technology Investment Tax Exemption (GITE) as well as training and human capital development schemes. Cultivate a green lifestyle through publicity and awareness programmes in fostering cooperation between the government and private sectors on global-scale platforms such as International Greentech and Eco Products Exhibition and Conference Malaysia (IGEM) and other public programmes physically or through social media.

MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION



staten Dear Stakeholders,

> On behalf of the Board and Management, I am delighted to present the Annual Report and Audited Financial Statements of the Malaysian Green Technology and Climate Change Corporation (MGTC) for the financial year ended 31 December 2021 (FY2021).

> > Professor Dato' Ir. Dr. A. Bakar Bin Jaafar Peng, Fiem, Fasc

Chairman

ANNUAL REPORT 2021

The Macroeconomic Operating Environment

Throughout FY2021, the COVID-19 outbreak continued to have a significant impact on the global and domestic economy. The virus and its new variants posed serious public health concerns with the country seeing a record number of cases in 2021.

Nevertheless, we drew from our experiences in 2020 to begin the year fully equipped to operate in a challenging environment – embracing digitalisation, implementing remote work processes and adopting new norms to continue engaging with stakeholders. Nurturing our engagement with stakeholders was crucial in progressing our carbon reduction initiative, which MGTC has been working tirelessly to pursue. Events such as trainings, meetings, webinars and conferences such as MGTC's International Greentech and Eco Products Exhibition and Conference Malaysia (IGEM) 2021, were all still able to be carried out through the use of online mediums.

COVID-19 has also created an environment where a new wave of urgency in developing a sustainable future has emerged. This sentiment cascaded across both the public and private sectors, and led to an increased number of investments towards tackling climate change, itself an indication of its strengthening agenda. This will allow MGTC to more easily integrate our solutions among the different sectors in Malaysia.

In this vein, Malaysia's and MGTC's climate change agenda has never been stronger. We have seen increased assurance from the relevant stakeholders to work in partnership towards achieving our national commitment of 45% carbon emissions intensity reduction per Gross Domestic Product (GDP) per capita by 2030 against our 2005 baseline. This will support the accomplishment of the country's goal of net-zero greenhouse gas (GHG) emissions by 2050. MGTC will continue to be the main driver in pursuing the nation's green agenda by focusing on our key objectives and our yearly key performance indicators (KPIs).

Turning around from the dampened progress experienced during the turbulent FY2020, MGTC had successfully met 96.2% of our KPIs in FY2021. We aim to further improve on this strong feat moving forward.

Achieving Carbon Reduction Goals

As the leading government agency in spearheading green technology adoption and climate action, MGTC's efforts in FY2021 remained centred on driving the transition from fossil fuels towards greener energy sources in order to reduce Malaysia's collective carbon emissions. A key initiative that will help our nation achieve its carbon neutrality goal is the Low Carbon Mobility Blueprint (LCMB). This initiative maps out the path to reduce our country's dependence on carbonintensive energy sources such as petrol and diesel by shifting to electric vehicles (EV) and low carbon public transportation, thereby lowering GHG emissions. EV and public transportation usage targets had been established, along with the Ministry of Finance's implementation of tax incentives to promote EV adoption, such as the exemption of Green Investment Tax Allowance (GITA) and the Green Income Tax Exemption (GITE).

Incorporated into the LCCF was the Low Carbon Cities 2030 Challenge (LCC2030C), which signified the second phase in the Low Carbon Cities Framework (LCCF). The LCC2030C event, held in Putrajaya, was organised by MGTC to honour those who have contributed significantly to reduce carbon emissions and accelerate the transformation towards low carbon cities. Shah Alam City Council (MBSA) had received a total of 16 awards in recognition of their efforts to reduce the intensity of total carbon emissions from cities across the country.

Shah Alam City Council (MBSA) had received a total of 16 awards in recognition for their efforts to reduce the intensity of total carbon emissions from cities across the country.

SUCCESSFULLY MET 96.2% OF OUR KPIS IN FY2021

MGTC HAD

In conjunction with LCCF and LCC2030C, the Ministry of Environment and Water (KASA) had initiated the Geran Pemangkin Bandar Rendah Karbon (GeRAK) with the objective of bolstering the high-impact low carbon cities project. The grant, valued at RM35 million, was awarded to 141 local authorities that had demonstrated their commitment to inception to policies and execution of low carbon initiatives in an effort to encourage the creation of low carbon cities and mitigate negative environmental impacts.

Other initiatives launched in relation to carbon reduction include MyHIJAU, which promotes the sourcing and purchasing of green products in Malaysia. In FY2021, MGTC received and approved 631 applications, an 86% increased from 470 applicants in the previous year, demonstrated the growing demand and interest of Malaysian businesses for greener technologies. With the participation of local businesses and communities in these key initiatives, it further illustrates that the nation was indeed moving in the right direction to achieving its goals of GHG reduction.

IN FY2021, MGTC RECEIVED AND APPROVED 631 APPLICATIONS, AN 86% INCREASE (FY2020: 470 APPLICANTS)

Establishing Malaysia's Hydrogen Economy



In addition to the initiatives discussed above, MGTC sought to develop the hydrogen economy within Malaysia to further reduce the GHG emissions intensity of our GDP. MGTC was cognisant of the immense potential hydrogen wields as a clean energy resource and that the development of a hydrogen economy would ultimately contribute considerably to the nation's GDP via the development of new industries and new green jobs.

The development of a hydrogen economy would be a significant step towards attaining net-zero GHG emissions, to replace conventional fuel sources that are harmful and pollute the environment. The pursuit of a hydrogen economy was evidenced by KASA's efforts to advance the development of this economy through the attraction of investments and engagements with regulatory bodies.

However, challenges still exist due to the substantial amount of capital necessary to establish the

infrastructure. production plants. distribution networks and other much-needed areas, toward the development of a hydrogen economy. This underscores the importance of foreign investment which would also bring valuable experience of other nations and furthermore, the risks associated with these projects would be shared among the investors. Despite these challenges, MGTC had commenced initial work on hydrogen projects in Sabah, Sarawak and Kelantan in an effort to develop renewable energy sources for electricity generation. During the year under review, MGTC visited Sarawak Energy Berhad's (SEB) hydrogen production demonstration site, observing its hydrogen refuelling station, monitoring room and fuel cell electric vehicle (FCEV) bus as well as the first multipurpose fuelling station in Darul Hana in Kuching. Subsequently, MGTC is in discussion with SEDC (Sarawak Economic Development Corporation) on the implementation of these projects and are looking to formalise this collaboration in the near future. Further information

MGTC MANAGED TO FACILITATE **RM4.6 BILLION** IN POTENTIAL INVESTMENTS THROUGH **THE IGEM** VIRTUAL 2021

on these and other initiatives for the development of Malaysia's Hydrogen Economy is provided in the Strategic Thrust 2 section, on page 67 of this report.

Moving forward, MGTC will continue to explore collaborative opportunities with various regulatory bodies in order to realise the goal of developing a hydrogen economy value chain across the country.

Strengthening the Domestic Landscape

As the implementing agency for Malaysia's participation at the EXPO 2020 Dubai, I am pleased to report that MGTC had exceeded its expectations of trade and business leads garnered, with RM3.58 billion achieved through the Memorandum of Understandings (MoUs) signed with various parties, from Malaysia and international. This was only a small part of Malaysia's six-month expo success, which saw the country securing over RM70 billion in trade and business leads.

In addition to fostering the nation's green growth and presence, MGTC managed to facilitate RM4.6 billion in potential investments through the IGEM Virtual 2021. The virtual event garnered more than 15,000 visitors, comprising representatives from micro, small and medium-size enterprises, government agencies, academics and the general public.

Strength in Collaboration

In FY2021, MGTC collaborated with over 40 organisations across all sectors and industries nationwide in efforts to advance the adoption of green technology among local firms. This strategic collaboration between MGTC and its partners enabled MGTC to expand its climate solutions network and deliver real action and impact on the ground while its strategic partners are able to reach out and showcase their expertise to diverse stakeholders across all industries and sectors. These strategic partners offer training, ranging from establishing a green hydrogen ecosystem in Malaysia to educating the next generation of the green workforce.

Financial Performance Review

As the domestic economy progresses on a steady recovery from the resurgence of the virus, I am pleased to report that MGTC recorded a pre-tax profit of RM1,127,104 in FY2021, a 152% increase

over the previous year of RM447,018. This strong performance was achieved through aggressive strategies that allowed MGTC to accelerate its business growth. Moreover, MGTC's revenue rose by RM708,965 or 1.4%, to RM51,786,788 owing to various business initiatives throughout the year.

Looking to the Future

As we enter FY2022, MGTC remains committed to our mission to help the nation accelerate its green economy, advance climate action and advocate for greener lifestyles. We will continue to strengthen our efforts in maintaining the green growth momentum and expand our reach to more industry partners to embrace green technology adoption. We believe this is the way forward to sustainably maintain our national growth, minimise carbon emissions and attain Malaysia's climate goal.

With this in mind, I look forward to collaborating with all MGTC stakeholders, including our valued industry and government partners as well as MGTC's Board of Directors, Senior Management and all employees to build a sustainable future for Malaysia and deliver on the mandate of accelerating green growth and advancing climate action.

Thank you.

Professor Dato' Ir. Dr. A. Bakar Bin Jaafar Peng, Fiem, Fasc

Chairman

10

Dear Stakeholders,

Over the past few years, much of the world has been changed by the COVID-19 pandemic, geopolitical tensions, food security issues and climate disasters. evie

strate 9/0

Ts. Shamsul Bahar Mohd Nor CHIEF EXECUTIVE OFFICER

ANNUAL REPORT 2021

Climate action and green technology that enable the crucial shift of humanity towards a greener path have been catapulted to the top of the global agenda, for nations, regulators, investors and corporations of all sizes, and our role at MGTC as the driver of Green Growth, Climate Change Mitigation and Green Lifestyle in Malaysia has never been more relevant or urgent.

In 2021, we have continued to spearhead Malaysia's charge towards our Nationally-Determined Contribution (NDC) to reduce the greenhouse gas (GHG) emissions intensity of Malaysia's Gross Domestic Product (GDP) by 45% by 2030, relative to the emissions intensity of our GDP in 2005. This commitment sees the need to increase the rate of GDP from green technology businesses to the sum of RM100 billion and necessitates the generation of 230,000 green jobs to meet our 2030 target, so as to become a net zero GHG emissions nation as early as 2050.

Despite continued challenges from the pandemic and other headwinds in 2021, we have remained steadfast in this commitment. The progress we have made, and the successes achieved on the programmes and initiatives under our purview, speak to the passion and dedication of our team at MGTC, who have risen to the occasion despite our rather ambitious internal targets. For that, I am profoundly pleased to present the strategic review of MGTC's operational activities and fiscal performance for the financial year ended 31 December 2021 (FY2021).

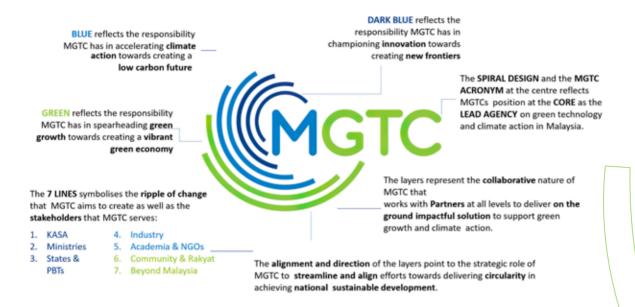
Adapting to a Dynamic Environment

With the pandemic at its peak in FY2021, the financial year under review continued to test the resilience of organisations. But unlike 2020 where the economy was at a standstill during the Movement Control Order (MCO) periods, our nation was better prepared to face the second year of the COVID-19 outbreak. Robust health and safety Standard Operating Procedures (SOPs) and the rollout of vaccination programme in FY2021 played a key role in paving the way for the reopening of our nation's economy. Crucially at MGTC, our embrace of digitalisation at the onset of the pandemic and the revamp of our operating processes in line with the new norms have helped us to cushion COVID-19's impacts on our Key Performance Indicators (KPIs) in FY2021. Trainings, meetings, audits, conferences, webinars and other stakeholder engagements and business processes have all been adapted for virtual implementation, including MGTC's International Greentech and Eco Products Conference and Exhibition Malaysia (IGEM) 2021. The dynamic changes adopted under our Strategic Plan paved the way for MGTC's various programmes and initiatives to remain on track throughout FY2021, and I am pleased to announce that MGTC successfully met 96.2% of our KPIs.

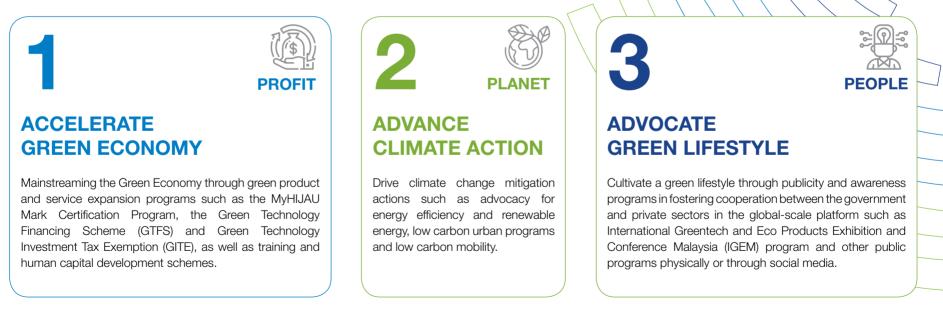
Like most ministries and agencies in Malaysia, MGTC practiced remote working throughout the duration of the MCO. This was greatly welcomed here at MGTC, as we have implemented work from home ("WFH") arrangements every Friday, even before the MCO, in a bid to reduce the carbon dioxide (CO2) emissions from our employees' commute to work. This comes in tandem with an increased awareness among stakeholders on climate change impacts, bringing to fore the urgent need for action and commitment from the Government and corporate Malaysia to deliver impactful solutions on the ground, and we are determined to walk the talk.

Our commitment to lead climate action by example is complemented by a similar dedication to take a science-based approach to tackling the issue with time-specific goals and measurable targets, made possible by the establishment of the carbon calculation division at MGTC in 2019 to verify all data relating to climate change in the country. Our role here at MGTC continues to evolve with the needs of the nation and our planet, which has been refined over the past few years to suit the present operating scenario.





To that end, a new logo, vision and mission for MGTC was unveiled in FY2021. The refreshed brandmark is designed to encapsulate the three core roles performed by MGTC, which are:



These three core functions inform the formation of our various programmes and initiatives, which are designed to systematically realise the identified focus areas of MGTC and the Government's ambition of net zero GHG emissions by 2050.

Catalysing Green Growth

To spearhead Malaysia's charge towards our GHG reduction target of 45% by the year 2030 in terms of the 'emissions intensity of our GDP, MGTC has been actively courting industry partners to mainstream the adoption of green technologies throughout 2021, instead of waiting for interested parties to approach us. We have collaborated with 40 organisations across all sectors and industries in FY2021 to help increase the adoption of green technology, which exceeded our partnership goals for the year at 200% of our target.

By going down to the ground to ensure corporate leaders gain a strong understanding of sustainability and how the triple bottom line of environmental, social and governance (ESG) can impact their businesses, the ensuing engagements and discussions have created an environment conducive for the adoption of greener processes that pave the way for the entry of their products and services into the MyHIJAU Mark Certification Program (MyHIJAU). MyHIJAU registered 631 application approvals for 2,149 products in FY2021, representing 86% of our target for the year.

The expanded list of close to 10,000 products on MyHIJAU as at FY2021 has gone a long way in fast-tracking the implementation of the Government Green Procurement (GGP) programme, which stipulates a growing yearly percentage of all government departmental spending on products and services listed on MyHIJAU, with 24% being the benchmark for FY2021 while aiming towards 100% by 2030. The total government spending on green products and services reached RM590 million in FY2021, achieving a whopping 197% of the target for GGP.

Beyond engagement with local industry players, MGTC continued to work closely with the Malaysian Government to incentivise and subsidise the adoption of green technology and climate-friendly initiatives, which have been incorporated into the Budget 2022 tabled by the Ministry of Finance. These include:

A total of RM450 million allocated to various ministries in implementing environment and biodiversity initiatives

Exemption of import duties, excise duty, and sales tax for electric vehicles (EV)

Introduction of a RM1 billion Low Carbon Transition Facility by Bank Negara
 Malaysia to encourage micro, small and medium enterprise (MSME) operators to go green

An annual allocation of RM70 million for all states under the Ecological Fiscal Transfer to preserve biodiversity to all states through results-based ecological criteria

These efforts will serve to support our ongoing Green Technology Financing Scheme (GTFS) 3.0 with a RM2 billion fund size, and the continuing tax incentives of the Green Income Tax Exemption (GITE) and Green Investment Tax Allowance (GITA) introduced in 2014 as part of the Government's agenda to support Sustainable and Responsible Investment (SRI) and green product and technology adoption in Malaysia. GITE provides tax incentives for MyHIJAU Mark service providers, while GITA is aimed at companies acquiring green technology assets listed under the MyHIJAU directory. The successful promotion of GITE and GITA uptake in FY2021 has resulted in 340 projects approved for these tax incentives, representing 113% of our FY2021 target for GITE and GITA.

Training and human capital development is also crucial to support the development of a green economy. Throughout FY2021, MGTC continued to carry out various training programmes to elevate the knowledge foundation of the industry, seeing increased participation in FY2021 at 2,314 participants and meeting 100% of our training target.

Accelerating Climate Action

As we look to accelerate climate change mitigation, hydrogen as a clean alternative fuel source will have a key role to play in helping hard-to-abate sectors, such as the automotive and energy industries which are heavily reliant on carbon-based fuels, to dramatically reduce their carbon footprint and support the achievement of Malaysia's GHG emissions reduction targets.

Unlike fossil fuels which emit harmful GHG when converted into energy, the only by-product of energy generated from hydrogen is water, making it an attractive option to decarbonise our economy. Hence, the preparation of The Hydrogen Roadmap is underway to chart Malaysia's journey towards realising its ambition to become a formidable Renewable Energy (RE) player in the future. The successful development of this high-potential green sector will be a significant contributor to the national GDP, seeing the expansion of supporting industries, new business potentials from low carbon solutions and the creation of new green jobs.

Given its importance to Malaysia's future, MGTC has ramped up its efforts in the development of green hydrogen generation, distribution, storage and application in FY2021, working on potential projects in Sarawak and Sabah to tap into this RE source.

We have established collaborations with Sarawak Energy Berhad (SEB), which launched Southeast Asia's first integrated hydrogen production plant and refuelling station in 2019, to facilitate the set-up of more hydrogen refuelling stations around the Bornean state. Among the engagements with SEB carried out in FY2021 are a visit to SEB's hydrogen production demonstration site to observe its hydrogen refuelling station, monitoring room, and fuel cell electric vehicle (FCEV) buses in operation, and also to the first multipurpose fuelling station in Darul Hana. Furthermore, MGTC has also entered into discussions with the Sarawak Economic Development Corporation (SEDC) to formalise the implementation of these projects. Neighbouring Sabah is also keen to explore opportunities for the state to become a producer of hydrogen by 2025, with the Sabah government signing a cooperation agreement with MGTC through its subsidiary Smart Sabah Corporation Sdn Bhd in November 2021, to conduct a feasibility study of the project.

The establishment of these hydrogen infrastructure will help to reduce the barriers to electric vehicle (EV) adoption and facilitate the attainment of the targets set out under the Low Carbon Mobility Blueprint (LCMB), which includes usage targets for EV and ramping up public transportation utilisation as the keys to realising Malaysia's carbon neutrality goals by 2050. Partnerships with the corporate sector will help to achieve greater adoption, implementation and uptake of electrification in transportation, and forms a core part of our strategy for low carbon mobility.

Towards that end, MGTC has signed several Memorandum of Understanding (MOU) of note with industry leaders in FY2021, including an MOU between Yinson Holdings Berhad and MGTC for our chargEV programme, which is Malaysia's leading provider of EV charging stations with over 403 charging stations nationwide. Leveraging Yinson's experience in logistics, sustainability governance, technology development and synergies from its diverse business divisions, and combining it with chargEV's existing infrastructure and leadership position, the MOU aims to accelerate the development of EV charging infrastructure in Malaysia to facilitate EV adoption among our citizens and businesses.

Likewise, the MOU signed with Perisind Samudra Sdn Bhd (PSSB), a government-linked company (GLC) of Johor, looks to formalise a development plan for the establishment of MGTC's "State Wide Green Zones" programme in the southern state. With this, Johor becomes the first state in the country to commit to the implementation of this strategic plan, which aims to stimulate economic growth through the "Low Hanging Fruit" identified for each district of Johor, with an emphasis on developing green technology infrastructure that has been outlined by MGTC such as the GGP, LCMB, the Low Carbon Cities Framework (LCCF) and the Green Advisory programme. In line with this agreement. MGTC also plans to stimulate investment for Johor through the Green Investment Program by injecting Foreign Direct Investment (FDI) and Domestic Direct Investment (DDI).

Towards that end, MGTC has signed several Memorandum of Understanding (MOU) of note with industry leaders in FY2021 Participation from state, district and municipal entities in MGTC's programmes provide much needed support to realise the nation's net-zero carbon goals, which we are charged with achieving. We are pleased to see continued uptake of the Low Carbon Cities 2030 Challenge (LCC2030C) of the LCCF by the municipal councils in FY2021, and the additional RM35 million in allocation for low-carbon initiatives through the establishment of the Geran Pemangkin Bandar Rendah Karbon (GeRAK) by the Ministry of Environment and Water (KASA). In FY2021, the grant was awarded to 141 local authorities who have demonstrated their commitment to these initiatives through policy preparation, collaboration and implementation.

Other actions to drive climate change mitigation carried out by MGTC in FY2021 include advocacy for energy efficiency. As the appointed certification body for the Energy Management Gold Standard (EMGS) in Malaysia, MGTC has successfully completed 65 assessments for EMGS in FY2021, equivalent to 100% of our set target for the year. The EMGS helps to equip companies with a Sustainable Energy Management System (SEMS), providing cost savings for EMGS adopters and training for their energy managers to enhance energy efficiency in their respective organisations.

Promoting Green Lifestyle Adoption

Armed with the understanding that our nation's environmental sustainability goals will not be achievable without first laying the foundation for mindset and behavioural change among the rakyat, MGTC has continued to prioritise initiatives to promote Green Community participation in FY2021 to inculcate greener lifestyles.

Chief among these is the Green Houses of Worship (Rumah Ibadat Hijau / Wakaf Masjid Hijau) programme introduced by MGTC and KASA in FY2022, where the mosques and houses of worship of other religions selected for the programme will become models of environmentally friendly social institutions. It focuses on reducing electricity and water consumption, particularly when performing ablution in mosques and suraus, waste reduction and responsible waste management, and encouraging the use of green products and green technologies to reduce the carbon intensity levels at the houses of worship.

RHB Islamic Bank became the first corporate company to fund initiatives under this programme, committing to the installation of Solar Photovoltaic (PV) panels and rainwater harvesting system at its surau upon signing an MOU with MGTC for the implementation of the Green Houses of Worship programme and Support of Green Growth Initiative in November 2021. KASA has set a target of identifying 100 green houses of worship for the programme by FY2022, with 12 already listed as at FY2021.

Aside from the Green Houses of Worship programme, initiatives to drive community adoption of sustainable lifestyles carried out in FY2021 comprise of the Fitness Challenge, Body Mass Index (BMI) Challenge, Virtual Health Talk, Virtual Environment Awareness Programme (VEAP) 1.0 during World Environment Day in June and VEAP 2.0 during Hari Alam Sekitar Negara in October, and the Active Mobility: Fun Ride with KASA and MGTC cycle-to-work campaign held also in October, which saw hearty participation from the community.

These activities are a key component of MGTC's ESG Programmes, which include the collection of RM5,000 worth of food and cash donation for the food bank, and the MGTC Friends Help Friends (FHF) Flood Relief effort where MGTC employees volunteered their time and effort to help clean up the homes of their colleagues affected by the December flood in Hulu Langat. A Jom Kitar Semula Programme carried out in FY2021 successfully collected 1.3 tonnes of recyclable materials from the community, helping to reduce the amount of waste generated while inculcating 3R (Reuse, Reduce and Recycle) habits among the participants. Together with the successful recertification of ISO 9001:2015 achieved with zero Non-Conformance Report (NCR) as part of our corporate governance initiative, MGTC is proud to record a 100% achievement of our ESG targets in FY2021.

Similarly, our Communication, Education and Public Awareness (CEPA) Programmes achieved RM1.6 million worth of PR value through our Social Media Outreach efforts, achieving 159% of our target for CEPA.

Other Green Promotion Programmes of the MGTC have also made good progress in the year under review, with the Dubai Expo 2020 and the IGEM 2021 recording RM3.6 billion and RM4.6 billion worth of potential business leads respectively in FY2021. It's important to note that the success of these two programmes goes beyond the value of foreign investment attracted to Malaysia. As the lead agency representing Malaysia at the Dubai Expo 2020 and the organiser of the yearly IGEM conference, the expanded network of climate solutions partners gained from these two events will contribute significantly to our knowledge and expertise going forward, fostering cooperation between the government and private sectors through these global platforms to deliver real climate action and sustainability impacts on the ground.

Performance in Retrospect and the Way Forward

From establishing a green hydrogen ecosystem in Malaysia to training the next generation of green workforce, I am convinced that MGTC is moving in the right direction. We are also seeing an increase in sustainability awareness among our stakeholders, who are beginning to focus on implementation and initiatives on the ground that directly impact businesses and communities. The collective efforts of our various Green Economy, Climate Action and Green Lifestyle initiatives have brought in RM8.8 billion in investment value, created 3,232 green jobs and mitigated 9,045 ktCO₂ in emissions throughout FY2021, bringing us another step closer towards the attainment of our national climate goals.



In terms of financial performance as a corporation, MGTC has achieved a revenue of RM51,786,788 in FY2021, exceeding our revenue target by 13%. This has translated to a profit after tax (PAT) for the financial year to the sum of RM546,944.00 in 2021, which is a significant increase from the RM94,084.00 PAT logged in the preceding year. The promising fiscal results complementing our strategic achievements bode well for our goal to become a self-sustainable corporation in the future.

2.0 MGTC 2025 STRATEGY HOUSE



Moving forward, we will redouble our efforts to strengthen and expand our engagement activities to reach more clients, focusing on further commercialising our operations to reduce and eventually eliminate our dependence on public funding to carry out our Government mandate to Accelerate Green Economy, Advance Climate Action and Advocate Green Lifestyle. This we will achieve by continuing to nurture win-win relationships with our industry and agency partners, promote green technology and green lifestyle adoption, catalyse green growth and green job creation, and facilitate further policy development and implementation in Malaysia, as well as further afield, to grow our green footprint.

Building on the momentum of our achievements in FY2021 and with the strong support of a passionate team here at MGTC, I have every confidence that the coming financial year will also prove to be a success. We are ambitious enough to exponentially increase our KPIs for FY2022 as we remain steadfast in our commitment to help Malaysia realise our Net-Zero GHG target for 2050 and be the Leading Partner for Green Growth and Climate Action.

Ts. Shamsul Bahar Mohd Nor

CHIEF EXECUTIVE OFFICER

Corporate Information



Prof. Dato' Ir. Dr. A. Bakar bin Jaafar PEng, FIEM, FASc (Chairman)

YBhg. Datuk Wira Jalilah binti Baba

YBhg. Datuk Hiswani binti Harun

YBhg. Dato' Leong Kin Mun YBrs. Encik Ismail bin Mohd Amin

YBrs. Encik Che Kodir bin Baharum

YBrs. Puan Hasifah binti Mohd Murtadza

YBrs. Encik Muhammad Zulhilmi bin Ahmad Chief Executive Officer Ts. Shamsul Bahar Bin Mohd Nor

Secretary

Shahirah Binti Mohd Anwar (LS0009909)

Nor Azrina Binti Zakaria (LS0009161)

Registered Office

Suite C-5-4 Wisma Goshen Plaza Pantai Jalan Pantai Baharu 59200 Kuala Lumpur

Auditors

Crowe Malaysia PLT Level 16, Tower C, Megan Avenue II 12, Jalan Yap Kwan Seng 50450 Kuala Lumpur, Malaysia

17

Principal Place of Business

No. 2, Jalan 9/10 Persiaran Usahawan Seksyen 9 43650 Bandar Baru Bangi Selangor Darul Ehsan

Principal Banker

CIMB Bank Berhad Serdang Perdana Ground Floor & Mezzanine No. 33, Jalan SP 2/1 Taman Serdang Perdana 43300 Seri Kembangan Selangor Darul Ehsan

Board of Directors

LEFT TO RIGHT

YBrs. Encik Ismail Bin Mohd Amin

Prof. Dato' Ir. Dr. A. Bakar Bin Jaafar PEng, FIEM, FASc (Chairman)

YBhg. Datuk Wira Jalilah Binti Baba

YBhg. Datuk Hiswani Binti Harun∟





LEFT TO RIGHT

YBrs. Puan Hasifah Binti Mohd Murtadza

YBrs. Encik Che Kodir Bin Baharum

YBhg. Dato' Leong Kin Mun

YBrs. Encik Muhammad Zulhilmi Bin Ahmad

Director's Profile



Prof. Dato' Ir. Dr. A. Bakar Bin Jaafar

PEng, FIEM, FASc CHAIRMAN

Date Appointed:

4 October 2019

Qualification:

- Bachelor's Degree (Hons) in Mechanical Engineering, University of Newcastle, NSW, Australia
- Master's Degree in Environmental Science, Miami University, Ohio, USA
- PhD in (Marine) Geography from the University of Hawaii, Manoa, USA

Experience:

Prof Dato' Ir. Dr. A. Bakar Jaafar has served the Government of Malaysia in various capacities since 1973. His career included stints as Factories and Machinery Inspector (1973-74), Staff Engineer of the US EPA Industrial Environmental Research Laboratory (1975-76), Principal Assistant Director (Water Quality), Environment Division, Ministry of Science, Technology and Environment (1976-84), Economic Planning Unit in the Prime Minister's Department (1984-85), Director of Operations at the Department of Environment Malaysia (DOE) (1985-86), DOE Deputy Director-General (Planning) (1987- 1989), and as the DOE Director-General (1990-1995). After his optional retirement, he continued to serve the Government of Malaysia as the Elected-Member of UNCLOS Commission on the Limits of the Continental Shelf for three terms from 1997-2002, 2002- 2007, and 2007-2012, at the UN Headquarters, New York.

- Director of UTM Ocean Thermal Energy Centre
- Professor at Perdana Centre, UTM Razak Faculty of Technology and Informatics
- Board of Director of public-listed and private companies, including Land & General Berhad, Enviro-LIFT Services Sdn Bhd, Novaviro Technology Sdn Bhd, AGV Environment Sdn Bhd, TUSB Sdn Bhd, and PAIP Berhad

YBhg. Datuk Wira Jalilah Binti Baba

DIRECTOR

Date Appointed:

4 July 2013

Qualification:

 Bachelor of Arts (Econ) Hons, University of Malaya, Malaysia

Experience:

Datuk Wira Jalilah is one of the top economists in the country, specialising in International Economics and Foreign Direct Investments (FDI). She was the Director General and Chief Executive Officer of Malaysian Investment Development Authority (MIDA), serving MIDA for over 30 years. During that time, she has led negotiations in attracting and evaluating various High Impact Investment Projects for Malaysia.

An articulate speaker with excellent public relations communications skills, she has been the lead speaker for Malaysia at various national and international conferences. She is one of the main personalities whose opinions and insights are sought after by international media on economics and investment related matters, especially in attracting FDI, tax and customs related matters, as well as project evaluations for the industry and the government's high-impact incentive packages. She is active in several industry associations, and she was the first woman to be appointed as the President of Malaysia International Chamber of Commerce (MICCI) for a full term of three years.

- Advisor and a Council member for the SME Association Malaysia
- Group Chairman of PKT Logistics Group Sdn Bhd
- Chairman of Xadacorp Sdn Bhd
- Chairman of Crewstone International Sdn Bhd
- Board of Director of Sapura Industrial Berhad



YBhg. Datuk Hiswani Binti Harun DIRECTOR

Date Appointed:

4 October 2019

Qualification:

- Diploma in Public Administration, National Institute of Public Administration (INTAN), Malaysia
- Bachelor of Science (Hons) (Zoology), University of Malaya, Malaysia
- Master in Public Affairs (International Environment Policy), Indiana University, Bloomington, USA

Experience:

Datuk Hiswani Binti Harun, a Malaysian, is the Board of Directors of Malaysian Green Technology & Climate Change Corporation (MGTC). She has served the Malaysian Government in various capacities since 1983. Her career includes stints as Director, Conservation and Environmental Management Division, Ministry of Science, Technology and the Environment, Senior Project Coordinator, Urban and Environmental Management Centre, National Institute of Public Administration (INTAN) and Deputy Secretary-General, Ministry of International Trade and Industry (MITI). She was also Malaysia's Permanent Representative to the World Trade Organisation (WTO) in Geneva, Switzerland. Her international experience includes Chair of the Services Working Group, ASEAN Regional Comprehensive Economic Partnership (RCEP); Chair, Committee and Negotiating Group on Trade and Environment, WTO, Geneva. She was also Malaysia's Chief Negotiator for RCEP, ASEAN-Australia-New Zealand FTA review mechanism, Head of Delegation for Malaysia- Vietnam Trade and Economic Partnership and Malaysia-Korea and Malaysia-Taiwan Trade Partnerships. She was also a member of the Malaysian Delegation to various international and regional conferences, under the auspices of the United Nations, ASEAN and APEC in the areas of sustainable development, economy and trade.

- Chairman, Board of Directors' Greentech Alliances Sdn Bhd (GTMA)
- Member, Assessment Panel for Civil Service Senior Management (JUSA)
- Member, Board of Trustees, Reef Check Malaysia (RCM)

YBhg. Dato' Leong Kin Mun

Date Appointed:

8 September 2020

Qualification:

- Bachelor of Surveying (Hons) in Property Management and Valuation, University of Technology Malaysia (UTM), Malaysia
- Gold Medallist and Vice Chancellor Award winner, UTM, Malaysia

Experience:

Dato' Leong is the Managing Director of Primer Capital Sdn Bhd, excelling in nurturing technology SMEs. He is also the Managing Director of Uni-Link Smart Venture Sdn Bhd, a company registered under the MOF for consultancy studies and research under Investment, Economic, Financial, Commercialisation, Commodities and Agriculture. He was recently appointed by the Vice Chancellor of the Universiti Tenaga Nasional (UNITEN) on the Advisory Panel (Chair of Renewable Energy 2022 – 2025), an initiative funded by the AAIBE from the Ministry of Energy and National Resources (KeTSA).

Given his extensive knowledge and in-depth experience in the field of green finance solutions, biomass commercialisation and venture capital, he was appointed by the Sustainable Energy Development Authority (SEDA) to helm two national-level consultancy studies on up-scaling financing and developing viable business cases for Low Carbon Public Transportation (Bio-CNG and electric bus), and developing green technology business plans for Local Authorities and Green SMEs.

Currently the President of Malaysia Biomass Industries Confederation, he previously served as the Technical Advisor to the European Union (EU) – Malaysia Biomass Sustainable Production Initiative (Biomass-SP). He had served as the Chairman – Panel of Experts (Biomass) 2019 – 2021 for the Malaysia Rubber Council's (MRC) Automation and Green Technology Fund established by the MRC. Prior to that, he had contributed as the Board Member of Environmental Preservation and Innovation Centre (EPIC) 2017 - 2021, a Centre of Excellence for Waste Management under the purview of CENVIRO and Khazanah Nasional Bhd.

He is passionate about making a positive change and specifically, contributing toward realising the National Climate Change Agenda and the Green Growth Agenda in Malaysia's ambitious 5-year Plan. In wishing to document and impart his knowledge to keen scholars, he found time to author various literature across the field of biomass and green finance, and have honed his skills as an ESG investment guru. In the last decade, he has been an esteemed invited speaker at over 100 local and international conferences and has built up a strong network of key stakeholders along the various supply chains of the biomass industries.

- Managing Director, Primer Capital Sdn Bhd
- Managing Director, Uni-Link Smart Venture Sdn Bhd
- President, Malaysia Biomass Industries
 Confederation
- Co-Chair, Inter-University Industry Network Malaysia Biomass to Fuel & Biomaterial (IUINMB2FM)
- Advisory Panel, Chair of Renewable Energy 2022 – 2025, Universiti Tenaga Nasional (UNITEN)
- Industry Advisory Panel (IAP), Xiamen Malaysia University (XMU) (2019/2020, 2022/2023)





YBrs. Encik Ismail Bin Mohd Amin DIRECTOR

Date Appointed:

14 October 2021

Qualification:

- Diploma in Statistic, Universiti Teknologi MARA (UiTM), Malaysia
- Bachelor of Science in Business Administration from University of Tulsa Oklahoma, USA
- Graduate Certificate in International Management, University of Melbourne, Australia

Experience:

Backed by 35 years of working experience with PETRONAS, MAS and Public Services Commission of Malaysia (SPA), Encik Ismail has accumulated a wide range of skills and knowledge in the areas of programming analysis, business support, Management Information System (MIS), Information Communication Technologies (ICT), stakeholder management, and employee relations. He was instrumental in the study of the socioeconomic impact and livelihood management of the villages displaced by the development of the PETRONAS Refinery and Petrochemical complex in Pengerang. He involved in business development and new ventures at MIE Industrial Sdn Bhd, an Engineering, Procurement and Construction (EPC) company, which focus on plant maintenance, renewable energy such as solar, biomass, mini hydro, and the businesses of hotels and resorts. He played important roles in setting up a new subsidiary; MIE Agro Sdn Bhd, which focused on agriculture, farming and plantations.

- Board of Directors' Greentech Alliances Sdn Bhd
- Advisor, MIE Industrial Sdn Bhd

YBrs. Encik Che Kodir Bin Baharum

Date Appointed:

04 January 2022

Qualification:

- Diploma in Public Management, National Institute of Public Administration (INTAN), Malaysia
- Diploma in Multilateral Environmental Agreements, University of Eastern Finland, Finland
- Bachelor (Hons.) in Geography, National University of Malaysia (UKM), Malaysia
- Master's in Management (Environment), UKM, Malaysia

Experience:

As a representative from the Economic Planning Unit (EPU) in the Prime Minister's Office, Encik Che Kodir's extensive knowledge on environmental matters and public management have made him the ideal fit to coordinate the implementation of policies and strategies for environmental management and conservation of natural resources to achieve sustainable development.

He brings with him a wealth of experience in administrative and leadership roles in various Government segments, including the Ministry of Housing and Local Government, Office of the Perak State Secretary, and State Economic Planning Unit (UPEN) of Perak Darul Ridzuan. He has held key positions in other ministries, such as the Principal Assistant Secretary and Deputy Under Secretary of the Environment Management and Climate Change Division in the Ministry of Natural Resources and Environment (NRE), Under Secretary of the Human Resources Management Division at NRE, Deputy Director General of the National Anti-Drugs Agency (NADA) and most recently as Director of Environment and Natural Resources Economic Division (ENRED).

Notably, he was selected to participate in the JPA-BMCC Management Development Attachment Programme jointly organised by the Public Service Department of Malaysia and the British Malaysia Chamber Commerce in 2011. This includes serving at HSBC Bank Malaysia at its headquarters in Kuala Lumpur and HSBC Bank Limited at its headquarters in London, as part of the Business Module organised by the University of Nottingham, Malaysia Campus, bringing real world business insights from the private sector to help shape public policy.

Current Appointment & Directorship:

 Director of the Environment and Natural Resources Economic Division, EPU



YBrs. Puan Hasifah Binti Mohd Murtadza DIRECTOR

Date Appointed:

15 March 2022

Qualification:

- Bachelor of Laws, International Islamic University Malaysia (IIUM), Malaysia
- Master in Business Management, University Putra Malaysia (UPM), Malaysia

Experience:

Pn. Hasifah's career in the public sector began in 2003, when she was appointed as an Administrative and Diplomatic Officer and placed as an Assistant Director in the Maritime Security Policy Unit, National Security Division in the Prime Minister's Department upon graduation. She later transferred to other divisions within the Prime Minister's Department, such as the Directorate of Organizational Management (Services) in the National Security Division and FELDA Regulatory Unit, where she gathered valuable administrative experience. Following a successful stint at the Department of Islamic Development Malaysia as the Chief Assistant Director, Pn. Hasifah was awarded the Federal Training Prize Full Paid Study Leave (CBBPHLP) to pursue the Master of Business Management course at UPM.

Upon completion of her higher studies, she entered the service of the Ministry of Finance (MOF), where she held the position of Chief Assistant Secretary within the Public Asset Management Division, before progressing to Remuneration Policy, Public Money and Management Services Division. She was later appointed Chief Assistant Director of Budget at the National Budget Office of MOF, and was seconded by the MOF to serve as a Director of MGTC.

Current Appointment & Directorship:

 Chief Assistant Director of Budget at the National Budget Office, MOF

YBrs. Encik Muhammad Zulhilmi Bin Ahmad DIRECTOR

Date Appointed:

21 April 2022

Qualification:

- Diploma in Public Administration, National Institute of Public Administration (INTAN), Malaysia
- Bachelor of Arts (Hons.) in Accounting and Finance, University of North London, UK
- Master in Business Administration (Finance), Graduate School of Management, UPM, Malaysia

Experience:

Throughout his two-decade tenure in the Ministry of International Trade and Industry (MITI), En. Zulhilmi has been primarily involved in developing industry policies, implementing strategies and processing tax incentives for several sectors under the purview of MITI. This includes the iron and steel, automotive, textiles and apparels and selected services sectors such as logistics, health and tourism sub sectors, through his roles in the Sectoral Policy Division, Industry Services Division and the Services Sector Development Division of MITI. He has progressed from the position of Assistant Director to Principal Assistant Director and subsequently Senior Principal Assistant Director between 2001 to 2013, before being appointed as the Economic Counsellor of MITI based in Jakarta, where he provided advisory, facilitated business, monitored industry policies in the host country and recommended related strategies. In 2017, En. Zulhilmi was promoted to the position of Director for the Export and Import Control Section at MITI, where he administered and managed the issuance of export and import licenses under the ministry, before helming his current position as Director of MITI's Industrial Development Division.

His responsibilities in this latest role are centred on the development and implementation of policies for the automotive, electrical and electronic, machinery and equipment, shipbuilding and ship repair sectors, and implementation of the Industry4WRD : National Policy on Industry 4.0. He is also MITI's representative on the Board of MGTC.

Current Appointment & Directorship:

• Director, Industrial Development Division, MITI



27

Leadership Team

LEFT TO RIGHT

Ts. Shamsul Bahar Bin Mohd Nor CHIEF EXECUTIVE OFFICER (CEO) OF MGTC

Elina Binti Jani CEO OF GREENTECH MALAYSIA ALLIANCE SDN BHD (GTMA)

Kamaradzaman Bin Mohd Bakri SENIOR DIRECTOR OF GREEN GROWTH GROUP

Norhasliza Binti Mohd Mokhtar SENIOR DIRECTOR OF CLIMATE ACTION GROUP



MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION



LEFT TO RIGHT

Noor Azmin Azali Bin Ramli SENIOR DIRECTOR OF LEGAL AND SECRETARIAL

Huzaimi Nor Bin Omar SENIOR DIRECTOR, TECHNOLOGY SOLUTIONS GROUP

Tengku Sharifah Hanif Binti Tengku Hamzah DIRECTOR OF FINANCE

Siti Hursiah Binti Ibrahim DIRECTOR OF HUMAN RESOURCE – TALENT DEVELOPMENT AND ADMINISTRATION DIVISION

Saiful Adib Bin Abdul Munaff DIRECTOR OF CORPORATE STRATEGY

Leadership Team's Profile



Ts. Shamsul Bahar Bin Mohd Nor

CHIEF EXECUTIVE OFFICER (CEO) OF MGTC

Roles & Responsibilities:

He is responsible for directing and overseeing MGTC's overall operational policies, initiatives, and goals to spearhead the country's climate change agenda and to drive sustainable economic development.

Qualification:

- Bachelor's degree in Mechanical Engineering, University of Portland, USA
- Bachelor's degree in Applied Physics with a minor in Mathematics, Linfield College, USA
- Post Graduate Diploma in Business Administration, University of Leicester, UK
- Registered professional member of the Malaysia Board of Technologists (MBOT), Malaysia

Experience:

En. Shamsul has over 30 years of experience in the corporate sector, culminating in executive leadership roles such as the Managing Director of Syngas Renewable Energy and the Executive Director of Saham Utama Sdn Bhd before joining MGTC.

He was also the CEO of Polymal Corporation, where he led the turnaround of the company from successive losses to accumulated profit after tax of RM4 million within the fourth year, and effectively repositioned Polymal Corporation into a major manufacturer and producer of extruder polymer in South East Asia.

Other highlights of his career include the invention of a Renewable Energy system that converts waste plastics into commercial ultra-low sulphur diesel oil (EN590), for which he was awarded patent approval in 40 countries, MOSTI's Innovation of the Year Award, MGTC's Catalyst Award, and the United Nation's Global Cleantech Innovation Award for Green Technology Renewable Energy Systems.

30

Elina Binti Jani

CEO OF GREENTECH MALAYSIA ALLIANCE SDN BHD (GTMA)

Roles & Responsibilities:

She directs and oversees the overall operational policies, initiatives and goals of GTMA, MGTC's wholly-owned subsidiary, focusing on commercially driven programmes and seeking out profitable ventures through smart partnerships and collaborations to generate income for MGTC.

Qualification:

- Master of Science in Bioprocess Engineering (Hons.), University Malaya, Malaysia
- Bachelor of Science in Microbiology (Hons.), University Malaya, Malaysia

Experience:

Pn. Elina has over 18 years of experience in microbiology, sectoral investments, business development, strategic communications and strategic planning, with the last 5-years spent serving MGTC in various capacities focusing on Green Promotion before helming GTMA as the CEO.

Prior to her career at MGTC, she was Head of Division for Strategic Planning at Felda Wellness Corporation Sdn Bhd from 2015 to 2016, and the Vice President of Malaysian Biotechnology Corporation Sdn Bhd before that. Elina has delivered more than RM15 billion worth of potential Investments for Malaysia's Green Technology Sector from 2016-2018 from various projects in renewable energy, energy efficiency, green buildings, low carbon mobility, waste, sustainable water and sustainable manufacturing of green products.

She has personally engaged and nurtured hundreds of companies in the green technology sector, and involved in changing the mindset of hundreds more companies originally not in the green space, to pursue sustainability for the future. She has also personally engaged and nurtured hundreds of green products and services for public and private green purchasing in Malaysia since 2016. In addition to that, Elina has been directly involved in human capital development training programs for the green technology sector which has produced over 600 participants from the existing workforce, and 300 youths through the human capital development programs for the schools and universities all over Malaysia. 31



Kamaradzaman Bin Mohd Bakri

SENIOR DIRECTOR OF GREEN GROWTH GROUP

Roles & Responsibilities:

En. Kamaradzaman is responsible for planning, directing and overseeing the operations of the Green Growth Group, keeping an eye on proper management of resources during the implementation of operational policies and plans. He is tasked with increasing the development and production of green products and services, expanding the availability and reach of suitable and sufficient green financing and targeted green incentives, and developing the required green workforce to support the transition to a green economy.

Qualification:

- Bachelor Economics in Public Policy, Universiti Kebangsaan Malaysia (UKM), Malaysia
- Diploma in Accountancy, Ungku Omar Polytechnic, Malaysia

Experience:

En. Kamaradzaman has utilised his over 20 years of experience in the banking sector to support various green financing and tax initiatives of MGTC, overseeing programmes such as the MyHIJAU mark recognition programme, green purchasing initiative, and promotion of green investment, as well as the various trainings offered in relation to energy and energy efficiency sector. He was instrumental in setting up the RM1 billion RE/EE Fund and the RM28 million RE Business Fund to spur the development of renewable energy and energy efficiency in the country.

Prior to his appointment to MGTC, he served in Asia Equity Research Ltd, providing corporate finance consultancy services to Malaysian and Indonesian clients who invested in renewable energy sectors. He has completed numerous crossborder financing projects involving foreign and local government and private entities in various sectors including construction, transportation, hotel and manufacturing, and specialises in project financing of independent power plant, renewable energy and waste to energy project.

He is particularly exposed to financing projects involving Indonesia, Philippines, Thailand, Bangladesh, Cambodia and Vietnam, and has completed various research papers on industries and countries related to Middle East and Africa.

RT 202

Norhasliza Binti Mohd Mokhtar

SENIOR DIRECTOR OF CLIMATE ACTION GROUP

Roles & Responsibilities:

She directs and oversees the operations of the Climate Action Group, ensuring the effective implementation of operational policies and plans. This includes accelerating the transition of the nation towards low carbon cities, working with local authorities and communities to inculcate green lifestyle practices, and facilitating the measurement, reporting and verification of GHG emissions of Corporates and SMEs.

Qualification:

- Bachelor of Business Administration, International Islamic University Malaysia (IIUM), Malaysia
- Master's in Business Administration (Strategic Management), University of Technology Malaysia (UTM), Malaysia
- Alumnus of International Visitor Leadership Program (IVLP) – U.S. Department of State's premier professional exchange programme

Experience:

Throughout her 21-year tenure at MGTC, Pn. Norhasliza has been involved in various key initiatives of the organisation. She has led the development of the Green Technology Master Plan, Green Tax Incentives (Investment Tax Allowance & Income Tax Exemption), the study on Clean Development Mechanism and GHG Inventory in 2014 to 2015, and oversaw the implementation of ASEAN Energy Management Scheme (AEMAS) Energy Management Gold Standard.

She has also led the development of various states' green initiatives such as the Kedah Green Agenda and Selangor Green Action Plan, and assisted organisations in going green by developing their respective green roadmap and action plans.

Pn. Norhasliza has also served as the Project Director of the Government Green Procurement Project, the Energy Audit Grant for Industrial Sector, and the MyRelamp Project – a Government Green Procurement Pilot Project for Local Authorities, focusing on lighting energy efficiency in supporting the Low Carbon Cities Initiative.





Noor Azmin Azali Bin Ramli

SENIOR DIRECTOR OF LEGAL AND SECRETARIAL

Roles & Responsibilities:

He is entrusted with handling all legal affairs including matters of governance, integrity, and compliance with statutory requirements under the Companies Act. He serves as a liaison officer to the Directors and corporate members, providing advice, guidance and recommendations on disputes and issues which require the interpretation of law.

Qualification:

• Bachelor of Laws (LLB) (Hons.) Universiti Kebangsaan Malaysia (UKM), Malaysia

Experience:

En. Noor Azmin has 15 years' of experience as a corporate in-house legal advisor, during which he established various types of standard operating procedures (SOPs), policies manuals and templates of documents, forms, letters, memorandum and agreements on business operations, joint ventures, collaborations, investment and fund utilisations. His experience encompasses protection of innovations, IP licensing, technical/engineering service agreements for technology acquisition, and the various stages from innovations' development to commercialisation; and monetisation of medical, pharmaceutical and industrial applicable products and hardware.

He is well versed in the various stages of technology acquisition, from development to commercialisation and monetisation of medical, pharmaceutical and industrial applicable products and hardware, and has established various standard operating procedures (SOPs) and IP policies, manuals, templates and other types of documents pertaining to business operations, collaborations and grant utilisation.

A proponent of continuous improvement, he often shares his legal and secretarial knowledge through workshops and legal clinics, and have introduced special modules to address the needs of various internal departments. He is also experienced in the organisation of Board and committee meetings and annual general meetings, and the preparation of annual reports, working closely with external company secretaries and internal departmental functions to ensure all necessary documentation is provided.

He was also a legal practitioner from his day of admission as the advocates and solicitors of the High Court of Malaya in 2000 until his entrance as an in-house legal counsel in 2007.

Huzaimi Nor Bin Omar

SENIOR DIRECTOR, TECHNOLOGY SOLUTIONS GROUP

Roles & Responsibilities:

He is responsible for planning, directing and overseeing the operations of the Technology Solutions Group to support the adoption of the latest green technology solutions and innovations in the areas of energy, hydrogen economy, circular economy and water.

Qualification:

 Bachelor of Science in Mechanical Engineering, Vanderbilt University, USA

Experience:

En. Huzaimi has been actively involved in the automotive industry since 2002. His illustrious career includes various leadership roles in organisations such as Aiwa Electronics, Proton, Lotus UK, First Energy Networks and the Tan Chong Group, with responsibilities ranging from engineering, supply chain management, feasibility studies, business development and others, before joining MGTC in 2016.

He has been a proponent of electric mobility since 2010, and was instrumental in advocating for the transition into low carbon mobility through the development of national EV charging infrastructure and other energy efficient transport initiatives.

Tengku Sharifah Hanif Binti Tengku Hamzah

DIRECTOR OF FINANCE

Roles & Responsibilities:

She manages the daily operation of the accounting department and oversees all financial activities of MGTC. Her responsibilities include revenue reporting, budgeting, disbursing funds to departments, managing risks, implementing policies, and improving financial processes at MGTC.

Qualification:

- Bachelor's degree in Accounting, Universiti Kebangsaan Malaysia (UKM), Malaysia
- Diploma in Accounts, Polytechnic Kota Bharu, Malaysia

Experience:

Tengku Sharifah has over 20 years of experience in the field of finance, overseeing the accounting, financial planning, performance analysis and fiscal reporting in various organisations prior to joining MGTC.

Armed with solid accounting knowledge and a keen awareness of the financial position of the companies in her charge, Tengku Sharifah plays a crucial role in the organisations she serve, applying her knowledge in financial analysis, budgeting and forecasting to support their strategic development and oversee the audits and internal control processes.

She is proficient with financial management software, and stays up to date with the changes in local and international financial standards and financial reporting requirements.

Siti Hursiah Binti Ibrahim

DIRECTOR OF HUMAN RESOURCE - TALENT DEVELOPMENT AND ADMINISTRATION DIVISION

Roles & Responsibilities:

As Head of Talent Development & Administration (TDA), Puan Siti is responsible for developing and executing human resource strategy in support of the overall business plan and strategic direction of the organisation, specifically in the areas of succession planning, talent management, change management, organisational and performance management, training and development, and compensation. The Head of TDA provides strategic leadership by articulating HR needs and plans to the leadership team, stakeholders and the board of directors.

Qualification:

- Bachelor of Human Resource, Open University Malaysia, Malaysia
- Diploma of Human Resource, Universiti Malaya, Malaysia
- Diploma in Banking, Universiti Teknologi Mara, Malaysia

Experience:

Pn Siti comes over from the oil&gas and manufacturing industry with almost 20 years of experience in a full range of human resource functions. Her expertise includes HR Strategy, HR Strategic Management, talent and leadership development.

She is passionate about nurturing a new generation of green-conscious talents to support MGTC's growth and sustainability via people development and capacity building with the primary aim for MGTC to be one of the great places to work in Malaysia,



Saiful Adib Bin Abdul Munaff

DIRECTOR OF CORPORATE STRATEGY

Roles & Responsibilities:

En. Saiful is responsible for the development and implementation of MGTC's annual and long-term corporate plans and strategies, directing and overseeing the its business programmes to ensure alignment with MGTC's Strategic Thrusts. This involves strategy formulation, collaboration with both internal and external stakeholders, developing solution proposals for clients to secure funding, and leading cross-functional teams in the development of business-wide operational strategies.

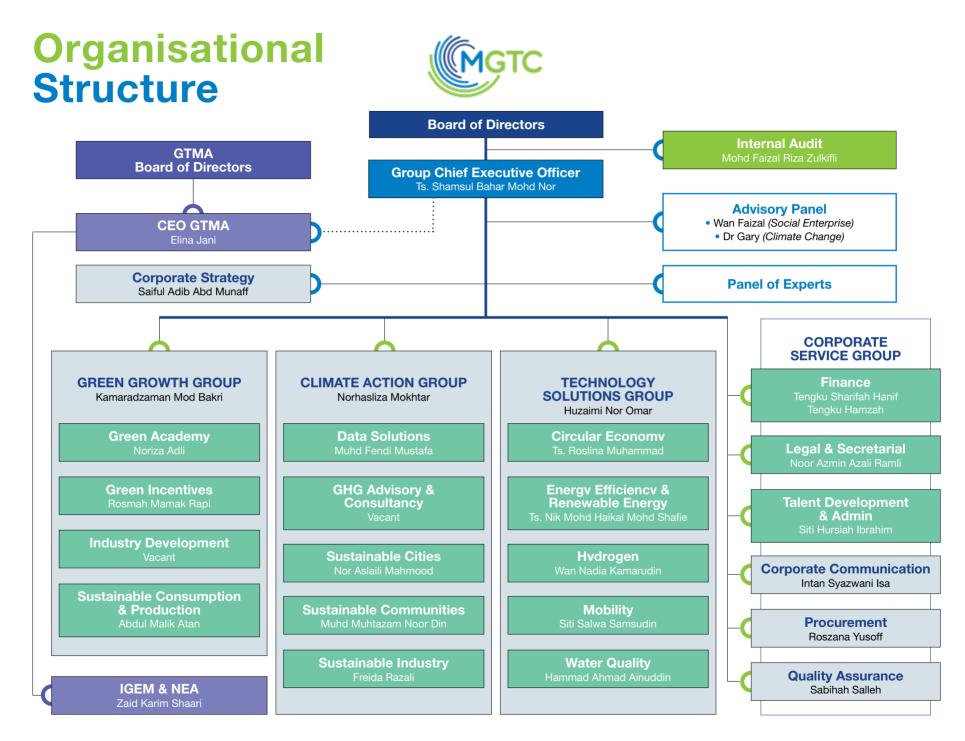
Qualification:

- Bachelor of Engineering (Hons.) in Electrical & Electronics, Universiti Teknologi PETRONAS (UTP), Malaysia
- Masters in the Built Environment (Sustainable Development), University of New South Wales (UNSW), Australia

Experience:

En. Saiful has over 10 years of experience in the area of sustainable innovation across varied disciplines. He is keen in supporting the establishment and development of sustainable and innovative solutions to improve the living conditions in Kuala Lumpur, which will function as a catalyst for social entrepreneurship and social innovation. This has seen him take active leadership of the Low Carbon Cities initiative, aligning it to the strategic direction and goals set in the Green Technology Master Plan and Low Carbon Cities Framework (LCCF) and its associated projects.

His experience in engineering design, procurement, construction and commissioning of all instrumentation and control (I&C) systems and devices was utilised to bring the project to fruition, helping to establish the framework for I&C commissioning such as documents, checklists, scheduling and prioritisation of activities, manpower planning, material management and other resources and tools.



Corporate Social Responsibility (CSR)

Social responsibility empowers employees to leverage the corporate resources at their disposal to do good. **Formal corporate** social responsibility programmes can also boost employee morale and hence lead to greater productivity within the workforce. It also serves to cultivate a positive brand recognition, conducive work environment and healthier community to live and work in.

MINI FOODBANK CONTRIBUTION

The MCO had impacted communities greatly, with some households experiencing financial difficulty for even basic food essentials. Upon understanding their plight, MGTC established an MGTC Mini Foodbank, with a call going out for assistance for deserving households in the surrounding communities.

With support from generous contributors, a total of RM5,350 was collected and used to procure food items. This was then packaged and distributed to a total of 226 deserving beneficiaries in communities around Bandar Baru Bangi and Kajang.



INCREASING CHILDREN'S ACCESS TO EDUCATION:

Donation of Tablets to Children of Staff to facilitate Pengajaran dan Pembelajaran Di Rumah (PdPR)

The COVID-19 pandemic led to schools being closed for an extended period, resulting in students transitioning to a home-based learning approach to manage their studies. Sadly, many schoolchildren were lagging in their pace due to their inability to afford electronic digital devices for remote learning.

Realising that this was also the situation in some of MGTC's own staff's households, MGTC initiated a Friend Help Friend Fund (FHFF) to alleviate their burden. With contributions from MGTC as well as from staff members themselves, a total of five electronic tablets were purchased and donated to five deserving staff members.

MGTC extends heartfelt wishes to the children in continuing their educational progress during these difficult times.

POST-FLOOD RELIEF FOR COMMUNITY

The unprecedented flooding experienced in various parts of the country in December 2021 left many of its victims in dire straits. Having to rebuild their lives, they faced the daunting task of cleaning-up.

Some staff of MGTC living in Hulu Langat and Dengkil were also affected by this flood and this news galvanised MGTC's FHFF Volunteer Squad to swing into action to assist them in their cleaning efforts, as well as assisting with donations of essential food items.



Strategic Thrusts Overview

Green technology is an overarching term that describes the use of technology and science to reduce human impacts on the natural environment. **Green technology** encompasses a wide area of scientific research, including energy, atmospheric science, agriculture, material science and hydrology.

Malaysian Green Technology and Climate Change Corporation (MGTC), as the lead agency of the government in green technology, is tasked to drive this forward for the country.

It is governed by 3 integral components with the objectives below:



To conserve and minimise impact on the environment



To enhance national economic development through the use of **Green Technology**



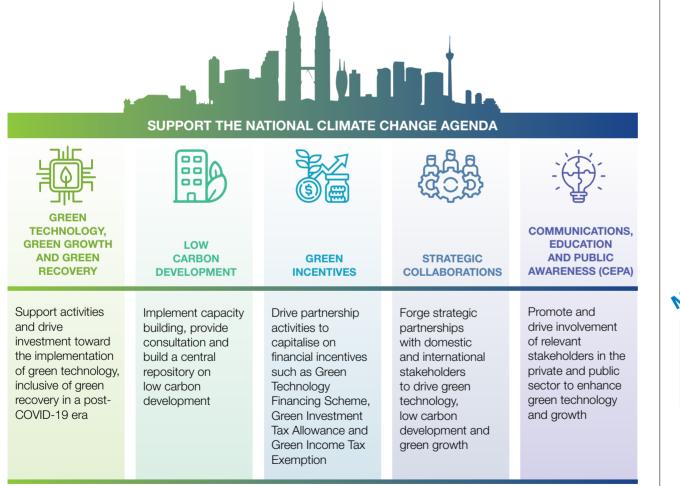
To improve the quality of

life for all

GOVERNMENT MANDATE

On 24 February 2021, the Malaysian Cabinet issued a mandate to MGTC, with the intent to strengthen the governance of the nation's Climate Change efforts.

In this mandate, the roles and responsibilities of MGTC was further crystalised to reflect the following:



For full details, please refer to the Appendix section of this report.

VISION AND MISSION

In 2021, taking into consideration the current developments both locally and internationally, as well as the roles and functions of MGTC, enhancements were made to MGTC's vision and mission. This makes MGTC's vision and mission statements evergreen, universally applicable, easily embodied by all staff and easily understood by all stakeholders.



STRATEGIC THRUST

Acting as a catalyst to achieve Malaysia's green growth aspiration, MGTC has developed a 5-prong strategic thrust, as outlined below:



UNITED NATIONS SUSTAINABLE **DEVELOPMENT GOALS (UNSDGS)**



The UNSDGs is a concerted global call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

It crystallises what needs to be done, providing clear guidelines and targets for countries to align according to their own priorities and the environmental challenges they face, as a nation and collectively.

Malaysia's green technology agenda resonates well within the purview of the UNSDGs, covering its 17 interlinked global goals.



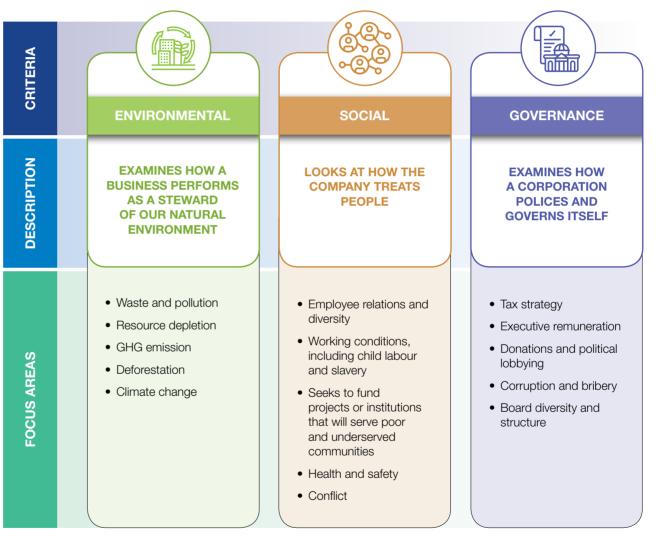
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

ESG, a generic term used in capital markets, are the three main factors that socially responsible investors measure when deciding whether to invest in a business.

Such investors conduct due diligence on businesses using ESG criteria to evaluate their behaviour as well as determining their future financial performance.

As a subset of non-financial performance indicators, ESG covers ethical, sustainable and corporate government issues. This ensures there are processes in place to ensure accountability and to manage its carbon footprint.

ESG factors play a part in the performance of investments, as shown by the rapidly growing number of investment funds which incorporate ESG factors. By considering ESG, investors may be able to deliver better riskadjusted returns.



STRATEGIC THRUST PROMOTION AND PUBLIC AWARENESS



To encourage a green mindset and promote the adoption of sustainable energy practices, MGTC engages the public by recognising excellence in green technologies and providing opportunities for people to experience the environmental benefits of green solutions.

AWARDS AND RECOGNITION

Over the decade, MGTC has collectively facilitated efforts in the advancement of the green technology mindset, advocating for accelerated adoption of sustainable development and promoting recognition for achievements in the green economy.

NATIONAL ENERGY AWARDS



The National Energy Awards (NEA) is a part of the government's strategic efforts to promote public

acceptance and industry participation in the sectors of energy conservation, energy efficiency and renewable energy technologies. Established in 2018, the NEA is a significant platform for recognising and honouring Malaysia's industry leaders in the green technology products and services sector and the energy services sector for adopting and implementing sustainable energy practices in their organisations.

 The NEA is organised annually by the Ministry of Energy and Natural Resources (KETSA) to promote healthy competition among Malaysian businesses by establishing higher precedents, benchmarks and standards against which businesses are evaluated.
 Since its inception, the NEA has attracted over
 645 organisations, of which 94 were Malaysian organisations at the forefront of expanding the nation's sustainable energy sector. There were 77 NEA winners and 17 special submissions receiving the much-coveted accolade.

In addition to the NEA, 54 Malaysian companies have gone on to represent the country, winning awards at the ASEAN Energy Awards. The AEA 2021 awards were presented to 12 Malaysian organisations in recognition of the best efforts and initiatives by industrial users, commercial and government entities in the adoption of renewable energy (RE) and energy efficiency practices. This has raised the profile of Malaysia's home-grown expertise across the region in the areas of green buildings, energy management for buildings and industry, energy efficient buildings, renewable energy and excellence in energy management by individuals.

NEA IMPACT

The NEA's value proposition to stakeholders consists of its impact on:

- Recognising the best implemented practices, solutions in energy management and efficiency that showcase innovative, cost-effective and exemplary measures
- Positioning Malaysia as one of the primary hubs in the renewable energy and energy efficiency sectors in Southeast Asia
- Transforming Malaysia's energy landscape to be more efficient and sustainable
- Promotion of sustainable energy practices to all industry sector

NEA AWARD CATEGORIES

The NEA encapsulate two broad award categories:

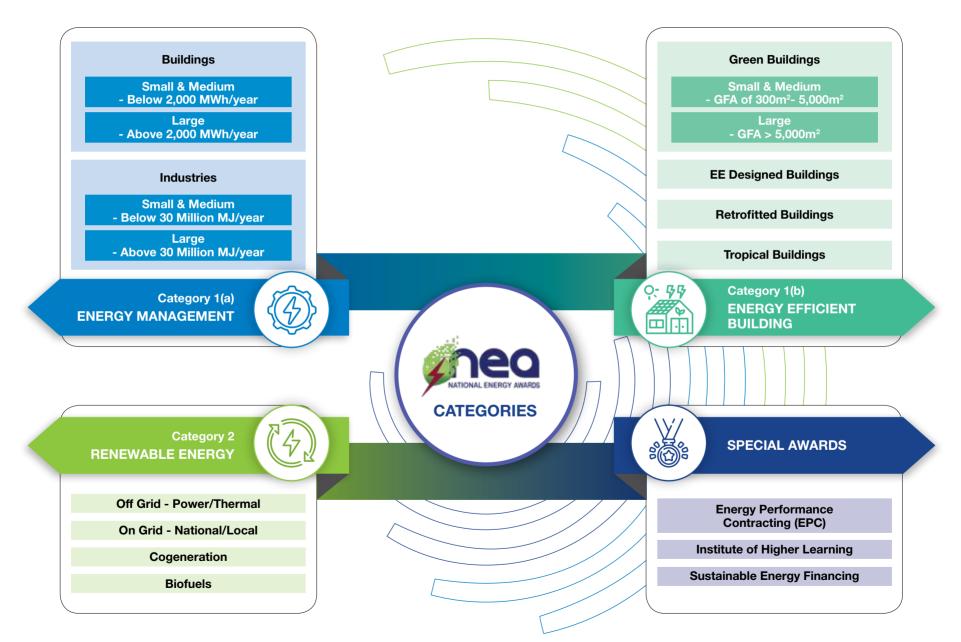
1. Energy Efficiency (EE):

Recognising excellence in energy management and energy efficiency in commercial and industrial buildings

2. Renewable Energy (RE):

Encompassing on-grid and off-grid generation of energy from different renewable sources

In addition, Special Awards are introduced to recognise Malaysia's best practices as well as recognise and honour the efforts made by other sectors and industries in embracing the adoption of sustainable energy practices in their operations.



2021 NEA AWARD WINNERS

The award winners for NEA 2021 are listed below:



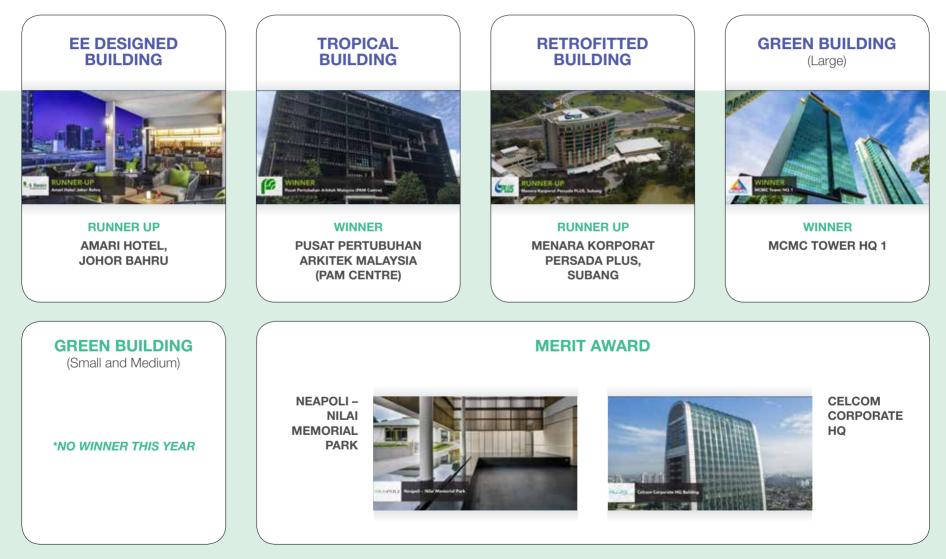
CATEGORY 1 (A): ENERGY MANAGEMENT (EM)



TAMPOI BRANCH

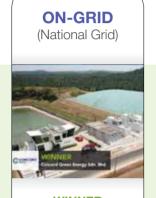


CATEGORY 1 (B): ENERGY-EFFICIENT BUILDING (EE)





CATEGORY 2: RENEWABLE ENERGY



WINNER CONCORD GREEN ENERGY SDN. BHD.



RUNNER UP KERIAN ENERGY SDN. BHD.





WINNER TONIBUNG



RUNNER UP PEKAT SOLAR SDN. BHD.





WINNER RAMATEX TEXTILES INDUSTRIAL SDN, BHD,



RUNNER UP ECO POWER SYNERGY SDN. BHD.

OFF-GRID (Power)



WINNER TELEKOM MALAYSIA BERHAD



RUNNER UP IEEE CURTIN MALAYSIA, STUDENT BRANCH

RE COGENERATION



WINNER IOI BIO-ENERGY SDN. BHD.





WINNER BAC BIOMASS KG. GAJAH SDN. BHD.



RUNNER UP PETRON MALAYSIA REFINING AND MARKETING SDN. BHD.

SPECIAL AWARDS

ENERGY PERFORMANCE CONTRACTING (EPC)



WINNER OWNER: BESI APAC SDN. BHD. ESCO: COFRETH (M) SDN. BHD.



RUNNER UP OWNER: HOSPITAL TUANKU AMPUAN NAJIHAH, KUALA PILAH ESCO: MEDIVEST SDN. BHD.

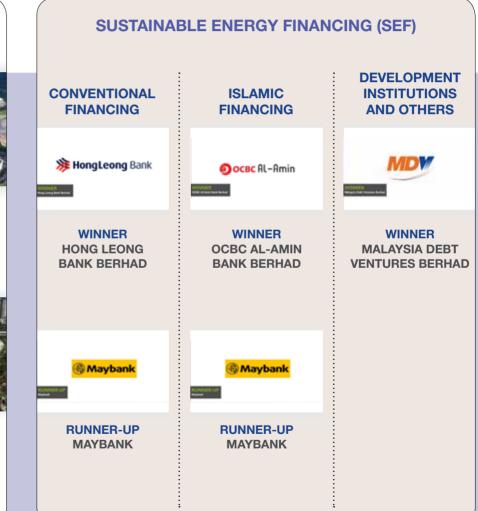
INSTITUTES OF HIGHER LEARNING



WINNER UNIVERSITI TEKNIKAL MALAYSIA, MELAKA



WINNER MONASH UNIVERSITY MALAYSIA



ASEAN ENERGY AWARDS (AEA) CATEGORIES

Organised by the ASEAN Centre for Energy (ACE) in collaboration with the ASEAN Specialised Energy Bodies (SEBs), the AEA seeks to raise awareness of best practises in energy efficiency and conservation in buildings, industries and energy management, as well as renewable energy and, coal and, clean coal technology. It also aims to inspire greater participation from private sectors in advancing clean energy transition, resilience and sustainability technologies.



MALAYSIAN WINNERS AT AEA 2021

Energy Efficiency Awards						
CATEGORY			RESULT	PROJECT/BUILDING		
Energy Management in Buildings	Small and Medium Building		Winner	Energy Management at Hospital Tanjung Karang		
and Industries Awards			1 st Runner-up	Energy Management System at Hospital Yan		
	Large Building		Winner	Sustainable Energy Management System in Public University: Towards a Smart and Dynamic Campus (University Teknikal Malaysia, Melaka)		
	Small and Medium Industries		Winner	Energy Management Initiatives at Indah Water Konsortium Sdn. Bhd's Putrajaya 1 Regional Sewage Treatment Plant (RSTP)		
			1 st Runner-up	Energy Conservation Initiatives to Reduce Electricity Consumption (Pharmaniaga LifeScience Sdn Bhd)		
Energy Efficient Building Awards	nt Building Awards Retrofitted Building Tropical Building		1 st Runner-up	Menara Korporat Persada PLUS		
			1 st Runner-up	Pertubuhan Arkitek Malaysia (PAM Centre)		
Renewable Energy Awards	Off-Grid Category	Thermal	Winner	Ramatex Fuel Switch Project from Fossil Fuel to RE-Biomass, Ramatex Textiles Industrial Sdn. Bhd		
	On-Grid Category	Local Grid	2 nd Runner-up	144kWp Solar Hybrid with 274kWh Energy Storage System for the Barat Tioman Beach Resort, Pekat Solar Sdn. Bhd		
		National Grid	2 nd Runner-up	14MW Kerian Mini Hydroelectric Project, a run-of-river scheme at Sg. Kerian and Sg. Bintang, located at Selama District, Perak, Kerian Energy Sdn. Bhd		
	Biofuel Category		Winner	Integrated Palm Waste Management Facility (IPWMF): A Biomass Manufacturing Plant and Biogas Power Plant with Rooftop Solar. Phase 1: Palm Biomass Solid Fuel Plant, BAC Biomass Kg. Gajah Sdn. Bhd.		
Special Submission Category			Winner	Food Waste Anaerobic Treatment Technology (FWATT) Model AD E-50, Alam Flora Environmental Solutions Sdn. Bhd		
Clean Coal Technology Utilisation for Power Generation Category	Large		Winner	Jimah East Power Sdn. Bhd		

2 nd ASEAN Energy Youth Awards (AEYA)					
CATEGORY		OUTCOME	ORGANISATION		
ASEAN Excellence in Energy Management by an Individual 2021		Winner	Wong Tin Song, Ministry of Energy and Natural Resources		
High School Level	Poster/ Infographic Category	3 rd Runner-up	Kueh Pang Lang from SMK Infant Jesus Convent, Johor Bahru, Malaysia		
College Level	Video Cotogon	Winner	Chiaw Kher Ai from Monash University Malaysia		
	Video Category	2 nd Runner-up	Ooi Teng Hao from Heriot Watt University Malaysia		

LOW CARBON CITIES (LCC) AWARD

Established in 2017 as the Low Carbon Annual Sharing Session, it honoured the efforts of local authorities, universities, organisations and businesses in reducing their carbon footprint.

In 2019, it was renamed the Low Carbon Cities Awards due to its rising prominence.

DIAMOND RECOGNITION AND PROVISIONAL CERTIFICATION

Local municipal councils are accredited by KASA and MGTC through two different tiers of recognition - Diamond Recognition and Provisional Certificate. With this, it enhances their reputation for climate action, delivers efficiencies in city operations and facilitates compliance through future-proofing their cities.

A total of 13 Low Carbon Zones and 30 Low Carbon Partners received Diamond recognition for GHG emission reduction initiatives in five key elements, namely energy, water, waste, mobility and greenery. In addition, 22 entries were awarded Provisional Certificates for their efforts in developing benchmark data and low-carbon action plans in low-carbon zones and partner areas. 2021 Diamond Recognition and Provisional Certification

13 LOW CARBON ZONES

.....

30 LOW CARBON PARTNERS

PROVISIONAL CERTIFICATE SUMMARY

For the full list of winners, please refer to the Appendix section of this report.



Note: For the Diamond Recognition, each element will be individually rated.



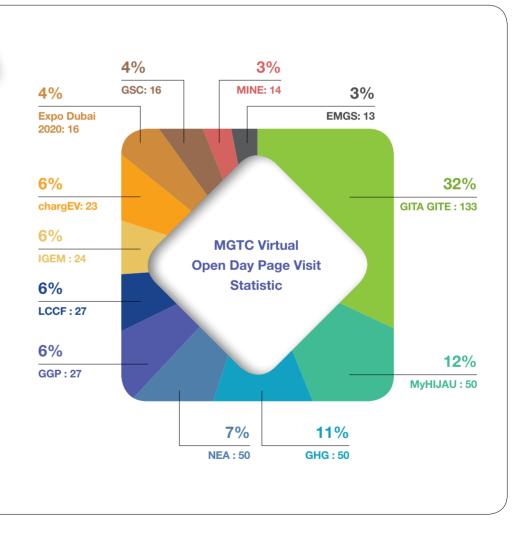
Strategic Review

Tim

meg karan

EXPERIENTIAL LEARNING AND DEMO PROJECTS

With the aim of instilling and fostering a sustainable lifestyle, MGTC has been delivering experiential learning to potential users in order for them to learn first-hand through online platforms, demonstration projects, simulation models and other varied programmes.



MGTC VIRTUAL OPEN DAY

56

The MGTC Virtual Open Day is a platform that enables stakeholders, clients, prospects and the general public to seamlessly connect with MGTC representatives to obtain a better understanding of the various programmes and services it has to offer.

Tata P

Introduced in September 2021, MGTC's virtual open day was accessible via its website, from 9.00 am to 5.00 pm every Wednesday.

Since its launch, MGTC's Virtual Open Day has recorded at least 400 visits to date. GITA GITE has recorded the highest visits with 133 visitors, followed by MyHIJAU with 50 visitors and Advisory and Consultancy (GHG) with 46 visits.

The chart on the right showcases the statistics of page visits from September 2021 to date.

AWARENESS ON THE LOW EMISSIONS PATHWAYS

CAPACITY BUILDING PROGRAMME

The Capacity Building Programme seeks to internalise and sustain the technical knowledge of participants on GHG emissions calculation and reporting in order to improve disclosure of GHG emissions and mitigation strategies to reduce emissions at the organisational level.

Assisting the Department of Irrigation and Drainage (DID), MGTC delivered full-course technical training through half-day sessions from 9 - 11 February 2021 and 2 - 3 March 2021. The DID's Task Force members received technical training on the calculation of GHG emissions for DID operations.



Capacity Building Programme: GHG Assessment for the Department of Irrigation and Drainage (DID) with MGTC's Advisory and Consultancy Division

Additionally, BURSA Malaysia was also supported by MGTC through the capacity building programme through technical training on GHG Accounting and Reporting to enable Public Listed Companies (PLCs) under BURSA Malaysia to fulfil FTSE4Good requirements. MGTC tailored the training programme for corporations to attain a Climate Change Score of Level 3, which consists of an introduction to climate change, GHG emissions calculations for Scopes 1, 2 and selected Scope 3, as well as target setting and mitigation strategies to reduce emissions. The training consisted of classroom training and hands-on exercises covering the fundamentals of GHG accounting and reporting for a company.

On 28 - 29 October 2021 and 18 - 19 November 2021, a total of 15 PLCs participated in and completed two online training sessions on calculating and reporting GHG emissions.



Capacity Building Programme: GHG Assessment for BURSA Malaysia with MGTC's Advisory and Consultancy Division

TRAVEL CALCULATOR

In July 2021, KASA had moved to commence reporting and calculating carbon dioxide emissions from the transport activities of ministries, departments and agencies. MGTC was tasked with developing a simple calculator for KASA to gather data and compute emissions on a monthly basis in order to improve disclosures on GHG emissions and establish better mitigation strategies to reduce emissions in the government sector. KASA's initiative to strengthen its data reporting on GHG emissions will serve as a model for other ministries to adopt a similar approach and mitigate their own GHG emissions within their operations.

Furthermore, KASA's Climate Change Division (BPI), requested that MGTC construct a travel calculator template to collect and compute carbon dioxide emissions from business travel activities for COP26 and the EXPO 2020 Dubai. The business travel calculator features three modes of transport, including air travel, public transport and private transport.



NATIONALLY DETERMINED CONTRIBUTION (NDC) UPDATE STAKEHOLDER ENGAGEMENT

Embodied in the Paris Agreement, the NDC is a climate change action plan to reduce GHG emissions and adapt to the effects of climate change. Malaysia's intended nationally determined contribution aims to reduce its GHG emissions intensity relative to its gross domestic product (GDP) by 45% by 2030 compared to its emissions intensity in 2005.

On 31 July 2021, Malaysia submitted its updated NDC in accordance with the United Nations Framework Convention on Climate Change (UNFCCC). As part of the NDC Update process, a participatory and whole-of-society approach to stakeholder engagement is adopted to ensure the inclusiveness of the revised NDC.

The revision of the NDC was aided by MGTC, which was appointed by KASA with the support of UNDP Malaysia's Climate Promise Project to assist with the revision. MGTC was contracted to provide advice and consulting services to support the stakeholder engagement component.

A total of four stakeholder engagement sessions were conducted by MGTC, with 778 stakeholders engaged in NDC awareness.



Adaptation

ANNUAL REPORT 2021

WEBINAR

"PERUBAHAN IKLIM: APA KATA BELIA?"

This webinar was co-organised by KASA and MGTC with the support of United Nations Development Programme (UNDP) Malaysia under the Climate Promise Project.



Held on 13 December 2021, this half-day virtual webinar recorded a total of 479 viewers from Facebook and 34 participants from Zoom. The objective of this webinar was to socialise and create awareness among youth on climate change in Malaysia.

WEBINAR

"MALAYSIA LESTARI: APA KATA BELIA?"

This webinar was hosted by MGTC in conjunction with Malaysia's Independence Day and Malaysia Day to spread awareness on green culture and lifestyle to its youth.

Four series of webinars were held on the 1st, 7th, 10th and 15th of September 2021, moderated in Bahasa Melayu, English, Mandarin and Tamil languages. This series of webinars recorded a total of 8,564 viewers and 18,464 engagements.

The objective of the series was to gather panellists that advocate green culture and lifestyle and to deliberate and share their insights from the green culture and lifestyle perspectives to the younger generation.





ROUNDTABLE DISCUSSION ON LOW EMISSIONS PATHWAY FOR MALAYSIA

KASA, working in collaboration with MGTC, Climate Governance Malaysia (CGM) and the World-Wide Fund for Nature Malaysia (WWF-Malaysia), organised the Roundtable Discussion on Low Emissions Pathway for Malaysia as a platform to share views and initiatives in relation to the low emissions pathway.

Held on 12 April 2021 via a hybrid setup, a representative from each stakeholder was invited, to which 92 attended physically and 156 participants attended virtually via Zoom. The event garnered 6,300 views via Facebook live.

This discussion aimed to obtain input from stakeholders that will be taken into account in the policy planning and implementation of government programs in the future. The low emissions pathway approach is one of the country's strategies to achieve the target of reducing greenhouse gas (GHG) emissions in the long run. Strategic planning and action plans in achieving the low emissions pathway require commitment, involvement and cooperation from the ministries and government agencies responsible for key sectors of the country's GHG emissions.

The private sector and non-governmental organisations also need to play a role in supporting the implementation of the low emissions pathway in order to achieve the set targets in line with the whole nation approach to addressing the content of climate change.



Roundtable Discussion on Low Emissions Pathway for Malaysia



STRATEGIC THRUST RESEARCH, DEVELOPMENT & COMMERCIALISM



Rapidly evolving technology is leading to increasing societal expectations and demands on product and services, invariably putting a strain on the environment. This has reinforced the critical need for MGTC to strive for environmental sustainability with increased resource-efficient operations.

PROVIDING ACCESSIBILITY TO LATEST GREEN INNOVATION

MGTC has invested significant effort in developing a culture of research and innovation in Malaysia. Taking this to the next level, MGTC aims to increase public access to such innovative green technologies.

MGTC'S GREEN ENERGY OFFICE (GEO) BUILDING

MGTC's GEO Building is a role model for green technology advancement in the country. Nestled in a five-acre site at Bandar Baru Bangi, Selangor, just 40 km south of the Malaysia's capital Kuala Lumpur, it was commissioned in 2007 and completed in 2010.



The main building, with 4,300 m² net floor area, features an innovative architectural design combining functional aesthetics with energy efficiency. The Building Energy Index (BEI) of the GEO Building is the lowest in its class, reaching an average Net BEI of 27 kWh/m²/year.

The building also incorporates the award-winning Zero Energy Building (ZEB) feature. ZEBs are defined as buildings that utilise advanced architectural designs aiming to realise substantial energy savings by reducing energy loads, utilising natural energy by applying passive technologies and introducing high-efficiency equipment and systems.

This is a further testimony of MGTC's commitment to excellence and dedication to energyefficient buildings as well as outstanding models of green innovation in Malaysia. This award sends a strong signal, particularly to architects, that zero energy projects in buildings or homes can make a huge contribution to reducing carbon dioxide emission and overall greenhouse gas emissions.

GREEN BUILDING DESIGN INNOVATION

Various active and passive design strategies have been incorporated into the GEO building design to improve energy efficiency.

One such innovative feature is the radiant cooling air conditioning system, the first in Malaysia. In this, 50% of the cooling comes from the ceiling and the floor by means of chilled radiation and the rest by air convection system for each building zone.

Two types of radiant cooling systems are incorporated into this innovative building:

FLOOR SLAB COOLING (WET TYPE)

Water chilled to 18° Celsius is led into the designated floor slabs giving a surface temperature of 21°C at the ceiling and 22°C at the floor. For optimal efficiency, floor slabs are cooled early in the morning via embedded Crosslinked Polyethylene (PEX) cooling pipes.



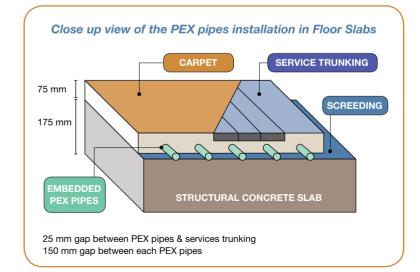
This cooling system is installed at MGTC's Resource Centre and consists of 122 CMC panels located on the ceiling. It is also run early in the morning to provide sufficient cooling at the Resource Centre.

Other passive green building features of the GEO Building are:

- Ceiling and roof insulation with mineral wool, foam and aerated concrete which reduces external heat
- Optimum orientation with windows and doors strategically facing north and south to avoid direct sunlight and excessive heating
- Self-shading design prevent glare while make the most of daylight
- Rainwater harvesting system used for condenser side cooling system and irrigation

- Air Handling Unit (AHU) with Variable Speed Drive (Inverter) to manage the entire building's heating, ventilating and air-conditioning
- Vegetation and water feature near the building indirectly reduces "heat island effect"
- Double glazing windows reflect ultraviolet and infrared radiation
- Dual Facade Window Blinds (upper and lower windows) and reflective mirror light shelf increase diffused daylight penetration
- Energy efficient lighting fixtures and movement-activated sensors reduce energy consumption
- Building-integrated photovoltaics (BIPV) incorporated into the building envelope serve to generate clean and renewable electricity
- Roof lights, skylights and reflective ceilings increase daylight penetration, improving the indoor environment and user comfort
- **Building Energy Management System (BEMS),** a web-enabled system, includes, among other things, energy data logging and monitoring of the building performance
- Airtight building envelope stops cool air from escaping, using a thermal bridge on the window frames and revolving doors to preserve internal humidity and temperature

Such green innovation incorporated into the GEO Building has resulted in savings of almost 500,000 kWh per year (at least RM200,000 per annum savings) with a reduction of 360 tonnes per year of carbon emissions.



RENEWABLE ENERGY SYSTEM: BUILDING INTEGRATED PHOTOVOLTAICS (BIPV)

A benefit to Malaysia having an equatorial climate is that it provides an optimal geographical location for generating energy via solar photovoltaic systems. The GEO Building design capitalises on this, with BIPV systems architecturally and aesthetically incorporated. They form a key feature of the building, replacing conventional building materials in parts of its building envelope such as the roof, skylight and façade.

Incorporating this design, the BIPV systems generate electricity for the GEO Building's needs and export surplus into the national utility grid via a net-metering system during the day. The BIPV systems provide up to 50% of the building's electricity requirements, which amounts to 120,000 kWh/year.

There are 6 photovoltaic packages installed in and around the GEO Building:



GEO Building's Building-Integrated Photovoltaic (BIPV) Systems



MGTC's GEO Building





47.28 kWp (polycrystalline)



11.6 kWp (see-through monocrystalline)

27 kWp (monocrystalline)



Ground Mounted PV 21 kWp (Thin Field, Greenfield)



Solar PV Car Park 29 kWp (Thin Film)

chargEV INNOVATION FOR ELECTRIC VEHICLES

Internal Combustion Engine (ICE) vehicles have gained widespread recognition as a major contributor of CO_2 emissions and this has strengthened the need to switch to lower-carbon vehicles. Additionally, while automotive brands have long since introduced eco-friendly vehicles within the country, there is a parallel need to provide accompanying public facilities for charging such vehicles.

MGTC has undertaken an active role in driving this transition through its Low Carbon Mobility Division. MGTC's chargEV, a branded EV charging station network for the public, introduced in 2016, has been providing convenient and accessible charging points for EV users. It further serves as a tool to enable the public to embrace the EV lifestyle in the Malaysian context. In collaboration with Sarawak Energy Berhad, five stations have since been established in Kuching, offering EV users this experience and benefit.

By the end of 2021, MGTC had successfully installed 403 chargEV stations at over 200 public locations, covering shopping malls, hotels and Petronas stations among others. chargEV also has a mobile app, making it easier for users to find the nearest charging station.

MGTC actively encourages the use of EVs to effectively reduce carbon emissions and air pollution. It owns an EV fleet comprising of the Tesla Model S, Nissan Leaf, Renault Zoe and Mitsubishi i-MiEV models, some even offering innovative features such as long battery capacity of over 400 km.

chargEV COMMERCIALISATION AND NETWORK EXPANSION WITH TNBES In 2020, MGTC and TNBES formed a partnership, adding 73 new charging points at various locations at shopping malls, hotels, mixed developments and along the North-

South Expressway, enabling more journeys by Malaysian EV drivers. Such a partnership was forged to encourage and ease the transition to a greener alternative transport.

Charge station members subscribe to chargEV membership at an annual fee of RM240, thus eliminating charges on a usage basis.

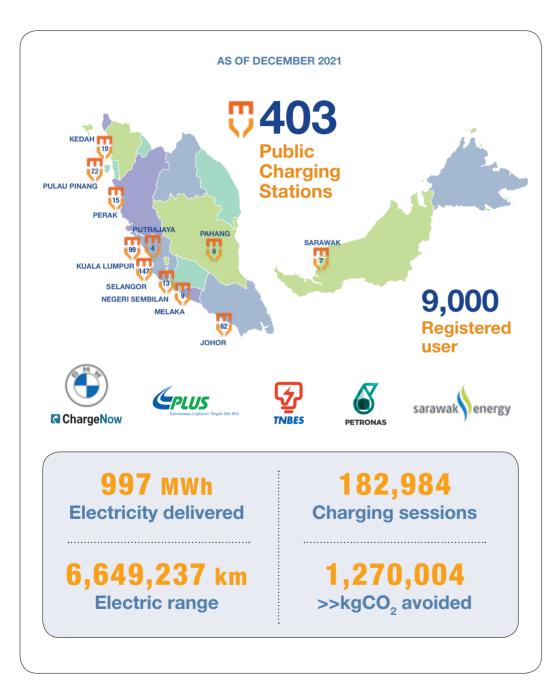


Strategic Review

As of December 2021, this has made a positive impact on the environment, in terms of:

Electricity charged	997 MWh with 182,984 sessions
Estimated electric range	6,649,237 km
Estimated CO ₂ emissions reduction	1,270,004 kgCO ₂
Carbon sequestered by trees	29,754 trees/year

Efforts are ongoing to expand the national charging network, with emphasis on delivering EV charging infrastructure to cater for different location types and use scenarios. This is envisaged to include faster and ultra-fast charging for newer, pure battery EVs entering the market.



NETWORK EXPANSION IN SARAWAK



Further strengthening its partnership with Sarawak Energy Berhad (SEB) in East Malaysia, MGTC has added 2 more public charging stations to the 7 already operational in Kuching, part of a wider plan to have more charging points operational by Q1 2022 with SEB.



MGTC has also initiated its collaboration with the Sarawak Economic Development Corporation (SEDC) by featuring 3 chargEV AC chargers to their first 3-in-1 multifuel Petros station in Kuching to open in early 2022.

YINSON PARTNERS GTMA TO SPEED UP EV CHARGING INFRASTRUCTURE



In October 2021, MGTC through its wholly-owned subsidiary, GreenTech Malaysia Alliances Sdn Bhd (GTMA), signed a term sheet with Yinson Green Technologies (M) Sdn Bhd to accelerate the development of electric vehicle

(EV) charging infrastructure in Malaysia. The partnership provides opportunities for the chargEV charging station network to be advocated for more EV users nationwide which ultimately helps to mitigate global climate change issues.

During this period, chargEV upgraded the existing 48 charging stations across the country. This is to ensure that users can locate the chargers through the chargEV mobile app.

chargEV NEW MOBILE APPS

chargEV has advanced on improving the user experience via the new mobile apps such as live charging status, membership status, charging session notifications, charging history view start/stop charging in-app, etc.

HYDROGEN ECONOMY

884

LOCAL AND

PARTICIPANTS

FOREIGN

Malaysia.

10

MEDIA PORTALS with a

RM574,130

PR VALUE coverage of

6

ROUNDTABLE

DIALOGUE

SESSIONS

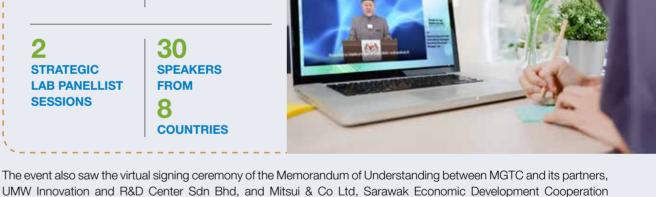
INTERNATIONAL HYDROGEN ECONOMY FORUM AND STRATEGIC LAB

The International Hydrogen Economy Forum and Strategic Lab on 'Visioning a Hydrogen Economy for Malaysia' was held on 27 - 30 July 2021 and officiated by YB Dato' Sri Tuan Ibrahim Tuan Man, the Honourable Minister of Water and Environment.

Organised by the Ministry of Environment and Water and MGTC, it was supported by 10 conference partners, comprising the Ministry of Science, Technology and Innovation, British High Commission, Australian High Commission, Korean Embassy, German Chamber of Commerce, Japan External Trade Organisation, the New Energy and Industrial Technology Development Organisation, Sarawak Economic Development Corporation and Nano Malaysia Berhad.

Attracting a total of 884 local and foreign participants, the programme included 6 roundtable dialogue sessions, 2 strategic lab panellist sessions and more than 30 speakers from 8 countries, that is, Malaysia, Japan, China, Germany, Australia, United Kingdom, South Korea and Austria.

(SEDC), Vizione Energy Sdn Bhd, Biotek Dinamik, Nano Malaysia Berhad, Universiti Malaya and Universiti Kebangsaan MOU/MOC EXCHANGE 🄲 💮gre CEREMONIES The **OPENING CEREMONY** was highlighted in more than









COLLABORATION ON HYDROGEN ECONOMY

On 18 November 2021, MGTC visited Sarawak Energy Berhad's (SEB) hydrogen production demonstration site, viewing its hydrogen refuelling station, monitoring room and FCEV bus as well as the first Multipurpose refuelling station in Darul Hana.

MGTC will explore collaborative opportunities with the Sarawak Government, SEDC Energy and Sarawak Energy Berhad to realise the goal of creating a hydrogen economy value chain and demonstration projects in Sarawak.

MGTC subsequently discussed this implementation with the CEO of SEDC Energy, looking to formalise this collaboration in the near future.

MOGSC ALTERNATIVE ENERGY WORKING GROUP HYDROGEN DIALOGUE SERIES

On 9 November 2021, the Malaysia Oil and Gas Services Council organised the Alternative Working Group Hydrogen Dialogue Series, covering various aspects of hydrogen in which MGTC's Technical Specialist (Hydrogen) from

Technology Solutions Group spoke on **"Hydrogen Energy as** a tool in creating a Low Carbon Economy: MGTC's role".

The intention of such webinars is to raise awareness among industry players about new technology, policy and economic developments in hydrogen. This is inline with AEWG's mission to facilitate the oil and gas industry's transition to the new energy future by fostering knowledge enrichment between members.







Human capital acts as the engine to drive Malaysia's green technology progressively forward. It mandates having a specialised skillset and competency in order to harness this technology and ensure a sustainable energy management for innovation and performance.

ENERGY MANAGEMENT AND CLIMATE CHANGE PROGRAMME (EMCP)

Knowledge and skills are primary requisites of any workforce looking to capitalise on innovation. With this as a strong base, efforts can then be focused on energy management, a key area to align with the demands of the fast-changing environment.

MGTC's Green Skills Centre (GSC) has been set up to nurture such resources and has devised the EMCP, a programme consisting of three specialised categories, as below:

Certification and Professional Programme (CPP) Non-Certification and Awareness Programme (NCP) Short-Course Programme (SCP)

The programmes are recognised by the Energy Commission of Malaysia and claimable under the Human Resources Development Corporation. CPP's Energy Manager Training Course (EMTC) had also been accorded due recognition by the ASEAN Center for Energy for the ASEAN Energy Management and Accreditation Scheme Programme (AEMAS) since 2014.

As of December 2021, well over 7,000 participants have benefited from MGTC's training programmes since its incorporation.

Certification and Professional Programmes (CPP)

Within this category, MGTC offers 3 programmes:

1. CERTIFIED ENERGY MANAGER TRAINING COURSE (EMTC)

EMTC is a programme initiated under AEMAS with the objective to increase the professional standing of accredited Energy Manager and

to train and accredit energy managers who will then implement sustainable energy management systems within their respective organisations.

Upon implementation of such a sustainable energy management system, energy-intensive industries will be able to seek AEMAS certification, after demonstrating actual implementation of this system and achievement of measurable energy savings.

Highlights

In 2021,

4 EMTC REMOTE TRAINING ONLINE SESSIONS were conducted, SUCCESSFULLY TRAINING



ACHIEVING CEM CERTIFICATION.



EMTC Batch #96 (26 - 30 July 2021)





EMTC Batch #97 (20 - 24 September 2021)



EMTC Batch #99 (13 - 17 December 2021)

2. CERTIFIED PROFESSIONAL IN MEASUREMENT AND VERIFICATION (CPMV)

CPMV is a certification training module to facilitate end-users and energy service companies to conduct measurement and verification activities for energy-saving programmes.

The module covers the fundamental concept of energy savings, available options for Measurement and Verification (M&V) activities, planning, uncertainty and statistics. With this certification, a CPMV is hence duly accredited to verify energy-saving projects.

Highlights

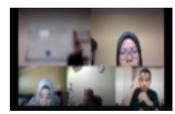
In 2021, a total of 3 sessions were conducted for 29 participants, in which 23 people attained their M&V certification.

No	Training Date	Number of Pax	Number of Certificated
1	30 th Mar - 1 st Apr 2021	12	7
2	26 th - 28 th July 2021	12	12
3	27 th - 29 th Sept 2021	5	4
ΤΟΤΑΙ	<u> </u>	29	23



30 March - 1 April 2021

26 - 28 July 2021



27 - 29 September 2021

3. CERTIFIED ENERGY AUDITOR TRAINING (CEAT)

CEAT enables one to be equipped with the relevant knowledge and skills required to perform inspections, surveys and analysis of energy flows for energy conservation in a building, process or system. Such training encompasses the use of energy audit tools and report writing skills.

Certified auditors are recognised by the Energy Commission and are authorised to conduct audits on all facilities, especially those covered by the Efficient Management of Electrical Energy Regulation (EMEER) 2008 regulations or any energy audit programme by the Government and their agencies.

Highlights

In 2021, 3 training sessions were conducted for a total of 21 participants, in which 9 CEAs received their certification.

Date (2021)	Participants	Certifications
5 th - 7 th April	9	6
15 th - 15 th July	4	2
13 th - 15 th Sept	8	1
TOTAL	21	9



5 - 7 April 2021



13 - 15 July 2021

Non-Certification and Awareness Programmes (NCP)

In 2021, MGTC conducted a total of 7 courses for non-certification or awareness programmes, as below:

- 1. ENERGY MANAGEMENT GOLD STANDARD (EMGS)
- 2. ENERGY AND WATER MANAGEMENT TRAINING (EWMT)
- 3. HAVE WE DONE ENOUGH TO SAVE ENERGY BILLS? (HWDE)
- 4. GREEN TECHNOLOGY FINANCING FOR FINANCIAL INSTITUTIONS (GTFFI)
- 5. REGISTERED ELECTRICAL ENERGY MANAGER (REEM) GUIDELINES WORKSHOP
- 6. PROFESSIONAL ENERGY MANAGER (PEM) GUIDELINES WORKSHOP
- 7. MASTERCLASS FOR LEVERAGING CIRCULAR ECONOMY FOR SMES IN MALAYSIA POST COVID-19

1. ENERGY MANAGEMENT GOLD STANDARD (EMGS): INTERNAL ASSESSOR TRAINING COURSE

EMGS is a certification system delivered under the ASEAN Energy Management Scheme (AEMAS) based on excellence in energy management. This course provides participants with the knowledge and skills required to lead an effective Energy Management assessment.

With a sound understanding of the principles and practices of independent assessment of energy management, it also brings to life the entire assessment process from managing and assessing, to reporting on assessment results. It also explores integration with other management systems such as ISO, TQM and Six Sigma.

Highlights

One online training session was held for 6 participants on 29 – 30 September 2021.



Screenshot of the online training session held on 29 - 30 September 2021

1-STAR

Equivalent to ISO 50001, with additional criteria. It indicates the complete establishment of the Energy Management System (EnMS).

 $\star\star$

2-STAR

Requires that the organisation not only has an established EnMS but also proven savings from at least 5% energy reduction compared to the baseline.

3-STAR

Requires that the EnMS is fully embedded into the organisational culture and integrated with other systems; and that the organisation has achieved energy savings for three consecutive years.

2. ENERGY AND WATER MANAGEMENT TRAINING (EWMT)

To promote efficient consumption of energy and water, a Utility Management Committee (JPU) was set up. Various initiatives were introduced by the JPU, such as developing an Energy Policy, setting up an Energy Management Committee, implementing energy saving initiatives as well as shaping a more energy efficient way of working within organisations.

Elements of this training include understanding Sustainable Utility Management Principles and its adoption throughout the organisation, sharing of best practices as well as equipping participants with technical skills across electrical, mechanical and electronic systems for heightened efficiency.

Highlights

An in-house session on EWMT was held on 26 - 28 October 2021, with 25 participants attending the training online.



Screenshot of participants attending the online training session (26 - 28 October 2021)

3. HAVE WE DONE ENOUGH TO SAVE ENERGY BILLS? (HWDE)

This programme is designed to explore essential elements of energy efficiency and conservation measures which can benefit a typical business entity. Participants will better understand sources of energy usage, analyse energy consumption, identify expected savings and the need for energy management systems. Following this, participants would be expected to draw up an action plan for implementation at their workplace. Such a programme is open to a wide range of personnel, from Building and Facility, to Administration, HR and those keen to learn more about energy efficiency.

Due to the ongoing pandemic, there were no training sessions organised in 2021.

4. GREEN TECHNOLOGY FINANCING FOR FINANCIAL INSTITUTIONS (GTFFI)

This GTFFI module, developed by experts well over a decade ago, targets financial institutions with the objective to provide a better understanding of the green technology sector, determine criteria and parameters for a sustained green project as well as to map out its inherent risks.

With this module, participants can learn how to better position their green project proposals and hence increase their chances for financial support.

This also allows financial institutions to increase their understanding of green technology and how supporting such initiatives can actually increase their revenue in the longer term.

		-	sending a second of a second second of T				
					٠	Participants	
	ľ	-	ireen Manufacturing			=	
			been manufacturing employ various green strangers julgerithers and cheaping and techniques, juderitary and inequalizing the tensore was au-difficult and auto Creating genders/hybranes that canamens has material and energia, Stratisticang genders/hybranes that canamens has material and energia. Material genders/hybranes that canamens has material and energia, the probability of the strategies of the				801/1. .008/ .009/1. .009/1. .009/1. .001/1.
+				100.00		August 70	
						-	

CIMB training (12 - 15 July 2021)

sizes Essentian for Essential leads to

Highlights

In 2021, MGTC organised 7 training sessions, in which a total of 666 participants attended.

Date (2021)	Financial Institution	Participants
26 - 28 April and 3 May	Malaysian Industrial Development Finance Berhad (MIDF)	30
27 April	Ambank Berhad	28
28 June - 1 July	Malaysian Industrial Development Finance Berhad (MIDF)	25
12 - 15 July	Commerce International Merchant Bankers Berhad (CIMB)	47
9 August	Hongkong and Shanghai Banking Corporation Limited (HSBC) Amanah	31
16 - 23 August	Association of Islamic Banking and Financial Institutions Malaysia (AIBIM)	414
9 September	Association of Islamic Banking and Financial Institutions Malaysia (AIBIM)	91
Total Participants		666

					٥.	Participants	
	-	-	-	-	ø		-
						-	
_	-	_	_	_		Services .	
						Resultance.	
- 29			<u>a</u>	1.5		Resident.	
and the second second		_		and the second second	1	reads -	
		•				Preside .	
and the second second	and the second second	CONTRACTOR OF	and the second second	and the second second			
10.0				10.00		Address Tex	
			+	- + + D		-	B0/1-

MIDF training (26 - 28 April, 3 May 2021)

5. REGISTERED ELECTRICAL ENERGY MANAGER (REEM) GUIDELINES WORKSHOP

A REEM is a person who holds a valid certificate of registration and is appointed by the Energy Commission as an Electrical Energy Manager.

Under the EMEER 2008, the REEM guideline workshop is one of the training programmes that has been recognised by the Energy Commission.

This half-day training provides greater understanding on existing Energy Efficiency Regulations and Acts as well as an overview of EMEER 2008 and the Energy Management Information System (EMIS).

Due to the ongoing pandemic, no training sessions were held in 2021.

6. PROFESSIONAL ENERGY MANAGER (PEM) GUIDELINES WORKSHOP

PEM guidelines cover the knowledge and skills to fulfil the EMGS 3-Star requirement, sustenance of energy reduction achieved in 2-Star Assessment and integration of the energy management system with other standards and quality systems.

This half-day training session aims to deliver better understanding on areas including the EMGS 3-Star certification framework and existing energy efficiency Regulations and Acts. Participants will also have clarity on guidelines on report submission pertaining to the Implementation of Sustainable Energy Management System as well as the Implementation of Energy Saving Measures.

Due to the ongoing pandemic, no training sessions were conducted in 2021.

7. MASTERCLASS FOR LEVERAGING CIRCULAR ECONOMY FOR SMES IN MALAYSIA POST COVID-19

MGTC's GSC's inaugural masterclass programme is organised in collaboration with Ekonnect Knowledge Foundation (Ekonnect) and Indonesia–Malaysia–Thailand Growth Triangle (IMT-GT) to help SMEs in Malaysia improve their profitability and increase competitiveness. It also aims to reduce environmental impacts through resource conservation, pollution prevention and waste recycling.

This programme expands on the principles and its applications of Circular Economy to increase resource efficiency and thus, strengthen business sustainability. This masterclass programme seeks to expand regionally, commencing with Thailand and Indonesia as the first step.

Highlights

In 2021, 3 training sessions were conducted for 225 SMEs. Held over 2 days, using a combination approach of hybrid and online, it covered both technical and managerial perspectives, followed by coaching and concluding with the submission of an assignment.



Masterclass CE I held using a hybrid approach (The Everly Putrajaya, 22 - 23 March 2021)



Masterclass CE III held online (6 - 11 December 2021)



Masterclass CE II held online (29 November - 4 December 2021)

B Short-Course Programmes (SCP)

The unparalleled disruption caused by COVID-19 brought about the imposition of various MCOs, requiring training programmes to shift to an online mode for the safety and wellbeing of participants.

To ensure the continuity of training and enabling a conducive environment for learning, MGTC's GSC customised this programme to include short-course programmes with a minimum of 4 hours.

Highlights

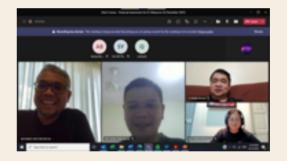
Commencing December 2020, 9 short courses were conducted by GSC. Participation was encouraging, with a total of 736 participants from a number of industries attending.

The various short-course training courses conducted in 2021 are as below:

No.	Types of Courses	Number of Sessions
1	Hands On Data Analysis (HODA)	34
2	Basic Measurement & Verification (BMV)	4
3	Basic Energy Audit (BEA)	7
4	Journey to EMGS (JEMGS)	6
5	Green Project Management (GPM)	12
6	Financial Assessment for Energy Conservation Measures (FA)	2
7	Green Procurement for Private Sector (GP)	2
8	Financial Assessment for EC Measures	19
9	Integration EMS into Business Practices	1

Screenshots of various Short-Course Online Trainings held in 2021







GREEN JOBS MALAYSIA PORTAL

As defined by the International Labor Organisation (ILO), green jobs are decent jobs that contribute to preserving or restoring the environment, either in traditional sectors such as manufacturing and construction, or in emerging green sectors such as renewable energy and energy efficiency.

The Green Jobs Malaysia Portal is essentially a repository of such jobs relating to environmental sustainability, or better known as green jobs.

Developed by MGTC in 2021, this portal was upgraded to allow its use as a data collection centre for reference by government as well as educational and employment research institutions in identifying the level of achievement and benchmarks for future planning of green jobs market and demand in Malaysia.

In line with KASA's target on the development of Green Economy in Malaysia, this portal is expected to help expedite the creation of 230,0000 green jobs by 2030 with the involvement of more than 2,000 technology-related green companies in Malaysia.

For more information, please access the portal at www.greenjobsmalaysia.my

Highlights

In 2021, a total of 79 green technology-related companies and 289 job seekers have registered themselves as users. A total of 29 vacancies have been offered in the portal, a number which is expected to increase given the upcoming promotional activities planned.

	1 1 1 1 1 1		
111	ALC: NO		-
	and the second second		
	2-3-2		-
	Contraction of the local sector		
A CONTRACT ON THE PARTY OF	11 COLO 100 10 4 1		
	hadrent dated		
	toolised state!		
	trateral codel		
-	Colored Audor		
		-	_
		-	
	Section 2 Address		

LEADERSHIP TRANSFORMATION SERIES (LTS) PROGRAMME

MGTC's LTS programme aims to identify middle management professionals at MGTC with leadership potential and provide the necessary tools to nurture them for roles of greater responsibility within the company.

In this 6-month structured programme, 25 key talents were selected and put through a series of robust intervention and engagement sessions, using a mentor-subordinate resource approach to guide their development.

Completed in August 2021, participants had gained valuable tools and techniques of leadership practices and skills to further support achievement of MGTC's vision and mission.





Using a multi-pronged approach, the Government has made advancements in promoting green technology. It has heightened visibility and improved access to green alternatives, offering attractive financial incentives to motivate greener procurement preferences. With the Government leading the way, it will act as a catalyst in driving production and consumption patterns for sustainably sourced products and services.

STRATEGIC

MARKET

ENABLERS

THRUST

GREEN FINANCIAL INCENTIVES

To further stimulate introduction and implementation of green technology, three financial incentive programmes are offered:



GITA ASSET AND GITA PROJECT

Approved companies will be entitled for Green Investment Tax Allowance of 100% of qualifying capital expenditure on approved green technology assets or projects. The allowance can be offset against 70% of statutory income in the year of assessment.

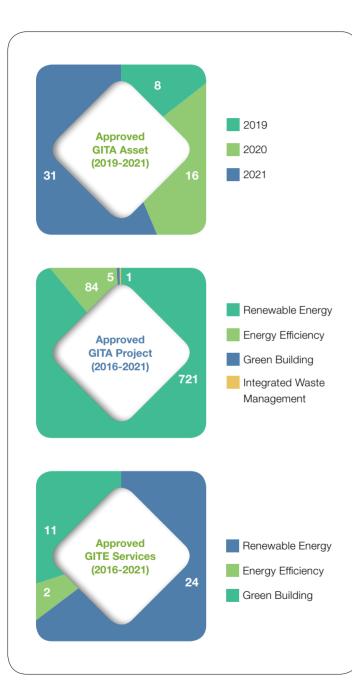
GITE SERVICES

A Green Income Tax Exemption (GITE) is available for qualifying green technology service provider companies listed under the MyHIJAU Directory. Approved companies will be entitled for Income Tax Exemption of 70% on statutory income for qualifying green services for the period of 3 years.

GREEN TECHNOLOGY TAX INCENTIVE

Introduced in 2014 with the objetive to strengthen the development of green technology in Malaysia.

		2021
GREEN INVESTMENT TAX ALLOWANCE (GITA)	MGTC recorded	Total number of applications approved obtained a
• Assets • Project	APPROVED APPLICATIONS which are expected to reduce	potential value of green investment amounting to RM601 million
GREEN INCOME TAX EXEMPTION (GITE)	GHG emissions by 8,812,419	that was expected to create a total of
• Services	tCO ₂ eq	686 green jobs



List of Green Incentives Events in 2021

JANUARY 2021 22 Seminar: Government Green Incentive #1

FEBRUARY 2021 24 Seminar: Government Green Incentive #2

MARCH 2021 17 Seminar: Government Green Incentive #3

APRIL 2021 7 Seminar: Government Green Incentive #4

JUNE 2021 30 Webinar: Government Green Incentive #5

AUGUST 2021 11 Webinar: Government Green Incentive #8 25 Webinar: Government Green Incentive #9

SEPTEMBER 2021

Webinar: Government Green Incentive #10

Webinar: Government Green Incentive #11

OCTOBER 2021 6 Webinar: Government Green Incentive #12

NOVEMBER 2021

3
Webinar: Government Green Incentive #13
17
Webinar: Government Green Incentive #14

DECEMBER 2021 8 Webinar: Government Green Incentive #15 29 Webinar: Government Green Incentive #16



List of Green Incentives Events in 2021



ENERGY AUDIT CONDITIONAL GRANT (EACG)

EACG was implemented in 2017 and in that year, Malaysia's industrial sector was the largest energy consumer. With energy consumption of 49%, it signalled a strong need to focus and ensure more efficient use of energy.

EACG was introduced under the 11th Malaysia Plan to promote energy efficiency. It was at this juncture that the Ministry of Energy and Natural Resources (formerly MESTECC and KeTTHA), appointed MGTC as the implementing agency to manage, promote, conduct training, monitor and verify the project performance.

The project provided conditional grants for industries to appoint Energy Services Company (ESCO) registered with the Energy Commission to conduct energy audits at their installations. Industries under the Efficient Management of Electrical Energy Regulations 2008 (EMEER 2008) or industries consuming electrical energy of at least 100,000 kWh per month for six consecutive months were eligible to apply for the grant.

The project consists of four main activities:



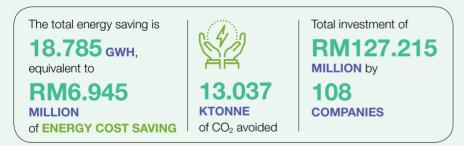
While the project officially started in 2016, monitoring and verification was completed in 2021 where each grant recipient was required to submit 'Monitoring & Verification' reports every 6 months for a 3-year period after the completion of the energy audit. All other activities were completed in 2018.

The project impact directly contributes to the National Energy Efficiency Action Plan (NEEAP) target which is to achieve 8% energy saving of 52,233 GWh by 2025. The project impact also contributes to Malaysia's Nationally Determined Contribution to reduce greenhouse gas emissions intensity of GDP by 45% by 2030 relative to the emissions intensity of GDP in 2005.

Highlights

Total energy savings for the July 2017 – June 2021 period is 142.768 GWh, equivalent to RM53.346 million of energy cost saving and 95.777 ktonnes of CO_2 eq reduction, with total investment of RM127.215 million by 108 companies.

Based on reports received in 2021 (July – December 2020 cycle and January – June 2021 cycle), the total energy saving is 18.785 GWh, equivalent to RM6.945 million of energy cost saving and 13.037 ktonne of CO_2 avoided, with total investment of RM127.215 million by 108 companies.

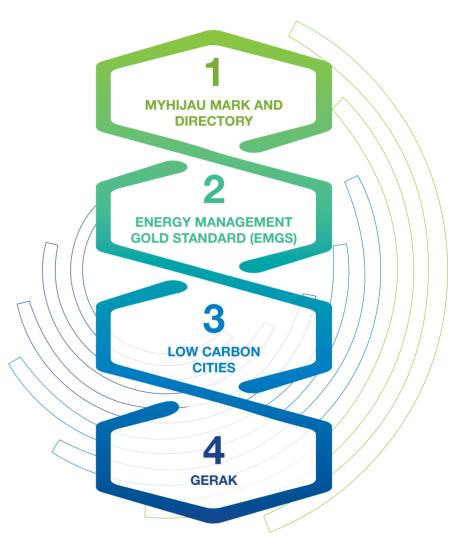


A breakdown of energy savings, cost savings, investment costs and CO_2 avoided for July 2017 – June 2021 may be viewed in the Appendix section.

A similar project has been introduced by the Government under the 12th Malaysia Plan which is currently managed by SEDA Malaysia. It is hoped that this project will be continued as it helps to boost energy efficiency initiatives implementation by the industrial sector, besides helping to provide business opportunities for ESCOs as well as job opportunities for energy auditors.

GREEN CERTIFICATION

MGTC is the authorised body responsible for the nation's green technology standards and certifications, and manages this at city, organisation and product/ service levels. It oversees certifications for the following:



Highlights

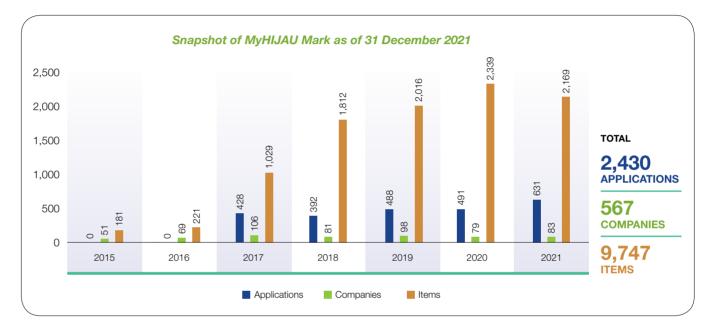
MyHIJAU

MYHIJAU MARK AND DIRECTORY

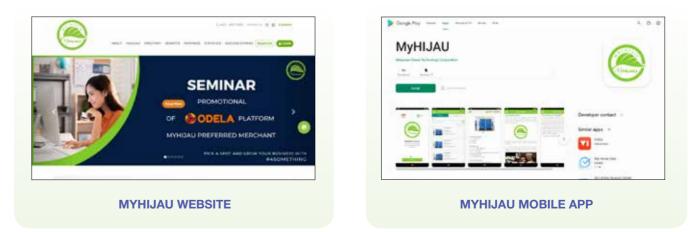
MyHIJAU Mark and Directory is Malaysia's official green recognition scheme endorsed by the Government of Malaysia since 2015, bringing together green products and services under a single, recognisable mark. An online directory allows convenient access by the public.

The directory aims to provide a national online platform, listing certified green products and services available in Malaysia and aspires to be the definitive guide for government and corporate green procurement, giving registered manufacturers and service providers greater visibility and recognition for their green offerings.

In addition, selected MyHIJAU product groups are eligible for green technology tax incentives as they are considered prioritised companies under the Government Green Procurement. Businesses registered in MyHIJAU and offering selected products should see increased business as a result. As of 31 December 2021, 567 companies and 9,747 green products/services were registered in the MyHIJAU Mark recognition and listed in the MyHIJAU Directory.



The MyHIJAU Directory is accessible at www.myhijau.my and via the mobile app 'MyHIJAU'.



LIST OF MYHIJAU'S MAIN EVENTS IN YEAR 2021

JANUARY 2021

22

bodies

The MyHIJAU Mark also recognises

the broad range of certification and verification schemes issued certification/verification

accredited by Standards Malaysia. As of 2021, there are 26 certification and

verification partners (please refer to the

MyHIJAU Mark will continue to organise

business clinics and helpdesk sessions

for industries and companies including

local green product manufacturers,

green service providers and distributors/ suppliers to increase the number of

registrations. The MyHIJAU team will

collaborate with other government

associations in the development of local

market for green products and services.

agencies and

industry/business

Appendix section for the full list).

bv

Seminar: Government Green Incentive #1

FEBRUARY 2021

24

Seminar: Government Green Incentive #2

MARCH 2021

17

Seminar: Government Green Incentive #3

APRIL 2021

7 Seminar: Government Green Incentive #4

JUNE 2021

30

Webinar: Government Green Incentive #5

JULY 2021

14

28

Webinar: Government Green Incentive #6

21 Webinar: Perolehan Hijau Keraiaan #1

.....

.....

Webinar: Government Green Incentive #7

AUGUST 2021

.....

.....

11 Webinar: Government Green Incentive #8

18 Webinar: Perolehan Hijau Kerajaan #2

25 Webinar: Government Green Incentive #9

SEPTEMBER 2021

Webinar: Government Green Incentive #10

.....

8

15

30

Webinar: Perolehan Hijau Keraiaan #3

.....

Webinar: Government Green Incentive #11

OCTOBER 2021

Webinar: Government Green Incentive #12

15 Webinar: Perolehan Hijau Kerajaan #4

18 EXPO DUBAI 2020

.....

.....

ANNUAL REPORT 2021

NOVEMBER 2021

3

Webinar: Government Green Incentive #13

10

Webinar: Perolehan Hijau Kerajaan #5

.....

.....

17

Webinar: Government Green Incentive #13

DECEMBER 2021

8

Webinar: Government Green Incentive #15

22

Webinar: Perolehan Hijau Kerajaan #6

.....

.....

29

Webinar: Government Green Incentive #16





Snapshots of Week 3 @ EXPO 2021 Dubai

MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION

ENERGY MANAGEMENT GOLD STANDARD (EMGS)

The ASEAN Energy Management Scheme (AEMAS) was initiated by the ASEAN Centre of Energy (ACE) in 2010 as a regional recognition with the main purpose to manage and reduce energy consumption and carbon dioxide emissions in ASEAN, as well as to recognise and showcase best practices in energy management.

With over a decade in existence, AEMAS is the first regional certification developed for Southeast Asia with initial funding from the European Union. MGTC has been appointed as the AEMAS Country Coordinator and Certification Body on behalf of ACE to promote, facilitate and process the applications made by end-users in Malaysia.

Energy Management Gold Standard (EMGS) is a recognition given under the AEMAS to endusers who have successfully implemented a sustainable energy management system. EMGS certification comprises of three levels, as follows:

1-STAR

Equivalent to ISO 50001, with additional criteria. It indicates the complete establishment of the Energy Management System (EnMS).

2-STAR

Requires that the organisation not only has an established EnMS but also proven savings from at least 5% energy reduction compared to the baseline.

3-STAR

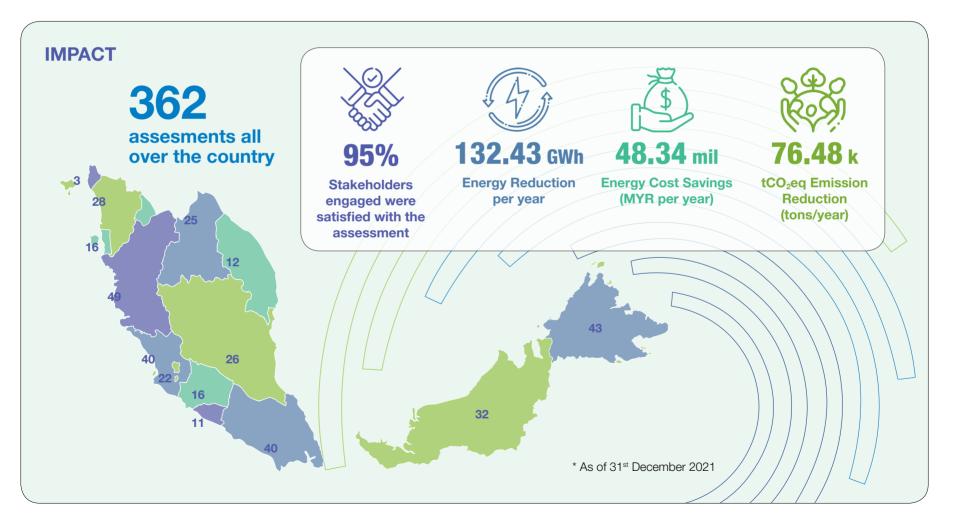
Requires that the EnMS is fully embedded into the organisational culture and integrated with other systems. The organisation has also successfully maintained the energy saving declared during 2-Star for at least one year.

Highlights

Various milestones were achieved, thanks to strong efforts by the Institut Jantung Negara (IJN) and Universiti Teknologi Malaysia (UTM), who were the first to be awarded the EMGS 3-Star ratings in the Malaysian health and educational sector respectively.

As of December 2021, 362 EMGS certification assessments were carried out comprising 173 organisations. 288 EMGS certifications were endorsed, comprising 168 1-Star, 103 2-Star and 17 3-Star EMGS certifications.

The overall impact of EMGS certification is as follows:



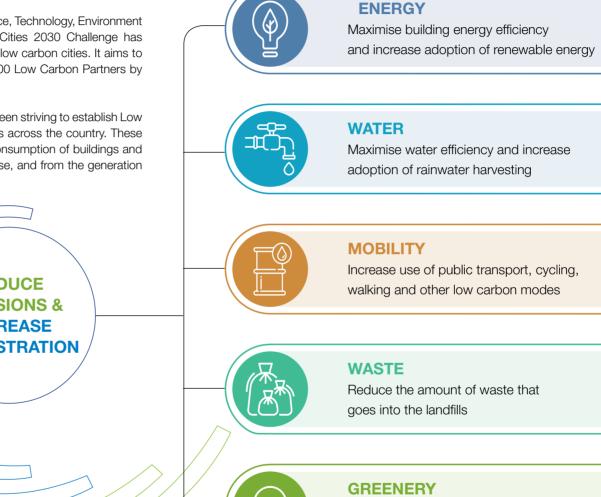
WATER MOBILITY REDUCE **EMISSIONS & INCREASE SEQUESTRATION** WASTE goes into the landfills GREENERY Maintain or increase the number of trees and green spaces in the city

MGTC will assist local municipal councils to build capacity to work towards reducing GHG emissions via energy and water efficiency, low carbon mobility, reduction in waste to landfills and increased green spaces. They will be guided by necessary systems and tools to develop strategic low carbon action plans, engage with stakeholders and deliver low carbon solutions.

LOW-CARBON CITIES 2030 CHALLENGE

Launched in 2019 by the then Minister of Energy, Science, Technology, Environment and Climate Change (MESTECC), the Low-Carbon Cities 2030 Challenge has accelerated the transformation of Malaysian cities into low carbon cities. It aims to ultimately implement 200 Low Carbon Zones and 1,000 Low Carbon Partners by 2030.

Together with the local municipal councils, MGTC has been striving to establish Low Carbon Zones in State Capitals and major urban areas across the country. These zones will reduce emissions from energy and water consumption of buildings and public spaces, from petrol and diesel private vehicle use, and from the generation of waste that end up in landfills.

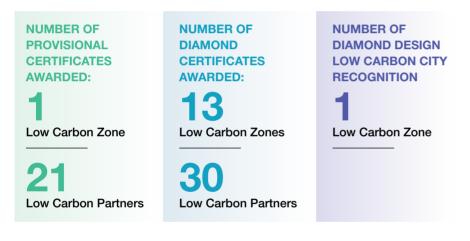


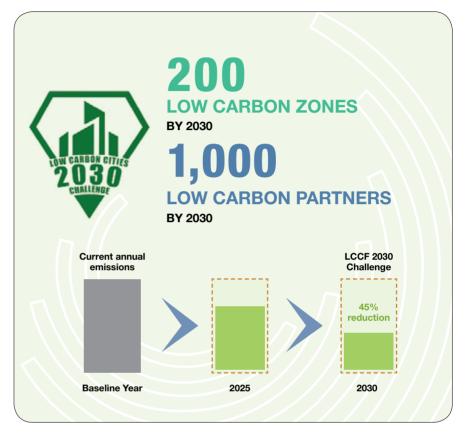
Highlights

MGTC's efforts to drive awareness on low carbon cities is gaining momentum. Qualifying cities for the Low Carbon Cities 2030 Challenge are accorded the Diamond Recognition and Provisional Certificate in recognition of their achievements in reducing carbon emissions and determining baseline emissions.

Since the program's inception in 2019, a total of 43 Low Carbon Zones and 69 Low Carbon Partners have been established. From this, a total of 308,535.31 tCO₂eq has been reduced.

Achievements for the year 2021 are:

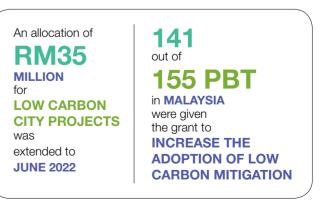




Geran Pemangkin Bandar Rendah Karbon (GeRAK)

GeRAK is a catalyst grant to support the development of low carbon cities. It is an implementation component of small projects approved under the Strategic Programme to Empower the People and the Economy. An allocation of RM35 million for low carbon city projects was extended to June 2022. This grant aims to reduce greenhouse gas (GHG) emissions at the municipal level and strengthen the implementation of high impact low carbon city programmes and initiatives by local authorities in addition to increasing local economic generation, reducing the impact on the environment and improving the quality of life.

As of 31 December 2021, 141 out of 155 PBTs in Malaysia were given the grant to increase the adoption of low carbon mitigation initiative in their respective cities and accelerate towards the low carbon future.



GOVERNMENT GREEN PROCUREMENT

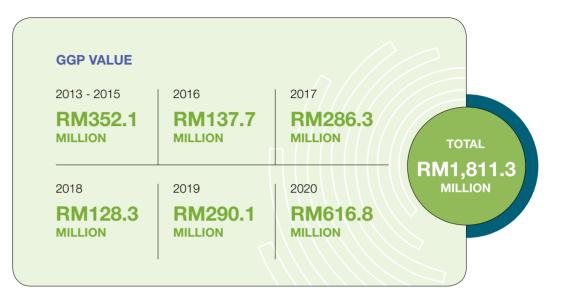
Government Green Procurement (GGP) is designed to catalyse sustainable consumption and production of green technology products and services amongst the Government sectors to drive industry growth and shift consumers' purchasing behaviour to green-centric.

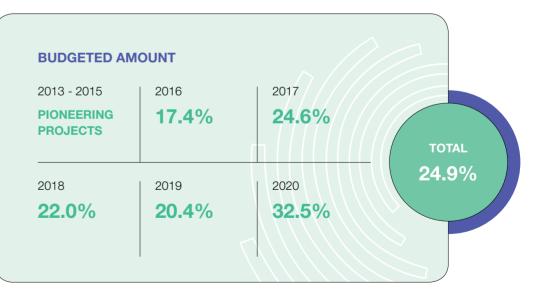
GOVERNMENT GREEN PROCUREMENT (GGP)

Government procurement in Malaysia plays a crucial role as a catalyst for socioeconomic development as it accounts for 12-15% of GDP. It is therefore only natural that the Government plays a leading role in promoting green growth and a green economy. With a solid track record since 2013, the GGP is championed by the Ministry of Finance (MOF) and Ministry of Environment and Water (KASA) with MGTC as the implementing agency.

MGTC has been entrusted to assist the 27 federal ministries and agencies in implementing GGP and is responsible for promotion, consultancy services, developing GGP product groups and monitoring GGP verification and performance.

In a partnership that is close to a decade, MGTC has worked together with the Economic Planning Unit (EPU), Ministry of Finance (MoF) and KASA to implement various strategies to spearhead GGP in tandem with the Government's 12th Malaysia Plan aspirations of 25% government green procurement by 2025.





The full list of product groups for GGP Performance for the Year 2021 may be viewed under the Appendices section of this report.

GREEN MARKETPLACE

MGTC aligns closely with supply and demand forces, thus driving the nation's green technology growth, establishing and nurturing an effective green marketplace. Stakeholder engagement is an essential component to which MGTC effectively engages via annual International Greentech and Eco Products Exhibition and Conference Malaysia (IGEM).

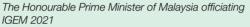
INTERNATIONAL GREENTECH AND ECO PRODUCTS EXHIBITION AND CONFERENCE MALAYSIA (IGEM)

The Virtual IGEM 2021 was organised by KASA and MGTC with the soft launch by YB Dato' Sri Tuan Ibrahim Tuan Man, Minister of Environment and Water on 1 July 2021.

It was officially opened by YAB Tan Sri Dato' Haji Muhyiddin bin Haji Mohd Yassin, the Honourable Prime Minister of Malaysia on 22 July 2021.

The event was aired live on IGEM 2021 Virtual Lobby and Facebook Live, with a host of key local and international media in attendance, such as RTM, Bernama, Business Today, The Star, Asia News Today. With such extensive coverage, the opening ceremony itself generated RM5.5 million in total PR Value.







The Minister of Environment and Water giving the opening speech at IGEM 2021



The IGEM 2021 Virtual Platform

The virtual platform offered a wide array of ideas and opportunities to all participants, to encourage a more sustainable growth.

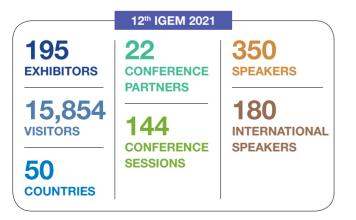
The theme of the virtual IGEM 2021 was "REDEFINING SUSTAINABILITY" which focused on climate change and green technology against the backdrop of the effects the COVID-19 pandemic. It was an opportunity for government institutions to reassess strategies to rebuild economies, preserve the environment and tackle climate challenges. Virtual IGEM2021 provide wider range of opportunities and value to industry players as it was held for six months, concluding on 31 December 2021. It featured monthly themes targeting specific green industry sectors, as below:

July	: GREEN TECHNOLOGY
August	: WATER
September	: CLIMATE CHANGE AND ENVIRONMENT
October	: SUSTAINABILITY
November	: GREEN FINANCING
December	: ENERGY AND E-MOBILITY

The 12th IGEM 2021 attracted 195 exhibitors and 15,854 visitors from over 50 countries. It collaborated with 22 conference partners and hosted 144 conference sessions, involving a total of 350 speakers, of whom 180 were international speakers.

At this global event, MGTC itself contributed a total of 30 sessions, comprising a combination of conferences, webinars and MoUs.

Since its initiation in 2010, IGEM has generated close to RM 30 billion in business leads, attracted more than 500,000 visitors from over 70 countries.



Highlights

6 key areas emanated from IGEM 2021, outlined as below:

AN IMPORTANT CATALYST FOR THE WAY FORWARD

IGEM 2021 is an important catalyst in charting Malaysia's way forward to pursue economic and social wellbeing post-COVID-19. It also serves as a key medium for forging international collaborations as well as meaningful

89

dialogues that have been elevated this country's green credentials. In addition, it provides an opportunity for government institutions to reassess their strategies to revive economies, preserve the environment and bring social stability to climate challenges.

With the emergence of a green industry that requires new innovations, products and services to meet consumers' demands, it also translates into new opportunities and reaching out to the untapped markets for businesses.

INTERNATIONAL HYDROGEN ECONOMY FORUM AND STRATEGIC LAB THEME "VISIONING A HYDROGEN ECONOMY FOR MALAYSIA"

As the first hydrogen event of this scale to be held virtually in Malaysia, it aimed to identify hydrogen technology initiatives implemented by local and international organisations to drive the next low carbon economy and hence, create potential new investment in the green economy.

It also included important exchanges of memorandum documents that involve MGTC and various prestigious partners, aiming to drive the hydrogen economy forward, leapfrogging advancement of hydrogen technologies and initiating collaboration programs in areas relevant to the hydrogen economy with a potential value of about RM10 billion.

DIGITALISATION GAINING IMPORTANCE

The aftermath of the COVID-19 outbreak has raised the importance of taking digitalisation

to a higher level, as government agencies and corporations turn to online and Internet of Things (IoT) to facilitate their operations. With the world was recuperating from the COVID-19 outbreak, the virtual IGEM provided the ideal format to host the event, in terms of safety and wellbeing of participants. The 4th Malaysia-The Netherlands Water Dialogue was held on 21 September 2021 in conjunction with Malaysia International Water Convention 2021 (MIWC 2021). Jointly organised by KASA and the

THE 4th MALAYSIA -THE NETHERLANDS WATER DIALOGUE

Embassy of The Kingdom of The Netherlands, it served as a medium for the proliferation of ideas, experience, technology and expertise as well as exploring new business and investment opportunities between the two countries.

With the theme, "Managing Water Pollution: An Integrated Solution Approach", this panel discussion focused on the challenges in managing water pollution and the innovative solutions/technologies which can be applied to overcome this issue.

MOH MALAYSIA: GREEN HEALTHCARE FACILITY FOR A BETTER TOMORROW

The Ministry of Health (MOH) Malaysia made its inaugural appearance at Virtual IGEM 2021 with six participating companies, showcasing a comprehensive range of solutions for the healthcare sector including sustainability programmes to transform energy intensive healthcare facilities into sustainable green buildings.

IGEM is the trade event of choice as previously MOH was invited as a recipient of the award for Energy Management in Building for Hospital. In 2021, MOH Malaysia successfully implemented green initiatives in 22 hospitals under Medivest and LEED Platinum Certification for Hospital Jasin, Melaka. MOH Malaysia has proven the effectiveness of this programme in seven government hospitals across Malaysia and is looking forward to expanding their reach further through the IGEM platform as well as offering their expertise in energy management to building owners.

Circular Economy Taiwan Pavilion opened its doors for the first time, allowing Taiwanese exhibitors an opportunity to showcase accessories for household products, green building materials, medical materials

CIRCULAR ECONOMY TAIWAN PAVILION

and fabrics, demonstrating the range of Taiwan's circular economy in all aspects.

The Pavilion also featured Sustainable Materials Library (SML), 'Geared to global trends, building up a circular economy of fast fashion supply chain exhibition, and Natural Beauty and Beautiful Nature – a guidance programme in supply chain ecosystem of circular economy of the global cosmetics marketing channel.

The Virtual IGEM 2021 not only hosted over 100 conferences, webinars and pocket talks but also saw the signing of Memorandum of Understandings (MoUs), Letters of Intent (LoIs)

MOU/LOI SIGNING AT VIRTUAL IGEM 2021

and Stakeholders Agreements (SA). At this global platform, IGEM managed to capture RM4.6 billion worth of business leads.

Various conferences organised at IGEM 2021



International Hydrogen Economy Forum and Strategic Lab with the Theme 'Visioning A Hydrogen Economy for Malaysia'



Innovation Rainwater Harvesting System for Ablution, Landscape and Toilet Usage in Mosque Al-Mutaqin



Food Waste Management: Solutions from The Netherlands



MyHIJAU Mark, one of the top 5 Exhibitor Microsites



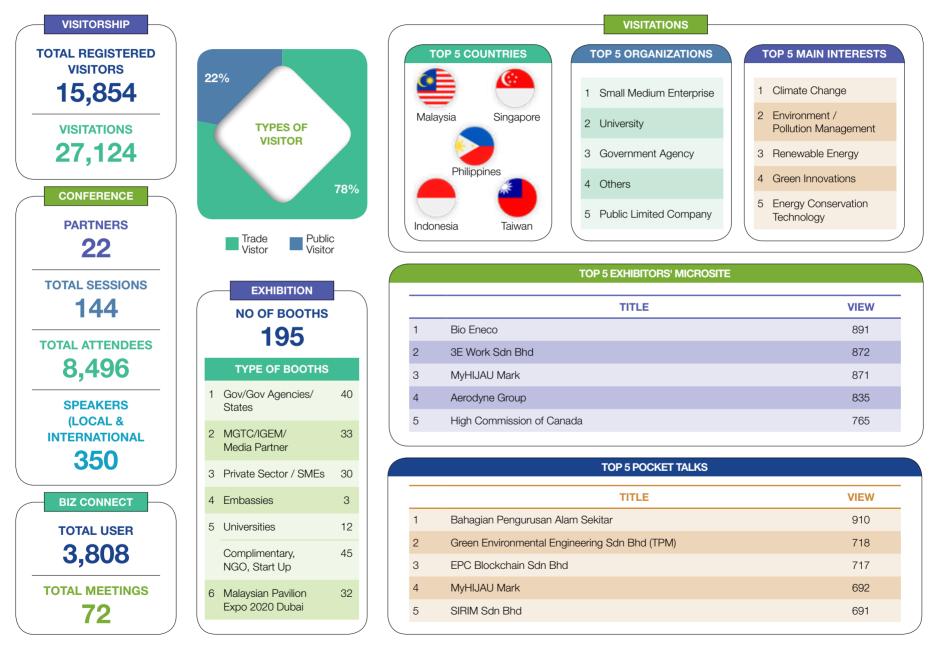
Various Country Pavilions at the IGEM 2021 Virtual Platform





VIRTUAL IGEM 2021

SUMMARY (1ST JULY 2021 - 31ST DEC 2021)



2

SUMMARY (1st JULY 2021 - 31st DEC 2021)



PARTICIPATION AT GLOBAL PLATFORMS

MGTC's role extends beyond Malaysia's borders in promoting local green products and services. MGTC explores opportunities at global platforms to introduce local companies and facilitate business partnerships.

EXPO 2020 DUBAI (1 OCTOBER 2021 - 31 MARCH 2022)



Considering the ongoing pandemic, this event, originally scheduled to commence on 20 October 2020, was postponed by a year to 1 October 2021. Reflecting the spirit of continuity, it still carried the name, 'EXPO 2020 Dubai' with the theme, "Connecting Minds, Creating the Future" and sub-themes of Opportunity, Sustainability and Mobility.

MGTC assumed the role of implementing agency for Malaysia's participation, with the Ministry of Science, Technology and Innovation Malaysia (MOSTI) as the lead Ministry to spearhead the country's presence and commitment to global cooperation. Malaysia was positioned as a dynamic and progressive nation driven by science, technology and innovation and an attractive place to invest in, engage in business, study or simply to visit.

Highlights

The key speaking engagements included:

5 OCTOBER

GREEN TRANSFORMATION OF THE CONSTRUCTION INDUSTRY

AR. SERINA HIJJAS Malaysia Pavilion Architect

7 OCTOBER

EFFECTIVE CLIMATE AND BIODIVERSITY SOLUTIONS

AR. SERINA HIJJAS Malaysia Pavilion Architect





9 OCTOBER

(CO-CURATED BY EXPO AND MALAYSIA) SUSTAINABILITY@ EXPO|RESTORING BALANCE

AR. SERINA

HIJJAS Malaysia Pavilion Architect



21 OCTOBER

WORLD MAJLIS | HOPE AND PERSEVERANCE: LESSONS LEARNT FROM THE RED PLANET FOR LIFE ON EARTH

EMERITA PROFESSOR TAN SRI DR MAZLAN OTHMAN

Director of the International Science Council (ISC) Regional Office for Asia and the Pacific



23 OCTOBER

SPACE- BUILDING CAPACITY & RESEARCH OPPORTUNITIES

MR. AZLIKAMIL NAPIAH Director General, Malaysian Space Agency (MYSA)



16 NOVEMBER

WORLD MAJLIS | THE BUSINESS OF COMPASSION: THE VALUE(S) OF OUR ECONOMY

HH TUNKU ZAIN AL'-ABIDIN IBNI TUANKU MUHRIZ

#MyButterflyEffect Campaign



17-19 OCTOBER

TE ARATINI GLOBAL INDIGENOUS SYMPOSIUM

ALENA MURANG Award Winning Indigenous Musician and Artist



14 DECEMBER

TBF-KNOWLEDGE AND LEARNING: OPPORTUNITIES FOR TOMORROW

TAN SRI DR. JEFFREY CHEAH Founder and Chairman, Sunway Group

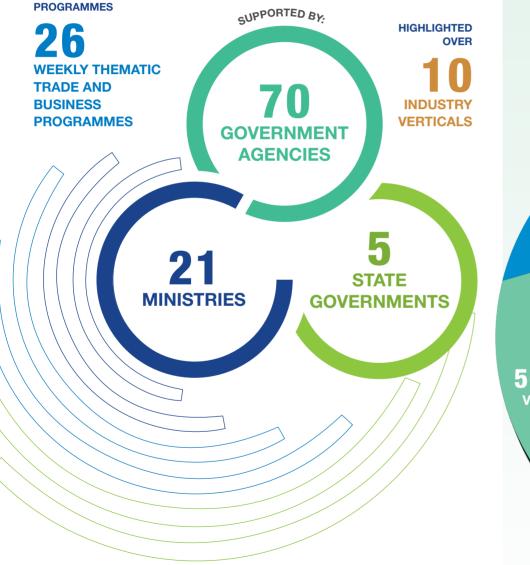


The Malaysia Pavilion programmes and activities were driven by these objectives:



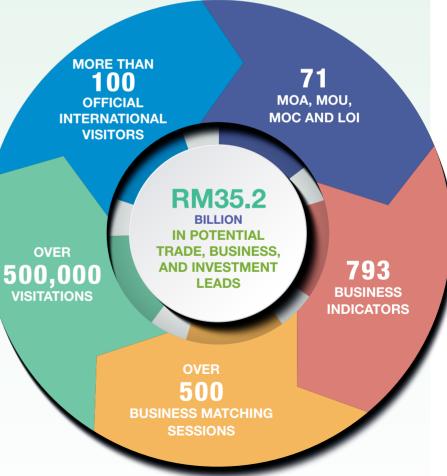
The key programmes for Expo 2020 Dubai included the 26 weekly thematic trade and business programmes, highlighted over 10 industry verticals and supported by 21 ministries, 70 government agencies and 5 state governments. These programmes created access to global markets for some 300 Malaysian companies.





Overall, the first three months of Expo 2020 Dubai saw Malaysia achieving the following: RM35.2 billion in potential trade and business leads, 71 Memorandums of Agreement, Memorandums of Understanding, Memorandums of Cooperation and Letters of Intent. 793 business indicators and holding over 500 business matching sessions. These exceeded Malaysia Pavilion's initial KPIs of between RM8 billion and RM10 billion business leads, and 20 partnerships signed during Expo 2020 Dubai.

The Pavilion also welcomed over 500,000 visitations and more than 100 official international visitors with over 500 cultural shows performed by the National Department for Culture and Arts (JKKN).



GREEN ADVISORY

MGTC's Green Advisory programme serves to help organisations pursue effective green strategies and adopt green technologies and culture.





RUMAH IBADAT HIJAU (RIH)

The Rumah Ibadat Hijau Programme is implemented by KASA through MGTC, as part of the environmental sustainability initiatives at community level. Selected places of worship will be role models of social institutions, having efficient energy and water consumption, efficient waste management and have low carbon, environmentally friendly and green technologies.

In 2021, KASA approved an allocation of RM60,000 for MGTC for this programme, to be implemented on 12 selected houses of worship for the pilot.

Tabung Wakaf Masjid Hijau was officially launched by Yayasan Waqaf Hijau, KASA and MGTC that year. Also in the same year, Indah Water Konsortium and Masjid Jamek Ara Kuda and MGTC organised the "Hari Bersama Penduduk dan Ahli Kariah". The total recycle waste of various types, including used cooking oil (UCO), collected at the event was 20 kg.

MGTC completed walk-through energy audits at 7 mosques comprising Masjid Jamek Ara Kuda, Masjid Jamek Sultan Abdul Aziz, Masjid Jamek Dato' Klana Sendeng, Masjid Jamek Tan Sri Ainuddin, Masjid Al-Sultan Ismail Petra, Masjid Al-Hasanah and Masjid Al-Mukhtafi Billah Shah.

COLLABORATION ACTION PLAN SINGLE USE PLASTIC (SUP) PREVENTION IN SOUTHEAST ASIA (CAP-SEA) 2021-2023

The CAP-SEA project has 4 components, which are EPR Policy Support and SUP Prevention Capacity Building, Stimulation of Plastic Recycling Market by Circular Economy (CE) Policy Support, Improving Design and Product Services and Pilot projects on SUP Prevention.

CAP-SEA supports Malaysia's Roadmap Towards Zero Single-Use Plastics (2018-2030), 12th Malaysia Plan (2021-2025) and Malaysia Sustainability Plastic Roadmap (2021-2030), all designed to introduce CE principles in production and consumption.

The project will benefit the economy, society and environment by reducing plastic pollution and demand for plastic production that contributes to global climate change. Beyond these impacts, the prevention of SUP has cultural effects, where companies are forced to innovate, rethink designs and source for sustainable materials.

97

SUSTAINABLE MOBILITY

LOW CARBON MOBILITY BLUEPRINT (LCMB) 2021 – 2030

THE LCMB DOCUMENT DEVELOPED BY MGTC AND LED BY KASA, IS AN OFFICIAL DOCUMENT APPROVED BY THE MALAYSIAN CABINET ON 29 OCTOBER 2021.

The LCMB was formulated through engagements, consultations and collective agreements with the relevant industries, government ministries and agencies that has resulted in a comprehensive guideline plan with defined key drivers and action plans aligned with national policies and principles to implement GHG and energy reduction measures for the land transport sector.

The announcement of electric vehicle (EV) ownership incentives through the 2022 Budget is expected to support the implementation of the National LCMB, as well as help improve the country's air quality index. The incentives provided will support the development of the EV ecosystem and open new green investment opportunities, green and low-carbon technology development as well as high-skilled green jobs in Malaysia.

Implementation will be carried out holistically with the concerted efforts of several other ministries including the Ministry of International Trade and Industry, the Ministry of Energy and Natural Resources, the Ministry of Transport and the Ministry of Housing and Local Government. Through resource support in the implementation of the LCMB, it is expected that the national agenda towards low mobility for the land transport sector can be achieved by 2030.



STRATEGIC THRUST INSTITUTIONAL FRAMEWORK



Global economies have accelerated efforts to drive the green agenda. However, much more needs to be done and urgently. Malaysia is cognisant of this pressing need and has stepped up policy-making efforts to spearhead concerted efforts among stakeholders. Malaysia's roadmap for its purposeful green technology journey is governed by policies and institutional frameworks, acting as guiding milestone markers along the way.

CUSTODIANS OF GREEN TECHNOLOGY IN MALAYSIA



MINISTRY OF ENVIRONMENT AND WATER (KASA)

Malaysia has embraced green technology, given its critical importance and is well entrenched as a signatory member of various international agreements, contributing to the efforts for global sustainable development.

At a local level, Malaysia's environmental focus commenced in 1974 under the umbrella of the Ministry of Local Office and Environment. To meet with the fastpaced demands of the environment, it has evolved over the decades, moving across a series of transformations to its current portfolio under the Ministry of Environment and Water (KASA).



MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION (MGTC)

In 2010, Malaysia took a bold step forward in its green technology journey by setting up what is now called MGTC, assuming responsibility as the overall coordinating agency.

Headquartered at Bandar Baru Bangi, MGTC is strategically located on the outskirts of Putrajaya, the country's administrative centre.

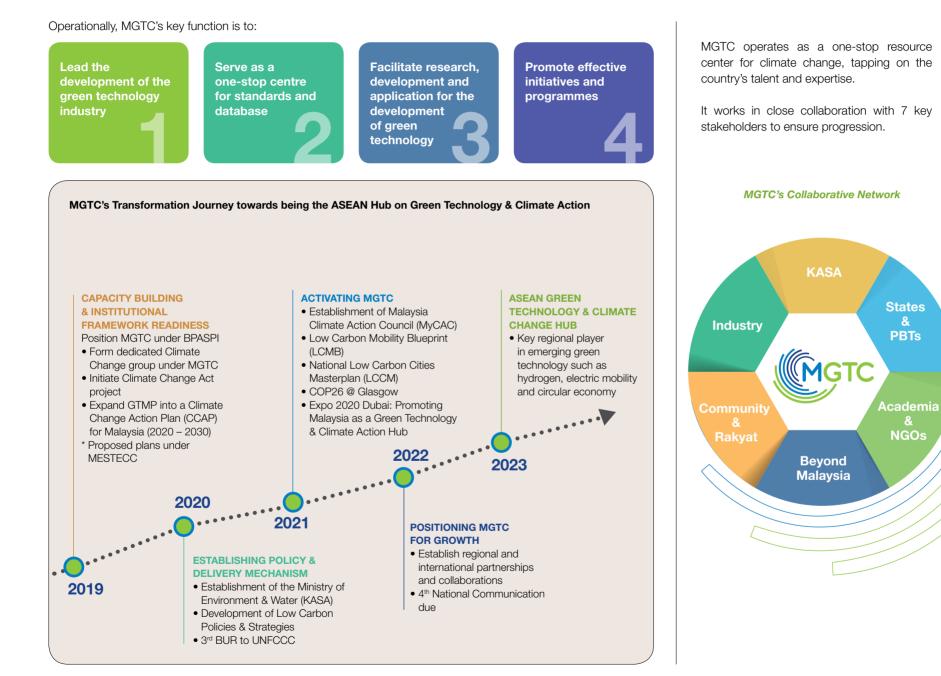
As the lead agency under KASA, MGTC is mandated to drive the country's green technology by introducing various policies, programmes and incentives to advocate the use of green technology in key economic sectors within the country.

Strategic Direction

Aligning with the fast-evolving environment, MGTC has reviewed and mapped out an enhanced strategic direction to take the nation progressively forward.

VISION	LEADING PARTNER FOR GREEN GROWTH & CLIMATE ACTION					
MISSION	To accelerate th	ne adoption of green energy and gr	een technology			
		PLANET (Environment) ADVANCE CLIMATE ACTION	PEOPLE (Education) ADVOCATE GREEN LIFESTYLE			
STRATEGIC OBJECTIVES	Image: Non-SectorImage: Non-SectorSustainable Consumption & ProductionSustainable Consumption & ProductionGovernment & Private Green ProcurementGovernment & 	Image: A constrained of the constrained	ADVOCATE GREEN LIPESTICE			
STRATEGIC TRUSTS	Promotion & Market Awareness Enabler	Human Capital Deve	esearch, elopment & hercialisation			
ORGANISATIONAL GOALS	Financial Operational Sustainability Efficiency	High Performing Data Driven Teams Decisions	Governance & Partnerships & Compliance			
VALUES	GRATITUDE RES	PONSIBLE ETHICAL EXCELLI				

MGTC's strategic direction to guide the nation into a green future



KEY POLICIES

The overarching national policies regulating MGTC's role as a catalyst for green economic growth are the:



UN CLIMATE CHANGE CONFERENCE UK 2021 (30 OCTOBER - 15 NOVEMBER 2021)



Commonly referred to as 'COP26' Summit, it brought parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

At COP26, various action plans were raised, amongst which were:

UPDATED NATIONALLY DETERMINED CONTRIBUTION (NDC)

NDCs are at the heart of the Paris Agreement and the achievement of these longterm goals. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.

It is essentially a climate action plan to cut emissions and adapt to climate impacts, specifically to reduce GHG emissions intensity of GDP by 45% (unconditional) by 2030 relative to emissions intensity of GDP in 2005.

NET-ZERO GHG EMISSIONS AS EARLY AS 2050



Over 190 countries agreed to pursue efforts to limit temperature increase to below 1.5°C and to achieve this target, global greenhouse gas emissions will need to be 'net zero' by the second half of this century.

PLAN OF ACTION

GREEN TECHNOLOGY MASTER PLAN (GTMP)

The GTMP guides the actionable and effective course for the country to embark on a green growth journey, establishing the foundation for the cultivation of mindset and behavioural change, to inculcate green lifestyle among the population.

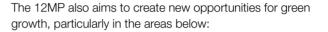
GTMP is the key reference outlining the focus of green technology development in Malaysia, anchoring on outcome-approach to deliver high socio-economic and environmental impact.



GTMP's key strategic focus sectors

12TH MALAYSIA PLAN 2021-2025 (12MP)

The 12MP is an ambitious blueprint to rebuild Malaysia's resilient economy. It seeks to address current issues and at the same time, to restart and rejuvenate the country's socioeconomic development for long-term sustainability and prosperity.



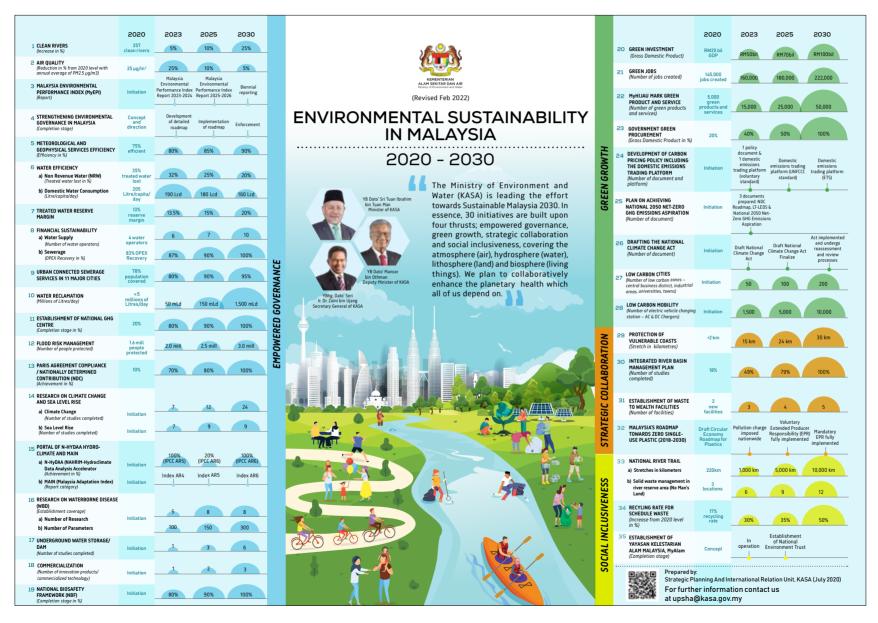
- I. Advancing Green Growth for Sustainability and Resilience
- II. Enhancing Efficiency of Transport and Logistics Infrastructure
- III. Improving Regional Balance and Inclusion
- IV. Restoring Growth Momentum



103

ENVIRONMENTAL SUSTAINABILITY IN MALAYSIA 2020-2030 ROADMAP

Launched on 24 February 2021, the "Strategic Plan 2020-2030: Environmental Sustainability in Malaysia" is a comprehensive document, setting clear goals and targets towards achieving environmental sustainability by 2030. It covers the Malaysia Plan which includes the government's agenda, current policies and also the country's sustainable development agenda through the UN SDGs.



NATIONAL LOW CARBON CITIES MASTERPLAN (NLCCM)

In paving the pathway to low carbon cities, there is a need for a significant shift from the current way of implementing low carbon development.

To achieve this, the NLCCM has identified six pertinent areas, as below:



TRANSFORMING MALAYSIAN CITIES INTO LOW CARBON CITIES





GOVERNANCE AND IMPLEMENTATION FRAMEWORK

Streamline the governance and implementation framework for low carbon development



URBAN PLANNING

Institutionalise low carbon elements in urban planning

KEY ENABLERS

COMMUNITY PARTICIPATION

Get community to actively participate in green initiatives

FUNDING AND CAPACITY BUILDING

Source for funding, financing and investment system in low carbon development, as well as increase capacity



DATA COLLECTION AND ANALYSIS

Develop a single window and seamless link to data, information and resources as well as provide a common set of performance management metrics to be used for emissions evaluations

KEY DIRECTIONS, KEY ACTIONS AND TARGETS



BUILT ENVIRONMENT AND PHYSICAL INFRASTRUCTURE

Strengthen the built environment and physical infrastructure to ensure low carbon and sustainable development at urban level

105

LOW CARBON MOBILITY BLUEPRINT (2021 - 2030)

The objective of the Low Carbon Mobility Blueprint (2021-2030) is to assess the best options in energy and GHG mitigation planning in the transport sector, in particular land transport, using scenario analyses of a business-as-usual case and similarly for 2030.

The output is expected to complement KASA's existing Green Technology Master Plan with clearer targets and action plans specific to the transport sector in Malaysia.

The blueprint has developed six clear strategic actions to enable low carbon mobility, as below:



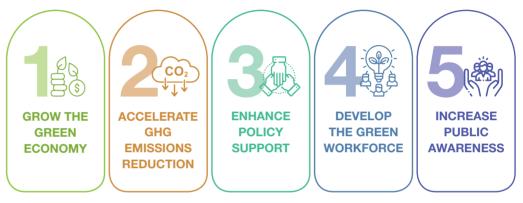
This commitment is aimed at decreasing the poverty line within Malaysia's multiracial community. As an enabler, MGTC will strengthen its support to green technology industries to boost the country's socio-economy



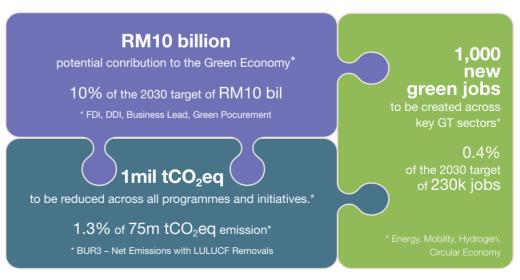
COMMITMENT TO DELIVER

To adapt to the fast-paced and evolving environment, MGTC realigned its operations across 2021 to ensure the optimum performance and impactful delivery of MGTC's products and services in the years ahead.

MGTC's 5 Key Performance Indicators (KPI) for 2022:



With this operational framework in place, MGTC is looking to achieve the targets set for 2022, as below:



MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION

Calendar of Key Events 2021

JANUARY

Seminar and Briefing Session on Government Incentives in the Green Technology Sector in Malaysia - Year 2021 Session #1

DATE : 20 January 2021 VENUE : Virtual (via Zoom)

The webinar aims to acquaint companies with the application process flow, criteria and requirement for MyHIJAU Mark Product and Services, and Green Technology Tax Incentives (GITA & GITE) applications. It includes a sharing session on Green Training, the National Energy Award (NEA) and IGEM 2021.



Malaysia Department of Irrigation & Drainage (DID) Capacity Building Programme: GHG Assessment

DATE : 9 - 11 February 2021 2 - 3 Mac 2021 VENUE : Virtual (via MS Teams)

Malavsian Green Technology and Climate Change Corporation (MGTC) is committed to support DID Malaysia by providing capacity building programme through technical training on GHG assessment. The objectives of the capacity building programme are to educate participants on how to calculate GHG emissions covering Scope 1, 2 and selected Scope 3; to guide the target setting for companies and mitigation strategies to reduce emissions.

MARCH



Expo Talk: Global Goals

DATE : 9 - 10 March 2021 VENUE : Via Online (ZOOM)

Tan Sri Dr. Jemilah Mahmood was invited as panelist to the discussion on global sustainability goals.

APRIL

NEA 2020 Appreciation Ceremony

DATE : 5 April 2021 VENUE : The Majestic Hotel, Kuala Lumpur



The National Energy (NEA) Awards is an annual recognition by the aovernment of Malaysia to acknowledge outstanding achievements and best practices in driving the country's sustainable energy sector.

It encourages industry players in the energy efficiency and renewable energy sectors including businesses and institutions in Malaysia that have adopted sustainable practices in their operations to play an important role in transforming the country's sustainable energy landscape.

NEA 2020 evaluated and identified organisations as Malaysia's representatives at the ASEAN Energy Awards 2020 which was held in Vietnam, with 20 organisations and 7 special submissions going to ASEAN Energy Awards (AEA) 2020, and a total of 15 organisations won this prestigious regional award.

For more information: https://www.nationalenergyaward.com.mv/



Roundtable Discussion on Low Emission Pathway for Malaysia

Parcel F Putrajaya

Webinar on "Post-Solar Investment: What to Expect for the Next 90 Days"



DATE : 27 April 2021 VENUE : Virtual (via Zoom)

MGTC has been invited as one of the speakers for the event organised by Plus Xnergy Sdn Bhd, which aims to prepare audiences on what to expect after they have chosen to invest in solar energy. MGTC provided a briefing on the available incentives for the solar industry and the eligibility requirements of each.

AEMAS EMGS 3-Star Certification Assessment for Hospital Slim River, Perak

DATE : 26 - 28 April 2021 VENUE : Hospital Slim River, Perak

emissions in the long run.

Energy Management Gold Standard (EMGS) is a recognition given under the ASEAN Energy Management Scheme (AEMAS), to end-users who have successfully implemented sustainable energy management system according to the scheme's requirements.

Roundtable Discussion on Low Emission Pathway for Malavsia

was held via a hybrid set up. The session aims to obtain input

from stakeholders that will be taken into account in the policy

planning and implementation of government programmes in

the future. The low emission pathway approach is one of the

country's strategies to achieve the target of reducing GHG

An assessment was carried out at Hospital Slim River, Perak, which resulted in the award of the EMGS 3-Star Certification to the facility.





Nationally Determined Contribution (NDC) Update Stakeholder Engagement Workshop for Adaptation

DATE : 6 & 7 May 2021 VENUE : Virtual (via MS Teams)

The Nationally Determined Contribution (NDC) Update Stakeholder Engagement Workshop for Adaptation was held on 6 and 7 May 2021 via a hybrid set up. Twenty-one secretariat members were physically present at Kompleks C7, Putrajaya, whereas 260 participants attended virtually via Zoom. KASA and MGTC co-organised the workshop with the support of UNDP Malaysia under the Climate Promise Project.

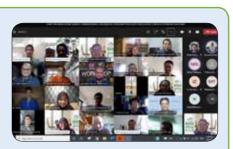
JUNE

WORLD ENVIRONMENT DAY 2021: Virtual Environment Awareness Programme (VEAP): Let's Talk to our Family Members & Friends

DATE : 5 & 6 June 2021 VENUE : Virtual

This programme was held to encourage MGTC staff to spread environmental awareness and green practices to the public by engaging with the content on MGTC's social media platforms to deliver greater awareness to the staffs' network of friends and family.





New Energy Management Gold Standard (EMGS) Documentation Development Online Workshop

DATE : 17 June 2021 VENUE : Virtual (via MS Teams)

After the new EMGS documents were drafted, this one-day workshop was conducted with the participation of EMGS assessors and relevant stakeholders to discuss the technical aspects of the documentation and the management aspects for the documentation.



MGTC Mini Food Bank (MMFB)

DATE : July - October 2021 (MCO) VENUE : MGTC

The MGTC Mini Food Bank (MMFB) initiative was carried out during the MCO implementation in July to October 2021 to lend a helping hand to the needy within the Bandar Baru Bangi area.

A total of RM6,000 was donated from MGTC staff and KASA to fund this initiative, which was used to provide daily necessities such as rice, sugar, flour and all sorts of food stuff at the MMFB counter established at the MGTC guardhouse. The food bank was open from 9am to 6pm daily throughout the campaign period.

AUGUST

Webinar Series: Malaysia Lestari: Apa Kata Belia

VENUE : Virtual (via Zoom)

In conjunction with the National Day and Malaysia Day 2021 celebrations, MGTC organised a series of Webinars entitled "Malaysia Lestari: Apa Kata Belia?" with panels of local youths for them to share things related to the practice of Sustainable Living.



The objective was to discuss and exchange views and perspectives, particularly with the youth generation, on sustainable lifestyle and the culture of sustainable living.

Below are the details of the implementation:

Malay	: 1 September 2021 (Wednesday) 3.00 PM	÷	Mandarin	: 10 September 2021 (Friday) 3.00 PM
English	: 7 September 2021 (Tuesday) 3.00 PM	÷	Tamil	: 15 September 2021 (Wednesday) 3.00 PM

SEPTEMBER

Announcement of NEA 2021 Winners

DATE : 11 September 2021 VENUE : Virtual

The National Energy Awards (NEA) returned for the fourth consecutive year to recognize 32 local industry players with exceptional achievements in the field of Renewable Energy (RE) and Energy Efficiency (EE). The winners of NEA 2021 were announced virtually by the Ministry of Energy and Natural Resources (KeTSA).

A total of 12 organisations were selected as winners for the Category of Energy Efficiency, and 11 for the Best Renewable Energy Projects.

Additionally, three special awards were presented for Best Practices in Energy Performance Contracting, Best Sustainable Practices by Institute of Higher Learning, and Sustainable Energy Financing.

The winners of NEA 2021 represented Malaysia at the ASEAN Energy Awards (AEA) 2021, South-East Asia's highest award for excellence in the field of energy.











Awareness and Capacity Building Session for the Updated Nationally Determined Contribution (NDC) Malaysia

DATE : 23 September 2021 VENUE : Virtual (via Zoom) TIME : 9.30 AM – 11.30 AM

The 1st session of Awareness and Capacity Building Session for the Updated Nationally Determined Contribution (NDC) Malaysia was held on 23 September 2021. The half-day workshop saw a total of 256 participants mainly from private sectors and non-governmental organisations (NGOs). The session was held virtually via Zoom platform. The Ministry of Environment and Water (KASA) and Malaysian

9.30 AM - 11.30 AM
Green Technology and Climate Change
Corporation (MGTC) co-organised this
a session with the support of United Nations
Development Programme (UNDP) Malaysia
under the Climate Promise Project. This

under the Climate Promise Project. This Capacity Development and Stakeholder Awareness session aimed to build capacity and stakeholder awareness of the updated NDC Malaysia with key stakeholders.

OCTOBER

Malaysia Pavilion Opening Ceremony

DATE : 4 October 2021 VENUE : Malaysia Pavilion, Expo 2020 Dubai

Ambassador of Malaysia to the United Arab Emirates (UAE), His Excellency Mohd Tarid Sufian, officiated the opening of the Malaysia Pavilion at Expo 2020 Dubai.



Hari Alam Sekitar Negara 2021 Celebration @ MGTC: Jom Kitar Semula bersama Alam Flora

DATE : 20 October 2021 VENUE : MGTC

The Jom Kitar Semula recycling campaign was held together with Alam Flora in conjunction with Hari Alam Sekitar Negara. MGTC managed to gather a total of 1.2 tonnes of waste from the community.



Seminar and Briefing Session on Government Incentives in the Green Technology Sector in Malaysia - Year 2021 Session #12



DATE : 6 October 2021 VENUE : Virtual Platform at IGEM 2021

The webinar aims to acquaint companies with the application process flow, criteria and requirement for MyHIJAU, GITA and GITE applications.



Bursa Capacity Building Programme: GHG Assessment

DATE : 28 - 29 October 2021 VENUE : Virtual (via MS Teams)

Malaysian Green Technology and Climate Change Corporation (MGTC) is committed to support BURSA Malaysia by providing capacity building programme through technical training on GHG assessment to enable companies to reach Level 3 of the FTSE4Good Bursa Malaysia. The objectives of the capacity building programme are to educate participants on how to calculate GHG emissions covering Scope 1, 2 and selected Scope 3; to guide the target setting for companies and mitigation strategies to reduce emissions; and to provide awareness on sustainability reporting principles under climate change for Level 1, 2 and 3.



NOVEMBER



Climate Change Conversation on Sustainable Cities and Seminar on **Accelerating Low Carbon Cities**

DATE : 1 November 2021 VENUE : Terra Auditorium, Expo 2020 Dubai

Jointly organised by KASA and MGTC, this international forum featured experts and panelists discussing the challenges of creating sustainable infrastructures across the globe. A seminar was held after the forum, where speakers from Malaysia shared their insights on accelerating low carbon cities towards a low carbon future.

Launch of #EnergiseMv

DATE : 18 November 2021 VENUE : Expo 2020 Dubai

His Highness Tunku Zain Al-'Abidin was the guest of honour at the launch of Malaysia Pavilion's #EnergiseMY social media campaign.



DECEMBER



MGTC Teambuilding: Building High Performing Culture

DATE : 1, 2 & 8 December 2021 VENUE : Tadom Hills, Banting

A series of teambuilding programmes led by Focus Learning Consultation were organised by MGTC to cultivate High Performing Culture among the staff in line with MGTC's GREEN values. The programme was held at Tadom Hills, Banting, with staff divided into three groups to maximise the impact of the teambuilding sessions.



MyButterfly Kite Flying Event

DATE : 20 November 2021 VENUE : Al Forsan Park, Dubai

In conjunction with World Children's Day to commemorate the Declaration of the Rights of the Child by the UN General Assembly, a kite flying event was held to kick-off the #Mybutterfly Effect Campaign by Malaysia Pavillion to inspire people to make a difference in their own capacities and celebrate the ripple effect of exemplary actions.





Bursa Capacity Building Programme: GHG Assessment

DATE : 18 - 19 November 2021 VENUE : Virtual (via MS Teams)

MGTC continued to support BURSA Malaysia in capacity building through the provision of technical training on GHG assessment to enable companies to reach Level 3 for FTSE4Good Bursa Malaysia.

DECEMBER

Awareness and Capacity Building Session for the Updated Nationally Determined Contribution (NDC) Malaysia

```
DATE : 2 December 2021
TIME : 9.30 AM – 11.30 AM
VENUE : Virtual (via Zoom)
```

A second Awareness and Capacity Building Session for the Updated Nationally Determined Contribution (NDC) Malaysia was held on 2 December 2021, with 116 participants from the private sector and NGOs joining the halfday workshop co-organised by KASA and MGTC. The event was supported by the UNDP Malaysia under the Climate Promise Project.



Mobiliti Aktif Bersama MGTC

DATE : 12 December 2021 VENUE : Dataran DBKL, Raja Laut Kuala Lumpur

Malaysian Green Technology and Climate Change Corporation (MGTC) in collaboration with Dewan Bandaraya Kuala Lumpur (DBKL) launched Mobiliti Aktif bersama MGTC aims to create public awareness in practicing an active mobility lifestyle through cycling activities. The programme held at Dataran DBKL, Raja Laut Kuala Lumpur was attended by more than 100 participants from all over Malaysia.





Webinar Perubahan Iklim: *Apa Kata Belia?*

DATE : 13 December 2021 TIME : 9.30 AM – 11.30 AM VENUE : Virtual (via Zoom)

The "Webinar Perubahan Iklim: Apa Kata Belia?" was coorganised by KASA and MGTC with the support of UNDP Malaysia under the Climate Promise Project. This half-day virtual webinar recorded a total of 479 viewers from Facebook and 34 participants from Zoom. The objective of this webinar is to socialise and create awareness among Malaysian youths on climate change issues.

MGTC Staff Appreciation Day 2021

DATE : 21 December 2021 VENUE : Doubletree by Hilton, Putrajaya

A small but memorable hi-tea event was held to show appreciation for the hard work and dedication of all MGTC staff throughout the year 2021. Highlights of the event included a lucky draw, and the presentation of Service Award 2021 and LTS award to recipients.





MGTC Friends Help Friends (FHF): Bantuan Banjir

DATE : 24 & 27 December 2021 VENUE : Hulu Langat, Banting

Under the FHF initiative, MGTC managed to gather groups of volunteers to help staff affected by the flood last December. The initiative helped with the cleanup of houses and sent basic necessities to the flood victims.

Financial Statements

114 DIRECTORS' REPORT

119

STATEMENT BY DIRECTORS

120 STATUTORY

DECLARATION

121 INDEPENDENT AUDITORS' REPORT

124 STATEMENTS OF FINANCIAL POSITION 126 STATEMENTS OF PROFIT OR LOSS

AND OTHER COMPREHENSIVE INCOME

127 STATEMENTS OF

CHANGES IN EQUITY **128** STATEMENTS OF CASH FLOWS

130 NOTES TO THE FINANCIAL STATEMENTS

The directors hereby submit their report and the audited financial statements of the Group and of the Company for the financial year ended 31 December 2021.

PRINCIPAL ACTIVITIES

The principal activities of the Company is to act as the focal point for the development of green technology in Malaysia by undertaking advisory services, driving and facilitating the implementation and growth of green technology industry and compiling data by way of coordination, development, training, transfer, adoption, research and development, innovation and commercialisation in green technology.

The principal activities of the subsidiaries are set out in Note 6 to the financial statements. There have been no significant changes in the nature of these activities during the financial year.

CHANGE OF NAME

On 15 September 2021, the Company changed its name from Malaysian Green Technology And Climate Change Centre to Malaysian Green Technology And Climate Change Corporation.

RESULTS

	THE GROUP RM	THE COMPANY RM
Profit after taxation for the financial year	546,944	634,738

DIVIDENDS

The Company is prohibited from paying any dividend under Section 45(2)(b) of the Companies Act 2016 in Malaysia.

RESERVES AND PROVISIONS

There were no material transfers to or from reserves or provisions during the financial year.

(CONT'D)

ISSUES OF SHARES AND DEBENTURES

The Company is a company limited by guarantee and does not have any share capital. No debentures have been issued by the Company.

INVESTMENTS

The passive investment only was restricted to fixed deposits and Repo, in accordance to the Constitution of the Company.

BAD AND DOUBTFUL DEBTS

Before the financial statements of the Group and the Company were made out, the directors took reasonable steps to ascertain that action had been taken in relation to the writing off of bad debts and the making of allowance for impairment losses on receivables and satisfied themselves that there are no known bad debts and that no allowance for impairment losses on receivables and satisfied themselves that there are no known bad debts and that no allowance for impairment losses on receivables and satisfied themselves that there are no known bad debts and that no allowance for impairment losses on receivables is required.

At the date of this report, the directors are not aware of any circumstances that would require the writing off of bad debts, or the allowance for impairment losses on receivables in the financial statements of the Group and of the Company.

CURRENT ASSETS

Before the financial statements of the Group and of the Company were made out, the directors took reasonable steps to ensure that any current assets, which were unlikely to be realised in the ordinary course of business, including their value as shown in the accounting records of the Group and of the Company, have been written down to an amount which they might be expected so to realise.

At the date of this report, the directors are not aware of any circumstances which would render the values attributed to the current assets in the financial statements misleading.

VALUATION METHODS

At the date of this report, the directors are not aware of any circumstances which have arisen which render adherence to the existing methods of valuation of assets or liabilities of the Group and of the Company misleading or inappropriate.

(CONT'D)

CONTINGENT AND OTHER LIABILITIES

At the date of this report, there does not exist:-

(a) any charge on the assets of the Group and of the Company that has arisen since the end of the financial year which secures the liabilities of any other person; or

(b) any contingent liability of the Group and of the Company which has arisen since the end of the financial year.

No contingent or other liability of the Group and of the Company has become enforceable or is likely to become enforceable within the period of twelve months after the end of the financial year which, in the opinion of the directors, will or may substantially affect the ability of the Group and of the Company to meet their obligations when they fall due.

CHANGE OF CIRCUMSTANCES

At the date of this report, the directors are not aware of any circumstances not otherwise dealt with in this report or the financial statements of the Group and of the Company which would render any amount stated in the financial statements misleading.

ITEMS OF AN UNUSUAL NATURE

The results of the operations of the Group and of the Company during the financial year were not, in the opinion of the directors, substantially affected by any item, transaction or event of a material and unusual nature.

There has not arisen in the interval between the end of the financial year and the date of this report any item, transaction or event of a material and unusual nature likely, in the opinion of the directors, to affect substantially the results of the operations of the Group and of the Company for the financial year in which this report is made.

(CONT'D)

DIRECTORS

The names of directors of the Company who served during the financial year and up to the date of this report are as follows:-

Datuk Wira Jalilah Binti Baba Professor Dato' Ir. Dr. A Bakar Bin Jaafar Datuk Hiswani Binti Harun Dato' Leong Kin Mun Ismail Bin Mohd Amin *(Appointed on 14.10.2021)* Che Kodir Bin Baharum *(Appointed on 14.1.2022)* Hasifah Binti Mohd Murtadza *(Appointed on 15.3.2022)* Muhammad Zulhilmi bin Ahmad *(Appointed on 21.4.2022)* Dr. Nagulendran A/L Kangayatkarasu *(Resigned on 22.8.2021)*

The names of directors of the Company's subsidiaries who served during the financial year and up to the date of this report, not including those directors mentioned above, are as follows:-

T/Sharifah Hanif Binti Tengku Hamzah Noor Azmin Azali Bin Ramli Saiful Adib bin Abdul Munaff (*Appointed on 22.1.2022*) Haji Ismail bin Mohd Amin (*Appointed on 22.1.2022*) Syed Ahmad bin Syed Mustafa (*Resigned on 21.1.2022*)

DIRECTORS' INTERESTS

The Company is a company limited by guarantee and does not have any share capital.

DIRECTORS' BENEFITS

Since the end of the previous financial year, no director has received or become entitled to receive any benefit (other than directors' remuneration as disclosed in Note 23 to the financial statements) by reason of a contract made by the Company or a related corporation with the director or with a firm of which the director is a member, or with a company in which the director has a substantial financial interest.

Neither during nor at the end of the financial year was the Group or the Company a party to any arrangements whose object is to enable the directors to acquire benefits by means of the acquisition of shares in or debentures of the Company or any other body corporate.

(CONT'D)

DIRECTORS' REMUNERATION

The details of the directors' remuneration paid or payable to the directors of the Group during the financial year are disclosed in Note 23 to the financial statements.

INDEMNITY AND INSURANCE COST

During the financial year, there is no indemnity given to or professional indemnity insurance effected for directors, officers or auditors of the Company.

SUBSIDIARIES

The details of the Company's subsidiaries are disclosed in Note 6 to the financial statements.

AUDITORS

The auditors, Crowe Malaysia PLT, have expressed their willingness to continue in office.

The details of the auditors' remuneration are disclosed in Note 23 to the financial statements.

Signed in accordance with a resolution of the directors dated 31 May 2022.

Datuk Wira Jalilah Binti Baba

Professor Dato' Ir. Dr. A Bakar Bin Jaafar

Statements by Directors

PURSUANT TO SECTION 251(2) OF THE COMPANIES ACT 2016

We, Datuk Wira Jalilah Binti Baba and Professor Dato' Ir. Dr. A Bakar Bin Jaafar, being two of the directors of Malaysian Green Technology And Climate Change Corporation (formerly known as Malaysian Green Technology And Climate Change Centre), state that, in the opinion of the directors, the financial statements set out on pages 124 to 169 are drawn up in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia so as to give a true and fair view of the financial position of the Group and of the Company as of 31 December 2021 and of their financial performance and cash flows for the financial year ended on that date.

Signed in accordance with a resolution of the directors dated 31 May 2022.

Datuk Wira Jalilah Binti Baba

Professor Dato' Ir. Dr. A Bakar Bin Jaafar

Statements by Declaration

PURSUANT TO SECTION 251(1)(B) OF THE COMPANIES ACT 2016

I, Shamsul Bahar Mohd Nor, being the officer primarily responsible for the financial management of Malaysian Green Technology And Climate Change Corporation (formerly known as Malaysian Green Technology And Climate Change Centre), do solemnly and sincerely declare that the financial statements set out on pages 124 to 169 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the declaration to be true, and by virtue of the Statutory Declarations Act 1960.

Subscribed and solemnly declared by the abovementioned Shamsul Bahar Mohd Nor, NRIC Number: 640221-08-5905, at Kuala Lumpur in the Federal Territory on this

IAYA 31 No. W-275 Datin Hih Rairela Wanchik 1-1-2022 29-04-2023 Before me LAY B-1-2, Blok B, Tingkat 1 Unit 2 Megan Avenue II No 12, Jalan Yap Kwan Seng, 50450, Kuala Lumpur

Shamsul Bahar Mohd Nor

Independent Auditors' Report

TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Opinion

We have audited the financial statements of Malaysian Green Technology And Climate Change Corporation (formerly known as Malaysian Green Technology And Climate Change Centre), which comprise the statements of financial position as at 31 December 2021 of the Group and of the Company, and the statements of profit or loss and other comprehensive income, statements of changes in equity and statements of cash flows of the Group and of the Company for the financial year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 124 to 169.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Group and of the Company as at 31 December 2021, and of their financial performance and their cash flows for the financial year then ended in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

Basis for Opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence and Other Ethical Responsibilities

We are independent of the Group and of the Company in accordance with the *By-Laws (on Professional Ethics, Conduct and Practice)* of the Malaysian Institute of Accountants ("By-Laws") and the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards*) ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Information Other than the Financial Statements and Auditors' Report Thereon

The directors of the Company are responsible for the other information. The other information comprises the Directors' Report, but does not include the financial statements of the Group and of the Company and our auditors' report thereon.

Our opinion on the financial statements of the Group and of the Company does not cover the Directors' Report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Group and of the Company, our responsibility is to read the Directors' Report and, in doing so, consider whether the Directors' Report is materially inconsistent with the financial statements of the Group and of the Company or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Independent Auditors' Report

TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION $_{\rm (CONT^\prime D)}$

Information Other than the Financial Statements and Auditors' Report Thereon (Cont'd)

If, based on the work we have performed, we conclude that there is a material misstatement of this Directors' Report, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Statements

The directors of the Company are responsible for the preparation of the financial statements of the Group and of the Company that give a true and fair view in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia. The directors are also responsible for such internal control as the directors determine is necessary to enable the preparation of financial statements of the Group and of the Company that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Group and of the Company, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or have no realistic alternative but to do so.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Group and of the Company as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:-

- Identify and assess the risks of material misstatement of the financial statements of the Group and of the Company, whether due to fraud or error, design and perform audit
 procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material
 misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override
 of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION $_{\rm (CONT^\prime D)}$

Auditors' Responsibilities for the Audit of the Financial Statements (Cont'd)

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's or the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Group and of the Company or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group or the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements of the Group and of the Company, including the disclosures, and whether the financial statements of the Group and of the Company represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

OTHER MATTERS

This report is made solely to the members of the Company, as a body, in accordance with Section 266 of the Companies Act 2016 in Malaysia and for no other purpose. We do not assume responsibility to any other person for the content of this report.

Crowe Malaysia PLT 201906000005 (LLP0018817-LCA) & AF 1018 Chartered Accountants

Kuala Lumpur 31 May 2022

Ool Song Wan 02901/10/2022 J Chartered Accountant

Statements of Financial Position

AT 31 DECEMBER 2021

			GROUP	THE COMPANY	
	NOTE	2021 RM	2020 RM	2021 RM	2020 RM
ASSETS					
NON-CURRENT ASSETS					
Investment in subsidiaries	6	-	-	2,500,000	2,500,000
Property and equipment	7	14,130,361	14,560,968	14,130,361	14,560,968
Right-of-use assets	8	2,853,422	2,905,837	2,853,422	2,905,837
Deferred expenditure		1,960,118	3,013,401	1,960,118	3,013,401
		18,943,901	20,480,206	21,443,901	22,980,206
CURRENT ASSETS					
Trade receivables	9	2,517,223	2,661,245	2,517,223	2,661,245
Other receivables, deposits and prepayments	10	29,553,591	5,905,756	29,553,591	5,905,756
Amount owing by subsidiaries	11	-	-	580,125	482,813
Current tax assets		-	132,397	-	132,397
Fixed deposits with a licensed bank	12	90,388,481	68,140,579	88,378,910	68,140,579
Cash and bank balances		965,271	5,181,861	442,556	2,659,220
		123,424,566	82,021,838	121,472,405	79,982,010
TOTAL ASSETS		142,368,467	102,502,044	142,916,306	102,962,216

Statements of Financial Position

AT 31 DECEMBER 2021 (CONT'D)

	THE 0 2021				E COMPANY	
	NOTE	RM	RM	2021 RM	RM	
EQUITY AND LIABILITIES EQUITY						
Retained profits	13	25,853,111	25,306,167	26,439,393	25,804,655	
NON-CURRENT LIABILITIES Government grants Deferred income Building fund Lease liabilities	14 15 16 17	54,820,059 17,134,568 15,467,306 12,702	29,190,226 667,350 15,467,306 27,824	54,820,059 17,134,568 15,467,306 12,702	29,190,226 667,350 15,467,306 27,824	
CURRENT LIABILITIES		87,434,635	45,352,706	87,434,635	45,352,706	
Trade payables Other payables and accruals Lease liabilities Current tax liability	18 19 17	3,802,470 25,183,797 6,691 87,763	5,419,120 26,415,097 8,954 –	3,802,470 25,145,354 6,691 87,763	5,419,120 26,376,781 8,954 –	
		29,080,721	31,843,171	29,042,278	31,804,855	
TOTAL LIABILITIES		116,515,356	77,195,877	116,476,913	77,157,561	
TOTAL EQUITY AND LIABILITIES		142,368,467	102,502,044	142,916,306	102,962,216	

Statements of Profit or Loss and Other Comprehensive Income

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021

	THE GROUP			THE COMPANY	
	NOTE	2021 RM	2020 RM	2021 RM	2020 RM
REVENUE	20	5,134,025	5,899,252	5,134,025	5,899,252
COST OF SALES	21	(1,806,847)	(2,446,741)	(1,806,847)	(2,446,741)
GROSS PROFIT		3,327,178	3,452,511	3,327,178	3,452,511
GOVERNMENT GRANT	22	49,902,763	48,978,571	49,902,763	48,978,571
OTHER INCOME		2,418,719	2,237,936	2,408,988	2,237,936
ADMINISTRATIVE EXPENSES	23	(53,914,397)	(53,575,674)	(53,816,958)	(53,558,529)
OTHER EXPENSES		(606,198)	(644,748)	(606,198)	(644,748)
FINANCE COST		(961)	(1,578)	(875)	(1,578)
PROFIT BEFORE TAXATION		1,127,104	447,018	1,214,898	464,163
INCOME TAX EXPENSE	24	(580,160)	(352,934)	(580,160)	(352,934)
PROFIT AFTER TAXATION		546,944	94,084	634,738	111,229
OTHER COMPREHENSIVE INCOME		-	-	-	_
TOTAL COMPREHENSIVE INCOME FOR THE FINANCIAL YEAR		546,944	94,084	634,738	111,229
PROFIT AFTER TAXATION ATTRIBUTABLE TO:- Owner of the Company		546,944	94,084	634,738	111,229
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:- Owner of the Company		546,944	94,084	634,738	111,229

Statements of Changes in Equity

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021

	RETAINED PROFITS RM	TOTAL EQUITY RM
THE GROUP		
Balance at 1.1.2020	25,212,083	25,212,083
Profit after taxation for the financial year/Total comprehensive income for the financial year	94,084	94,084
Balance at 31.12.2020/1.1.2021	25,306,167	25,306,167
Profit after taxation for the financial year/Total comprehensive income for the financial year	546,944	546,944
Balance at 31.12.2021	25,853,111	25,853,111
	RETAINED PROFITS RM	TOTAL EQUITY RM
THE COMPANY		
Balance at 1.1.2020	25,693,426	25,693,426
Profit after taxation for the financial year/Total comprehensive income for the financial year	111,229	111,229
Balance at 31.12.2020/1.1.2021	25,804,655	25,804,655
Profit after taxation for the financial year/Total comprehensive income for the financial year	634,738	634,738

Balance at 31.12.2021

26,439,393

26,439,393

Statements of Cash Flows

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021

	THE GROUP		THE COMPANY	
	2021 RM	2020 RM	2021 RM	2020 RM
CASH FLOWS (FOR)/FROM OPERATING ACTIVITIES				
Profit before taxation	1,127,104	447,018	1,214,898	464,163
Adjustments for:-				
Depreciation of property and equipment	553,783	592,333	553,783	592,333
Depreciation of right-of-use assets	52,415	52,415	52,415	52,415
Amortisation of building fund	-	(701,002)	-	(701,002)
Gain on disposal of equipment	(25,000)	-	(25,000)	-
Interest income	(1,231,395)	(1,395,969)	(1,221,664)	(1,395,969)
Interest expenses	875	1,578	875	1,578
Operating profit/(loss) before working capital changes	477,782	(1,003,627)	575,307	(986,482)
Decrease in deferred expenditure	1,053,283	1,436,574	1,053,283	1,436,574
Increase in deferred income	16,467,218	106,546	16,467,218	106,546
Increase in trade and other receivables	(23,503,813)	(3,521,686)	(23,503,813)	(3,521,686)
(Decrease)/Increase in trade and other payables	(2,847,950)	18,514,894	(2,848,077)	18,515,503
Increase in amount owing by subsidiaries	_	_	(97,312)	(17,754)
CASH (FOR)/FROM OPERATIONS	(8,353,480)	15,532,701	(8,353,394)	15,532,701
Income tax paid	(360,000)	(218,934)	(360,000)	(218,934)
NET CASH (FOR)/FROM OPERATING ACTIVITIES	(8,713,480)	15,313,767	(8,713,394)	15,313,767

Statements of Cash Flows

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

			THE GROUP		THE COMPANY	
	NOTE	2021 RM	2020 RM	2021 RM	2020 RM	
CASH FLOWS (FOR)/FROM INVESTING ACTIVITIES Interest received (Increase)/Decrease in fixed deposits with a licensed bank with tenure more than 3 months Increase in pledged fixed deposits with a licensed bank Proceed from disposal of equipment Purchase of equipment		1,231,395 (8,182,865) (26,829) 25,000 (123,176)	1,395,969 20,460,602 (559,340) – (216,457)	1,221,664 (8,182,865) (26,829) 25,000 (123,176)	1,395,969 20,460,602 (559,340) – (216,457)	
NET CASH (FOR)/FROM INVESTING ACTIVITIES		(7,076,476)	21,080,774	(7,086,207)	21,080,774	
CASH FLOWS FROM FINANCING ACTIVITIES Interest paid Net addition of government grants Repayment of lease liabilities	25(a) 25(a)	(875) 25,629,833 (17,385)	(1,578) 1,508,302 (18,342)	(875) 25,629,833 (17,385)	(1,578) 1,508,302 (18,342)	
NET CASH FROM FINANCING ACTIVITIES		25,611,573	1,488,382	25,611,573	1,488,382	
NET INCREASE IN CASH AND CASH EQUIVALENTS		9,821,617	37,882,923	9,811,972	37,882,923	
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE FINANCIAL YEAR		71,737,617	33,854,694	69,214,976	31,332,053	
CASH AND CASH EQUIVALENTS AT END OF THE FINANCIAL YEAR	25(b)	81,559,234	71,737,617	79,026,948	69,214,976	

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021

1. GENERAL INFORMATION

The Company is a company limited by guarantee and domiciled in Malaysia. The registered office and principal place of business are as follows:-

Registered office	:	Suite C-5-4, Wisma Goshen, Plaza Pantai, Jalan Pantai Baharu, 59200 Kuala Lumpur.
Principal place of business	:	No. 2, Jalan 9/10 Persiaran Usahawan, Seksyen 9, Bandar Baru Bangi, 43650 Selangor Darul Ehsan.

The financial statements were authorised for issue by the Board of Directors in accordance with a resolution of the directors dated 31 May 2022.

2. PRINCIPAL ACTIVITIES

The principal activities of the Company is to act as the focal point for the development of green technology in Malaysia by undertaking advisory services, driving and facilitating the implementation and growth of green technology industry and compiling data by way of coordination, development, training, transfer, adoption, research and development, innovation and commercialisation in green technology.

The principal activities of the subsidiaries are set out in Note 6 to the financial statements. There have been no significant changes in the nature of these activities during the financial year.

3. CHANGE OF NAME

On 15 September 2021, the Company changed its name from Malaysian Green Technology And Climate Change Centre to Malaysian Green Technology And Climate Change Corporation.

4. BASIS OF PREPARATION

The financial statements of the Group are prepared under the historical cost convention and modified to include other bases of valuation as disclosed in other sections under significant accounting policies, and in compliance with Malaysian Financial Reporting Standards ("MFRSs"), International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

4. BASIS OF PREPARATION (CONT'D)

4.1 During the current financial year, the Group has adopted the following new accounting standards and interpretations (including the consequential amendments, if any):-

MFRSs and/or IC Interpretations (Including The Consequential Amendments)

Amendment to MFRS 16: Covid-19-Related Rent Concessions Amendment to MFRS 16: Covid-19-Related Rent Concessions beyond 30 June 2021 Amendments to MFRS 9, MFRS 139, MFRS 7, MFRS 4 and MFRS 16: Interest Rate Benchmark Reform – Phase 2

The adoption of the above accounting standards and interpretations (including the consequential amendments, if any) did not have any material impact on the Group's financial statements.

4.2 The Group has not applied in advance the following accounting standards and/or interpretations (including the consequential amendments, if any) that have been issued by the Malaysian Accounting Standards Board (MASB) but are not yet effective for the current financial year:-

MFRSs and/or IC Interpretations (Including The Consequential Amendments)		
MFRS 17 Insurance Contracts	1 January 2023	
Amendments to MFRS 3: Reference to the Conceptual Framework	1 January 2022	
Amendments to MFRS 10 and MFRS 128: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	Deferred	
Amendments to MFRS 17 Insurance Contracts	1 January 2023	
Amendment to MFRS 17: Initial Application of MFRS 17 and MFRS 9 – Comparative Information	1 January 2023	
Amendment to MFRS 101: Classification of Liabilities as Current or Non-current	1 January 2023	
Amendments to MFRS 101: Disclosure of Accounting Policies	1 January 2023	
Amendments to MFRS 108: Definition of Accounting Estimates	1 January 2023	
Amendments to MFRS 112: Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 January 2023	
Amendments to MFRS 116: Property, Plant and Equipment – Proceeds before Intended Use	1 January 2022	
Amendments to MFRS 137: Onerous Contracts – Cost of Fulfilling a Contract	1 January 2022	
Annual Improvements to MFRS Standards 2018 – 2020	1 January 2022	

The adoption of the above accounting standards and/or interpretations (including the consequential amendments, if any) is expected to have no material impact on the financial statements of the Group upon their initial application.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES

5.1 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The outbreak of the COVID-19 has brought unprecedented challenges and added economic uncertainties in Malaysia and markets in which the Group operates. While the Group has considered the potential financial impact of the COVID-19 pandemic in the preparation of these financial statements, the full financial impact to the Group remains uncertain. Accordingly, there is a possibility that factors not currently anticipated by management could occur in the future and therefore affect the recognition and measurement of the Group's assets and liabilities at the reporting date.

Key Sources of Estimation Uncertainty

Management believes that there are no key assumptions made concerning the future, and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year other than as disclosed below:-

(a) Depreciation of Property and Equipment

The estimates for the residual values, useful lives and related depreciation charges for the property and equipment are based on commercial factors which could change significantly as a result of technical innovations and competitors' actions in response to the market conditions. The Group anticipates that the residual values of its property and equipment will be insignificant. As a result, residual values are not being taken into consideration for the computation of the depreciable amount. Changes in the expected level of usage and technological development could impact the economic useful lives and the residual values of these assets, therefore future depreciation charges could be revised. The carrying amount of property and equipment as at the reporting date is disclosed in Note 7 to the financial statements.

(b) Impairment of Other Non-financial Assets

The Group determines whether an item of its non-financial assets is impaired by evaluating the extent to which the recoverable amount of the asset is less than its carrying amount. This evaluation is subject to changes such as market performance, economic and political situation of the country. A variety of methods is used to determine the recoverable amount, such as valuation reports and discounted cash flows. The carrying amounts of other non-financial assets as at the reporting date are disclosed in Notes 6 and 8 to the financial statements respectively.

(c) Impairment of Trade Receivables

The Group uses the simplified approach to estimate a lifetime expected credit loss allowance for all trade receivables. The Group develops the expected loss rates based on the payment profiles of past sales and the corresponding historical credit losses, and adjusts for qualitative and quantitative reasonable and supportable forward-looking information. If the expectation is different from the estimation, such difference will impact the carrying value of trade receivables. The carrying amount of trade receivables as at the reporting date is disclosed in Note 9 to the financial statements.

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.1 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (CONT'D)

Key Sources of Estimation Uncertainty (Cont'd)

(d) Impairment of Non-Trade Receivables

The loss allowances for non-trade financial assets are based on assumptions about risk of default (probability of default) and expected loss if a default happens (loss given default). It also requires the Group to assess whether there is a significant increase in credit risk of the non-trade financial asset at the reporting date. The Group uses judgement in making these assumptions and selecting appropriate inputs to the impairment calculation, based on the past payment trends, existing market conditions and forward-looking information. The carrying amounts of other receivables and amounts owing by subsidiaries as at the reporting date are disclosed in Notes 10 and 11 to the financial statements respectively.

(e) Income Taxes

There are certain transactions and computations for which the ultimate tax determination may be different from the initial estimate. The Group recognises tax liabilities based on its understanding of the prevailing tax laws and estimates of whether such taxes will be due in the ordinary course of business. Where the final outcome of these matters is different from the amounts that were initially recognised, such difference will impact the income tax expense and deferred tax balances in the period in which such determination is made. The carrying amount of the current tax liability as at the reporting date is RM87,763 (2020 - current tax asset of RM132,397).

(f) Discount Rates used in Leases

Where the interest rate implicit in the lease cannot be readily determined, the Group uses the incremental borrowing rate to measure the lease liabilities. The incremental borrowing rate is the interest rate that the Group would have to pay to borrow over a similar term, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. Therefore, the incremental borrowing rate requires estimation particularly when no observable rates are available or when they need to be adjusted to reflect the terms and conditions of the lease. The Group estimates the incremental borrowing rate using observable inputs when available and is required to make certain entity-specific estimates.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.1 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (CONT'D)

Critical Judgements Made in Applying Accounting Policies

Management believes that there are no instances of application of critical judgement in applying the Group's accounting policies which will have a significant effect on the amounts recognised in the financial statements other than as disclosed below:-

Lease Terms

Some leases contain extension options exercisable by the Group before the end of the non-cancellable contract period. In determining the lease term, management considers all facts and circumstances including the past practice and any cost that will be incurred to change asset if an option to extend is not taken. An extension option is only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

5.2 BASIS OF CONSOLIDATION

The consolidated financial statements include the financial statements of the Company and its subsidiaries made up to the end of the reporting period.

Subsidiaries are entities controlled by the Group. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Potential voting rights are considered when assessing control only when such rights are substantive. The Group also considers it has de facto power over an investee when, despite not having the majority of voting rights, it has the current ability to direct the activities of the investee that significantly affect the investee's return.

Subsidiaries are consolidated from the date on which control is transferred to the Group up to the effective date on which control ceases, as appropriate.

Intragroup transactions, balances, income and expenses are eliminated on consolidation. Intragroup losses may indicate an impairment that requires recognition in the consolidated financial statements. Where necessary, adjustments are made to the financial statements of subsidiaries to ensure consistency of accounting policies with those of the Group.

(a) Business Combinations

Acquisitions of businesses are accounted for using the acquisition method. Under the acquisition method, the consideration transferred for acquisition of a subsidiary is the fair value of the assets transferred, liabilities incurred and the equity interests issued by the Group at the acquisition date. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs, other than the costs to issue debt or equity securities, are recognised in profit or loss when incurred.

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.2 BASIS OF CONSOLIDATION (CONT'D)

(a) Business Combinations (Cont'd)

In a business combination achieved in stages, previously held equity interests in the acquiree are remeasured to fair value at the acquisition date and any corresponding gain or loss is recognised in profit or loss.

Non-controlling interests in the acquiree may be initially measured either at fair value or at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets at the date of acquisition. The choice of measurement basis is made on a transaction-by-transaction basis.

(b) Non-controlling Interests

Non-controlling interests are presented within equity in the consolidated statement of financial position, separately from the equity attributable to owners of the Company. Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

(c) Changes in Ownership Interests in Subsidiaries without Change of Control

All changes in the parent's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. Any difference between the amount by which the non-controlling interest is adjusted and the fair value of consideration paid or received is recognised directly in equity of the Group.

(d) Loss of Control

Upon the loss of control of a subsidiary, the Group recognises any gain or loss on disposal in profit or loss which is calculated as the difference between:-

- (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest in the former subsidiary; and
- (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the former subsidiary and any non-controlling interests.

Amounts previously recognised in other comprehensive income in relation to the former subsidiary are accounted for in the same manner as would be required if the relevant assets or liabilities were disposed of (i.e. reclassified to profit or loss or transferred directly to retained profits). The fair value of any investments retained in the former subsidiary at the date when control is lost is regarded as the fair value of the initial recognition for subsequent accounting under MFRS 9 or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

135

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.3 FUNCTIONAL AND FOREIGN CURRENCIES

(a) Functional and Presentation Currency

The individual financial statements of each entity in the Group are presented in the currency of the primary economic environment in which the entity operates, which is the functional currency.

The consolidated financial statements are presented in Ringgit Malaysia ("RM"), which is the Group's functional and presentation currency.

(b) Foreign Currency Transactions and Balances

Transactions in foreign currencies are converted into the respective functional currencies on initial recognition, using the exchange rates at the transaction dates. Monetary assets and liabilities at the end of the reporting period are translated at the exchange rates ruling as of that date. Non-monetary assets and liabilities are translated using exchange rates that existed when the values were determined. All exchange differences are recognised in profit or loss.

5.4 FINANCIAL INSTRUMENTS

Financial assets and financial liabilities are recognised in the statement of financial position when the Group has become a party to the contractual provisions of the instruments.

Financial instruments are classified as financial assets, financial liabilities or equity instruments in accordance with the substance of the contractual arrangement and its definitions in MFRS 132. Interest, dividends, gains and losses relating to a financial instrument classified as liability are reported as an expense or income. Distributions to holders of financial instruments classified as equity are charged directly to equity.

Financial instruments are offset when the Group has a legally enforceable right to offset and intends to settle either on a net basis or to realise the asset and settle the liability simultaneously.

A financial instrument is recognised initially at its fair value (other than trade receivables without significant financing component which are measured at transaction price as defined in MFRS 15 at inception). Transaction costs that are directly attributable to the acquisition or issue of the financial instrument (other than a financial instrument at fair value through profit or loss) are added to/deducted from the fair value on initial recognition, as appropriate. Transaction costs on the financial instrument at fair value through profit or loss are recognised immediately in profit or loss.

Financial instruments recognised in the statements of financial position are disclosed in the individual policy statement associated with each item.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.4 FINANCIAL INSTRUMENTS (CONT'D)

(a) Financial Assets

All recognised financial assets are measured subsequently in their entirety at either amortised cost or fair value (through profit or loss, or other comprehensive income), depending on the classification of the financial assets.

Debt Instruments

(i) Amortised Cost

The financial asset is held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest. Interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset. When the asset has subsequently become credit-impaired, the interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset.

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts), excluding expected credit losses, through the expected life of the financial asset or a shorter period (where appropriate).

(ii) Fair Value through Other Comprehensive Income

The financial asset is held for both collecting contractual cash flows and selling the financial asset, where the asset's cash flows represent solely payments of principal and interest. Movements in the carrying amount are taken through other comprehensive income and accumulated in the fair value reserve, except for the recognition of impairment, interest income and foreign exchange difference which are recognised directly in profit or loss. Interest income is calculated using the effective interest rate method.

(iii) Fair Value through Profit or Loss

All other financial assets that do not meet the criteria for amortised cost or fair value through other comprehensive income are measured at fair value through profit or loss. The fair value changes do not include interest or dividend income.

The Group reclassifies debt instruments when and only when its business model for managing those assets change.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.4 FINANCIAL INSTRUMENTS (CONT'D)

(a) Financial Assets (Cont'd)

Equity Instruments

All equity investments are subsequently measured at fair value with gains and losses recognised in profit or loss except where the Group has elected to present the subsequent changes in fair value in other comprehensive income and accumulated in the fair value reserve at initial recognition.

The designation at fair value through other comprehensive income is not permitted if the equity investment is either held for trading or is designated to eliminate or significantly reduce a measurement or recognition inconsistency that would otherwise arise.

Dividend income from this category of financial assets is recognised in profit or loss when the Group's right to receive payment is established unless the dividends clearly represent a recovery of part of the cost of the equity investments.

(b) Financial Liabilities

(i) Financial Liabilities at Fair Value through Profit or Loss

Fair value through profit or loss category comprises financial liabilities that are either held for trading or are designated to eliminate or significantly reduce a measurement or recognition inconsistency that would otherwise arise. The changes in fair value (excluding interest expense) of these financial liabilities are recognised in profit or loss.

(ii) Other Financial Liabilities

Other financial liabilities are subsequently measured at amortised cost using the effective interest method.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts), through the expected life of the financial liability or a shorter period (where appropriate).

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.4 FINANCIAL INSTRUMENTS (CONT'D)

(c) Equity Instruments

Equity instruments classified as equity are measured initially at cost and are not remeasured subsequently.

(d) Derecognition

A financial asset or part of it is derecognised when, and only when, the contractual rights to the cash flows from the financial asset expire or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. On derecognition of a financial asset measured at amortised cost, the difference between the carrying amount of the asset and the sum of the consideration received and receivable is recognised in profit or loss. In addition, on derecognition of a debt instrument classified as fair value through other comprehensive income, the cumulative gain or loss previously accumulated in the fair value reserve is reclassified from equity to profit or loss. In contrast, there is no subsequent reclassification of the fair value reserve to profit or loss following the derecognition of an equity investment.

A financial liability or a part of it is derecognised when, and only when, the obligation specified in the contract is discharged or cancelled or expires. On derecognition of a financial liability, the difference between the carrying amount of the financial liability extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss.

5.5 INVESTMENTS IN SUBSIDIARIES

Investments in subsidiaries are stated at cost in the statement of financial position of the Company, and are reviewed for impairment at the end of the reporting period if events or changes in circumstances indicate that the carrying values may not be recoverable. The cost of the investments includes transaction costs.

On the disposal of the investments in subsidiaries, the difference between the net disposal proceeds and the carrying amount of the investments is recognised in profit or loss.

5.6 PROPERTY AND EQUIPMENT

All items of property and equipment are initially measured at cost. Cost includes expenditure that is directly attributable to the acquisition of the asset and other costs directly attributable to bringing the asset to working condition for its intended use.

Subsequent to initial recognition, all property and equipment are stated at cost less accumulated depreciation and any impairment losses.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.6 PROPERTY AND EQUIPMENT (CONT'D)

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when the cost is incurred and it is probable that the future economic benefits associated with the asset will flow to the Group and the cost of the asset can be measured reliably. The carrying amount of parts that are replaced is derecognised. The costs of the day-to-day servicing of property and equipment are recognised in profit or loss as incurred.

Depreciation on property and equipment is charged to profit or loss (unless it is included in the carrying amount of another asset) on the straight-line method to write off the depreciable amount of the assets over their estimated useful lives. Depreciation of an asset does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated.

The principal annual rates used for this purpose are:-

Building	2%
Computers	40%
Energy audit equipment	20%
Furniture and fittings	20%
Motor vehicles	20%
Office equipment	20%
Renovation	10%
Solar system	10%

The depreciation method, useful lives and residual values are reviewed, and adjusted if appropriate, at the end of each reporting period to ensure that the amounts, method and periods of depreciation are consistent with previous estimates and the expected pattern of consumption of the future economic benefits embodied in the items of the property and equipment. Any changes are accounted for as a change in estimate.

When significant parts of an item of property and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment.

An item of property and equipment is derecognised upon disposal or when no future economic benefits are expected from its use. Any gain or loss arising from derecognition of the asset, being the difference between the net disposal proceeds and the carrying amount, is recognised in profit or loss.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.7 LEASES

The Group assesses whether a contract is or contains a lease, at the inception of the contract. The Group recognises a right-of-use asset and corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for low-value assets and short-term leases with 12 months or less. For these leases, the Group recognises the lease payments as an operating expense on a straight-line method over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use assets and the associated lease liabilities are presented as a separate line item in the statements of financial position.

The right-of-use asset is initially measured at cost. Cost includes the initial amount of the corresponding lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred, less any incentives received.

The right-of-use asset is subsequently measured at cost less accumulated depreciation and any impairment losses, and adjustment for any remeasurement of the lease liability. The depreciation starts from the commencement date of the lease. If the lease transfers ownership of the underlying asset to the Group or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. Otherwise, the Group depreciates the right-of-use asset to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of the right-of-use assets are determined on the same basis as those property and equipment.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate.

The lease liability is subsequently measured at amortised cost using the effective interest method. It is remeasured when there is a change in the future lease payments (other than lease modification that is not accounted for as a separate lease) with the corresponding adjustment is made to the carrying amount of the right-of-use asset or is recognised in profit or loss if the carrying amount has been reduced to zero.

5.8 IMPAIRMENT

(a) Impairment of Financial Assets

The Group recognises a loss allowance for expected credit losses on investments in debt instruments that are measured at amortised cost and trade receivables.

The expected credit loss is estimated as the difference between all contractual cash flows that are due to the Group in accordance with the contract and all the cash flows that the Group expects to receive, discounted at the original effective interest rate.

ANNUAL REPORT 2021

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.8 IMPAIRMENT (CONT'D)

(a) Impairment of Financial Assets (Cont'd)

The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument. The Group always recognises lifetime expected credit losses for trade receivables using the simplified approach. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience and are adjusted for forward-looking information (including time value of money where appropriate).

For all other financial instruments, the Group recognises lifetime expected credit losses when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses.

The Group recognises an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at fair value through other comprehensive income, for which the loss allowance is recognised in other comprehensive income and accumulated in the fair value reserve, and does not reduce the carrying amount of the financial asset in the statement of financial position.

(b) Impairment of Non-financial Assets

The carrying values of assets, other than those to which MFRS 136 does not apply, are reviewed at the end of each reporting period for impairment when an annual impairment assessment is compulsory or there is an indication that the assets might be impaired. Impairment is measured by comparing the carrying values of the assets with their recoverable amounts. When the carrying amount of an asset exceeds its recoverable amount, the asset is written down to its recoverable amount and an impairment loss shall be recognised. The recoverable amount of an asset is the higher of the assets' fair value less costs to sell and its value in use, which is measured by reference to discounted future cash flows using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

An impairment loss is recognised in profit or loss.

When there is a change in the estimates used to determine the recoverable amount, a subsequent increase in the recoverable amount of an asset is treated as a reversal of the previous impairment loss and is recognised to the extent of the carrying amount of the asset that would have been determined (net of amortisation and depreciation) had no impairment loss been recognised. The reversal is recognised in profit or loss immediately.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.9 CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash in hand, bank balances, demand deposits, and short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value with original maturity periods of three months or less.

5.10 EMPLOYEE BENEFITS

(a) Short-term Benefits

Wages, salaries, paid annual leave and bonuses are measured on an undiscounted basis and are recognised in profit or loss in the period in which the associated services are rendered by employees of the Group.

(b) Defined Contribution Plans

The Group's contributions to defined contribution plans are recognised in profit or loss in the period to which they relate. Once the contributions have been paid, the Group has no further liability in respect of the defined contribution plans.

5.11 INCOME TAXES

(a) Current Tax

Current tax assets and liabilities are the expected amount of income tax recoverable or payable to the taxation authorities.

Current taxes are measured using tax rates and tax laws that have been enacted or substantively enacted at the end of the reporting period and are recognised in profit or loss except to the extent that the tax relates to items recognised outside profit or loss (either in other comprehensive income or directly in equity).

(b) Deferred Tax

Deferred tax is recognised using the liability method for all temporary differences other than those that arise from goodwill or from the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction, affects neither accounting profit nor taxable profit.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period when the asset is realised or the liability is settled, based on the tax rates that have been enacted or substantively enacted at the end of the reporting period.

143

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.11 INCOME TAXES (CONT'D)

(b) Deferred Tax (Cont'd)

Deferred tax assets are recognised for all deductible temporary differences, unused tax losses and unused tax credits to the extent that it is probable that future taxable profits will be available against which the deductible temporary differences, unused tax losses and unused tax credits can be utilised. The carrying amounts of deferred tax assets are reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that the related tax benefits will be realised.

Current and deferred tax items are recognised in correlation to the underlying transactions either in profit or loss, other comprehensive income or directly in equity. Deferred tax arising from a business combination is adjusted against goodwill or negative goodwill.

Current tax assets and liabilities or deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred taxes relate to the same taxable entity (or on different tax entities but they intend to settle current tax assets and liabilities on a net basis) and the same taxation authority.

5.12 FAIR VALUE MEASUREMENTS

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using a valuation technique. The measurement assumes that the transaction takes place either in the principal market or in the absence of a principal market, in the most advantageous market. For non-financial asset, the fair value measurement takes into account a market's participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

For financial reporting purposes, the fair value measurements are analysed into level 1 to level 3 as follows:-

- Level 1: Inputs are quoted prices (unadjusted) in active markets for identical assets or liability that the entity can access at the measurement date;
- Level 2: Inputs are inputs, other than quoted prices included within level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3: Inputs are unobservable inputs for the asset or liability.

The transfer of fair value between levels is determined as of the date of the event or change in circumstances that caused the transfer.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

5. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

5.13 REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue from contracts with customers is measured based on the consideration specified in a contract with a customer in exchange for transferring services to a customer net of sales and service tax, returns, rebates and discounts. The Group recognises revenue when (or as) it transfers control over a service to customer. Depending on the substance of the contract, revenue is recognised when the performance obligation is satisfied, which may be at a point in time or over time.

(a) Membership Fee

Membership fees for members joining the entity are recognised overtime.

(b) Rendering of Services

Revenue from providing services is recognised at the point in time when the services are rendered.

5.14 OTHER SOURCE OF INCOME

(a) Government grants

Government grants are recognised at their fair value when there is reasonable assurance that they will be received and all conditions attached will be met.

Grants that compensate the Group for expenses incurred are recognised in profit or loss on a systematic basis over the period necessary to match them with the related expenses which they are intended to compensate for. These grants are presented as other income in profit or loss.

Grants that compensate the Group for the cost of an asset are recognised as deferred grant income in the statement of financial position and are amortised to profit or loss on a systematic basis over the expected useful life of the relevant asset.

(b) Interest income

Interest income is recognised on an accrual basis using the effective interest method.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

6. INVESTMENT IN SUBSIDIARIES

	THE COMPANY	
	2021	2020
	RM	RM
Unquoted shares, at cost	2,500,000	2,500,000

The details of the subsidiaries are as follows:-

NAME OF SUBSIDIARIES	PRINCIPAL PLACE OF BUSINESS/ COUNTRY OF INCORPORATION		E OF ISSUED PITAL HELD ARENT	PRINCIPAL ACTIVITIES
		2021 %	2020 %	
Subsidiary of the Company				
Greentech Malaysia Alliances Sdn. Bhd. ("GTMA")	Malaysia	100	100	Engaged in investment holding and business as promoters of green technology development.
Subsidiaries of GTMA				
Greentech Ideaslab Sdn. Bhd.	Malaysia	100	100	Dormant
Greentech Catalyst Sdn. Bhd.	Malaysia	100	100	Dormant

14,936,844

216,457

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

7. PROPERTY AND EQUIPMENT

THE GROUP/THE COMPANY	AT 1.1.2021 RM	D ADDITIONS RM	EPRECIATION CHARGES RM	AT 31.12.2021 RM
2021				
Carrying Amount				
Building	14,041,928	_	(384,752)	13,657,176
Computers	29,118	77,224	(52,517)	53,825
Energy audit equipment	27	-	-	27
Furniture and fittings	13,591	335	(6,956)	6,970
Motor vehicles	60,622	-	(27,975)	32,647
Office equipment	22,747	1,617	(853)	23,511
Renovation	250,505	44,000	(51,030)	243,475
Solar system	142,430	_	(29,700)	112,730
	14,560,968	123,176	(553,783)	14,130,361
	AT 1.1.2020	ADDITIONS	EPRECIATION CHARGES	AT 31.12.2020
THE GROUP/THE COMPANY	RM	RM	RM	RM
0000				
2020				
Carrying Amount				
	14,426,681	_	(384,753)	14,041,928
Carrying Amount	14,426,681 109,113	_ 13,485	(384,753) (93,480)	14,041,928 29,118
<i>Carrying Amount</i> Building Computers Energy audit equipment			,	
<i>Carrying Amount</i> Building Computers Energy audit equipment Furniture and fittings	109,113 27 11,730	13,485	(93,480) – (5,516)	29,118 27 13,591
<i>Carrying Amount</i> Building Computers Energy audit equipment Furniture and fittings Motor vehicles	109,113 27 11,730 88,597	13,485 _ 7,377 _	(93,480) - (5,516) (27,975)	29,118 27 13,591 60,622
Carrying Amount Building Computers Energy audit equipment Furniture and fittings Motor vehicles Office equipment	109,113 27 11,730 88,597 34,742	13,485 	(93,480) (5,516) (27,975) (19,915)	29,118 27 13,591 60,622 22,747
<i>Carrying Amount</i> Building Computers Energy audit equipment Furniture and fittings	109,113 27 11,730 88,597	13,485 _ 7,377 _	(93,480) - (5,516) (27,975)	29,118 27 13,591 60,622

14,560,968

(592,333)

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

7. PROPERTY AND EQUIPMENT (CONT'D)

THE GROUP/THE COMPANY	AT COST RM	ACCUMULATED DEPRECIATION RM	CARRYING AMOUNT RM
2021			
Building	19,077,708	(5,420,532)	13,657,176
Computers	2,014,225	(1,960,400)	53,825
Energy audit equipment	157,945	(157,918)	27
Furniture and fittings	1,456,912	(1,449,942)	6,970
Motor vehicles	942,747	(910,100)	32,647
Office equipment	254,509	(230,998)	23,511
Renovation	544,593	(301,118)	243,475
Solar system	3,334,713	(3,221,983)	112,730
	27,783,352	(13,652,991)	14,130,361
2020			
Building	19,077,708	(5,035,780)	14,041,928
Computers	1,937,001	(1,907,883)	29,118
Energy audit equipment	157,945	(157,918)	27
Furniture and fittings	1,456,577	(1,442,986)	13,591
Motor vehicles	942,747	(882,125)	60,622
Office equipment	252,892	(230,145)	22,747
Renovation	500,593	(250,088)	250,505
Solar system	3,334,713	(3,192,283)	142,430
	27,660,176	(13,099,208)	14,560,968

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

8. RIGHT-OF-USE ASSETS

THE GROUP/THE COMPANY	AT	DEPRECIATION	AT
	1.1.2021	CHARGES	31.12.2021
	RM	RM	RM
2021			
Leasehold land	2,870,300	(33,768)	2,836,532
Office equipment	35,537	(18,647)	16,890
	2,905,837	(52,415)	2,853,422
	AT	DEPRECIATION	AT
	1.1.2020	CHARGES	31.12.2020
	RM	RM	RM
2020			
Leasehold land	2,904,068	(33,768)	2,870,300
Office equipment	54,184	(18,647)	35,537

The Group leases a piece of leasehold land and certain office equipment of which the leasing activities are summarised below:-

- (i) Leasehold land The Group has entered into a non-cancellable operating lease agreement for the use of land. The leases are for a period of 99 (2020 99) years with no renewal or purchase option included in the agreements. The leases do not allow the Group to assign, transfer or sublease or create any charge, lien or trust in respect of or dispose of the whole or any part of the land. A tenancy is, however, allowed with the consent of the lessor.
- (ii) Office equipment The Group has leased a number of photocopier machines for 3 5 (2020 3 5) years, with an option to renew the lease after that date.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

TRADE RECEIVABLES 9.

The Group's normal trade credit term is 30 days (2020 - 30 days) from the date of invoice. Other credit terms are assessed and approved on a case-by-case basis.

10. OTHER RECEIVABLES, DEPOSITS AND PREPAYMENTS

	THE GROUP/T 2021 RM	THE COMPANY 2020 RM
Other receivables	28,317,840	4,670,005
Deposits	1,015,880	1,015,880
Prepayments	79,589	79,589
GST receivables	140,282	140,282
	29,553,591	5,905,756

11. AMOUNT OWING BY SUBSIDIARIES

The amount owing by subsidiaries represents non-trade balances, unsecured, interest free and payments made on behalf. The amount owing is receivable on demand and is to be settled in cash.

12. FIXED DEPOSITS WITH A LICENSED BANK

- (a) The fixed deposits with licensed banks of the Group and the Company at the end of the reporting period bore effective interest rates ranging from 0.55% to 2.05% (2020) - 1.25% to 2.75%) per annum. The fixed deposits have maturity periods ranging from 1 to 12 (2020 - 1 to 12) months for the Group and the Company respectively.
- (b) Included in the fixed deposits with licensed banks of the Group at the end of the reporting period was an amount of RM1,611,652 (2020 RM1,584,823) which has been pledged to a licensed bank as security for banking facilities granted to the Company.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

13. RETAINED PROFITS

The Company is prohibited to distribute any dividend to its members under Section 45(2)(b) of the Companies Act 2016 in Malaysia.

14. GOVERNMENT GRANTS

		THE COMPANY
	2021 RM	2020 RM
At 1 January	29,190,226	27,681,924
Additions during the financial year	63,115,468	45,902,724
Utilisation during the financial year	(37,485,635)	(44,394,422)
At 31 December	54,820,059	29,190,226

15. DEFERRED INCOME

- (a) The deferred income primary relates to advances received from customers to render services. The amount will be recognised as other income when the performance obligations are satisfied.
- (b) Other income expected to be recognised in the future relating to performance obligations that are partially or unsatisfied as at the reporting date is summarised as below:-

	THE GROUP/T	HE COMPANY
	2021 RM	2020 RM
Sales of Tesla Sponsorship	987,247 16,147,321	600,928 66,422
	17,134,568	667,350

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

16. BUILDING FUND

	THE GROUP/T 2021 RM	THE COMPANY 2020 RM	
Cost		25,037,500	
Accumulated amortisation	25,037,500 (9,570,194)	(9,570,194)	
At 31 December	15,467,306	15,467,306	
Accumulated amortisation:- At 1 January Amortisation for the financial year	9,570,194 _	8,869,192 701,002	
At 31 December	9,570,194	9,570,194	

Building fund is a grant received from the Ministry of Energy, Green Technology and Water, Malaysia to build Pusat Tenaga Malaysia Zero Energy Office ("PTM ZEO") Building.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

17. LEASE LIABILITIES

	THE GROUP/1	THE COMPANY
	2021 RM	2020 RM
At 1 January	36,778	55,120
Interest expense recognised in profit or loss	875	1,578
Repayment of principal	(17,385)	(18,342)
Repayment of interest expense	(875)	(1,578)
At 31 December	19,393	36,778
Analysed by:-		
Current liability	6,691	8,954
Non-current liability	12,702	27,824
	19,393	36,778

18. TRADE PAYABLES

The normal trade credit terms granted to the Group range from 14 to 30 (2020 - 14 to 30) days.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

19. OTHER PAYABLES AND ACCRUALS

	THE GROUP		THE COMPANY	
	2021 RM	2020 RM	2021 RM	2020 RM
Other payables Accruals	2,963,287 22,014,676	745,028 25,334,483	2,941,245 21,998,275	723,113 25,318,082
	24,977,963	26,079,511	24,939,520	26,041,195
Sales and service tax	205,834	335,586	205,834	335,586
	25,183,797	26,415,097	25,145,354	26,376,781

20. REVENUE

	THE GROUP/T 2021 RM	THE COMPANY 2020 RM
Recognised over time Membership fee	690,245	816,223
Recognised at a point in time Services rendered	4,443,780	5,083,029
	5,134,025	5,899,252

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

21. COST OF SALES

	THE GROUP/T	HE COMPANY
	2021 RM	2020 RM
Services rendered	1,806,847	2,446,741

22. GOVERNMENT GRANT

	THE	GROUP	THE COMPANY	
	2021	2020	2021	2020
	RM	RM	RM	RM
Development grant	46,652,763	45,178,571	46,652,763	45,178,571
Operating grant	3,250,000	3,800,000	3,250,000	3,800,000
	49,902,763	48,978,571	49,902,763	48,978,571

23. ADMINISTRATIVE EXPENSES

	THE	THE GROUP		MPANY
	2021 RM	2020 RM	2021 RM	2020 RM
Expenses for project with grants	46,342,453	44,404,622	46,342,453	44,404,622
Staff costs	5,631,008	7,503,288	5,580,064	7,503,288
Others	1,817,724	1,573,674	1,816,741	1,572,919
Auditors' remuneration	94,090	94,090	77,700	77,700
Director's remuneration	29,122	_	-	-
	53,914,397	53,575,674	53,816,958	53,558,529

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

24. INCOME TAX EXPENSE

	THE	THE GROUP		MPANY
	2021 RM	2020 RM	2021 RM	2020 RM
Current tax expense: - for the financial year - underprovision in the previous financial year	578,000 2,160	286,000 66,934	578,000 2,160	286,000 66,934
	580,160	352,934	580,160	352,934

A reconciliation of income tax expense applicable to the profit before taxation at the statutory tax rate to income tax expense at the effective tax rate of the Group and of the Company is as follows:-

	THE GROUP		THE COMPANY	
	2021 RM	2020 RM	2021 RM	2020 RM
Profit before taxation	1,127,104	447,018	1,214,898	464,163
Tax at the statutory tax rate of 24%	270,506	107,285	291,576	111,399
Tax effects of:-				
Non-deductible expenses	280,997	295,963	259,927	291,849
Non-taxable income	-	(168,240)	-	(168,240)
Deferred tax assets not recognised during the financial year	26,497	50,992	26,497	50,992
Underprovision of current tax in the previous financial year	2,160	66,934	2,160	66,934
Income tax expense for the financial year	580,160	352,934	580,160	352,934

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

24. INCOME TAX EXPENSE (CONT'D)

Domestic income tax is calculated at the Malaysian statutory tax rate of 24% (2020 - 24%) of the estimated assessable profit for the financial year.

No deferred tax assets are recognised for the following items:-

	THE GROUP/T 2021 RM	HE COMPANY 2020 RM
Accelerated capital allowances Unabsorbed capital allowance Other provisions	(209,000) _ 1,608,000	(78,000) 256,000 1,109,000
	1,399,000	1,287,000

25. CASH FLOW INFORMATION

(a) The reconciliation of liability arising from financing activities (besides movement of government grants) is as follows:-

	THE GROUP/ 2021	THE COMPANY 2020
	RM	RM
Lease liabilities		
At 1 January	36,778	55,120
Change in Financing Cash Flows		
Repayment of principal	(17,385)	(18,342)
Repayment of interests	(875)	(1,578)
	(18,260)	(19,920)
Non-cash Change		
Interest expense	875	1,578
At 31 December	19,393	36,778

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

25. CASH FLOW INFORMATION (CONT'D)

(b) The cash and cash equivalents comprise the following:-

	THE GROUP		THE COMPANY	
	2021	2020	2021	2020
	RM	RM	RM	RM
Fixed deposits with a licensed bank	90,388,481	68,140,579	88,378,910	68,140,579
Cash and bank balances	965,271	5,181,861	442,556	2,659,220
Less:-	91,353,752	73,322,440	88,821,466	70,799,799
Fixed deposits with maturity of more than 3 months	(8,182,865)	_	(8,182,865)	-
Fixed deposits pledged to a licensed bank	(1,611,652)	(1,584,823)	(1,611,652)	(1,584,823)
	81,559,234	71,737,617	79,026,948	69,214,976

26. RELATED PARTY DISCLOSURES

Identities of Related Parties

Parties are considered to be related to the Group if the Group or the Company has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group or the Company and the party are subject to common control.

In addition to the information detailed elsewhere in the financial statements, the Group has related party relationships with its directors, key management personnel and entities within the same group of companies.

27. FINANCIAL INSTRUMENTS

The Group's activities are exposed to a variety of market risk (including foreign currency risk, interest rate risk and equity price risk), credit risk and liquidity risk. The Group's overall financial risk management policy focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES

The Group's policies in respect of the major areas of treasury activity are as follows:-

(a) Market Risk

(i) Foreign Currency Risk

The Group does not have any transactions or balances denominated in foreign currencies and hence, is not exposed to foreign currency risk.

(ii) Interest Rate Risk

The Group does not have any interest-bearing borrowings and hence, is not exposed to interest rate risk.

(iii) Equity Price Risk

The Group does not have any quoted investments and hence, is not exposed to equity price risk.

(b) Credit Risk

The Group's exposure to credit risk, or the risk of counterparties defaulting, arises mainly from trade and other receivables. The Group manages its exposure to credit risk by the application of credit approvals, credit limits and monitoring procedures on an ongoing basis. For other financial assets (including cash and bank balances), the Group minimises credit risk by dealing exclusively with high credit rating counterparties.

(i) Credit Risk Concentration Profile

The Group's major concentration of credit risk relates to the amount owing by two customers which constituted approximately 24% of its trade receivables as at the end of the reporting period.

(ii) Maximum Exposure to Credit Risk

At the end of the reporting period, the maximum exposure to credit risk is represented by the carrying amount of each class of financial assets recognised in the statement of financial position of the Group and of the Company after deducting any allowance for impairment losses (where applicable).

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(b) Credit Risk (Cont'd)

(iii) Assessment of Impairment Losses

At each reporting date, the Group assesses whether any of financial assets at amortised cost are credit impaired.

The gross carrying amounts of financial assets are written off against the associated impairment, if any, when there is no reasonable expectation of recovery despite the fact that they are still subject to enforcement activities.

A financial asset is credit impaired when the receivable is in significant financial difficulties.

The Group considers a receivable to be in default when the receivable is unlikely to repay its debt to the Group in full or is more than one year past due.

Trade Receivables

The Group applies the simplified approach to measure expected credit losses using a lifetime expected loss allowance for all trade receivables. To measure expected credit losses on a collective basis, trade receivables are grouped based on similar credit risk and ageing. The expected loss rates are based on the Group's historical credit losses experienced. The historical loss rates are then adjusted for current and forward-looking information on macroeconomic factors affecting the ability of the trade receivables to settle their debts.

The Group measures the expected credit losses of certain major customers, trade receivables that are credit impaired and trade receivables with a high risk of default on individual basis.

Notes to The Financial Statements

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(b) Credit Risk (Cont'd)

(iii) Assessment of Impairment Losses (Cont'd)

Trade Receivables (Cont'd)

Allowance for Impairment Losses

THE GROUP/THE COMPANY	GROSS AMOUNT RM	INDIVIDUAL IMPAIRMENT RM	COLLECTIVE IMPAIRMENT RM	CARRYING AMOUNT RM
2021				
Current (not past due)	1,026,324	_	_	1,026,324
1 to 30 days past due	543,798	-	-	543,798
31 to 60 days past due	279,076	-	-	279,076
61 to 90 days past due	413,561	-	-	413,561
More than 90 days past due	254,464	_	-	254,464
	2,517,223	_	-	2,517,223
2020				
Current (not past due)	1,065,474	_	_	1,065,474
1 to 30 days past due	184,057	-	-	184,057
31 to 60 days past due	434,771	-	_	434,771
61 to 90 days past due	172,507	-	-	172,507
More than 90 days past due	804,436	_	_	804,436
	2,661,245	-	-	2,661,245

162

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(b) Credit Risk (Cont'd)

(iii) Assessment of Impairment Losses (Cont'd)

Other Receivables and Amount Owing By Subsidiaries

The Group and the Company applies the 3-stage general approach to measuring expected credit losses for its other receivables and amount owing by subsidiaries.

Under this approach, loss allowance is measured on either 12-month expected credit losses or lifetime expected credit losses, by considering the likelihood that the receivable would not be able to repay during the contractual period (probability of default, PD), the percentage of contractual cash flows that will not be collected if default happens (loss given default, LGD) and the outstanding amount that is exposed to default risk (exposure at default, EAD).

In deriving the PD and LGD, the Group considers the receivable's past payment status and its financial condition as at the reporting date. The PD is adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the receivable to settle its debts.

Allowance for Impairment Losses

No expected credit loss is recognised on other receivables as it is negligible.

Fixed Deposits with Licensed Banks, Cash and Bank Balances

The Group considers the licensed banks have low credit risks. In addition, some of the bank balances are insured by Government agencies. Therefore, the Group is of the view that the loss allowance is immaterial and hence, it is not provided for.

(c) Liquidity Risk

Liquidity risk arises mainly from general funding and business activities. The Group practises prudent risk management by maintaining sufficient cash balances with funds granted by the government.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(c) Liquidity Risk (Cont'd)

Maturity Analysis

The following table sets out the maturity profile of the financial liabilities at the end of the reporting period based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on the rates at the end of the reporting period):-

THE GROUP	WEIGHTED AVERAGE EFFECTIVE INTEREST RATE %	CARRYING AMOUNT RM	CONTRACTUAL UNDISCOUNTED CASH FLOWS RM	WITHIN 1 YEAR RM	1 - 5 YEARS RM
2021					
Non-derivative Financial Liabilities Trade payables Other payables and accruals	- -	3,802,470 24,977,963	3,802,470 24,977,963	3,802,470 24,977,963	-
		28,780,433	28,780,433	28,780,433	-
Other financial liability Lease liabilities	3.50	19,393	19,775	15,495	4,280
		28,799,826	28,800,208	28,795,928	4,280

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(c) Liquidity Risk (Cont'd)

Maturity Analysis (Cont'd)

The following table sets out the maturity profile of the financial liabilities at the end of the reporting period based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on the rates at the end of the reporting period):- (Cont'd)

THE GROUP	WEIGHTED AVERAGE EFFECTIVE INTEREST RATE %	CARRYING AMOUNT RM	CONTRACTUAL UNDISCOUNTED CASH FLOWS RM	WITHIN 1 YEAR RM	1 - 5 YEARS RM
2020					
Non-derivative Financial Liabilities Trade payables Other payables and accruals	-	5,419,120 26,079,511	5,419,120 26,079,511	5,419,120 26,079,511	
		31,498,631	31,498,631	31,498,631	_
Other financial liability Lease liabilities	3.50	36,778	38,035	19,920	18,115
		31,535,409	31,536,666	31,518,551	18,115

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(c) Liquidity Risk (Cont'd)

Maturity Analysis (Cont'd)

The following table sets out the maturity profile of the financial liabilities at the end of the reporting period based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on the rates at the end of the reporting period):- (Cont'd)

THE COMPANY	WEIGHTED AVERAGE EFFECTIVE INTEREST RATE %	CARRYING AMOUNT RM	CONTRACTUAL UNDISCOUNTED CASH FLOWS RM	WITHIN 1 YEAR RM	1 - 5 YEARS RM
2021					
Non-derivative Financial Liabilities Trade payables Other payables and accruals	-	3,802,470 24,939,520	3,802,470 24,939,520	3,802,470 24,939,520	- -
		28,741,990	28,741,990	28,741,990	-
Other financial liability Lease liabilities	3.50	19,393	19,775	15,495	4,280
		28,763,383	28,763,765	28,759,485	4,280

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.1 FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

(c) Liquidity Risk (Cont'd)

Maturity Analysis (Cont'd)

The following table sets out the maturity profile of the financial liabilities at the end of the reporting period based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on the rates at the end of the reporting period):- (Cont'd)

THE COMPANY	WEIGHTED AVERAGE EFFECTIVE INTEREST RATE %	CARRYING AMOUNT RM	CONTRACTUAL UNDISCOUNTED CASH FLOWS RM	WITHIN 1 YEAR RM	1 - 5 YEARS RM
2020					
Non-derivative Financial Liabilities					
Trade payables	_	5,419,120	5,419,120	5,419,120	-
Other payables and accruals	-	26,041,195	26,041,195	26,041,195	_
Other financial liability		31,460,315	31,460,315	31,460,315	-
Lease liabilities	3.50	36,778	38,035	19,920	18,115
		31,497,093	31,498,350	31,480,235	18,115

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.2 CAPITAL RISK MANAGEMENT

The Company has no bank borrowings. No debt-to-equity ratio is presented.

27.3 CLASSIFICATION OF FINANCIAL INSTRUMENTS

	THE	GROUP	THE COMPANY		
	2021 RM	2020 RM	2021 RM	2020 RM	
Financial Asset					
Amortised Cost					
Trade receivables	2,517,223	2,661,245	2,517,223	2,661,245	
Other receivables	28,317,840	4,670,005	28,317,840	4,670,005	
Amount owing by subsidiaries	-	-	580,125	482,813	
Fixed deposits with a licensed bank	90,388,481	68,140,579	88,378,910	68,140,579	
Cash and bank balances	965,271	5,181,861	442,556	2,659,220	
	122,188,815	80,653,690	120,236,654	78,613,862	
Financial Liability					
Amortised Cost					
Trade payables	3,802,470	5,419,120	3,802,470	5,419,120	
Other payables and accruals	24,977,963	26,079,511	24,939,520	26,041,195	
	28,780,433	31,498,631	28,741,990	31,460,315	

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

27. FINANCIAL INSTRUMENTS (CONT'D)

27.4 GAINS ARISING FROM FINANCIAL INSTRUMENTS

	THE 2021 RM	GROUP 2020 RM	THE CC 2021 RM	MPANY 2020 RM
Financial Asset				
Amortised Cost Net gain recognised in profit or loss	1,231,395	1,395,969	1,221,664	1,395,969

27.5 FAIR VALUE INFORMATION

At the end of the reporting period, there were no financial instruments carried at fair values in the statements of financial position.

The financial value of the financial assets and financial liabilities of the Group and of the Company that maturing within the next 12 months approximated their carrying amounts due to the relatively short-term maturity of the financial instruments or repayable on demand terms.

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021 (CONT'D)

28. COMPARATIVE FIGURES

The following figures have been reclassified to conform with the presentation of the current financial year:-

	THE C AS	ROUP	THE COMPANY AS			
	PREVIOUSLY REPORTED RM	AS RESTATED RM	PREVIOUSLY REPORTED RM	AS RESTATED RM		
Statement of Financial Position (Extract):-						
Trade receivables Other receivables, deposits and prepayments Fixed deposits with a licensed bank	7,261,334 1,239,693 68,206,553	2,661,245 5,905,756 68,140,579	7,261,334 1,239,693 68,206,553	2,661,245 5,905,756 68,140,579		
Statement of Profit or Loss (Extracted):-						
Operating grant Government grant Other income	3,800,000 - 47,416,507	- 48,978,571 2,237,936	3,800,000 _ 47,416,507	- 48,978,571 2,237,936		
Statement of Cash Flows (Extract):- Net Cash From Operating Activities Net Cash From Financing Activities Net Increase In Cash And Cash Equivalents Cash And Cash Equivalents At End Of The Financial Year	15,379,741 21,229,091 38,097,214 71,951,908	15,313,767 21,080,774 37,882,923 71,737,617	15,379,741 21,229,091 38,097,214 69,429,267	15,313,767 21,080,774 37,882,923 69,214,976		

Notice of 24th Annual General Meeting

NOTICE IS HEREBY GIVEN THAT the Twenty-Fourth Annual General Meeting of MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION (FORMERLY KNOWN AS MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CENTRE) ("the Company") will be held at Malaysian Green Technology and Climate Change Corporation, No. 2, Jalan 9/10, Persiaran Usahawan, Seksyen 9, 43650 Bandar Baru Bangi, Selangor Darul Ehsan on Thursday. **30th June 2022** at **10.00 a.m.** for the following purposes:

1	To Lay and Receive the Audited Financial Statements for the financial year ended 31 December 2021 together with the Reports of the Directors and Auditor therein.	(Please refer to Explanatory Note 2)
2	Re-election of Director who retire by casual vacancy under Article 20 of the Company's Articles of Association and being eligible offer himself for re-election:	
	2.1 YBhg. Tuan Haji Ismail bin Mohd Amin	Ordinary Resolution No. 1
	2.2 YBrs. Encik Che Kodir bin Baharum	Ordinary Resolution No. 2
	2.3 YBrs. Puan Hasifah binti Mohd Murtadza	Ordinary Resolution No. 3
	2.4 YBrs. Encik Muhammad Zulhilmi bin Ahmad	Ordinary Resolution No. 4
 3	To re-appoint Messrs. Crowe Malaysia PLT (AF: 1018) as the Auditors of the	Ordinary Resolution No. 5

Company for the financial year 2022 until the conclusion of the next Annual General Meeting; and to authorise the Directors to fix their remuneration.

BY ORDER OF THE BOARD

Shahirah Binti Mohd Anwar Company Secretary LS 0009909

Kuala Lumpur Date: 9th June 2022

Note

1. Proxy:

- (i) A member of the Company entitled to attend and vote at the meeting is entitled to appoint a proxy to attend and vote in his stead. All proxies must be members of the Company.
- (ii) In the case of a corporate member, the instrument appointing a proxy shall be under its Common Seal or under the hand of an officer of the corporation duly authorised on that behalf.
- (iii) The instrument appointing a proxy must be deposited at the Registered Office of the Company at Suite C-5-4, Wisma Goshen, Plaza Pantai, Jalan Pantai Baharu, 59200 Kuala Lumpur (Tel: 03-2283 4007 / Fax: 03-2287 7006) not less than 48 hours before the meeting set for holding the meeting or any adjournment thereof.
- 2. Explanatory Notes to Agenda No. 1

This agenda item is meant for discussion only, as the provision of Section 340(a) of the Companies Act, 2016 does not require a formal approval of the shareholders for the Audited Financial Statements. Hence, this Agenda item is not put forward for voting.

MGTC Membership

AS AT APRIL 2022

LIST OF INDIVIDUAL MEMBERSHIP

- 1. YBrs. Prof. Ir. Dr. K.S. Kannan
- 2. YBrs. Ir. Hanafi Bin Abdul Nasir
- 3. YBrs. Ir. Ismail Bin Hj Ishak
- 4. YBrs. Encik Leong Yeng Kit
- 5. YBhg. Dato' Sri Ung Eng Huat
- 6. YBhg. Dato' Cheah Kah Lip
- 7. YBhg. Encik Yong Sien Wae
- 8. YM Tengku Loreta Binti Tengku Ramli
- 9. YBrs. Syed Ahmad Bin Syed Mustafa
- 10. YBrs. Puan Norhasliza Binti Mohd Mokhtar
- 11. YBrs. Encik Wan Faizal Bin Mohd Anwar
- 12. YBhg. Dato' Ir. Dr. Dennis Ganendra
- 13. YBrs. Puan Elina Binti Jani
- 14. YBhg. Dato' Shahrol Azral Bin Ibrahim Halmi
- 15. YBrs. Encik Tan Kang Chu
- 16. YBrs. Ts. Sofiuddin Bin Mohamad Isa
- 17. YBrs. Ir. Fatheeyah Binti Zainuddin
- 18. YBrs. Encik Noor Azmin Azali Bin Ramli
- 19. YBrs. Encik Saiful Adib Bin Abdul Munaff
- 20. YBrs. Encik Huzaimi Nor Bin Omar
- 21. YM Tengku Sharifah Hanif Binti Tengku Hamzah
- 22. YBrs. Puan Siti Hursiah Binti Ibrahim
- 23. YBrs. Encik Kamaradzaman Bin Mohd Bakri
- 24. YBrs. Ts. Ir. Ramlan Bin Harun
- 25. YBrs. Encik Khairuzzamil Bin Kamarulzaman

LIST	OF	CORPO	DRATE	MEMBERSHIP
------	----	-------	-------	-------------------

- 5. Sapura Holdings Sdn. Bhd.
- 6. Lybase Sdn. Bhd.

YTL Power Generation Sdn. Bhd.

SFG Technology (M) Sdn. Bhd.

YBhq. Dato' Hamzah Bin Bakar

YBhg. Tan Sri Nuraizah

YM Raja Datuk Zaharaton

YBhq, Professor Tan Sri Zakri

Dr. Kamel Ariffin Bin Mohd Atan

YBha, Prof. Emeritus Dato'

YBhg. Dato' Dr. Mohd Ariff

YBrs. Haji Mohamed Zohari

Bin Mohamed Shaharun

YBrs. Encik Tan Keok Yin

10. YBhg. Prof. Ir. Dr.Zainal Abidin

11. YBhg. Datuk Seri Dr. Halim

12. YBhq. Dato' Syed Hamzah

Bin Sved Othman

13. YBrs. Prof. Dr. Muhamad

YBhg. Datin Husniarti Binti Tamin

Binti Raia Zainal Abidin

Binti Abdul Hamid

Bin Abdul Hamid

Bin Araff

Bin Ahmad

Bin Shafie

Bin Awang

Veritas Architects Sdn. Bhd.

Infrakomas Sdn. Bhd.

1

2.

З.

4.

1.

2.

З.

4.

5.

6.

7.

8.

9

- 7. Esona Technologies Sdn. Bhd.
- 8. ZOG Engineering Sdn. Bhd.
- CMC Group Sdn. Bhd.

9.

- 10. Nova Spectra Energy Sdn. Bhd.
- 11. Engie Services Malaysia Sdn. Bhd.
- 12. I Controls Solution (M) Sdn. Bhd.

LIST OF HONARAY MEMBERSHIP

- 14. YBrs. Dr. Mohd Zamzam Bin Jaafar
- 15. YBhg. Dato' Ir. Lew Chin Hoi
- 16. YBrs. Encik Tan Boon Lee
- 17. YBrs. Encik Amir Bin Abdul Rahman
- 18. YBhg. Dato' Teo Yen Hua
- 19. YBrs. Encik Leong Yee Heim
- 20. YBhg. Datuk Che Azemi Bin Haron
- 21. YBhg. Dato' Mohd Izzaddin Bin Idris
- 22. YBrs. Dr. Mohd Farid Bin Mohd Amin
- 23. YBhg. Prof. Ir. Dr. Hassan Bin Ibrahim
- 24. YBhg. Dato' Dr. Halim Bin Man
- 25. YBhg. Dato' Dr. Rosli Bin Mohamed
- 26. YBhg. Datuk Loo Took Gee
- 27. YBhg. Dato' Paduka Profesor Dr. Ir Haji Keizrul Bin Abdullah

- 28. YBhg. Datuk Nor'aini Binti Abdul Wahab
- 29. YBrs. Encik Azhar Bin Noraini
- 30. YBrs. Dr Anuar Bin Abdul Rahman
- 31. YBrs. Dr Leong Yow Peng
- 32. YBrs. Dr Theng Lee Chong
- 33. YBhg. Dato' Dr Nadzri Bin Yahya
- 34. YBhg. Tan Sri Peter
- 35. YBrs. Haji Mohamad Razif Bin Haji Abd. Mubin
- 36. YBrs. Encik Hazim bin Jamaluddin
- 37. YBhg. Datuk Poh Pai Kong
- 38. YBrs. Encik Baskaran A/L Madhavan Nair
- YBhg. Prof. Datin Paduka
 Dr. Khatijah Binti Mohamad Yusoff
- 40. YBhg. Datuk Harjeet Singh A/L Hardev Singh
- 41. YBhg. Datuk Dr. Hafsah Binti Hashim
- 42. YBhg. Datuk Badriyah Binti Haji Abd Malek

Appendices

DIAMOND RECOGNITION SUMMARY – LOW CARBON ZONE

							Re	duction In E	ach Elemen	t (%)		Redu	ction	
No.	State Name	Local Authority Name	Zone/Partner Name	Elements	Baseline (tCO2eq)	Audit (tCO₂eq)	Energy	Water	Waste	Mobility	Sequestration (tCO ₂)	(tCO2eq)	%	Remarks
1	Selangor	Majlis Perbandaran Kuala Langat	Zon A Kawasan Perindustrian Teluk Panglima Garang	3	214,953.81	144,118.12	35%	8.7%	(68.15%)	-	9.00	70,912.17	34.78%	Technical issue on waste management during MCO
2	Selangor	Majlis Perbandaran Sepang	Cyberjaya	3	423,678.79	403,447.63	4.36%	40.63%	_	-	9,605.64	20,231.16	4.78%	
3	Selangor	Majlis Bandaraya Shah Alam	Seksyen 1, Shah Alam	3	40,665.69*	29,559.36	28.63%	44.83%	(46.94%)	-	2.48	11,106.33	23.31%	Issue with vendor, UiTM closed during MCO
4	Melaka	Majlis Perbandaran Jasin	Projek LCCF Jasin 1	5	21,621.95	13,730.96	36.50%	31.37%	65.99%	37.71%	559.35	10,513.95	40.51%	
5	Johor	Majlis Perbandaran Batu Pahat	Universiti Tun Hussein Onn Malaysia Campus	4	24,121.38	15,057.00	37.87%	24.78%	33.10%	_	1,730.95	9,064.38	37.58%	
6	Perak	Majlis Bandaraya Ipoh	Kawasan Perancangan Pusa (KPP)	4 t	20,511.40	13,109.29	54.51%	56.94%	26.19%	_	571.08	7,402.10	36.09%	
7	Selangor	Majlis Bandaraya Shah Alam	Seksyen 14, Shah Alam	4	60,185.50	52,914.25	28.07%	40.98%	-	22.15%	8,828.49	7,271.25	12.08%	
8	Selangor	Majlis Perbandaran Hulu Selangor	Bandar Kuala Kubu Bharu	4	7,697.49	3,930.32	51.30%	9.69%	18.64%	-	28.16	3,767.17	48.94%	
9	Melaka	Majlis Perbandaran Hang Tuah Jaya	MITC Area	3	17,836.80	14,537.27	20.04%	(32%)	_	-	1,907.08	3,299.53	18.50%	Water tank cleaning and sanitising during PKP
10	Selangor	Majlis Bandaraya Shah Alam	Seksyen 5, Shah Alam	4	11,673.58	9,720.75	16.93%	(30.43%)	(49.30%)	-	733.62	1,952.83	16.73%	Change of vendor from Alam Flora to new vendor and piping problem in JAIS Building
11	Selangor	Majlis Bandaraya Petaling Jaya	Pusat Bandar Petaling Jaya	3	12,677.90	10,734.63	19.69%	12.51%	8.63%	-	-	1,943.27	15.33%	
12	Selangor	Majlis Perbandaran Kajang	Pusat Bandar Seksyen 9, Bandar Baru Bangi	3	1,743.84	936.30	0%	-	46.91%	-	11.16	807.55	46.31%	
13	Melaka	Majlis Bandaraya Melaka Bersejarah	Melaka Low Carbon City (MLCC)	4	1,772.97	1,521.06	19.86%	33.41%	5.23%	_	312.59	251.91	14.21%	

							Re	duction In E	ach Elemen	t (%)		Redu	ction	
No.	State Name	Local Authority Name	Zone/Partner Name	Elements	Baseline (tCO2eq)	Audit (tCO2eq)	Energy	Water	Waste	Mobility	Sequestration (tCO ₂)	(tCO ₂ eq)	%	Remarks
1	Perak	Majlis Bandaraya Ipoh	Bangunan UTC Perak	2	4.073.14*	1,872.99	54.41%	26.50%	-	-	-	2,200.85	54.03%	
2	Selangor	Majlis Bandaraya Shah Alam	Pejabat SUK Selangor	1	8,021.65	6421.09	21.12%	-	_	-	-	1,719.57	21.12%	
3	Melaka	Majlis Perbandaran Hang Tuah Jaya	Kompleks Melaka Mall	1	3,923.95	2,535.80	35.38%	-	_	-	-	1,388.15	35.38%	
4	Selangor	Majlis Bandaraya Shah Alam	Wisma MBSA	4	5,954.98	4,795.53	19.67%	(25.04%)	39.96%	-	437.90	1,159.45	19.47%	Pipe leaking
5	Selangor	Majlis Bandaraya Shah Alam	Masjid Sultan Salahuddin Abdul Aziz Shah	2	2,244.23	1,235.77	45.45%	0.53%	-	-	-	1,008.46	44.94%	
6	Selangor	Majlis Bandaraya Shah Alam	Avisena Women And Children Specialist Hospital	2	5,019.70	4,186.91	16.64%	4.79%	-	-	-	832.88	16.59%	
7	Selangor	Majlis Bandaraya Shah Alam	Fakulti Sains Komputer Dan Matematik UiTM	1	1,372.31*	700.57	48.95%	-	-	-	-	671.74	48.95%	
8	Selangor	Majlis Bandaraya Petaling Jaya	Menara PJX HM Shah, Petaling Jaya	2	3,109.64	2,507.27	19.45%	(6.28%)	-	-	-	602.37	19.37%	Under investigation by MBPJ
9	Selangor	Majlis Bandaraya Shah Alam	Bangunan Sultan Idris Shah	2	3,107.83	2,582.60	17.45%	(23.41%)	-	-	-	525.23	16.90%	Piping issue
10	Selangor	Majlis Bandaraya Shah Alam	Avisena Specialist Hospital	2	3,906.75	3,402.85	12.60%	59.31%	-	-	-	503.89	12.90%	
11	Selangor	Majlis Bandaraya Petaling Jaya	Menara Celcom, Petaling Jaya	2	3,522.06	3,056.08	13.14%	27.86%	-	-	-	465.98	13.23%	
12	Selangor	Majlis Bandaraya Shah Alam	Bangunan Ibu Pejabat PKNS	6 1	2,458.92	2,116.55	13.92%	-	-	-	-	342.38	13.92%	
13	Selangor	Majlis Bandaraya Shah Alam	Canseleri Tuanku Syed Sirajuddin	1	1,070.66*	791.62	26.06%	-	-	-	-	279.04	26.06%	
14	Selangor	Majlis Bandaraya Shah Alam	Fakulti Senibina Perancangan Dan Ukur, UiTM	1	763.51*	518.79	32.05%	-	_	_	-	244.72	32.05%	
15	Selangor	Majlis Perbandaran Hulu Selangor	Hospital Kuala Kubu Bharu	3	1,217.61	1,043.78	14.04%	26.0%	1.09%	-	-	173.83	14.28%	

							Re	duction In E	ach Elemer	ıt (%)		Redu	uction	
No.	State Name	Local Authority Name	Zone/Partner Name	Elements	Baseline (tCO2eq)	Audit (tCO₂eq)	Energy	Water	Waste	Mobility	Sequestration (tCO ₂)	(tCO2eq)	%	Remarks
16	Selangor	Majlis Perbandaran Klang	Bangunan Sultan Alam Shah, Ibu Pejabat MPK	4	1,022.31	893.19	12.58%	(56.22%)	69.75%	-	10.50	128.60	12.58%	Building renovation
17	Pahang	Majlis Perbandaran Bentong	lbu Pejabat Majlis Perbandaran Bentong	2	388.86*	261.54	32.85%	19.16%	-	-	-	127.31	32.74%	
18	Pahang	Majlis Bandaraya Kuantan	Kompleks Ibu Pejabat MBK	3	1,913.66	1,816.91	4.83%	19.96%	21.53%	-	-	96.76	5.06%	
19	Johor	Majlis Daerah Mersing	Shaz Resort Pulau Tinggi	4	212.09	116.80	20.61%	-	60.81%	82.41%	558.08	95.28	44.93%	
20	Selangor	Majlis Bandaraya Shah Alam	Pusat Kesihatan UiTM	1	329.38*	264.08	19.82%	-	-	-	-	65.30	19.82%	
21	Johor	Majlis Perbandaran Batu Pahat	Faculty Of Technology Management And Business	3	1,053.29	994.64	10.78%	22.39%	(0.09%)	-	-	58.65	5.57%	
22	Selangor	Majlis Perbandaran Kajang	Masjid Al-Hasanah	2	1,729.71	1,677.37	17.58%	-	0.13%	-	-	52.33	3.03%	
23	Selangor	Majlis Perbandaran Klang	lbu Pejabat Lembaga Pelabuhan Kelang	2	578.29	537.35	7.34%	(100.61%)	-	-	-	40.94	7.08%	Building renovation
24	Melaka	Majlis Perbandaran Hang Tuah Jaya	SK Dato' Demang Hussin	4	392.06	351.89	31.26%	(5.62%)	6.17%	-	1.44	40.17	10.25%	Pipe leaking during MCO
25	Selangor	Majlis Perbandaran Hulu Selangor	Ibu Pejabat MPHS	4	266.30	228.12	12.71%	(52.10%)	56.78%	-	1.60	38.17	14.33%	Building renovation and construction
26	Melaka	Majlis Perbandaran Hang Tuah Jaya	SK Taman Merdeka	4	293.06	259.15	29.64%	44.95%	0.88%	-	5.28	33.91	11.57%	
27	Melaka	Majlis Perbandaran Hang Tuah Jaya	SMK Tun Mutahir	4	339.36	455.72	18.06%	71.41%	-0.11%	-	4.3	27.52	5.70%	
28	Selangor	Majlis Perbandaran Hulu Selangor	Masjid Ar-Rahimah	2	76.68	57.94	33.12%	(78.52%)	_	_	-	18.74	24.44%	Masjid Daerah – in operation during MCO
29	Selangor	Majlis Bandaraya Shah Alam	Bangunan Jabatan Kehakiman Syariah	2	723.51	711.45	2.21%	(126.25%)	-	-	-	12.06	1.67%	Piping issue
30	Melaka	Majlis Perbandaran Hang Tuah Jaya	SK Bukit Beruang	2	39.63	30.82	22.43%	19.48%	-	_	-	8.81	22.23%	

Reporting Cycle	No. of Companies	Energy Savings (kWh)	Cost Savings (RM)	Investment Cost (RM)	CO ₂ Avoided (Tonne/year)
July - December 2017	2/2	1,949,645	679,279	4,606,546	1,353
January - June 2018	90/90	24,347,637	8,817,747	12,310,072	16,265
July - December 2018	108/108	26,980,528	8,810,142	18,005,696	16,114
January - June 2019	108/108	22,682,651	10,171,324	14,883,151	15,730
July - December 2019	108/108	30,724,984	12,392,396	10,892,329	21,321
January - June 2020	108/108	17,297,419	5,530,330	7,438,804	11,957
July - December 2020	106/106	17,520,913	6,285,388	58,143,835	12,160
January - June 2021	18/18	1,265,053	659,880	934,828	878
Total	108	142,768,830	53,346,486	127,215,258	95,777

EACG BREAKDOWN OF ENERGY SAVINGS, COST SAVINGS, INVESTMENT COSTS AND CO2 AVOIDED FOR JULY 2017 - JUNE 2021

MyHIJAU CERTIFICATIONS AND VERIFICATION PARTNERS

No	Partner	Certification Scheme
1.	Suruhanjaya Tenaga (ST)	Energy Efficiency Rating
2.	Sururhanjaya Perkhidmatan Air Negara (SPAN)	Water Efficient Labelling Product Scheme
3.	Malaysian Timber Certification Council (MTCC)	PEFC Certification
4.	FRIM PCS	Testing requirement in product safety, quality and performance certification
5.	Malaysian Palm Oil Berhad (MPOB)	Malaysian Sustainable Palm Oil (MSPO) Certification Scheme
6.	SIRIM Berhad	SIRIM Carbon Footprint Labelling Scheme
7	SIRIM QAS International Sdn. Bhd.	SIRIM Eco labelling Scheme
8.	Global GreenTAG Sdn. Bhd.	Global GreenTag Certification Scheme
9.	DQS Certification (M) Sdn. Bhd.	GC Mark Green Products Certification Scheme
10.	BSI Services Malaysia Sdn. Bhd.	Microgeneration Certification Scheme (MCS)
11.	Lembaga Getah Malaysia	Standard Malaysian Glove (SMG) Scheme

No	Partner	Certification Scheme
12.	Construction Industry Development Board (CIDB)	Malaysian Carbon Reduction and Environmental Sustainability Tools (MyCREST)
13.	Green Building Index Sdn. Bhd.	GBI Rating System Tools
14.	GreenRE Sdn. Bhd.	GreenRE Rating Tools
15.	TUV SUD (Malaysia) Sdn. Bhd.	Testing requirement in product safety, quality and performance certification
16.	QAV Technologies Sdn. Bhd.	Testing requirement in product safety, quality and performance certification
17.	SGS (Malaysia) Sdn. Bhd.	Testing requirement in product safety, quality and performance certification
18.	Control Union Malaysia Sdn. Bhd.	Testing requirement in product safety, quality and performance certification
19.	SES Scientific Sdn. Bhd. (Singapore Laboratory Services Pte. Ltd.)	Testing requirement in product safety, quality and performance certification
20.	CARE Certification International (M) Sdn. Bhd.	Testing requirement in services certification
21.	TUV Rheinland Malaysia Sdn. Bhd.	Testing requirement in product safety, quality and performance certification
22.	UL Services (Malaysia) Sdn. Bhd.	Green Guard Certification Scheme
23.	Trans Certification International	Testing requirement in product safety, quality and performance certification
24.	Water Quality Laboratory, National Hydraulic Research Institute of Malaysia (NAHRIM)	Testing requirement in product safety, quality and performance certification
25.	Watermarks Certification (Malaysia) Sdn. Bhd.	Testing requirement in product safety, quality and performance certification
26.	ANQAS Certification Sdn. Bhd.	Testing requirement in product safety, quality and performance certification

Glossary

NO.	ABBREVIATION	FULL NAME
1.	ACE	ASEAN Centre of Energy
2.	AEA	ASEAN Energy Awards
3.	AEMAS	ASEAN Energy Management and Accreditation Scheme Programme
4.	AHU	Air Handling Unit
5.	AMS	ASEAN Member States
6.	APEC	Asia-Pacific Economic Cooperation
7.	ASEAN	Association of Southeast Asian Nations
8.	BEA	Basic Energy Auditor
9.	BEI	Building Energy Index
10.	BEIS	Department for Business, Energy and Industrial Strategy, UK
11.	BEMS	Building Energy Management System
12.	BIOGEN	Biomass Power Generation and Co-generation
13.	BIPV	Building-integrated photovoltaics
14.	BMUB	Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
15.	BMV	Basic Measurement and Verification
16.	CEA	Certified Energy Auditor
17.	CEAT	Certified Energy Auditor Training
18.	CETREE	Centre of Education & Training in Renewable Energy, Energy Efficiency & Green Technology
19.	CEO	Chief Executive Officer
20.	CIS	Commonwealth of Independent States
21.	CMC	Chilled Metal Ceiling
22.	CMCO	Conditional Movement Control Order
23.	CO ₂	Carbon Dioxide

NO.	ABBREVIATION	FULL NAME
24.	CO ₂ e/CO ₂ eq	Carbon Dioxide Equivalent
25.	COO	Chief Operating Officer
26.	CPMV	Certified Professional in Measurement and Verification
27.	CPP	Certification and Professional Programme
28.	CSR	Corporate Social Responsibility
29.	DECC	Department of Energy and Climate Change, UK
30.	Dr	Doctor
31.	EACG	Energy Audit Conditional Grant
32.	EE	Energy Efficiency
33.	EMCP	Energy Management and Climate Change Programme
34.	EMEER	Efficient Management of Electrical Energy Regulations
35.	EMGS	Energy Management Gold Standard
36.	EMTC	Energy Manager Training Course
37.	En-ROADS	Energy-Rapid Overview and Decision-Support
38.	EPIC	Environmental Preservation & Innovation Centre
39.	EPU	Economic Planning Unit
40.	ESCOs	Energy Service Companies
41.	EV	Electric Vehicle
42.	EWMT	Energy and Water Management Training
43.	FIEM	Fellow of the Institution of Engineers Malaysia
44.	FTA	Free Trade Agreement
45.	GDP	Gross Domestic Product
46.	GEO	Green Energy Office
47.	GGA	Global Growth Acceleration
48.	GGP	Government Green Procurement

NO.	ABBREVIATION	FULL NAME
49.	GHG	Greenhouse Gas
50.	GITA	Green Investment Tax Allowance
51.	GITE	Green Income Tax Exemption
52.	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
53.	GTFS	Green Technology Financing Scheme
54.	GTMP	Green Technology Master Plan
55.	HODA	Hands-on Data Analysis
56.	Hons	Honours
57.	HR	Human Resource
58.	HWDE	Have We Done Enough
59.	ICE	Internal Combustion Engine
60.	IGEM	International Greentech and Eco Products Exhibition and Conference Malaysia
61.	IJN	Institut Jantung Negara/National Heart Institute
62.	ILB	Industry Lead Body
63.	IP	Intellectual Property
64.	lr	Ingenieur/Professional Engineer
65.	JEMGS	Journey to Energy Management Gold Standard implementation
66.	KASA	Ministry of Environment and Water
67.	KeTSA	Energy Sector, Ministry of Energy and Natural Resources
68.	KeTTHA	Formerly the Ministry of Energy and Natural Resources
69.	KPI	Key Performance Indicator
70.	LC4	Low Carbon City Carbon Calculator
71.	LCC	Low Carbon Cities
72.	LCC2030C	Low Carbon Cities 2030 Challenge
73.	LCCF	Low Carbon Cities Framework

NO.	ABBREVIATION	FULL NAME
74.	LCMB	Low Carbon Mobility Blueprint 2021-2030
75.	M&V	Measurement and verification
76.	MBI	Majlis Bandaraya Ipoh
77.	MBIPV	Malaysian Building Integrated Photovoltaic Technology Application
78.	MBOT	Malaysia Board of Technologists
79.	MBPG	Majlis Bandaraya Pasir Gudang
80.	MCAS	Malaysia Climate Action Simulator
81.	MCO	Movement Control Order
82.	MDHS	Majlis Daerah Hulu Selangor
83.	MESTECC	Minister of Energy, Science, Technology, Environment and Climate Change
84.	MGTC	Malaysian Green Technology and Climate Change Centre
85.	MIDA	Malaysian Investment Development Authority
86.	MICCI	Malaysia International Chamber of Commerce
87.	MNC	Multinational Corporation
88.	MOA	Memorandum of Agreement
89.	MOF	Ministry of Finance
90.	MOHR	Ministry of Human Resources
91.	MOSTI	Ministry of Science, Technology and Innovation Malaysia
92.	MOU	Memorandum of Understanding
93.	MPLBP	Majlis Perbandaran Langkawi Bandaraya Pelancongan
94.	MREPC	Malaysia Rubber Export Promotion Council
95.	MyRelamp	Government Green Procurement Pilot Project
96.	NCP	Non-Certification and Awareness Programme
97.	NDC	Nationally Determined Contribution

NO.	ABBREVIATION	FULL NAME
98.	NEA	National Energy Awards
99.	NEEAP	National Energy Efficiency Action Plan
100.	NGO	Non-Governmental Organisations
101.	NGTP	National Green Technology Policy
102.	NOSS	National Occupational Skills Standards
103.	OA	Occupational Analysis
104.	PBT	Local authorities
105.	PDRM	Polis Diraja Malaysia
106.	PEM	Professional Energy Manager
107.	PEX	Cross-linked Polyethylene
108.	PhD	Doctor of Philosophy
109.	PPSTI	Policy Partnership on Science, Technology and Innovation
110.	R&D	Research and Development
111.	R&D&C	Research, development and commercialisation
112.	RCEP	Regional Comprehensive Economic Partnership
113.	RE	Renewable Energy
114.	REEM	Registered Electrical Energy Manager
115.	RMK11	11th Malaysia Plan
116.	RMK12	12th Malaysia Plan
117.	SCP	Sustainable Consumption and Production
118.	SCP	Short Course Programme
119.	SD	Sustainable Development
120.	SEBs	Specialised Energy Bodies
121.	SEDA	Sustainable Energy Development Authority
122.	SEMS	Sustainable Energy Management System

NO.	ABBREVIATION	FULL NAME
123.	SME	Small and Medium-sized Enterprises
124.	SOPs	Standard Operating Procedures
125.	SRI	Sustainable and Responsible Investment
126.	STI	Science, Technology and Innovation
127.	tCO ₂ e/tCO ₂ eq	Tonnes of Carbon Dioxide Equivalent
128.	UiTM	Universiti Teknologi MARA
129.	UNSDGs	United Nations Sustainable Development Goals
130.	UN-SDSN	United Nations Sustainable Development Solutions Network
131.	UK	United Kingdom
132.	UKM	Universiti Kebangsaan Malaysia
133.	US/USA	United States of America
134.	UTM	Universiti Teknologi Malaysia
135.	WFH	Work From Home
136.	WKB2030	Shared Prosperity Vision 2030
137.	WTO	World Trade Organization
138.	YB	Yang Berhormat/The Honourable
139.	YBM	Yang Berhormat Menteri/The Honourable Minister
140.	YBTM	Yang Berhormat Timbalan Menteri/The Honourable Deputy Minister
141.	ZEB	Zero Energy Building

www.mgtc.gov.my

Published by



MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION

No. 2, Jalan 9/10, Persiaran Usahawan, Seksyen 9, 43650 Bandar Baru Bangi, Selangor Darul Ehsan

 Tel
 +6019-308 8286 / +603-8921 0800

 Fax
 +603-8921 0801 / 0802

 Email
 info@mgtc.gov.my

 WhatsApp
 +6019 308 8286

f in mgtc.my 🖸 🔰 mgtc_my 🕟 mgtc live