



# 20 ANNUAL REPORT 18 Championing Green Economy Mixture

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# **ACTING CHAIRMAN**

YBhg. Prof. Datin Paduka Dr. Khatijah binti Mohamad Yusoff

# **BOARD OF DIRECTORS**

YBhg. Datuk Wira Jalilah binti Baba

YBhg. Datuk Badriyah binti Hj. Abd. Malek

YBhg. Datuk Poh Pai Kong

YBrs. En. Baskaran a/l Madhavan Nair

YBrs. En. Hazim bin Jamaluddin

# ACTING CHIEF EXECUTIVE OFFICER / CHIEF OPERATING OFFICER

YBrs. Tuan Syed Ahmad bin Syed Mustafa

# **SECRETARY**

Shahrizat binti Othman [MAICSA 0764744]

# **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, 43650 Bandar Baru Bangi Selangor Darul Ehsan

# **AUDITOR**

Crowe Malaysia PLT (LLP0018817-LCA & AF 1018) **Chartered Accountants** Level 16, Tower C, Megan Avenue 2 12, Jalan Yap Kwan Seng 50450 Kuala Lumpur

# **PRINCIPAL BANK**

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



NOTICE IS HEREBY GIVEN THAT the Twenty-First Annual General Meeting of MALAYSIAN GREEN TECHNOLOGY CORPORATION ("the Company") will be held at Malaysian Green Technology Corporation, No. 2, Jalan 9/10, Persiaran Usahawan, Seksyen 9, 43650 Bandar Baru Bangi, Selangor Darul Ehsan on 27th June 2019 at 11.30 a.m. for the following purposes:

#### **AGENDA**

#### **As Ordinary Business**

1. To Lay and Receive the Audited Accounts for the year ended (Please refer to 31 December 2018 together with the Reports of the Directors and **Explanatory Note 2**) Auditors therein.

Re-election of Auditor

To Re-elect Messrs. Crowe Malaysia PLT (AF: 1018) (previously Resolution 1 known as Crowe Horwath) as the Auditor of the Company for the financial year 2019 until the conclusion of the next Annual General Meeting; and to authorise the Directors to fix their remuneration.

#### As Special Business

3. Amendment to the Constitution of the Company

That a new interpretation be inserted under Article 1 as follows:

(Please refer to **Explanatory Note 3)** 

"MESTECC – Ministry of Energy, Science, Technology, Environment and Climate Change"

Special Resolution 1

That all references to the "Minister of Energy, Green Technology and Water" wherever it appears in the Constitution of the Company be deleted and replaced with the "Minister of MESTECC"

BY ORDER OF THE BOARD SHAHRIZAT BINTI OTHMAN Company Secretary MAICSA 076474

KUALA LUMPUR Date: 6 June 2019

#### 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.

#### 3. Explanatory Notes to Agenda No. 3

Since its incorporation, GreenTech Malaysia reports directly to the Ministry of Energy, Green Technology and Water (KeTTHA). After the general election in May 2018 KETTHA was restructured and a new Ministry was formed, Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC). GreenTech Malaysia was placed under the purview of MESTECC. Hence, all matters that refer to KeTTHA in the Constitution of GreenTech Malaysia shall be replaced with MESTECC.

# Mission

To Champion Green Economy through Green Technology and Green Culture

## Vision

To Be the Leading Organisation in Spearheading Green Technology for Growth and Sustainability

GreenTech Malaysia is a government agency under the purview of the Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC).

Unveiled on 24 July 2009, Malaysia took a significant step to embrace Green Technology through the National Green Technology Policy (NGTP). NGTP identified green technology as a key driver to accelerate the national economy and promote sustainable development. Mandated by MESTECC, GreenTech Malaysia's role is to introduce various programs and incentives to advocate the use of green technology in key economic sectors across the country.

# **4 Pillars Under NGTP**













Dr. Khatijah binti Mohamad Yusoff

**ACTING CHAIRMAN** 

# **BOARD OF DIRECTORS**



YBhg. Datuk Poh Pai Kong **BOARD MEMBER** 





YBhg. Datuk Wira Jalilah binti Baba BOARD MEMBER



YBrs. En. Baskaran a/I Madhavan Nair BOARD MEMBER



YBrs. En. Hazim bin Jamaluddin **BOARD MEMBER** 

# **BOARD OF COMMITTEES AND THE MEMBERS**

## **Board Investment, Business & Promotion Committee (BIBPC)**

Reviews, monitors and reports to the Board on matters related to potential business investments, ventures, opportunities, business strategies, business and projects development as well as promotion matters.

Name	Position
YBhg. Datuk Wira Jalilah binti Baba	Chairman
YBhg. Prof. Datin Paduka Dr. Khatijah binti Mohamad Yusoff	Member
YBrs. En. Baskaran a/l Madhavan Nair	Member
YBrs. Tn. Syed Ahmad bin Syed Mustafa	Member
Deputy Secretary General Green Technology Sector	Member (Representative KeTTHA / MESTECC)
Director, Environmental and Natural Resources Section	Representative (EPU/MEA)

## **Board Establishment Committee (BEC)**

Reviews, monitors and reports to the Board on matters related to establishment, human resources, organisational development and Key Performance Indicators.

Name	Position
YBhg. Datuk Badriyah binti Hj. Abd. Malek	Chairman
YBrs. Tn. Syed Ahmad bin Syed Mustafa	Member
Deputy Secretary General Green Technology Sector	Representative (KeTTHA / MESTECC)
Undersecretary Policy Division Green Technology Sector	Representative (KeTTHA / MESTECC)

#### **Board Finance & Audit Committee (BFAC)**

Reviews, monitors and reports to the Board on matters related to finances, financial performance, audit and corporate governance.

Name	Position
YBhg. Datuk Poh Pai Kong *Effective March 2018	Chairman
YBhg. Prof. Datin Paduka Dr. Khatijah binti Mohamad Yusoff	Member
YBrs. En. Hazim bin Jamaluddin	Member
YBrs. Tn. Syed Ahmad bin Syed Mustafa	Member
Deputy Secretary General Green Technology Sector	Member (Representative KeTTHA / MESTECC)
Director, Environmental and Natural Resources Section	Representative (EPU/MEA)

# **LEADERSHIP TEAM**



ACTING CHIEF EXECUTIVE OFFICER
/ CHIEF OPERATING OFFICER

Tuan Syed Ahmad bin Syed Mustafa

5 2 7 6 3 8 10 9 1

HEAD
HUMAN RESOURCES
& ADMINISTRATION

Siti Hursiah binti Ibrahim

HEAD FINANCE & INVESTMENT

Tengku Sharifah Hanif binti Tengku Hamzah

4 STRATEGIC COMMUNICATIONS

Elina binti Jani

HEAD

CORPORATE SERVICES

& GOVERNANCE

Noor Azmin Azali bin Ramli

HEAD
SUSTAINABLE ENERGY
& GREEN ADVISORY

Norhasliza binti Mohd Mokhtar

7 HEAD LOW CARBON CITIES

Saiful Adib bin Abdul Munaff

HEAD LOW CARBON MOBILITY

Huzaimi Nor bin Omar

HEAD
STRATEGIC PLANNING &
BUSINESS DEVELOPMENT

Wan Faizal bin Mohd Anwar

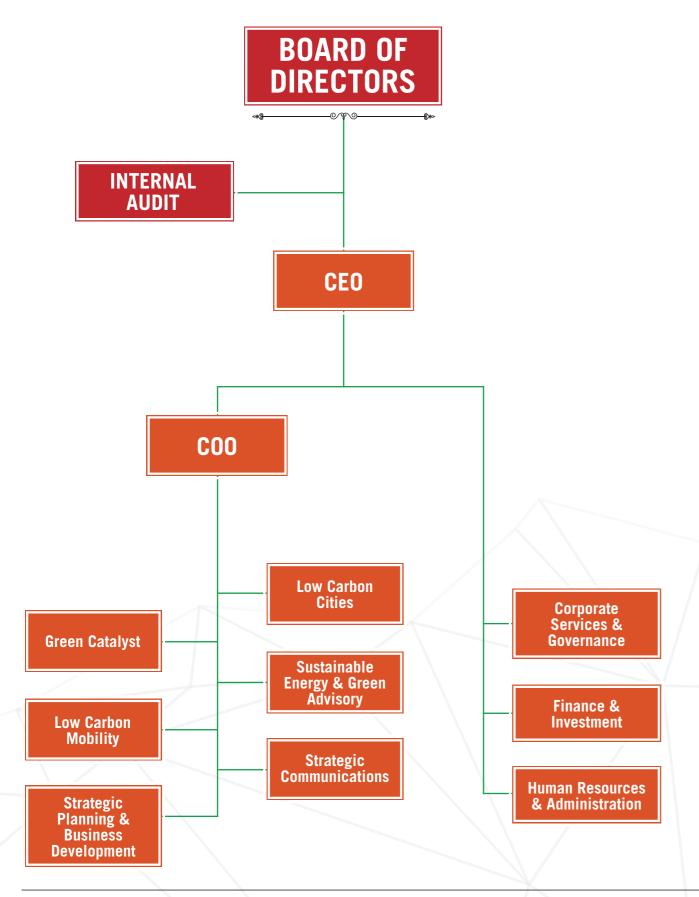
HEAD GREEN CATALYST

Kamaradzaman bin Mohd Bakri

\*Effective December 2018

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# ORGANISATIONAL STRUCTURE









YBhg. Professor Datin Paduka
Dr. Khatijah binti Mohamad Yusoff
Acting Chairman

Dear Stakeholders,

On behalf of the Board of Directors, it is my pleasure to present the GreenTech Malaysia Annual Report for the financial year ending 31 December 2018.

#### **Government Leading by Example**

To further accelerate environmentally sound practices at the national level, the Government has targeted for 20% of purchases of selected products or services by the Public sector to be green-labelled by 2020. This target is one of the objectives of the Government Green Procurement (GGP), which GreenTech Malaysia has been promoting with the Ministry of Finance (MOF) under its mass outreach programmes.

There has been significant traction thus far, with a total of 12 GGP events being carried out in 2018 across the Northern, Southern, Eastern and Western regions of Malaysia.

Another milestone which I am pleased to highlight is the Ministry of Health's (MOH) decision to implement Energy Management Gold Standard (EMGS) in all their buildings. Under its plans, MOH aims to have 150 of their buildings/organisations certified as 3-Star EMGS compliant. As the EMGS certification body in Malaysia, GreenTech Malaysia is pleased to be able to work with MOH to enhance its energy management systems.

#### **Green Economy Mitigating Climate Change**

No doubt, one of the most significant events that took place in 2018 was the change of Government. For GreenTech Malaysia, this also resulted in our reporting Ministry shifting from the Ministry of Energy, Green Technology

and Water (KeTTHA) to be the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC).

The formation of MESTECC means that our key focus areas are now under the purview of a single Ministry, allowing for better coordination across the board. As such, we have been strengthened in our goal to fulfil our vision to be the leading organisation in spearheading Green Technology for Green Growth and Sustainability and successfully inch Malaysia closer to a greener economy.

With our sights firmly fixed on the end-goal of promoting Green Economy on a national scale and fighting climate change, we have reaffirmed our commitment to advance the adoption and expansion of green technology, products and services. And we are doing so with the close cooperation and consultation with MESTECC and other Ministries and Agencies.

As a sign of its continued support for the green technology sector, the Government has enhanced the Green Technology Financing Scheme (GTFS) with the launch of GTFS 2.0. Under the original GTFS, which was launched in 2010, GreenTech Malaysia, along with the Ministry of Finance, Bank Negara Malaysia and KeTTHA, provided financial assistance to green technology-based businesses.

As of 31 December 2017, GTFS benefitted 265 projects in the energy sector, 45 in the waste and water management sector, 5 in the transport



sector and 4 in the building sector. Under GTFS 2.0, RM2 billion has been allocated to help producers and users of green technology, as well as energy service companies (ESCOs), offset the costs of their green technology investments.

GTFS 2.0 demonstrates the Government's commitment to incentivising investments for sustainability, and how GreenTech Malaysia continues to play a central role in advocating use of green technology in key economic sectors across the country.

We are also working to combat the misconception that going green is dichotomous with commercial success, and that embracing the green agenda increases costs and reduces profitability.

While the number of green technology businesses in the market has been steadily rising, we are taking further steps to help this number skyrocket in the coming years. To incentivise the production of more green technology projects, GreenTech Malaysia has relentlessly promoted the Green Technology Tax Incentive in a bid to encourage the purchasing and selling of green technology. Consequently, Green Investment Tax Allowances (GITA) were granted to 242

energy-efficient and renewable energy projects worth RM3.26 billion in 2018.

I am proud to be given this opportunity to be a part of this wonderful organisation

As **South East Asia's largest** 

green technology and

eco-solutions trade event.

**IGEM** 

is the pride and joy of **GreenTech Malaysia**.

Now in its **9th** year, **IGEM** successfully generated business

leads of over RM23 billion

since its inception in 2010,

and has drawn in more than

**450,000 visitors** comprising

delegates, dignitaries,

and representatives from over

50 countries.

that works tirelessly to push these initiatives all the way from inception and conceptualisation until implementation. What is heartening is that the wheel is accelerating and it drives the nation forward towards a cleaner, greener future that is powered right here, right now.

While we revel in GreenTech Malaysia's milestones in the past year, we have already moved full steam ahead with our agenda for 2019. We think of ourselves not as a corporation, but rather as a corporate citizen who is dedicated to doing our part for the sake of future

generations. When it comes to preserving the environment we live in, a win for us, is a win for all.

Professor Datin Paduka Dr. Khatijah binti Mohamad Yusoff Acting Chairman





# CEO'S STRATEGIC REVIEW

GreenTech Malaysia is on an important mission to champion green economy through green technology and green culture, and it's a great honour for me to be at the forefront of building this lasting legacy for our nation. In our unwavering quest to transform the nation's green technology landscape, my team has worked hard to keep GreenTech Malaysia abreast with global initiatives that mitigate climate change and its effects – across our three pillars of Economy, Environment and Social.

We are tirelessly driving our mission through strategic programmes and initiatives to be able to future proof Malaysia in various shades of green, the GreenTech Malaysia way.

#### A Year of Progress

From the perspective of green investments, our collective efforts have resulted in 34,662.68 MW/year in energy conservation, 532.89MWh of renewable energy generation, RM7.05 billion green investments, 213,440 MT/year of waste recycled, and GHG emissions reduction of 3.784 mtCO<sub>2</sub>eq/ year in 2018 alone. And this is just the beginning for us.

We have made much progress in 2018. I would like to highlight three of our key efforts to green our cities. They are the Low Carbon Cities Framework (LCCF), to increase more environmental forms of transport through the Low Carbon

Mobility (LCM) initiative, and championing energy management excellence through the National Energy Awards (NEA).

We are committed to ensuring the realisation of Malaysia's Conference of Parties (COP) 21 pledge to reduce carbon emissions intensity (per capita GDP) by 45% as compared to 2005. To do this we have implemented the Low Carbon Cities Framework (LCCF) as a guide for Local Authorities on how they can transform their cities into low carbon cities.

Presently, 52 Local Authorities are participating in it, and I am happy to note that 5 of them have managed to cut their overall carbon emissions by 9,363.25 tCO<sub>2</sub> /year, and have been awarded the Diamond Recognition as a result.

For Low Carbon Mobility, I am proud to note that we have increased the number of electric vehicle (EV) charging stations under our ChargEV initiative to 250 by end 2018, and have incentivised use by eliminating the cost for ChargEV members.

At the same time, we have also worked with various partners to advance the adoption of low carbon mobility. For instance, with PLUS Malaysia Berhad to install Malaysia's first public solar EV charging station at the Ayer Keroh Overhead Bridge Restaurant on the southbound route of the North-South Highway.

I am proud to announce that as at 2018, we have managed to get a total of 3,142 green products and services registered with

the MyHIJAU Mark. Given that in 2017, just 1,330 products and services received MyHIJAU Mark recognition, this indicates a 136% increase from last year. The strong take-up of the MyHIJAU Mark is a clear indication that there is a demand for green products and services thus driving companies to label their offerings as such.

We are tirelessly driving our

mission through strategic

programmes and

initiatives to be able to

future proof Malaysia in

various shades of green,

the **GreenTech** 

Malaysia way.

On top of this, we also spearheaded the inaugural National Energy Awards (NEA) under the purview of MESTECC. Winners of the NEA 2018 represented Malaysia at the ASEAN Energy Awards (AEA) 2018 as well as at the **ASEAN Centre of Energy** (ACE) 2018, and we hope very soon they, and generations after them, will be our torch bearers in making Malaysia the global hub of green technology.

#### **Solidifying Our Reputation**

One example of that at work is the International GreenTech & Eco Products Exhibition and Conference Malaysia (IGEM). As South East Asia's largest green technology and ecosolutions trade event. IGEM is the pride and joy of GreenTech Malaysia. Now in its 9th year, IGEM successfully generated business leads of over RM23 billion since its inception in

2010, and has drawn in more than 450.000 visitors comprising delegates, dignitaries, and representatives from over 50 countries.

> I am pleased to note that IGEM 2018 exceeded both MESTECC's and our expectations by surpassing the set targets, with RM4.155 billion potential business leads, 39, 803 visitors, 281 exhibition booths, 37 participating countries, and RM7.19 million worth of PR value. The success of IGEM through the years has also enhanced GreenTech Malaysia's reputation as a champion and driver of green standards.

This is further reflected by the fact that the ASEAN Centre of Energy (ACE) collaborated with us to be their certification body for Energy Management Gold Standard (EMGS)

in Malaysia. A regional certification system under the ASEAN Energy Management Scheme (AEMAS), EMGS aims to promote excellence in energy management.

Being named the EMGS certification body was a tremendous vote of confidence for our capabilities and we are proud to have been recognised at a regional level. This has also strengthened our credibility and credentials, and has been of tremendous value in our drive to enhance energy management in Malaysia.

Since our appointment as the EMGS certification body in 2016,

we've carried out a total of 215 assessments of which 170 were certified. Of these, 83 were assessed in 2018 and 27 certified the same year.

#### **Positioning for** Growth

As I wrap up on all the best of the year, it is a fitting finale to sav that GreenTech Malaysia successfully met the ISÓ 9001:2015 standard on 1 June 2018. This achievement is not a surprise, for quality has to be inherent

before it becomes visible. We are constantly bettering ourselves, to keep up and hopefully overtake. the constantly changing trends in the global village we live in.

We do this with an ebullient team spirit that focuses on talent development, by ensuring transparency and open communications and most

importantly, we always look forward and grab opportunities where we find them, and

**GreenTech Malaysia** successfully

met the ISO 9001:2015

standard on 1 June 2018.

This achievement is not a

surprise, for quality has to be

inherent before it becomes visible.

We are constantly bettering

ourselves, to keep up and

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village we live in. We do this

with an ebullient team spirit that

focuses on talent development.

by ensuring transparency and

open communications and most

importantly, we always look forward

and grab opportunities where

we find them, and sometimes plant

opportunities where we can't.

sometimes plant opportunities where we can't.

I take this opportunity to quote the adage "united we stand, divided we fall" - we alone cannot make a resounding impact, and our successful partnerships have also been instrumental in bringing Malaysia

achieving sustainability

targets, and nothing gives me more pride than being at the helm of a small part of this change.

closer to our overarching national targets. We have witnessed Malaysia make monumental strides in

YBrs. Tuan Syed Ahmad bin Syed Mustafa Acting Chief Executive Officer/ **Chief Operating Officer** 

**ANNUAL REPORT 2018** GreenTech Malaysia



# **GROWTH OF GREEN INITIATIVES**





#### MyHIJAU Mark

The Government-endorsed green recognition scheme is issued by GreenTech Malaysia to draw awareness to green-minded businesses and bring their products and services to the masses.

290

Registered Green **Products And Services**  Registered Green Companies





#### **Energy Management Gold** Standard (EMGS)

As the appointed certification body for EMGS in Malaysia, GreenTech Malaysia holds Malaysian companies to high energy efficiency standards.



170

**EMGS Assessments** Conducted

**EMGS Certifications** 

\*Figures up to June 2019





#### ChargEV

The ChargEV initiative under GreenTech Malaysia's wing eased access to both public and private access to electric vehicle (EV) charging stations.



300

Public EV Chargers

Home Charging Units





#### **Low Carbon Cities** Framework (LCCF)

Setting the foundation for lowcarbon cities in Malaysia, LCCF was established to act as a guide for local authorities, universities and other regions to collectively reduce their carbon emissions.



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Local Authorities Trained in LCCF

Local Authorities Actively Pursuing LCCF

# STRENGTHENING GREEN PARTNERSHIPS

The best way to further the reach of nation-wide sustainability projects is to foster strategic alliances with renowned companies and local authorities. GreenTech Malaysia has done just that by strengthening ties with high-flying names across the private and public sector.



PLUS Malaysia Berhad (PLUS) collaborated with GreenTech Malaysia to chart the PLUS Green Roadmap 2018 -2022, and to oversee the installation and commissioning of PLUS' Solar PV System project at Persada PLUS and Machap Rest & Service Area (Northbound) on the North-South Expressway. A recent GreenTech Malaysia - GFF5-UNIDO - PLUS collaboration saw the first Solar **EV Charging Station introduced** at PLUS' Ayer Keroh Overhead Bridge Restaurant. More Solar EV Charging stations will be available at other rest areas along PLUS-operated highways in the future.



MOH has been the main stakeholder of the Energy Management Gold Standard (EMGS) certification programme conducted by GreenTech Malaysia, which is in line with Government-led initiatives on energy efficiency, energy conservation and energy management. About 150 organisations under MOH including hospitals, laboratories, and health institutions have adopted the EMGS programme with a target to achieve 3-star certifications by 2020.



GreenTech Malaysia collaborated with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to execute training in measuring, reporting and verification (MRV) for sustainable transport in Malaysia. Relevant stakeholders were educated in data gathering and greenhouse gas estimation and impact.

# **ChargeNow**

Through the ChargEV initiative, GreenTech Malaysia partnered with BMW Malaysia to serve the electric mobility needs of BMW EV users across the nation. ChargEV opened network access to 5,000 BMW owners by integrating these users to the ChargEV network user-base.



PETRONAS Dagangan Berhad (PDB) entered into a partnership with GreenTech Malaysia to install 66 ChargEV charging stations. As of end 2018, 61 ChargEV charging stations have been installed at PETRONAS stations located along major highways of Peninsular Malaysia.



GreenTech Malaysia partnered with ASEAN Centre for Energy (ACE) to expand the scope of Energy Manager Training Course and Energy Management Gold Standard in Malaysia, in line with the ASEAN **Energy Management** Scheme (AEMAS) Certification.

# **FUELLING GREEN INITIATIVES**

Widely accepted and recognised, the MyHIJAU Mark issued by GreenTech Malaysia has now been made easily accessible across online platforms such as a dedicated website, and the MyHIJAU app can be downloaded both on Google Play store and Apple store. Its easy availability across multiple platforms has led to a steady rise in registrations, especially in the energy sector.

As of 2018, a total of 290 companies and 3,142 green products and services were registered with the MyHIJAU Mark. The added benefit is that all the companies registered with the MyHIJAU Mark will be listed in the MyHIJAU Directory, which makes them applicable for green technology tax incentives. Not only will this spur green awareness, but it will give green businesses the resources they need to grow further.

Multiple MyHIJAU events and talks were held from as early as April 2018 until the very end of the year. A majority of the events were 'Business Clinics', which assisted companies with the application process and guidelines for the MyHIJAU Mark recognition for green products and services. Additionally, Pocket Talks on MyHIJAU were also held during IGEM2018. These were sharing sessions that gave the audience further insights into the MyHIJAU Mark.

#### Green Technology Tax Incentive

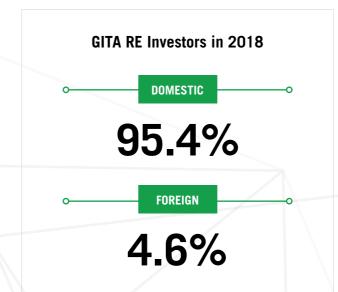
As an initiative to encourage the buying and selling of green technologies, the Government provides an Investment Tax Allowance (ITA) for purchasing green technology equipment / assets and an Income Tax Exemption (ITE) for providing green technology services. Under the Green Technology Tax Incentive, there is Green Investment Tax Allowance (GITA) for Assets, GITA for Projects, and Green Income Tax Exemption (GITE) for Service Providers.

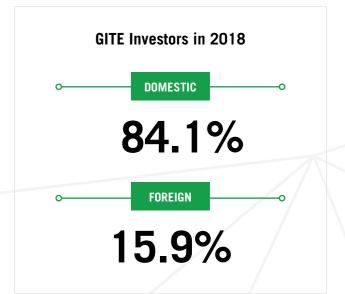
#### **GITA**

In 2018, 175 renewable energy (RE) and 55 energy efficiency (EE) projects were approved. attracting total investment values of RM3.0 billion and RM139.1 million respectively.



With both domestic and foreign investors partaking, there were a total of 14 projects for green services with a total investment of RM150.8 million.





# **LOW CARBON CITIES AWARDS**

Since 2011, Malaysia has established the Low Carbon Cities Framework (LCCF) to provide guidance for Local Authorities, universities and any other regions on how to transform their cities into low carbon cities. The LCCF looks at addressing carbon emissions in 4 main areas: Urban Environment, Urban Infrastructure, Urban Transportation and Buildings. Local Authorities are encouraged to adopt LCCF and those that have, are finding success in their low carbon initiatives.

The Low Carbon Cities Awards is an annual event that showcases and recognises the efforts that Local Authorities have taken to transform their cities into low-carbon metropolises. Organised by GreenTech Malaysia in conjunction with the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC), these awards are also open to universities and special regions such as the Tentera Laut Diraia Malaysia (TLDM) Naval Base that have also adopted low-carbon initiatives.

The 2018 Low Carbon Cities Awards took place on the 18th of October at IGEM 2018. This year saw a record number of cities being rewarded for their low carbon plans, initiatives and efforts.

#### Award Categories and Winners

#### DIAMOND RECOGNITION

The Diamond Recognition is awarded to Local Authorities, universities and special regions that have implemented their low carbon action plan and achieved a reduction in carbon emissions.

#### THE 2018 DIAMOND AWARD RECIPIENTS

Majlis Bandaraya Shah Alam Majlis Perbandaran Klang Majlis Perbandaran Seberang Perai

#### PROVISIONAL CERTIFICATE

The Provisional Certificate is awarded to Local Authorities, universities and special regions that have established the carbon emissions baseline and developed their low-carbon action plan.

#### THE 2018 PROVISIONAL CERTIFICATE RECIPIENTS

Mailis Perbandaran Bentong

Majlis Perbandaran Langkawi

Mailis Perbandaran Kajang

Mailis Perbandaran Selayang

Majlis Perbandaran Pasir Gudang

Majlis Bandaraya Pulau Pinang

Majlis Perbandaran Ampang Jaya

Majlis Perbandaran Jasin

Majlis Perbandaran Batu Pahat Universiti Malaysia Sarawak (UNIMAS)

# COLLABORATION WITH UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION (UNIDO)

MESTECC entered into a joint programme with the United Nations Industrial Development Organisation (UNIDO) and Global Environment Facility (GEF) on a national project to develop energy efficient low-carbon transport in Malaysia. With GreenTech Malaysia being under the purview of MESTECC, a lot of headway has been made by the organisation to realise the objectives under this programme.

#### Baseline Study and Data Collection

The collaborative project was initiated to gain a better understanding of the environmental landscape of Langkawi, since UNESCO declared it as one of the Global Geoparks – the first in South East Asia. It consisted of a baseline study on the energy consumption and reduction in carbon emissions, which was funded through GEF5-UNIDO with support from the MESTECC, Kedah State Economic Development Division (BPEN Kedah), Langkawi District Office and Langkawi Development Authority (LADA).

UM Power Energy Dedicated Advanced Centre (UMPEDAC) was entrusted to conduct the study covering socio-economic, energy-related, and environmental aspects of Langkawi across 9 key sectors.

# Nine Sectors Covered by UMPEDAC's Study



Transportation



Industrial



Commercial



Residential



Agricultural



**Power Generation** 



Waste



Water



Forestry

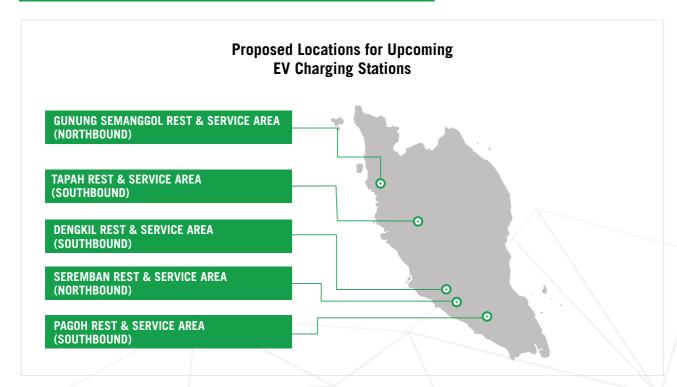
The data collected between 2012 and 2016 revealed that electricity use is the largest source of carbon emissions in Langkawi. In 2012, the highest amount of carbon emissions was contributed by the industry sector, followed by the transportation sector. However in 2016, the transportation sector overtook industrial electricity usage.

# GROWING PUBLIC ACCESS TO ELECTRIC CHARGING STATIONS

GreenTech Malaysia completed the 1st phase installation of EV charging stations across Langkawi Island in 2018, totalling 10 units. The EV chargers are strategically located along the routes that are frequented by taxi operators and tourists on the island. Phase 2 will take it one step further, by shifting towards the decarbonisation of EV charging infrastructure with Solar PV-EV charging stations.



PLUS Malaysia Berhad, in partnership with GreenTech Malaysia, launched the country's first public solar EV charging station at Ayer Keroh Overhead Bridge Restaurant



#### Launch of First Public Solar EV Charging Station in Malaysia

Under the GEF5-UNIDO initiative, GreenTech Malaysia partnered with PLUS Malaysia Berhad for the implementation of this project, leading to the country's first public solar EV charging station launched at Ayer Keroh Overhead Bridge Restaurant (Southbound) in 2018. The system was designed, configured and installed by First Energy Networks Sdn. Bhd, as a subcontractor of GreenTech Malaysia.

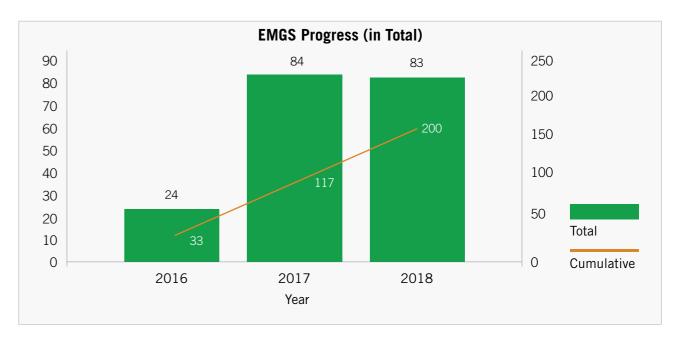
The Solar PV Energy Storage System's Fast Charger is an integrated system with PV panels, an energy storage system (Lithium-ion Battery Pack) and an AC grid power supply as back-up. Able to operate in both standalone (primary) mode and grid connected (secondary) mode, it also allows online real-time monitoring of the system parameters as it is integrated with an Energy Monitoring System (EMS).

# WIDENING THE REACH FOR ENERGY EFFICIENCY

Sustainable energy rests on the principle that current consumption patterns should not compromise the ability of future generations to meet their own energy needs. As a way to assure this, GreenTech Malaysia has been involved in training and equipping the current workforce with the knowledge and skills required to implement sustainable energy management within businesses. Through our EMGS and EACG programmes, we have managed to reach out to over 300 organisations.

#### **Energy Management Gold Standards Certification**

The Energy Management Gold Standard (EMGS) recognises end-users who have successfully implemented a sustainable energy management system according to the ASEAN Energy Management System (AEMAS)'s requirements. GreenTech Malaysia is the EMGS certification body in Malaysia. Between 2016 and 2018, there has been a rise in EMGS assessments conducted. In 2018 alone, 83 assessments were conducted.



#### **Energy Audit Conditional Grant**

Energy Audit Conditional Grant (EACG) aids businesses in taking notable steps to better their energy efficiency, with the initiative being conducted from May 2016 to May 2018. By issuing grants to 108 companies from the industrial sector particularly, EACG helped reduce energy consumption and expenses.

# THE NATIONAL ENERGY AWARDS (NEA): AN ASPIRATION FOR MALAYSIAN ENERGY PLAYERS

The National Energy Awards (NEA) is a dynamic and dedicated platform highlighting the development of ideas and best practices that will successfully drive innovation for the energy sectors in Malaysia. It aims to strategically promote innovation in technology focusing on energy efficiency and renewable energy towards achieving sustainable economy.

This is part of the Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC)'s agenda to acknowledge the adopters of energy efficiency and renewable energy in driving Malaysia's sustainable development aspirations while simultaneously inspiring others to follow.

The NEA consists of two categories: -

**Energy efficiency** which involves commercial and industrial buildings that integrate energy efficiency best practises within their core business and has illustrated substantial savings in the operations.

**Renewable Energy** which involves power generation from renewable sources that brings a positive impact to communities, particularly in the rural areas.

The NEA also serves as a platform to recognise and commend innovative and high impact EE &

RE projects in Malaysia for representation at the ASEAN Energy Awards.

#### **NEA 2018 Outcome and Achievements**

The Call for Submission campaign kicked off in January 2018 with national advertisements in major newspapers. The campaign run included specially organised workshops for would-be participants to better grasp the criteria and guidelines for their report submissions. Overwhelming responses from the industry saw 105 applications for the inaugural NEA. From the 105 applications, only 73 organisations were shortlisted to submit their reports for evaluation by the NEA's panel of judges.

The panel of judges comprise experts, industry leaders and academicians from private and public sectors, who evaluated and selected 7 winners and 6 runners-up for the energy efficiency category alongside 4 winners and 2 runners-up for the renewable energy category.

The winners of the energy efficiency category were chosen for implementing energy efficiency measures in buildings and industries through innovative designs. For the renewable energy category, the winners were selected for applying renewable energy technologies, such as thermal, solar or biofuels, into their operations.

#### National Energy Awards (NEA) 2018



"I am tremendously impressed by the enthusiastic participation of so many organisations at the very first National Energy Awards. While an enabling policy environment is vital in transitioning the country's economy into a greener pathway, the success of such a transition hinges on the participation and support from the private sector.

Over the years IGEM has brought green technology and climate action to the forefront of discussions, whether around government, policy makers or corporate circles, or among individuals. As such, NEA serves as a natural progression to actually recognise and reward the organisations whose best practices are making a positive impact on their business and inspiring the rest of us to tread the sustainability journey with resolve."

#### YB Yeo Bee Yin

Minister of Energy, Science, Technology, Environment and Climate Change (MESTECC)

#### **WINNERS OF NEA 2018**

#### **CATEGORY 1: ENERGY EFFICIENCY**

#### **ENERGY MANAGEMENT IN BUILDING (SMALL)**

- Cofreth (M) Sdn Bhd (Winner)
- KPJ Kluang Utama Specialist Hospital (Runner-Up)

#### **ENERGY MANAGEMENT IN BUILDING (LARGE)**

- Ibu Pejabat JKR Malaysia (Winner)
- Kota Kinabalu International Airport (Runner-Up)

#### GREEN BUILDING

- PKNS Hg Shah Alam (Winner)
- Amanjaya Specialist Centre Sg. Petani (Runner Up)

#### RETROFITTED BUILDING

- Bangunan Perdana Putra (Winner)
- Putra Specialist Hospital Melaka (Runner Up)

#### **ENERGY MANAGEMENT IN INDUSTRY (SMALL)**

- Dutch Lady Milk Industries Sdn Bhd (Winner)
- Top Glove Sdn Bhd (Runner Up)

#### **ENERGY MANAGEMENT IN INDUSTRY (LARGE)**

- IOI Edible Oils Sdn Bhd (Winner)
- BP Petronas Acetyls Sdn Bhd (Runner Up)

#### **ENERGY EFFICIENT DESIGN**

PKNS HQ Shah Alam (Winner)

#### **CATEGORY 2: RENEWABLE ENERGY**

#### NATIONAL GRID

- Betatechnic Sdn. Bhd. (Winner)
- Gading Kencana Sdn Bhd (Runner-Up)

#### OFF-GRID (SOLAR)

Solarge Sdn Bhd (Winner)

#### OFF-GRID (THERMAL)

SIRIM Bhd (Winner)

#### DIUCIICI

- Felda Palm Industries Sdn Bhd (Winner)
- Bright Integrity Sdn Bhd (Runner-Up)

#### SPECIAL SUBMISSION TO ASEAN ENERGY AWARDS

ABB Sdn Bhd

#### SPECIAL SUBMISSION TO ASEAN ENERGY AWARDS

- Ministry of Economic Affairs (Block B6)
- Prime Minister's Office, Bangunan Perdana Putra

#### NEA 2018 Awards Dinner

The inaugural NEA gala dinner was held at IGEM 2018 on 19 October 2018 and was graced by YB Yeo Bee Yin, Minister of Energy, Science, Technology, Environment & Climate Change (MESTECC). Nearly 400 people attended the dinner, consisting of senior management from agencies under MESTECC, industry players and selected NGOs such as Malaysian Photovoltaic Industry Association (MPIA), The Electrical and Electronics Association of Malaysia (TEEAM) and others.

Apart from the winners in Category 1 (Energy Efficiency) & Category 2 (Renewable Energy), two honorary mentions were also announced in the 'Special Category – Ministry & Government Building' following an evaluation of 25 government and ministry complexes based on their annual energy consumption patterns and Building Energy Index (BEI). The intent is to recognise and encourage the initiatives taken by various government agencies.



The Gala Dinner for the Inaugural National Energy Awards (NEA) 2018 was graced by many high-level industry representatives.

#### About the ASEAN Energy Awards (AEA) :

The ASEAN Energy Awards (AEA) is an annual awards programme organised by the ASEAN Centre of Energy (ACE) - an inter-governmental organisation within the ASEAN structure that represents the 10 ASEAN Member States' (AMS) interests in the energy sector - where officials from ASEAN Member States reward outstanding achievements and contributions to energy development in the region, both from the public and private sectors. It encourages private-public sector collaborations in energy development for the benefit of the ASEAN region as a whole.

The winners of the NEA and a special nominee were submitted to represent Malaysia at the ASEAN Energy Awards (AEA) 2018. The results were officially announced on 29 October at the ASEAN Ministers on Energy Meeting in Singapore. A total of 10 out of 19 Malaysian organisations won at AEA 2018. This was a step forward from the 7 organisations that won in 2017, and is a testament to Malaysia's commitment towards a more resilient and sustainable energy mix. The winners are expected to share their best practises with other Malaysian companies so that others will be inspired to follow suit.





#### MALAYSIAN WINNERS AT THE ASEAN ENERGY AWARDS (AEA) 2018

ASEAN BEST PRACTICES COMPETITION FOR ENERGY MANAGEMENT IN BUILDINGS & INDUSTRIES

#### **SMALL & MEDIUM**

#### BUILDING

• Cofreth (M) Sdn Bhd (HQ) – 1st Runner-Up

#### **INDUSTRIE**

• Top Glove Sdn Bhd – 2nd Runner-Up

#### LARGE

#### BUILDING

Public Works (HQ) – Winner

#### INDUSTRIE:

• IOI Edible Oils Sdn Bhd – 2nd Runner-Up

#### **ENERGY EFFICIENT BUILDINGS & GREEN BUILDINGS**

#### **GREEN BUILDING**

#### SMALL & MEDIUM

- PKNS HQ Winner
- Amanjaya Specialist Centre 2nd Runner-Up

#### RETROFITTED BUILDING

Pejabat Perdana Menteri – 1st Runner-Up

#### OFF-GRID

#### THERMAL

• SIRIM Bhd – 1st Runner-Up

#### ON-GRID

#### NATIONAL GRID

• Gading Kencana Sdn Bhd – 1st Runner-Up

#### SPECIAL SUBMISSION

ABB Malaysia Sdn Bhd – Winner

# STRENGTHENING OUR OPERATIONAL EXCELLENCE

As the organisation appointed by MESTECC to facilitate the growth of green economy, GreenTech Malaysia ensures that it adheres to the highest green standards through corporate services and governance.

#### **Quality Management System**

On 12 October 2018, GreenTech Malaysia was certified with ISO 9001:2015 Quality Management System (QMS) by SIRIM QAS International. This certification demonstrates that GreenTech Malaysia adheres to international standards when it comes to how it operates as well as its ability to fulfil the needs of its stakeholders and customers.

The following projects and services have been certified under the ISO 9001:2015:

NATIONAL ENERGY AWARDS (NEA)

ENERGY MANAGEMENT PROGRAM (EMP)

SEMINAR, WORKSHOP & PUBLIC TRAINING

**MyHIJAU MARK** 

GREEN TECHNOLOGY FINANCING SCHEME (GTFS)

GREEN TECHNOLOGY TAX INCENTIVE (GITA, GITE)

**LOW CARBON CITIES** 

CHARGEV

INTERNATIONAL GREENTECH & ECO-PRODUCTS EXHIBITION & CONFERENCE (IGEM)

# SUSTAINING THE MOMENTUM FOR GREEN INNNOVATIONS

GreenTech Malaysia has accelerated the awareness and reach of innovative green technology through its involvement in the high-profile International GreenTech & Eco Products Exhibition and Conference Malaysia (IGEM). As South East Asia's largest trade event for green technology and eco-friendly solutions, the annual IGEM event has been a mainstay for co-organisers MESTECC and GreenTech Malaysia. It offers the ideal platform for service providers and green businesses to identify high potential opportunities within the ASEAN market, as well as showcase the latest green innovations to policy makers, Government organisations, investors and the masses.

Since its establishment in 2010, IGEM has successfully generated over RM23 billion in business leads, and attracted well over 450,000 visitors including delegates, dignitaries, and representatives from over 50 countries.

**IGEM 2018** 

GREEN ECONOMY & INDUSTRY 4.0: ACHIEVING SUSTAINABLE DEVELOPMENT GOALS No of Exhibitors **281**Total no of visitors **39,803**Business leads **RM4.155** billion



YB Yeo Bee Yin, Minister of MESTECC, with GreenTech Malaysia representatives at IGEM 2018

Officiated by YB Yeo Bee Yin, Minister of MESTECC, IGEM 2018 was held at Kuala Lumpur Convention Centre from 17 to 20 October 2018 with the fitting theme, "Green Economy & Industry 4.0: Achieving Sustainable Development Goals".

#### Synergistic Partnerships

IGEM 2018's successful reception was made possible with the synergistic partnerships between GreenTech Malaysia and the following partners:

- Strategic Partner: Malaysian Investment Development Authority (MIDA).
- Congress Partners: Dewan Bandaraya Kuala Lumpur (DBKL), EU-Malaysia Chamber of Commerce and Industry (EUMCCI), Construction Industry Development Board (CIDB), Malaysia Green Building Confederation, the British High Commission Kuala Lumpur, the Embassy of the Republic of Korea and Capital Markets Malaysia.
- Townhall Partners: MESTECC, Suruhanjaya Tenaga (ST), Malaysia Commercialisation Year (MCY), Yayasan Inovasi Malaysia (YIM) and Capital Markets Malaysia.
- Media Partners: Maps & Globe Specialist, Green Plus, Malaysia SME, the Electrical and Electronics Association of Malaysia (TEEAM), EUMCCI, Marshall Cavendish, Building & Investment, KLIA Express, Technology Park Malaysia, OIC Publication, B&I Worldwide, Innovacia Sdn Bhd, FBI Publication and Green Building Index (GBI).

#### **Programmes**



# EU-MALAYSIA CHAMBER OF COMMERCE & INDUSTRY

- 2nd Palm Oil Sustainability EU-Malaysia International Discourse 2018
- Biomass & Biogas Symposium



#### MINISTRY OF ENERGY, SCIENCE, TECHNOLOGY & CLIMATE CHAGE

 BIO@IGEM 2018: Forum on Zero Single Use Plastic - Malaysia's Roadmap to Sustainable Future



#### DEWAN BANDARAYA KUALA LUMPUR

 World Energy Cities Partnership Mayor Congresss



# EMBASSY REPUBLIC OF KOREA

• The 8th Malaysia -Korea Energy Cooperation Workshop



#### **ECO KNIGHTS**

KL Eco Film Festival Forum



#### MALAYSIA COMMERCIALISATION YEAR

- Stargazer Mentoring
- Angels on the Planes
- Certificate giving ceremony to MCY Exhibitors
- MCY Chat
- Young Innovator Development Workshop
- Commercialisation
   Program for Young
   Innovators
- Minister's Dialogue & Networking session with Young Innovators



#### MALAYSIAN INVESTMENT DEVELOPMENT AUTHORITY

Business Consultation



#### **ENERGY COMMISSION**

 Energy Efficiency Townhall





# CONSTRUCTION INDUSTRY DEVELOPMENT BOARD & MALAYSIA GREEN BUILDING CONFEDERATION

 Towards Net Zero Energy Building Conference



#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

- National Energy Awards
- Low Carbon Mobility Workshop
   LCCF Diamond Award
- Recognition
   Energy Management
- Gold Standard AEMAS

   Green Purchasing & Incentive Seminar
- Green Minds Challenge



#### CAPITAL MARKETS MALAYSIA

 Green Financing: Funding Green Projects Through the Islamic Capital Markets



#### **IGEM MAIN PROGRAM**

- IGEM2018 Opening Ceremony
- IGEM2018 Exhibitor Appreciation Lunch
- IGEM2018 ExhibitionIGEM2018 Pocket Talk



#### BRITISH HIGH COMMISSION

• Clean Energy Seminar



# SUSTAINABLE ENERGY DEVELOPMENT AUTHORITY

- Greening Malaysia's Energy - A National Policy Roundtable
- Workshop on Renewable Energy Certificates in Malaysia



# SECURITIES COMISSION MALAYSIA

 Minister's Dialogue on Green Technology Investment

#### PR Value

There were a lot of launches and new programme announcements that boosted PR visibility and awareness during IGEM 2018. Through its collective efforts, the event achieved RM7.19 million in PR value. The high-level announcements and launches by YB. Yeo Bee Yin also contributed significantly to the PR value.



**53%**Online News



31% Newspaper



12%



4% FM Radio

Media Type Breakdown (Volume)



**4,790**Mentions



**1,444**Mentions



**691**Mentions







Asken Martin D

# **GREENTECH MALAYSIA IN ACTION**



- Townhall with MyHSR Corp

#### FEB



#### **Low Carbon Cities Framework** (LCCF) Training

- LCCF Advanced Training for Majlis Perbandaran Muar



#### Journey to Astana (JTA) Symposium

- Held at Universiti Sultan Zainal Abidin (UniSZA), Terengganu



#### LCCF Training

- LCCF Advanced Training for Majlis Perbandaran Batu Pahat

#### MAR



#### Journey to Astana (JTA) Symposium

- Held at Universiti Sains Malaysia, Pulau Pinang



#### **Training Programme**

- Certified Professional in Measurement and Verification (CPMV) Training



#### GreenTech Malaysia Teambuilding

- Team building programmes were held at Eagle Ranch Port Dickson to inculcate good team culture and communication skills



#### **Training Programme**

- Energy Manager Training Course (EMTC)



#### Official Opening of Setia Alam McDonald's

- GreenTech Malaysia helped launch greenest McDonald's restaurant in Malaysia



#### Sustainable Energy & Technology Asia (SETA) Conference

- GreenTech Malaysia participated in SETA held in Bangkok, Thailand



#### +Solar Academy National Conference 2018 at Asia Pacific University (APU)

- Held to create awareness of issues in energy industry and role of renewable energy in the growth of GreenTech Malaysia



#### Media Briefing with GreenTech Malaysia

- Media engagement to give updates on GreenTech's activities

#### APR



#### LCCF Training

- LCCF Advanced Training for Majlis Perbandaran Nilai & Majlis Perbandaran Seremban



#### Farewell for Tan Sri Peter Chin Fah Kui

- GreenTech Malaysia bid farewell to our Chairman Tan Sri Peter Chin Fah Kui, celebrating his time as Chairman since 2013



#### **Green Minds Opening Ceremony**

- Launching of the Green Minds Challenge to encourage secondary school students to green their school



#### **G.E.O.** Building Visit

- 44 visitors from Kementarian Pertahanan



- TedX talk at UMPahang



#### **MoU Signing Ceremony**

- GreenTech Malaysia signs an MoU with DHL Express on pilot programme for electric mobile solution



- Showcasing ChargEV innovations & Awards Night 2018 at autoshow event



# ChargEV @ MAI Autoshow, MAEPS 4th Malaysia Green Building Dinner

- Held at Setia City Convention Centre

#### MAY

#### JUN



#### Majlis Iftar Bersama Anak Yatim Rumah Al-Kausar

- A small Iftar gathering was held with the kids from Rumah Anak Yatim Al-Kausar, Bandar Baru Bangi



#### **Annual General Meeting**

- 20th Annual General Meeting of GreenTech Malaysia held at GreenTech Malaysia's office





#### **Raya Celebration**

- Donning their Baju Raya, all GreenTech Malaysia staff gathered at a small event to celebrate Aidilfitri.



#### **Training Programme**

- Registered Electrical Energy Manager (REEM) Workshop



#### **LCCFTrack & BCiS Training**

- Bengkel Pelaksanaan Sistem LCCFTrack & BCiS Komuniti Sekolah & Agensi Kerajaan for Majlis Perbandaran Klang



#### Visit to Astro Awani

- GreenTech Malaysia visits the Astro Awani office and studio



#### ChargEV @ Shell at Menara Shell, Cyberjaya

- Putting the future of low-carbon mobility on display



#### 4th Social Venture Youth Exchange Symposium

- Held in Ipoh, Perak





#### **EVCS Installation & Maintenance** Workshop

- Introduction to Electric Vehicle Charging Station (EVCS) Installation and Maintenance at Adya Hotel, Langkawi



#### G.E.O. Building Visit

- 13 visitors from Petronas Group Technical



#### G.E.O. Building Visit

- 26 visitors from Majlis Bandaraya Pulau Pinang



#### Stakeholder Engagement Workshop

- Presentation of the draft inception report and focal group discussion for Low Carbon Mobility Blueprint (LCMB) & Action Plan (AP) at Pulse Grand Hotel Putrajaya



#### G.E.O. Building Visit

- Visitors from National Institute of Public Administration of Indonesia



#### **IGEM 2018**

- IGEM 2018 Soft Launch with YB Yeo Bee Yin - Minister of MESTECC at KL Convention Centre (KLCC)



#### G.E.O. Building Visit

- 37 visitors from Politeknik Sultan Mizan Dungun



#### **Green Masjid Programme**

- Introduction of Green Masjid Programme with Persatuan Komuniti Islam Setia Alam (PERSALAM)

SEP



#### **Training Programme**

- Energy Auditor Training Course (EATC)



**Gotong Royong Paint & Plant** 

- CSR Activity by GreenTech Malaysia



G.E.O. Building Visit

- 3 visitors from UniMARA & 48 visitors from Sri Lanka Local Councillors



#### **Trainers Appreciation Lunch**

- Appreciation lunch held to thank trainers who participated in the various training programmes



#### **ISO Certification**

- GreenTech Malaysia received the ISO 9001:2015 Quality Management System (QMS) certification by SIRIM QAS International



#### International Greentech & Eco **Products Exhibition (IGEM)**

- South East Asia's largest trade events showcased the very best of green technology and businesses



#### **IGEM 2018**

46

- MPIA Hi-Tea with Solar & LSS Players at Royale Chulan, Damansara



#### Eco Biz Dream Project 3 Challenge G.E.O. Building Visit Kick-Off

- Challenges tertiary students to identify and exhibit solutions to prevalent environmental issues



- 35 visitors from Kolej Komuniti Bukit Beruang Melaka



#### ChargEV Booth @ IGEM2018

- Displaying the latest in electric charging technology at KL **Convention Centre** 



#### UnivTour 2018

- A total of 489 university students attended the UnivTour aimed at spreading awareness of green technologies



#### MoUs Signed During IGEM

- Over 14 strategic MoUs were made official between GreenTech Malaysia and its newfound partners



#### **Energy Management Gold Standard** (EMGS) Awards

- The awards recognised the highflyers in the industry for energy management



#### Stakeholder Engagement Workshop Low Carbon Cities Awards

- Presentation of the draft interim report for Low Carbon Mobility Blueprint & Action Plan at IGEM 2018



- Showcased local authorities that have taken the step towards lowcarbon cities at IGEM 2018



# Dinner

- Energy Efficiency and Renewable Energy champions feted in gala ceremony officiated by YB Yeo Bee Yin - Minister of MESTECC



#### National Energy Awards (NEA) 2018 Green Minds Awards Ceremony

- Winners of the Green Minds Challenge were announced at the closing ceremony at IGEM 2018



#### G.E.O. Building Visit

- 2 visitors from MESTECC & 31 visitors from Nanotechnology (Olympiad)



**Eco Biz Dream Project 3 Workshop** 

- Held at InterContinental Hotel, KL



Malaysia Vision Valley 2.0 at Royale Chulan, Seremban

- Official Launch of the Comprehensive Building Plan





#### **Climate Launchpad Programme**

- The finalists pitched their green business ideas at the final stages in Edinburgh, Scotland



#### **EUROPA Awards**

- Organised by EU-Malaysia Chamber of Commerce & Industry (EUMCCI), and graced by YB Yeo Bee Yin -Minister of MESTECC



#### ChargEV Showcase @ Kuala Lumpur LCCFTrack Training International Motor Show (KLIMS)

- Showcasing the latest ChargEV innovations



- LCCFTrack Hands-on Training for Majlis Perbandaran Sepang

#### DEC



#### Townhall

- Sustainability Managers Townhall with YB Yeo Bee Yin - Minister of **MESTECC** at Securities Commission (SC) office



#### **Renewable Energy Seminar**

Organised by the Royal Norwegian Embassy at Mandarin Oriental Hotel, KL



#### **Launch of Country's First Solar EV Charging Station**

- ChargEV & Plus unveiled the charging station at Restoran Jejantas Ayer Keroh (Arah Selatan) RnR



# DRIVING GREEN PURCHASING BEHAVIOUR

Buyers tend to make their purchases based on ease and convenience, which is why GreenTech Malaysia gives weight to increasing the availability and awareness of green products and services to the masses.

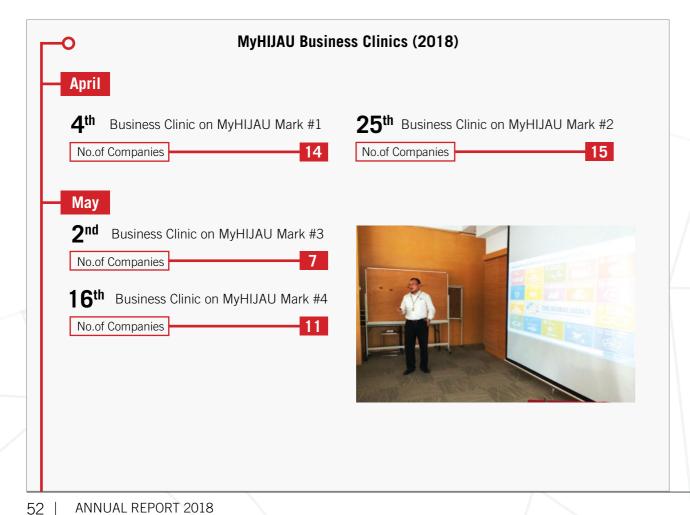
#### Calling Attention to Green Products and Services

The MyHIJAU Mark is a recognition issued by GreenTech Malaysia to acknowledge certified green products and services that meet local and/or international environmental standards. Those that receive this recognition will be listed in the MyHIJAU Directory, where consumers can identify green products or services that they need. As such, buyers will know that they are purchasing the right products and sellers will attract more business. The MyHIJAU Directory is accessible through the website (www.myhijau. my) or via mobile apps (Google Play Store and Apple App Store).

As of 2018, a total of 3.142 green products and services from 290 companies were registered with the MyHIJAU Mark and listed in the MyHIJAU Directory. Building this repertoire of products

and services that are registered eliminates the guessing game for eco-conscious consumers, as they have ready and easy access to officially registered green companies, products and services.

To continually build on the database of green products and services, GreenTech Malaysia holds events throughout the year to get the word out on MyHIJAU and its business benefits. These events include business clinics and pocket talk sessions that educate businesses on how to attain the MyHIJAU Mark. The Business Clinic events delve into the details of how to attain the MyHIJAU Mark recognition, while the Pocket Talks are sharing sessions that shed more light on the recognition and listing in the MyHIJAU Directory.

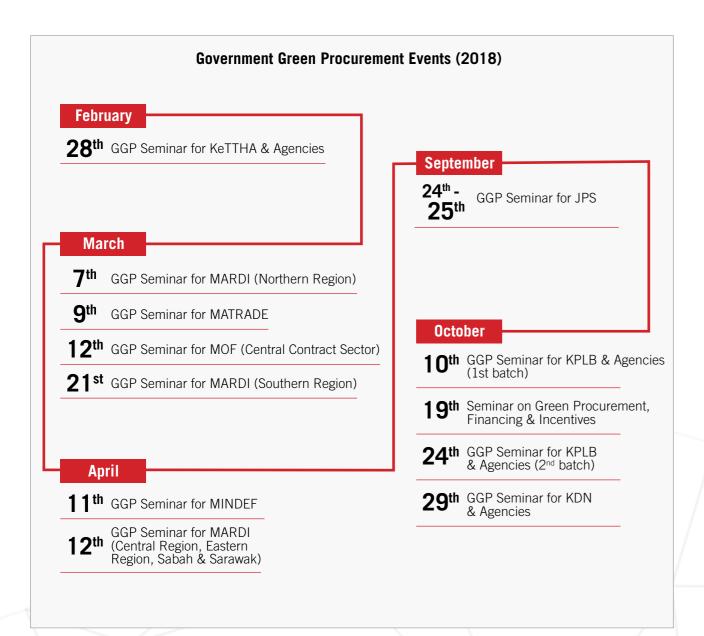




#### **Greening Government Purchases**

To support the marketing of green products and services, the Government is also practicing what they preach through the Government Green Procurement (GGP) initiative. Launched in 2013, the GGP seeks to integrate environmental considerations towards Government-based procurements, taking into account the protection of the natural environment, reduction of pollution, and the conservation of resources. By 2020, all Government offices will implement the GGP, and 20% of purchases of selected products or services procured by the public sector will be green-labelled.

In 2018, GGP Guidelines 2.0 were published to act as an updated reference, covering 20 GGP criteria for green products and services, such as ICT equipment, air-conditioning systems, and cleaning services. The core team in charge of GGP, led by the Ministry of Finance and the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC), will continue to expand on this initiative as well as further develop the GGP Guidelines. The GGP team will also collaborate with the Department of Works to develop the Guidelines of Work Procurement, in order to further increase the value the GGP can contribute.



# CATALYSING GREEN BUSINESSES

GreenTech Malaysia wants eco-conscious businesses to know they have resources in their corner, by creating a business environment where green projects, products and services can thrive.

#### Incentivising Green Innovation

Rolled out on 25 October 2013 as part of Budget 2014, the Green Technology Tax Incentive is an initiative to encourage the purchasing and selling of green technologies. The Government will grant Investment Tax Allowance (ITA) for purchasing green technology equipment/assets and an Income Tax Exemption (ITE) for providing green technology services. Apart from increasing the number of buyers and sellers of green technology, such incentives seek to increase investments in green technology on a project basis either for business purposes or personal consumption.

#### **Green Technology Tax Incentive Categories**

Green Investment Tax Allowance (GITA) for Assets Green Investment Tax Allowance (GITA) for Projects Green Income Tax Exemption (GITE) for Service Providers

Applicable for companies that acquire green technology assets listed under MyHJAU Directory.

Applicable for companies that undertake qualifying green technology projects for business or own consumption.

Applicable for qualifying green technology service providers listed under the MyHIJAU Directory.

Based on the Malaysia Investment Performance Report by the Malaysian Investment Development Authority (MIDA) in 2018, a total of 242 projects were approved for both GITA and GITE, adding up to a total investment value of RM3.29 billion.

#### GITA for Projects

175 Renewable Energy projects were approved with a total investment of RM3.0 billion, while 53 Energy Efficiency projects were approved grossing a total investment value of RM139.1 million. Solar had the highest number of projects recorded under GITA for Projects, compared to other types of renewable energy. This is due to various Government schemes such as the Large-Scale Solar programme and the Net Energy Metering (NEM) programme.

# **Five Qualifying Activities Eligible for GITA**

Renewable **Energy** 



Solar Power







Biogas



Geothermal

Mini-hydro

Energy Efficiency





**Green Data** 

Centre

Green **Building** 







#### Source of Investments for Renewable **Energy Projects in 2018**

Domestic Investors

Foreign Investors

## **Approved Investments In** Renewable Energy In 2018





RM 2.5 (161 Projects)



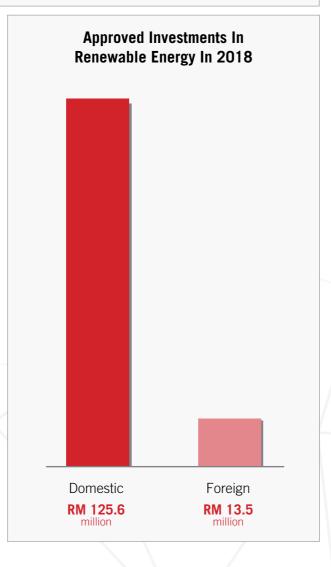
Mini Hydro RM 320.7 (3 Projects)



Biogas

RM 182.3

(10 Projects)



#### GITE for Service Providers

In 2018, there were a total of 14 green services projects with a total investment of RM150.8 million. Most of the services provided were services related to green building and energy efficiency, as well as solar photovoltaic system integrators, creating employment for 232 people.

#### Types of Service Providers Eligible for GITE









**Renewable Energy** 

**Energy Efficiency** 

**Electric Vehicles** 

**Green Data Centre** 







**Green Township** 



**Green Building** 

## Source of Investments for GITE-Approved Projects in 2018

**Domestic Investors** 

84.1%

RM 24 million

Foreign Investors

15.9%

RM 126.8 million

#### Energy Audit Conditional Grant

Not knowing where to begin when implementing an efficient energy management system is an issue faced by many companies. The Energy Audit Conditional Grant (EACG) aims to help them evaluate and take steps to improve their energy efficiency. Implemented under the 11th Malaysia Plan, the EACG initiative was conducted from May 2016 until May 2018. MESTECC appointed GreenTech Malaysia to promote the grant, facilitate industries and Energy Services Companies (ESCOs), process applications and monitor the project.



#### EACG's objectives include:

- Raising awareness of the importance of implementing energy audits,
- Providing financial assistance to eligible applicants,
- Attracting financial institutions to provide financing for energy efficiency projects,
- Developing capacity building for the energy services industry.

Grants were awarded to small and medium industries that consumed at least 100,000 kWh/month for six consecutive months. In 2016, the industrial sector was the second largest energy consumer in Malaysia, at 28%. By providing grants to companies from the industrial sector to conduct energy audits via specially appointed ESCOs, the EACG helped reduce energy consumption and expenses by identifying energy-saving measures based on the audit findings.

Overall Activities Conducted U	nder EACG (2016 - 2018)
11	11
Seminars and Promotions	Technical Training
4.00	400
108	108
Energy Audits	Monitoring and Verification

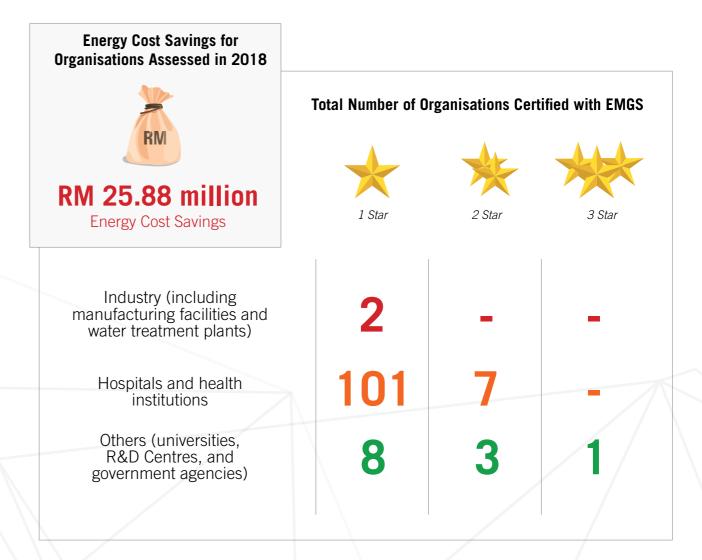
#### **Energy Management Gold Standard**

As a catalyst for long-term sustainability, GreenTech Malaysia is always holding Malaysian industries to high energy management standards. In 2010, The ASEAN Centre for Energy (ACE) appointed GreenTech Malaysia as the certification body for Energy Management Gold Standard (EMGS) in Malaysia. EMGS is a regional certification system delivered under the ASEAN Energy Management Scheme (AEMAS) to promote excellence in energy management and demonstrate the best practices in the implementation of energy efficient measures.

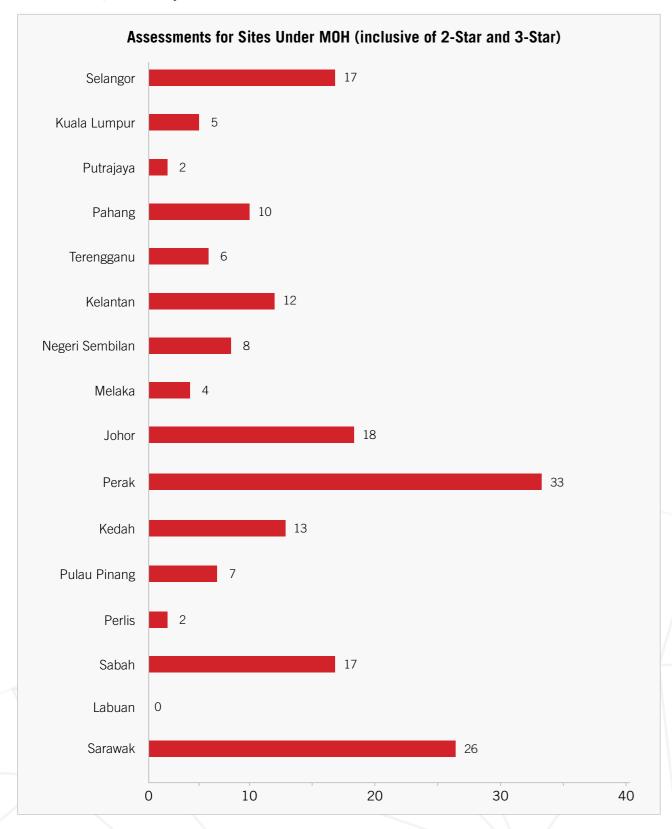
The certification is awarded to organisations that develop and establish an energy management system that can be sustained over time, based on the elements of management, organisation, process, information, finance, corporate responsibility and achievements. All of these elements must be successfully maintained to be able to qualify for EMGS certification.

EMGS requires the organisation to lower energy consumption by a minimum of 5% compared to the declared baseline. This is mainly achieved through the implementation of energy-saving measures such as retrofitting LED lighting fixtures, upgrading to more modern chillers and installing energy efficient airconditioning split units.

A total of 215 EMGS assessments was conducted since 2016 and 122 of these were issued the certification. In 2018, 83 assessments were carried out and 27 were successfully awarded the EMGS certification.



Multiple assessments were conducted at MOH's organisations across various regions of Malaysia for EMGS 2-Star and 3-Star certifications. The highest number of assessments were held at MOH sites in Perak, followed by Sarawak.



#### Contributions from the Ministry of Health

Throughout 2018, 27 organisations under the Ministry of Health (MoH) were awarded EMGS certification. As part of the "Journey to EMGS Program", 10 organisations have visited GreenTech Malaysia's office, which is also known as the Green Energy Office (GEO). Participants were given a tour of the GEO to gain a better understanding of the buildings' green features and invited to attend an energy awareness talk by GreenTech Malaysia that showed the importance of saving energy and shared tips on what individuals and organisations can do to be more energy efficient. As a special bonus, they also were given the experience of riding in GreenTech Malaysia's electric vehicles.

EMGS is a comprehensive program, as it not only encourages organisations to achieve certification standards for buildings and facilities but it also encourages the building of human capacity. As a part of the "Journey to EMGS Program", a total of 253 participants attended the Energy Awareness Talks in 2018.

#### EMGS Award Ceremony Recognises Industry's High Flyers

Held during IGEM 2018 at Kuala Lumpur Convention Centre (KLCC), the 2018 EMGS Award Ceremony was officiated by the Deputy Minister of MESTECC, YB Isnaraissah Munirah Majilis. Six organisations were awarded the 2-Star certification, and 18 organisations received the 1-Star accreditation. Three new AEMAS EMGS Assessors also received their certificates as part of the event's proceedings.

The award ceremony was attended by representatives from the Engineering Services Department of Ministry of Health (MOH), TH Universal Builders, KPJ Healthcare, Tentera Laut Diraja Malaysia (Royal Malaysian Navy), Kumpulan Wang Simpanan Pekerja (Employees Provident Fund), Universiti Teknologi MARA, RadiFEMS (and Radicare), UEM Edgenta Mediserve, One Medicare, Medivest, Harta Energy and Maintenance, Universiti Malaysia Pahang, SUK Melaka, International Islamic University Malaysia, Indah Water Konsortium, MyCES, Capital Development Inc., Shimizu Corp, Brilliant Solar Sdn. Bhd., Export-Import Bank of Malaysia Bhd., Cenergi, Lembaga Pelabuhan Johor, Sunway Integrated Properties, Malakoff, Universiti Teknologi Petronas, KPJ Seremban Specialist Hospital, Public Hospitals' Directors as well as the AEMAS Assessors and Certified Energy managers.



From right to left: Ir. Dr. Agileswari K. Ramasamy, & Dr. Musthafah Mohd Tahir: The new AEMAS EMGS Assessors for 2018, together with YB Isnaraissah Munirah Majilis, Tuan Syed Ahmad (Acting CEO MGTC) and Mrs. Norhasliza (Head of SEGA). Not pictured is Ir. Mohd Zaini Abu Hassan, who was also certified as an AEMAS EMGS Assessor.

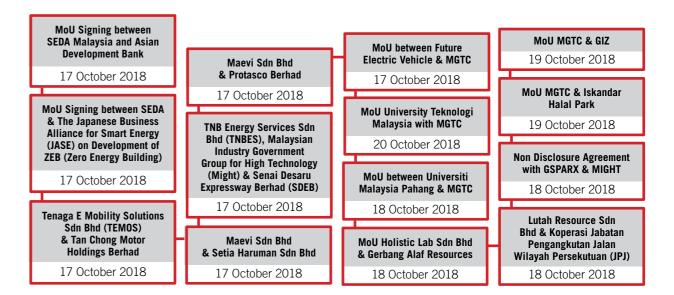
# AT THE CENTER OF GREEN INNOVATION

International Greentech and Eco Products Exhibition (IGEM) 2018 saw the launch of multiple green technology initiatives on a prominent stage, bringing top-level business people and Government representatives together to share the progress of the country's green agenda.

#### Key Launches

NO.	LAUNCH	DATE	VENUE
1	Launch of PV Monitoring System	17 October 2018	MESTECC Pavilion, Hall 1
2	Launch of Roadmap Towards Zero Single-Use Plastics, 2018-2030	17 October 2018	Stage 2 Hall 4 KLCC
3	Launch of Malaysia Commercialisation Year (MCY) products:  • Fig-based Products (MARDI)  • URBEB (Incubate Technology Park Malaysia)  • Versatile Graphene (UPM)	17 October 2018	MCY Pavilion, Hall 2
4	Launch of Large-Scale Solar Round 3 (LSS3) Programme	18 October 2018	MESTECC Pavilion, Hall 1
5	Launch of Net Energy Metering (NEM) policy	18 October 2018	MESTECC Pavilion, Hall 1
6	Launch of Building Energy Intensity	20 October 2018	Stage 1 Hall 4 KLCC
7	Launch of Demand Side Management	20 October 2018	Stage 1 Hall 4 KLCC

#### Memorandum of Understanding (MoU)







Proud signatories of the MoUs with MESTECC & GreenTech officials at IGEM 2018, leading the charge for a greener economy

# **POWERING A LOW-CARBON ECONOMY**

A booming population and urbanisation, while advantageous, can also bring environmental degradation especially to the city areas. To build a burgeoning economy, GreenTech Malaysia directs its attention to accelerating low-carbon initiatives that drive the future of the economy.

#### Influencing Local Economic Development

Cities play a very important role in economic development, providing economies of scale, agglomeration, and localisation. They also provide efficient infrastructure and services through density and concentration in transportation, communications, power, human interactions, water and sanitation services. These are the building blocks for businesses to thrive and kick-start growth in the economy. However, with climate change threatening to disrupt traditional businesses, there is a compelling economic case for low carbon cities.

In Malaysia, the establishment of the Low Carbon Cities Framework (LCCF) that is being implemented by GreenTech Malaysia is helping Local Authorities transform their cities into low-carbon cities. Though still in its initial phase of implementation, cities that have adopted the Low Carbon Cities Framework (LCCF) are beginning to see the economic benefits not only for the Local Authorities, but also for the residents and businesses residing in these cities.

Below is a snapshot of the indirect economic benefits that these cities have enjoyed.

Indirect Economic Benefits					
City	Local Authority	Sector	Activity	Results	
Seberang Perai	Majlis Perbandaran Seberang Perai	Energy	<ol> <li>Installation of 60 kWp rooftop Solar PV</li> <li>Replacement of all indoor lights to LED</li> </ol>	Total Investment: RM315,000 Estimated Annual Savings: RM37,000	
Hang Tuah Jaya	Majlis Perbandaran Hang Tuah Jaya	Energy	<ol> <li>Energy Efficiency campaign @ 14 buildings in Hang Tuah Jaya</li> <li>Low Carbon Workshops &amp; Capacity Building</li> <li>Low Carbon Competition</li> </ol>	Total Investment: RM1,780,000 Total Estimated Annual Savings @ 14 buildings: RM660,000	
Subang Jaya	Majlis Perbandaran Subang Jaya	Energy	<ol> <li>Upgrading to a Green Data Centre</li> <li>Replacement of all indoor lights to T5</li> <li>HVAC upgrade to Variable Speed Chiller</li> </ol>	Total Investment: RM1,750,000 Estimated Annual Savings: RM330,000	

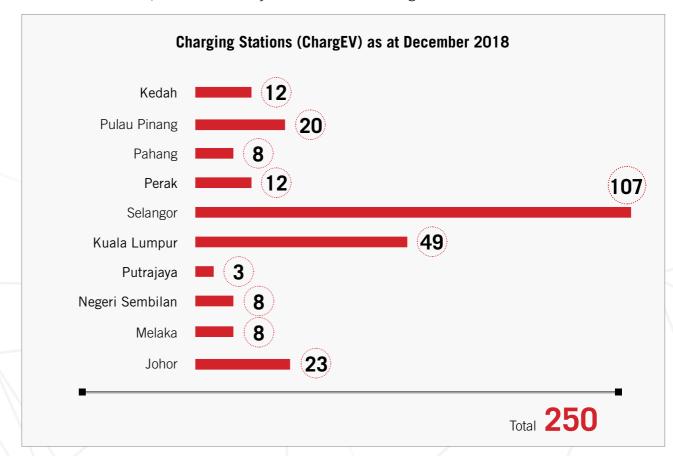
Many of the Local Authorities that are adopting LCCF typically look to local solution providers to meet their low carbon needs and ambitions. As more and more Local Authorities adopt LCCF and those that have already adopted LCCF begin working on more aggressive and ambitious plans, the market demand for locally available solutions will increase. This will further stimulate the local green economy and accelerate the transformation towards low carbon cities.

#### Steering the Wheel Towards Low-Carbon Mobility

Petronas Dagangan Bhd (PetDag) entered into a three-way partnership with GreenTech Malaysia and TNB Energy Services Sdn Bhd (TNBES), a wholly-owned subsidiary of Tenaga Nasional Bhd (TNB), to install ChargEV charging stations by 2018. Well on track, Malaysia already has 250 of these charging stations up and running. This is a great stride in the right direction, given that low carbon mobility solutions have the potential to provide over RM 49,920 worth of savings for owners across ten years.

GreenTech Malaysia has facilitated the increase in the number of EV charging stations across the nation through the initiative ChargEV. A higher number of public charging stations would incline more drivers to purchase an EV. These charging stations are also located at strategic locations such as hotels, shopping malls, and petrol stations, which in turn help businesses thrive. A total of 132,307 charging hours and 47,502 charging sessions were recorded as of 2018, a 51% growth from 2017.

While driving public access to such charging stations, GreenTech Malaysia has also been fully invested in bringing EV charging stations to more Malaysian homes through ChargEV as well. This is why GreenTech Malaysia has forged strategic partnerships with automotive giants such as BMW, so as to drive this movement forward. Investing both time and resources in furthering both private and public access for EV drivers, GreenTech Malaysia intends to cover all grounds.





# AN ECO-CONSCIOUS TAKE ON BUSINESS INCENTIVES

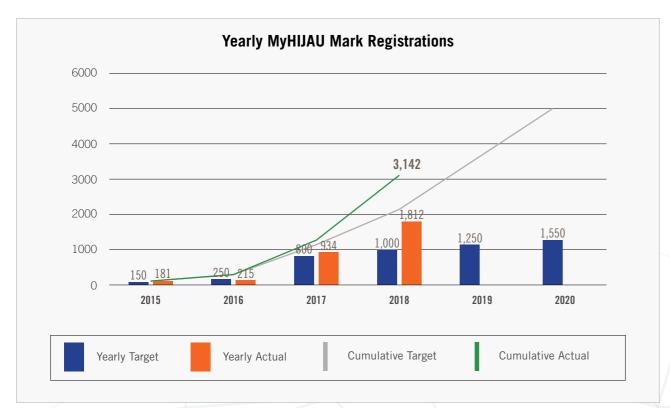
Often when companies want to transition into a more sustainable business model and establish green standards for their products and services, they are unsure where to start. GreenTech Malaysia aims to ease the process through established verification programmes.

#### Generating Consumer Awareness of Green Products and Services

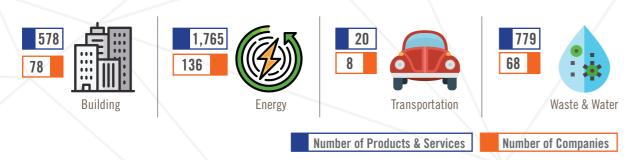
As Malaysia's official green recognition mark scheme endorsed by the Government, the MyHIJAU Mark brings together green certified products and services that meet local and international environmental standards under one single mark. This way, buyers can be readily informed of what eco-friendly products and services are in the market instead of them having to scour the market for what is available. The green mark makes it easier to distinguish

these products from the sea of brands. As of 2018, there are 3,142 registered green products and services from 290 registered companies.

Over the last few years, MyHIJAU Mark registrations have risen considerably and have exceeded the targets. This is reflective of businesses becoming increasingly conscious of their product and services' impact on the environment.



#### MyHIJAU Mark Registrations, Segmented by Sectors



Furthering its reach, there is also a MyHIJAU SME and Entrepreneur Development Programme that aims to encourage local industries including SMEs to adopt green practices and offer local green products and services. The aim is for participating companies to successfully incorporate the best green practices and applications into their operations by the end of the programme. In addition, they will be eligible to register their products for the MyHIJAU Mark and be listed in the MyHIJAU Directory.

To assure the utmost credibility of the MyHIJAU programme, GreenTech Malaysia entrusts its independent verification partners to establish the highest neutrality, trustworthiness and reliability.

#### MvHIJAU Verification Partners, 2018

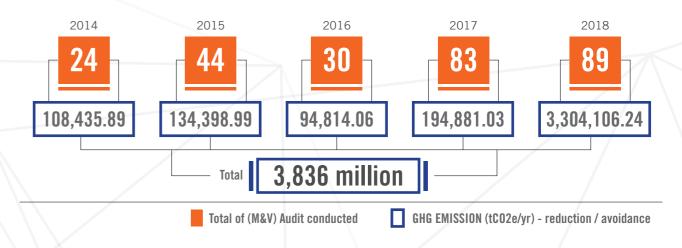


#### Tracking Green House Gas Emissions

It becomes very hard to track the impact of environmental initiatives without reliable quantitative data. This is why Measurement and Verification (M&V) is a way of evaluating the carbon footprint of businesses under the Green Technology Financing Scheme (GTFS). For this purpose, the M&V Audit programme was conducted for a period of six months from April 2018 to September 2018. A total of 89 companies across Malaysia were randomly picked from various sectors, mainly energy

and waste, to be audited by expert industry professionals from different backgrounds.

As Malaysian industries look at transitioning from conventional fossil fuels to renewable sources, measuring the GHG emissions is a good way to ascertain both short and long-term impact. The results of the data collected showed a reduction in overall greenhouse gas emissions from the fossil fuel power stations connected to the grid system. For 2018, the collective GHG emissions reduced was 3.3 million tCO<sub>2</sub>e/year.



#### **BUILDING A LOW-CARBON METROPOLIS**

Just like cities were not built in a day, designing them to be smart and sustainable is a meticulous and time-intensive process. GreenTech Malaysia is steering this progress through the years with its low-carbon initiatives, phase by phase, and city by city.

#### A Global Commitment

In December 2009 at the Conference of Parties (COP) 15, Malaysia first pledged its commitment to lower carbon emissions as per the Paris Agreement. Over 2 years later in September 2011, Malaysia established the Low Carbon Cities Framework (LCCF) as a means to translate the national carbon emissions reduction target into action at the city level.

LCCF is a national framework and assessment system to guide and assess the development of low carbon cities and to support holistic sustainable development in Malaysia. It is a performance-based assessment system that captures the environmental impact of a city in terms of actual operational carbon emissions.

By 2030, Malaysia targets a 45% reduction in carbon emission intensity. With approximately 70% of carbon emissions coming from the cities, the mission of LCCF is to assist Local Authorities throughout Malaysia in meeting this target.

#### LCCF's Objectives

1

To measure and quantify the actual carbon emissions of cities

2

To guide Local Authorities in transforming their cities into low carbon cities 3

To create awareness and promote the concept of low carbon cities in Malaysia

As of 2018, 52 Local Authorities (out of a total of 154) have been introduced to LCCF. 19 of these Local Authorities have established their carbon emissions baseline (selected Low Carbon Zones) and developed their Low Carbon Action Plan. These 19 Local Authorities have been awarded the Provisional Certificate for their efforts. Out of these 19, 5 Local Authorities have gone on to the next step and have actually reduced their carbon emissions and have received the Diamond Recognition award from the Ministry of Energy, Science ,Technology, Environment, and Climate Change (MESTECC).

## Low carbon cities have multiple direct and indirect benefits to the residents, businesses and Local Authorities

#### Cleaner

- Cleaner air from reduced pollution from fossil fuel-powered vehicles
- Cleaner environment from reduction in waste that goes to the landfills

#### Cooler

- Cooler city from increase in greenery and trees
- Cooler city from reduced urban heat island effect
- Cooler buildings and homes from green buildings

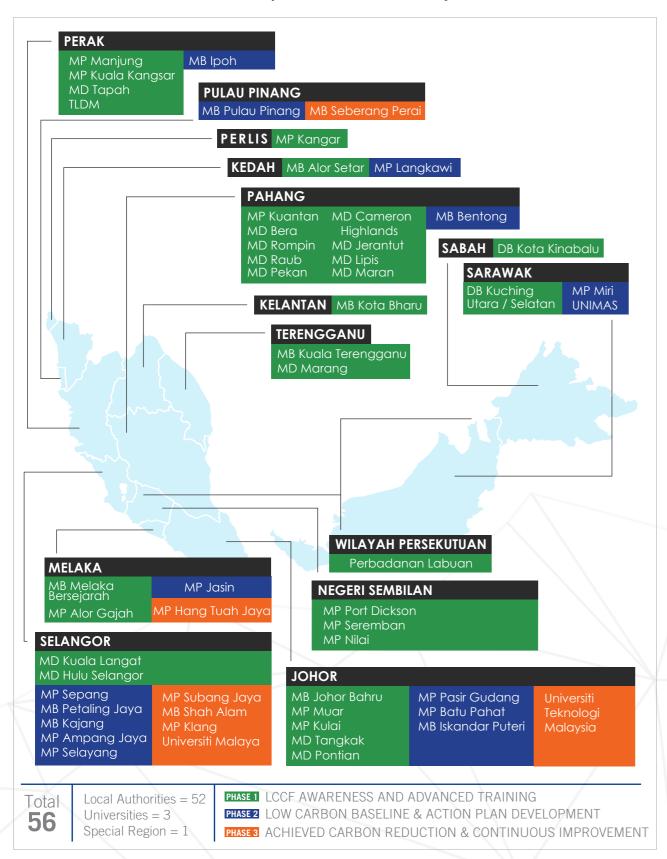
#### Healthier

- Healthier environment from reduced air pollution and contamination
- Healthier residents from increased outdoor activities like cycling and walking

#### Cheaper

- Cheaper operating costs for electricity and water from efficiency measures
- Reduced wastage from more efficient and productive use of resources

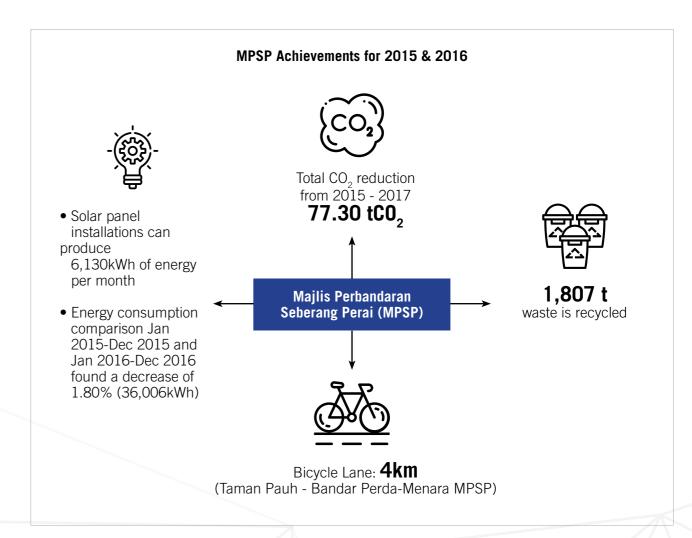
#### **LCCF Implementation Around Malaysia**



#### Majlis Perbandaran Seberang Perai (MPSP)'s Quest for Low Carbon Status

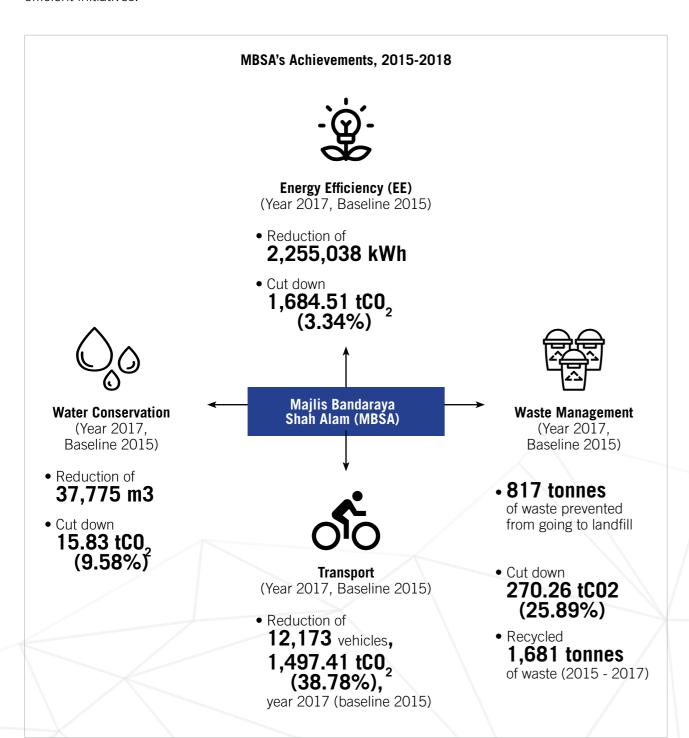
MPSP has been actively working towards achieving low carbon city status with assistance from GreenTech Malaysia in installing solar panels at many of its facilities. Once up and running, these panels can help generate up to 6,130kWh of clean energy per month. Also including a TNB tariff of RM 0.365/kWh, this still results in savings of RM 2,237 a month. Therefore, it not only has environmental benefits, but economic advantages. In addition to this, MPSP has also committed to building bicycle lanes to encourage the use of eco-friendly modes of transport.

Between 2015 and 2017, MPSP's initiatives successfully reduced 77.30 tCO<sub>2</sub> and saved a total of RM 2,237 per month due to the solar panels they installed.



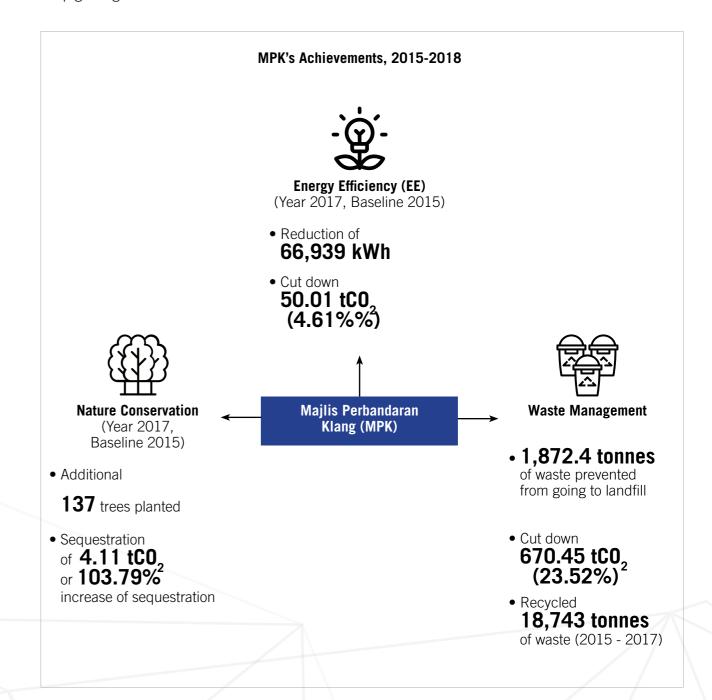
#### Majlis Bandaraya Shah Alam (MBSA) Builds on Its Progress

Having already adopted carbon-reducing initiatives in previous years, MBSA Seksyen 14 has continued to pursue this stance through waste reduction, water conservation and energy efficient initiatives.



#### Majlis Perbandaran Klang (MPK) Results Speak For Itself

From 2015 to 2017, MPK made major strides in energy efficiency, nature conservation and waste management at their HQ boundary. Paving the way for greener policies, MPK's efforts keep gaining momentum.



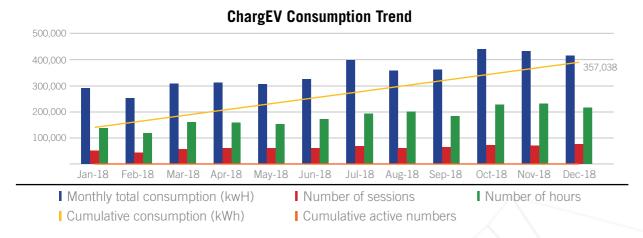
#### THE ERA OF ELECTRIC VEHICLES

Internal Combustion Engine (ICE) vehicles have been a major contributor of CO<sub>2</sub> emissions, emphasising the need to shift away from such transport to more low-carbon designs. GreenTech Malaysia has taken an active role in leading this transition through its Low Carbon Mobility Division.

While automotive brands have long started putting out more eco-friendly vehicular options, there is also a need to provide the public with the facilities it needs for such vehicles. Recognising this, MESTECC together with GreenTech Malaysia has been promoting the use of electric vehicles with the ChargEV initiative, which installs and gives the public easier access to EV charging stations. This move will incentivise the use of EVs, which will effectively reduce carbon emissions and local air pollution.

By the end of 2018, there are 250 public EV chargers installed at shopping malls, hotels, Petronas petrol stations and other selected public places. ChargEV has also made mobile apps available to

its users, making it easier to locate nearby charging stations. To track the performance of all these ChargEV stations and most importantly the distance driven by users, the ChargEV network collectively tracks charging activity in public locations. In 2018, the ChargEV network recorded 254,802 kWh of electricity consumption, which translates to 1,698,682 km driven, an increase of 50% from last year. This is a promising figure for the growth of the EV industry, as it shows the public is acclimatising to the transition.



The availability of ChargEV stations has made it possible for people to consider the option of electric vehicles. In time, this will have a transformative impact on energy efficiency and the reduction of GHG emissions.

#### Kuala Lumpur International Motor Show (KLIMS) 2018

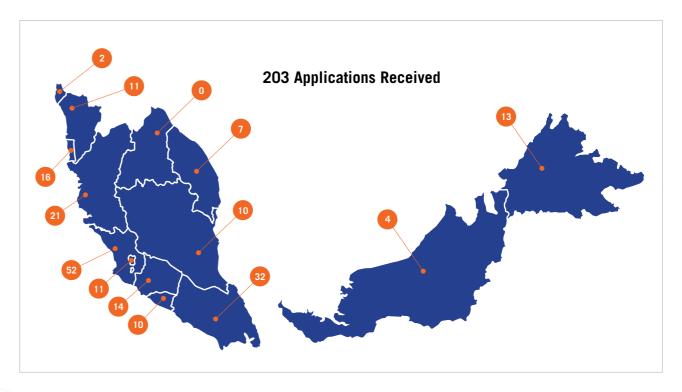
KLIMS 2018 presented the ideal platform to bring awareness to EVs, which is why GreenTech Malaysia set up a dedicated booth for low-carbon mobility (LCM) at the event. GreenTech Malaysia took the opportunity to educate visitors about EV infrastructure and the perks of the charging network memberships by showcasing a variety of EVs such as Tesla Model S 85, Renault Twizy, Renault Zoe, Mitsubishi iMiev, Electric Bicycles, EclimoElectric Scooter ES-11, Treelektrike-bikes and even an Electric Mini Lorry.

#### PROMOTING SUSTAINABLE ENERGY MANAGEMENT

To ensure long-term stability in sustainable energy management, GreenTech Malaysia has set the foundation through various platforms that benchmark standards for continued improvement.

#### **Energy Audit Conditional Grant**

The Energy Audit Conditional Grant (EACG)'s objective is to help businesses evaluate and take steps to improve their energy efficiency. Over 203 EACG applications were received from May 2016 to May 2018, of which 126 were approved. From the applicants, 108 industries accepted the grant and completed their energy audits. The audits revealed that there is a potential annual energy savings of 367.87 GWh, which amounts to RM 97.6 million worth of cost savings and a carbon reduction of 190,000 tCO<sub>2</sub>/year.



The top five approved industries by sector are:

- Computer, electronics and optical products
- Food products
- Plastic products
- Water collection, treatment and supply
- Motor vehicles, trailers and semi-trailers.

Following the implementation of EACG by 85 industries, energy consumption was reduced by 27.679 GWh/year. Additionally, carbon emission decreased by 19.208 tonnes. This is equivalent to GHG emitted by 4,078 passenger vehicles within a year.

#### Energy Management Gold Standard

EMGS provides certifications to organisations for an effective sustainable energy management systems, leading to increased energy efficiency and cost savings. Its implementation has led to energy savings of 57.44 GWh per year, the equivalent of energy consumed by 5,353 homes. The implementation of EMGS has also resulted in a reduction of 37.7-kilotonnes of CO<sub>2</sub> emissions per year. Through the efforts of GreenTech Malaysia, 83 institutions applied for the EMGS standard, with the majority being district hospitals (47) followed by major specialist hospitals and minor specialist hospitals.

In 2015, the Ministry of Health (MOH) also signed a contract with five concessionaire companies to develop Government hospitals that are energy efficient. The Ministry aims to have 150 of their organisations achieve the 3-Star EMGS certification by the year 2020. Since 2016, a total of 180 of the MOH's organisations across Malaysia have undertaken the EMGS Assessment.

#### The Impact of 1-Star Assessments for 39 organisations Under MOH, 2018

8,882,989 kilowatt hours

Energy Reduction per year \*Equivalent to energy use of 752 homes in one year RM 4,692,451

Energy Cost Savings per year

**5,907** tonnes

CO<sub>2</sub>e Emission Reduction per year
\*Equivalent to greenhouse gas emissions from 1,254 passenger vehicles driven for one year

#### The Impact of 2-Star Assessments from MOH Sites, 2018

46,104,186 kilowatt hours

Energy Reduction per year
\*Equivalent to energy use of 3,904
homes in one year

RM 21,034,597

Energy Cost Savings per year

**31,065** tonnes

CO<sub>2</sub>e Emission Reduction per year
\*Equivalent to greenhouse gas emissions from
6.595 passenger vehicles driven for one year

#### Strengthening Collaborations to Harness Clean Energy

GreenTech Malaysia has worked hand in hand with organisations to achieve the mutually beneficial end-goal of lowering negative environmental impacts from traditional energy sources.

Johor Port Authority (JPA) Lowers Its Carbon Footprint

In co-operation with GreenTech Malaysia, the Johor Port Authority (JPA) has generated 13,940 kWh of electricity through its recent installation of a solar PV system at their Headquarters, which was completed on 21 November 2018. This decision has contributed to a reduction of 9.7 tonnes in CO<sub>2</sub> emissions after just one month of operation.

#### **JPA's Environmental Contribution**



13,940 kilowatt Renewable Energy Generated \*Equivalent to energy use of 1.2 homes in one year



9.7<sub>tonnes</sub>
CO<sub>2</sub>e Emission
Reduction

\*Equivalent to greenhouse gas emissions from 2,059 passenger vehicles driven for one year

#### PLUS' Solar Powered Panels

The installation of solar panels at Persada PLUS in Petaling Jaya, and PLUS Rest and Service Area (RSA) Machap (Northbound) has successfully generated a significant amount of solar-powered energy at both locations, substantially reducing GHG emissions.

#### **PLUS' Environmental Contribution**



169,000\*kilowatt hours

Renewable Energy
Generated

\*Equivalent to energy use of
14.3 homes one year



CO<sub>2</sub>e Emission Reduction
\*Equivalent to greenhouse gas emission from 24 passenger vehicles driven for one year

1. Assumption based on specific yield of 1,200 kWh/kWp
 2. Assumption based on installed capacity of 624kWp



Bird's eye view of rooftop solar panels at PLUS Machap, RSA (Northbound)

### **ENCOURAGING THE GROWTH OF GREEN BUSINESSES**

The Green Technology Tax Incentive received positive feedback from the industry, and GreenTech Malaysia wants to continue to build on this initiative to support the development of Green Industries and SMEs in Malaysia.

#### Benefits of Green Technology Tax Incentive

- Minimising environmental degradation and reducing greenhouse gas emissions
- Promoting public health and environmental improvement
- Conserving the use of energy or other forms of natural resources, and promoting the use of renewable energy as well as encouraging the recycling of waste material resources.

The environmental impact of the 70 renewable energy and energy efficiency projects approved by GreenTech Malaysia for Green Investment Tax Allowance (GITA) can be seen as below.

#### **Environmental Impact of GITA-Approved Projects, 2018**



GHG Emission Reduction

**393,269** tCO<sub>2</sub>e/year

\*Equivalent to 137,170 tonnes of waste recycled instead of landfilled



Energy Saving **556,345** 

MWh/year



Cost Saving (RM/year) **RM 87.294.366** 

\*Source of carbon equivalencies: https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator (United States Environmental Protection Agency)



#### **CLIMATE CONSCIOUS CORPORATIONS**

Every small step in combating the adverse effects of climate change creates a big ripple. As such, society benefits when corporations take up this mantle and spur the thrust. With this in mind, GreenTech Malaysia forges alliances with like-minded organisations to help corporations play their part in the grand scheme of Malaysia becoming a global hub for green technology.

#### Training Energy Managers of the Future

There should be enough green technology experts who are ready to assist in the growth of the critical sectors of Energy, Manufacturing, Transportation, Building, Waste and Water. To this effect, the Government is continuously making an effort to develop human capital within the existing workforce in the public and private sectors as well as the future workforce in the education system.

GreenTech Malaysia is actively involved in providing training for the public and private sector as well as collaborating with higher education institutions. A majority of this training is focused on Energy Managers, as they play an integral role in ensuring a business' energy consumption is sustainable and affordable in the long run. With the changing dynamics of the job market, it becomes necessary for the skills to match the demands.

To accommodate this, the Green Catalyst division of GreenTech Malaysia conducted key training programmes throughout the year. In 2018, we successfully conducted Energy Management Training Programmes including the AEMAS – Energy Manager Training Course (AEMAS-EMTC), Certified Professional in Measurement and Verification (CPMV), Energy Auditor Training Course (EATC), Registered Electrical Energy Manager (REEM), and awareness programmes.

Training Programmes Over the Years and for 2018		
Training	Overall	2018
Trainings Conducted	166	28
Participants Trained	4,894	560
No. of Certified Energy Managers (CEM)	1,466	178
No. of Certified Professional in Measurement and Verification (CPMV)	213	53
No. of Participants Trained in EATC	292	71
No. of Participants Trained in REEM	135	97

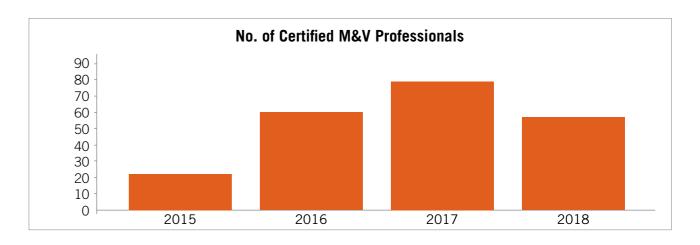
#### About The Training Courses

AEMAS Energy Manager Training Course (AEMAS-EMTC)

As a training course recognised by the Energy Commission, the purpose of this programme is to increase the number of Registered Electrical Energy Managers (REEM)s. Due to the Efficient Management of Electrical Energy Regulations (EMEER) 2008, any manufacturer or industry that consumes 3,000,000 kWh of energy or more for six (6) consecutive months are required to appoint a REEM to monitor its energy consumption. The REEM will then report to the Energy Commission on what measures will need to be taken next.

Certified Professional in Measurement and Verification (CPMV)

The purpose of this programme is to certify practitioners on the competency of their measurement and verification (M&V) skills for energy-saving programmes. CPMV trains participants to develop proper M&V strategies for their Sustainable Management System (SEMS).



#### • Energy Auditor Training Course (EATC)

The training course is part of the activities under the Energy Audit Conditional Grant (EACG) project. A total of 292 persons from the EACG applicants attended the Energy Auditor Training Course (EATC) organised by GreenTech Malaysia. EATC is conducted to provide compulsory training on essential aspects of energy conservation, which covers the use of energy audit tools and report writing skills. Trainees are also exposed to real-life examples of performing energy audit tasks, appropriate actions to take, and updated inputs from the industry. The primary purpose of the course is to provide training in these critical areas:

- 1) Performing energy checks, surveys and analyses for energy conservation
- 2) Giving structure to energy auditing practices
- 3) Raising professional standards for those involved in energy auditing
- Registered Electrical Energy Manager (REEM) Workshop

This half-day workshop aimed to provide energy managers with the necessary resources to register as a REEM with the Energy Commission. The objective of this workshop is to support the Energy Commission's KPI of increasing the number of REEMs in Malaysia. As compared to 2017, 2018 saw a significant rise in participation with 97 people being trained.

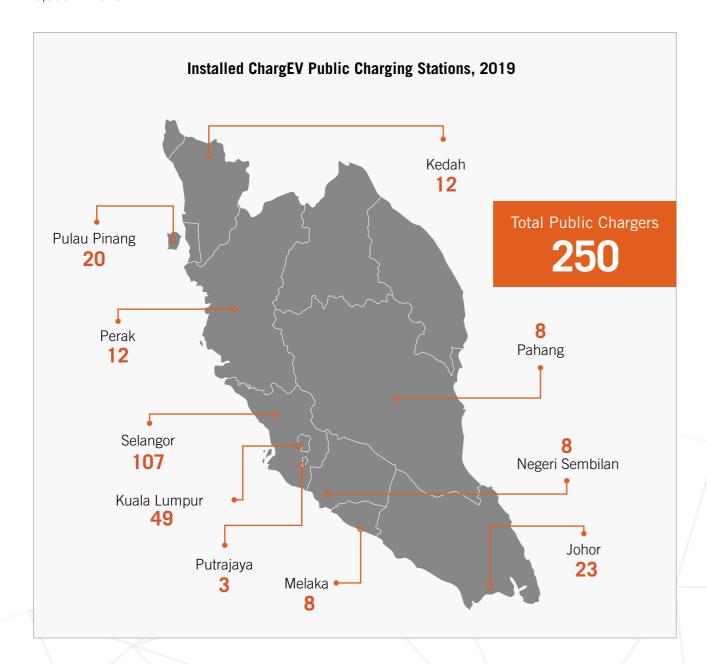
#### Awareness Programmes

GreenTech Malaysia launched two (2) awareness programmes to promote better energy conservation. and management. 112 participants were trained in this programme.

Programme Name	Purpose
Have We Done Enough to Save Energy Bills? (HWDE)	This programme aimed to provide information to businesses on methods to improve
	Energy Efficiency and Conservation. This included understanding and analysing energy consumption, as well as creating an action plan to implement energy efficiency initiatives.
Dewan Bandaraya Kuala Lumpur (DBKL) Management Talk: Strategic Cost Cutting Through Sustainable Energy Management	This talk was presented to the new mayor and higher management of DBKL on methods of improving the management of energy.

#### SPURRING ELECTRIC MOBILITY ACROSS THE NATION

ChargEV, Greentech Malaysia's initiative that provides electric vehicle charging solutions, has taken steps to give the public the facilities to travel greater distances on clean electric power. With the number of charging points increasing to 255 in 2019, ChargEV cardholders now also get the added advantage of enjoying these facilities free of charge at those locations. Enabling free access to charging stations has made electric vehicles a realistic option for many, because of the potential savings. With the initiation of this scheme, the user base for electric cars has almost doubled from 2,200 in 2017 to 5,500 in 2018.



#### **EDUCATING MALAYSIA**

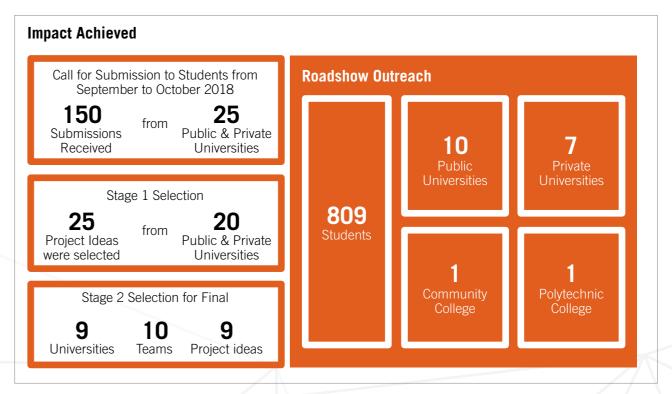
Our youth are our future, and it is never too early to start inculcating a sustainability mindset in them. To enable the youth to lead the way, GreenTech Malaysia has collaborated on a few projects to give them a chance to understand what is needed to build a better Malaysia for everyone.

#### Eco-Biz Dream Project Challenge: Shaping Future Minds

GreenTech Malaysia partnered with Alliance Bank Malaysia Berhad (ABMB), Alliance Islamic Bank (AIS), EcoKnights and Asia School of Business (in collaboration with MIT Sloan Management) to co-organise the Eco-Biz Dream Project Challenge 3 (Eco-Biz 3) from 18 September 2018 to 9 January 2019 as part of ABMB's corporate social responsibility (CSR) initiative. Now in its third year, this challenge offers a platform for tertiary students to identify and exhibit solutions to a prevalent environmental problem in Malaysia.

This year's theme was about the River Revitalisation of Kerayong River in Kuala Lumpur, where participants were challenged to propose an idea within the parameters of the given impact areas – Environmental, Social and Economic.

#### Impact and Outreach



#### Finalists

University Name	Team Name	Project
International Islamic University Malaysia (IIUM)	Edge Consultancy	AquaGlow: An Innovative Water Quality Monitoring
International Islamic University Malaysia (IIUM)	Green Team	Natural filter in a form of modular planter box to improve water quality and create a green belt along the Kerayong River
Monash University Malaysia Campus (MU)	Monash Green Lab	River Cleaning & Energy Generation (RCEG) System
SEGI University & Colleges	Green Building	SMART ECOSYSTEM to create Environmental and Socioeconomic Benefits
Universiti Kebangsaan Malaysia (UKM)	Adiwangsa	Food Court as a Solution to River Kerayong Pollution
Universiti Kuala Lumpur (UniKL)	Eco-MIDI	Transforming the river into a recreational river which can host a number of tourist attraction
Universiti Malaysia Sarawak (UNIMAS)	Green Team	A Plug & Clean BioChar Filter
Universiti Putra Malaysia (UPM)	Aqua Plethora	Solid Maze to trap the Solid Waste
University of Malaya (UM)	IOES Green	Growing Microalgae for farming and cleaning the Kerayong River
Xiamen University Malaysia (XUM)	Sungai Savers	Processing organic waste from sewage treatment plants (STP) into organic fertilizer for plantation



Eco Biz 3: Stage 2 Field Visit to Kerayong River: Briefing and insights by industry experts.



Eco Biz 3: Stage 2 Students' field visit to Kerayong River.

The top 5 winners were awarded cash prizes of up to RM20,000, with an additional RM200,000 seed funding given to the first place winner Universiti Malaysia Sarawak (UNIMAS), to implement their idea.

#### Winners of Eco-Biz 3

Champion RM10,000 Team: Green Team



Idea Submission: Plug & Clean BioChar Filter

MONASH University
MALAYSIA Team: Monash Green Lab



Idea Submission: River Cleaning & Energy Generation (RCEG) system with conversion of plastic waste to products

**2<sup>nd</sup> Runner-Up RM 3,000** Team: Aqua Plethora



Idea Submission: Solid Maze to trap the Solid Waste



**Consolation RM 1,000** Team: Adiwangsa



Idea Submission: Food Court as a Solution to River Kerayong Pollution



Consolation RM 1,000 Team: Sungai Saver



Idea Submission: Processing organic waste from sewage treatment plants (STP) into organic fertiliser for plantation

#### Journey to Astana (JTA): Widening Impact on Youth Post JTA 2017

While the Journey to Astana (JTA) Youth Programme was held in 2017, post-JTA activities were carried out in 2017 and 2018 through a series of symposiums. The JTA Symposium was aimed to provide a platform for the Journey to Astana 2017 (JTA) Youth Programme participants to exchange thoughts, challenges and experiences with fellow university students.

The speakers at these symposiums were industry experts, and university students and lecturers who were selected to showcase their end-stage commercialised products and university programmes at the International Specialized Exhibition EXPO-2017 in Astana, Kazakhstan from 10 June to 10 September 2017. All symposium sessions were organised after the EXPO by GreenTech Malaysia with collaboration from UiTM Shah Alam, Universiti Sains Malaysia, Universiti Sultan Zainal Abidin, and Universiti Teknikal Malaysia Melaka.



Speakers share their experience during the JTA Symposium at Universiti Sultan Zainal Abidin (UniSZA), Terengganu



JTA Symposium attendees at Universiti Sains Malaysia, Pulau Pinang

#### An Overwhelmingly Positive Reaction

As per the responses received after JTA, 92% of respondents were Satisfied (rating of 4/5) and Very Satisfied (rating of 5/5) with the overall JTA 2017 Symposium held from 11 to 13 October 2017 in Kuala Lumpur. Several sessions of the JTA Symposium were organised after the Astana Expo 2017 to gain an understanding of how receptive attendees were to the Symposium.

Location	Universiti Sultan Zainal Abidin (UniSZA), Terengganu	Universiti Sains Malaysia (USM), Pulau Pinang	Universiti Teknikal Malaysia Melaka (UTeM), Melaka
Date	11 February 2018	8 March 2018	13 March 2018
Total JTA Speakers	Participation by 5 speakers 3 universities 2 industries	Participation by 9 speakers 2 universities 3 industries	Participation by 8 speakers 2 universities 3 industries
Total Attendees	87 pax	724 pax	40 pax
Feedback From Attendees	<b>99.97%</b> of respondents were Satisfied and Very Satisfied	94.29% of respondents were Satisfied and Very Satisfied	87.5% of respondents were Satisfied and Very Satisfied

TOTAL OUTREACH

851 participants

#### Engaging Students at UnivTour 2018

As a part of IGEM 2018 from 17 to 20 October 2018, 12 universities across Malaysia participated in UnivTour 2018, which was aimed at spreading awareness of green technology, products and services showcased at the exhibition.

Date	Institution	Faculty	No. of Participant
17 October 2018	Universiti Islam Antarabangsa Malaysia (UIAM)	Faculty of Architecture and Environmental Design	19
	Universiti Sains Islam Malaysia (USIM)	Faculty of Science and Technology	40
	Total		59
18 October 2018	Taylor's University		4
	Universiti Teknologi Malaysia (UTM) Skudai		33
	Universiti Teknologi Malaysia (UTM) KL	Malaysia-Japan International Institute of Technology	56
	Monash University Malaysia	Faculty of Engineering	11
	Universiti Teknologi MARA (UiTM) Jengka	Faculty of Applied Science	70
	Total		174
19 October 2018	Universiti Teknologi MARA (UiTM) Puncak Alam	Faculty of Business and Management	40
	Politeknik Port Dickson	Department of Electrical Engineering	40
	Universiti Malaysia Terengganu (UMT)	Marine Engineering	75
	Universiti Selangor (UNISEL)		35
	Total		190
20 October 2018	Universiti Sains Islam Malaysia (USIM)	Faculty of Engineering and Architecture	43
	Universiti Teknologi Malaysia (UTM) Skudai		7
	Universiti Sains Malaysia (USM) Kampus KL		10
	Universiti Malaya (UM)	Faculty of Science	6
	Total		190
Total Number Of			489

#### Green Minds Challenge: Inspiring the Future Thinkers

GreenTech Malaysia collaborated with the Subang Jaya Municipal Council (MPSJ) to hold the Green Minds Challenge (GMC) for secondary school students, which was held from 10 April to 20 October 2018.

GMC is part of the innovation module under the Smart Gen (Generasi Bestari) programme, which allows primary and secondary school students to compete in 6 modules - environment, health and cleanliness, landscape, culture, safety and innovation.

The GMC challenges students to identify a problem that they are experiencing in their school and find ways to solve it. With the challenge theme for 2018 being "Greening Your School", the scope of problems for students to address were:

- a) Saving on energy bills,
- b) Tapping alternative sources of energy,
- c) Conserving water,
- Recycling waste,
- e) Reducing waste, and
- ) Minimising use of polluting vehicles.



SMK Seri Serdang with their Magical Liquid project that took home the first prize for the Green Minds Challenge

#### **Project Launch**

On 10th April 2018, MPSJ held the official launching ceremony of the Smart Gen Programme 2018. GreenTech Malaysia was recognised as one of MPSJ's strategic partners.

#### Stage 4: Finals and Awards

7 teams from 6 secondary schools presented their solutions to the judging panel on 20 October 2018 at the IGEM 2018 exhibition. The projects were judged based on creative use of materials, relevance, impact, innovation, collaboration and engagement, execution of project, sustainability, replicability, scalability and presentation.

#### Stage 1: Project Conceptualisation

More than 35 students and teachers attended the briefing and workshop session facilitated by GreenTech Malaysia's representatives on 12 April 2018. Students were briefed and guided on the challenge approach.

## Stage 2 & 3: Project Implementation and Submissions

28 students were given coaching and guidance on their solution implementation, pitching and presentation.

#### Results



#### Finalists and Winners

The Green Minds Challenge Award Ceremony was held on 20<sup>th</sup> October 2018 at IGEM 2018 at KL Convention Center. All students received a certificate of participation.

7 Finalists & Their Projects			
Secondary School Name	Team Name	Project	
Y SMK Seri Serdang	Skuad Junior Lestari	Magical Liquid	
SMK Seksyen 1 Bandar Kinrara	Green Generation	Green Thumbs	
Y SMK Subang Jaya	Green Gen	Kitar Semula (Recycle)	
SMK Bandar Puchong Jaya (B)	Greenland	Little Plant, Little World	
SMK Seksyen 3 Bandar Kinrara	Four Intellect	Shoe Rack	
SMK Seksyen 3 Bandar Kinrara	Green Team	Water Reservoir	
SMK Seafield	Team Seafield	Overcome Furniture Wastage	

#### **REACHING OUT TO THE PUBLIC**

Always in favour of seizing the day and bringing like-minded people and communities together, we never turn down an opportunity to meet and engage in green conversations with people from all walks of life.

#### **Greening Our Masjids**

Masjids are an integral part of our nation's landscape and culture, and their commitment to the green cause would be a significant move towards sustainability. Recognising the potential, GreenTech Malaysia is encouraging more mosques to adopt green practices through the Green Masjid campaign. GreenTech Malaysia, alongside Persatuan Komuniti Islam Setia Alam (PERSALAM) launched the campaign last year to encourage more mosques to:

- Practise 3Rs (Reuse, Reduce, and Recycle)
- Use energy-efficient and eco-friendly lighting and appliances
- Conserve water and reduce wastage
- Recycle and manage waste
- Practice food management during Ramadan
- Clean up littered areas in and around the Masjids and Suraus
- Re-use or donate rather than throwing away
- Engage in educational workshops on green practices

The initial launch of the programme was held at Surau As Salam on 30 September 2018 to discuss the purpose of this initiative.

# To sustain the implementation of the Masjid's green activities, GreenTech Malaysia also set up a donation box or Wakaf in the surau to collect funds.

#### Iftar with the Children of Al Kausar

In the month of Ramadan, the greatest gift is being able to share our blessings and give back to the community. To celebrate, GreenTech Malaysia organised a small gathering at the Green Energy Office (GEO) building on June 4 2018, to break fast (Iftar) with the children from the Rumah Anak Yatim Al-Kausar orphanage.

The gathering brought together about 50 guests, including patrons from Section 9 and De Chempaka Bangi, members from Masjid Hasanah and of course the orphans from Al-Kausar. During the day, all guests came together for prayers by Ustaz Long Kechik and shared in the Iftar feast. In the spirit of giving, GreenTech Malaysia also handed out internally collected donations to the orphanage.



Staff from GreenTech Malaysia spend quality time with the children from Al-Kausar

#### **Community Programmes**

Majlis Perbandaran Seberang Perai (MPSP), Universiti Malaya (UM) and Majlis Perbandaran Hang Tuah Jaya (MPHTJ) have been hands-on about their involvement in various community programmes, working together to enhance low-carbon impact by planting trees, through carpool programmes, recycling and efficient waste management.

	People Trained in Low Carbon/Green Technology	Community Programmes
Majlis Perbandaran Seberang Perai (MPSP)	• 18 officers	Planted 3002 tecoma trees throughout Seberang Perai. Trees were sponsored by the MPSP Landscape Department, Corporate Bodies, Govenment Agencies and Individuals.
Universiti Malaya (UM)	143 staff & students	Transport  Introduced carpool programme in UM and it will be implemented mid of 2019  Landscaping Planted 120 new plants in UM nursery  Waste Training programme (taklimat) on food waste segregation at source to IPS, UM
Majlis Perbandaran Hang Tuah Jaya (MPHTJ)	• 10 officers	Recycled products from banner and bunting

#### Getting Malaysian Companies To Compete Globally

The Climate Launchpad Programme (CLP) is the world's largest green business ideas competition led by EIT Climate-KIC, which is a knowledge and innovation community working at accelerating the transition to a zero-carbon economy. Together with Malaysian Global Innovation & Creativity Centre (MaGIC), GreenTech Malaysia co-organised the Malaysian chapter of CLP, which aims to:

- 1) Provide a platform for early start-up companies and entrepreneurs to venture into green technology development.
- 2) Stimulate the growth of local Green Technology (GT) industries.
- 3) Identify investment opportunities for the technologies that were developed.

From boot camps to coaching sessions, 15 participants were guided on topics of business, enterpreneurship and climate change. In the final stage, three companies with the best ideas to represent Malaysia at the Grand Finals were chosen, pitting them against 35+ participating countries. They were:

#### Grenohware

By transforming agricultural waste such as oil palm fronds into 100% compostable cutlery and food packaging, Grenohware's intention is to replace current commercial single-use plastic packaging and reduce plastic pollution.

#### Safari Gas

Safari Gas develops gas cylinders made from composite materials, which have the advantage of being lighter, safer and more environmentally friendly as compared to the traditionally-used metal gas cylinders.

#### Naturacem

Naturacem does custom formulations for Green Cement and Concrete, making use of available pozzolanic waste materials to reduce the cost and carbon footprint of concrete.

These top 3 finalists pitched their ideas in Edinburgh, Scotland on November 2018, in front of leading global investors. It was a wonderful opportunity where they gained feedback and networked with other Climate Launchpad partners. The other participants were given space to showcase their product at IGEM 2018 in October, giving them access and insights to the local market as well as exposure to existing green technology and eco-friendly products.



GreenTech Malaysia and the Malaysian Global Innovation & Creativity Centre (MaGIC) to co-host Climate Launchpad.



## GREENTECH MALAYSIA MEMBERSHIP

## INDIVIDUAL MEMBERS

	Member No.	Date of Approval
Prof. Ir. Dr. K.S. Kannan	1002	31.05.04
Prof. Dr. Zainal bin Salam	1004	27.12.07
Neoh Kim Chuan	1006	27.05.08
Lee Boon Chong	8001	05.11.08
Ir. Hanafi Abdul Nasir	1010	06.04.09
Ir. Ismail bin Hj. Ishak	1011	04.06.09
Leong Yeng Kit	1012	08.04.16
Dato' Sri Ung Eng Huat	1013	08.04.16
Dato' Cheah Kah Lip	1014	08.04.16
Yong Sien Wae	1015	08.04.16
Low Jit Tong	1016	08.04.16
Krian Upatkoon	1017	08.04.16
Woon Foo Wen	1018	16.06.16
YM Tengku Loreta binti Tengku Ramli	1019	08.04.16
Tan Hon Yik	1020	08.04.16
Datin Paduka Che Asmah binti Ibrahim	1021	08.04.16
Mohamed Azrin bin Mohd Ali	1022	08.04.16
Syed Ahmad bin Syed Mustafa	1023	08.04.16
Norhasliza binti Mohd Mokhtar	1024	08.04.16
Wan Faizal bin Mohd Anwar	1025	08.04.16
Ir. Ahmad Hadri bin Haris	1027	08.04.16
Dato' Ir. Dr. Dennis Ganendra	1028	16.06.16
Syahrunizam Samsudin	1029	16.06.16
Dato' Leo Ariyanayakam	1030	16.06.16
Mohd Hasnul Ismar bin Mohd Ismail	1032	06.09.16
Elina binti Jani	1034	06.09.16
Dato' Shahrol Azral bin Ibrahim Halmi	1036	06.09.16

## CORPORATE MEMBERS

	Member No.	Date of Approval
YTL Power Generation Sdn. Bhd.	C006	31.12.99
SFG Technology (M) Sdn. Bhd.	C011	29.09.03
Akeru Enterprise Sdn. Bhd.	C021	27.03.08
Infrakomas Sdn. Bhd.	C022	06.04.09
Pacific Engineering Sdn. Bhd	C024	25.08.15
Veritas Architects Sdn. Bhd.	C025	08.04.16
Airestec Sdn. Bhd.	C026	08.04.16
Sapura Holdings Sdn. Bhd.	C028	16.06.16
Kloth Malaysia Sdn. Bhd.	C029	06.09.16
Cenviro Sdn. Bhd.	C030	06.09.16
Lybase Sdn. Bhd.	C032	06.09.16
Driven Communications Sdn. Bhd.	C033	06.09.16
Esona Technologies Sdn Bhd	C034	06.09.16

## HONORARY MEMBERS

	Member No.	Date of Approval
Y. Bhg. Dato' Hamzah Bakar	H001	12.05.98
Y. Bhg. Tan Sri Nuraizah Abdul Hamid	H002	12.05.98
YM Raja Datuk Zaharaton Raja Zainal Abid	lin H003	16.09.99
Y. Bhg. Professor Tan Sri Zakri Abdul Ham	id H004	16.09.99
Prof. Emeritus Dato' Dr. Kamel Ariffin Moho	d Atan H005	16.09.99
Y. Bhg. Dato' Dr. Mohd Ariff Araff	H006	16.09.99
Tuan Haji Mohamed Zohari Mohamed Sha	harun H007	16.09.99
Tan Keok Yin	H008	16.09.99
Y. Bhg. Datin Husniarti Tamin	H009	16.09.99
Prof. Ir. Dr. Zainal Abidin bin Ahmad	H010	31.12.99
Y. Bhg. Dato' Dr. Halim Shafie	H011	01.06.01

	Member No.	. Date of Approval
Y. Bhg. Dato' Syed Hamzah Syed Othman	H012	01.11.00
Prof. Dr. Muhamad Awang	H013	01.11.00
Dr. Mohd Zamzam Jaafar	H014	27.11.02
Y. Bhg. Dato' Ir. Lew Chin Hoi	H015	27.11.02
Mr. Tan Boon Lee	H016	12.05.03
Mr. Amir Abdul Rahman	H017	17.11.05
Y. Bhg. Dato' Teo Yen Hua	H018	17.11.05
Mr. Leong Yee Heim	H019	17.11.05
Y. Bhg. Datuk Che Azemi bin Haron	H020	17.11.05
Y. Bhg. Dato' Mohd Izzaddin Idris	H021	17.11.05
Dr. Mohd Farid Mohd Amin	H022	17.11.05
Y. Bhg. Prof. Ir. Dr. Hassan bin Ibrahim	H023	17.11.05
Y. Bhg. Dato' Dr. Halim Man	H024	25.09.07
Y. Bhg. Dato' Dr. Rosli bin Mohamed	H025	25.09.07
Y. Bhg. Datuk Loo Took Gee	H026	25.09.07
Dato Paduka Profesor (Dr.) Ir. Hj. Keizrul bin Abdullah	n H027	16.12.13
Datuk Hjh. Nor'aini binti Abdul Wahab	H028	16.12.13
Azhar Noraini	H029	16.12.13
Dr. Anuar Abdul Rahman	H031	16.12.13

## FINANCIAL REPORT

### **MALAYSIAN GREEN TECHNOLOGY CORPORATION**

(Incorporated in Malaysia)

Company No: 462237 - T

## FINANCIAL REPORT

for the financial year ended 31 December 2018



#### FINANCIAL STATEMENTS

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

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#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### DIRECTORS' REPORT

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 2018.

#### 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 Company also provides secretariat services for Green Technology Council that would support the implementation of National Green Technology Policy, contribution to the national economy and raising Malaysia's global competitiveness on green technology.

The principal activities of the subsidiaries are set out in Note 5 to the financial statements. There have been no significant changes in the nature of these activities during the financial year.

#### **RESULTS**

REGULIO	The Group RM	The Company RM
Profit after taxation for the financial year	2,845,257	2,971,506

#### **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 other than those disclosed in the financial statements.

#### **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.

(Incorporated in Malaysia) Company No: 462237 - T

#### DIRECTORS' REPORT

#### **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 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.

#### **CONTINGENT AND OTHER LIABILITIES**

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

- 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
- 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.

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### DIRECTORS' REPORT

#### 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.

#### **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

Baskaran A/I Madhayan Nair

Professor Datin Paduka Prof. Dr. Khatijah Binti Mohammad Yusoff

Datuk Poh Pai Kong

Hazim Bin Jamaluddin (Resigned on 31.12.2018)

Afidah Azwa Binti Abdul Aziz (Alternate Director to Hazim bin Jamaluddin) (Resigned on 31.12.2018)

Datin Badriyah Binti Ab Malek (Resigned on 27.11.2018)

Rogayah Binti Kadari (Alternate Director to Datin Badriyah Binti Ab Malek) (Resigned on 27.11.2018)

Mohamad Razif Bin Haji Abd Mubin (Resigned on 2.5.2018)

Tan Sri Peter Chin Fah Kui (Resigned on 6.4.2018)

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 Syed Ahmad Bin Syed Mustafa (Appointed on 1.11.2018) Dr. Mohd Azman Bin Zairul Abidin (Resigned on 1.11.2018)

#### **DIRECTORS' INTERESTS**

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

(Incorporated in Malaysia) Company No: 462237 - T

#### DIRECTORS' REPORT

#### **DIRECTORS' BENEFITS**

Since the end of the previous financial year, no director has received or become entitled to receive any benefit 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.

#### **DIRECTORS' REMUNERATION**

There were no directors' remuneration paid or payable during the financial year.

#### 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 5 to the financial statements.

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### DIRECTORS' REPORT

#### **AUDITORS**

The auditors, Crowe Malaysia PLT (converted from a conventional partnership, Crowe Malaysia which was previously known as Crowe Horwath), have expressed their willingness to continue in office.

The auditors' remuneration are disclosed in Note 22 to the financial statements.

3 0 MAY 2019 Signed in accordance with a resolution of the directors dated

Datuk Wira Jalilah Binti Baba

Mr. Baskaran a/l Madhavan Nair

(Incorporated in Malaysia) Company No: 462237 - T

#### STATEMENT BY DIRECTORS PURSUANT TO SECTION 251(2) OF THE COMPANIES ACT 2016

We, Datuk Wira Jalilah Binti Baba and Mr. Baskaran a/l Madhavan Nair, being two of the directors of Malaysian Green Technology Corporation, state that, in the opinion of the directors, the financial statements set out on pages 11 to 51 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 2018 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 3 0 MAY 2019



Datuk Wira Jalilah Binti Baba

## STATUTORY DECLARATION

I, Syed Ahmad Bin Syed Mustafa, being the director primarily responsible for the financial management of Malaysian Green Technology Corporation, do solemnly and sincerely declare that the financial statements set out on pages 11 to 51 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.

Mr. Baskaran a/I Madhavan Nair

Syed Ahmad Bin Syed Mustafa

Subscribed and solemnly declared by the abovementioned Syed Ahmad Bin Syed Mustafa, NRIC Number: 580712-01-5715, at Kuala Lumpur

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

in the Federal Territory

RUJAYA SU on this 3 0 MAY 2019 No W-275 Datin Hajah Raihela Wanchik 1-1-2019 31-12-2021 MALAYSIP

Before me

108

Datin Hajah Raihela Wanchik No. W-275

**Commissioner For Oaths** 

SUITE C-5-9 BLOK C LEVEL 7. MENARA UNCANG EMAS 85. JALAN LOKE YEW, 55200 KUALA LUMPUR TEL: 012-300 8300

#### INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

**Crowe Malaysia PLT** 

(LLP0018817-LCA & AF 1018) **Chartered Accountants** Level 16, Tower C, Megan Avenue 2, 12, Jalan Yap Kwan Seng 50450 Kuala Lumpur Malaysia

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#### REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

#### Opinion

We have audited the financial statements of Malaysian Green Technology Corporation, which comprise the statements of financial position as at 31 December 2018 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 11 to 51.

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 2018, 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**

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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' Code of Ethics for Professional Accountants ("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.

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.

Crowe Malaysia PLT (LLP0018817-LCA & AF 1018) was registered on 2 January 2019 and with effect from that date, Crowe Malaysia (AF 1018) which was formerly known as Crowe Howarth (AF 1018), a conventional partnership was converted to a limited lialibility partnership

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## INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY CORPORATION (CONT'D)

(Incorporated in Malaysia) Company No: 462237 - T

#### 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 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.



## INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY CORPORATION (CONT'D)

(Incorporated in Malaysia) Company No: 462237 - T

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

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 (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 financia 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.

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PLT and its affiliates are not responsible or liable for any acts or omission of Crowe Global or any other member of Crowe Global. Crowe Global does not render any

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## INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF MALAYSIAN GREEN TECHNOLOGY CORPORATION (CONT'D)

(Incorporated in Malaysia) Company No: 462237 - T

#### **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 LLP0018817-LCA & AF 1018 Chartered Accountants

3 0 MAY 2019

Kuala Lumpur

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Ooi Song Wan 02901/10/2020 J Chartered Accountant

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### STATEMENTS OF FINANCIAL POSITION AT 31 DECEMBER 2018

		The Group		The Company		
		2018	2017	2018	2017	
	Note	RM	RM	RM	RM	
ASSETS						
NON-CURRENT ASSETS						
Investment in subsidiaries	5	-	-	2,500,000	2,500,000	
Investment in a joint venture	6	5,173	6,179	-	-	
Property and equipment	7	18,466,304	18,909,238	18,466,304	18,909,238	
Deferred expenditure		1,031,905	350,675	1,031,905	350,675	
		19,503,382	19,266,092	21,998,209	21,759,913	
CURRENT ASSETS						
Trade receivables	8	7,281,931	3,209,384	7,168,142	3,095,595	
Other receivables, deposits and		, ,	, ,	, ,	, ,	
prepayments	9	845,444	757,116	845,444	757,116	
Amount owing by subsidiaries	10	-	-	506,340	377,154	
Current tax assets		418,397	45,704	418,397	45,704	
Fixed deposits with licensed banks	11	33,931,215	45,431,215	33,931,215	45,431,215	
Cash and bank balances	11	4,957,370	4,192,971	2,436,581	1,672,125	
odon and bank balances		1,507,070	1,132,371	2, 100,001	1,072,120	
		47,434,357	53,636,390	45,306,119	51,378,909	
TOTAL ASSETS		66,937,739	72,902,482	67,304,328	73,138,822	
EQUITY AND LIABILITIES EQUITY						
Retained profits	12	24,287,715	21,442,458	24,727,165	21,755,659	
retained profits	12	21,207,710	21,112,100	21,727,100	21,700,003	
NON-CURRENT LIABILITIES						
Government grants	13	15,975,145	20,486,995	15,975,145	20,486,995	
Deferred income	14	430,018	352,795	430,018	352,795	
Building fund	15	16,869,563	17,570,816	16,869,563	17,570,816	
		33,274,726	38,410,606	33,274,726	38,410,606	
CURRENT LIABILITIES						
Trade payables	16	5,711,202	10,689,990	5,656,713	10,635,501	
Other payables and accruals	17	3,649,256	2,344,588	3,630,884	2,322,216	
Amount owing to a related party	18	14,840	14,840	14,840	14,840	
		9,375,298	13,049,418	9,302,437	12,972,557	
TOTAL LIABILITIES		42,650,024	51,460,024	42,577,163	51,383,163	
TOTAL EQUITY AND LIABILITIES		66,937,739	72,902,482	67,304,328	73,138,822	
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(Incorporated in Malaysia) Company No: 462237 - T

#### STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2018

	Note	The Group 2018 2017 RM RM		The Co 2018 RM	mpany <b>2017</b> RM
REVENUE	19	8,927,587	7,645,959	8,927,587	7,111,236
COST OF SALES	20	(3,939,571)	(4,395,863)	(3,939,571)	(4,075,659)
GROSS PROFIT		4,988,016	3,250,096	4,988,016	3,035,577
OPERATING GRANT		4,500,000	1,300,000	4,500,000	1,300,000
OTHER INCOME	21	15,160,647	50,929,278	15,160,647	50,929,278
ADMINISTRATIVE EXPENSES	22	(20,991,816)	(53,689,492)	(20,866,573)	(53,322,236)
OTHER EXPENSES		(810,584)	(1,147,220)	(810,584)	(1,147,220)
SHARE OF NET LOSS OF EQUITY ACCOUNTED JOINT VENTURE		(1,006)	(1,324)	-	-
PROFIT BEFORE TAXATION		2,845,257	641,338	2,971,506	795,399
INCOME TAX EXPENSE	23	-	(596,322)	-	(596,322)
PROFIT AFTER TAXATION		2,845,257	45,016	2,971,506	199,077
OTHER COMPREHENSIVE INCOME		-	-	-	-
TOTAL COMPREHENSIVE INCOME FOR THE FINANCIAL YEAR		2,845,257	45,016	2,971,506	199,077
PROFIT AFTER TAXATION ATTRIBUTABLE TO:- Owner of the Company		2,845,257	45,016	2,971,506	199,077
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:-Owner of the Company		2,845,257	45,016	2,971,506	199,077

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### STATEMENTS OF CHANGES IN EQUITY FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2018

	ŔMŹ
21,397,442	21,397,442
45,016	45,016
21,442,458	21,442,458
2,845,257	2,845,257
24,287,715	24,287,715
Retained Profits RM	Total Equity RM
21,556,582	21,556,582
199,077	199,077
21,755,659	21,755,659
2,971,506	2,971,506
24,727,165	24,727,165
	45,016 21,442,458 2,845,257 24,287,715 Retained Profits RM 21,556,582 199,077 21,755,659 2,971,506

(Incorporated in Malaysia) Company No: 462237 - T

#### STATEMENTS OF CASH FLOWS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2018

		The Group		The Company		
	Note	<b>2018</b> RM	<b>2017</b> RM	<b>2018</b> RM	<b>2017</b> RM	
CASH FLOWS (FOR)/ FROM OPERATING ACTIVITIES		0.045.057	C41 220	0.071.500	705 200	
Profit before taxation		2,845,257	641,338	2,971,506	795,399	
Adjustments for:- Depreciation of property and						
equipment		810,584	1,147,220	810,584	1,147,220	
Amortisation of building fund		(701,253)	(701,253)	(701,253)	(701,253)	
Gain on disposal of equipment Interest income		(6,810)	- (1 224 E00)	(6,810)	- (1 224 E00)	
Share of results of a joint venture		(2,260,057) 1,006	(1,324,598) 1,324	(2,260,057)	(1,324,598)	
		1,000	1,524			
Operating gain/(loss) before						
working capital changes		688,727	(235,969)	813,970	(83,232)	
Increase in deferred expenditure Increase/(Decrease) in		(681,230)	(21,276)	(681,230)	(21,276)	
deferred income		77,223	(1,834,974)	77,223	(1,834,974)	
(Increase)/Decrease in trade and		(4.400.075)	0.404.005	(4.400.075)		
other receivables		(4,160,875)	6,184,085	(4,160,875)	6,297,874	
(Decrease)/Increase in trade and other payables		(3,674,120)	5,887,256	(3,670,120)	5,835,032	
Increase in amount owing by		(3,074,120)	3,007,230	(3,070,120)	5,655,052	
subsidiaries		-	-	(129,186)	(2,715,164)	
CASH (FOR)/FROM						
OPERATIONS		(7,750,275)	9,979,122	(7,750,218)	7,478,260	
Income tax paid		(372,693)	(317,173)	(372,693)	(317,173)	
NET CASH (FOR)/FROM						
OPERATING ACTIVITIES		(8,122,968)	9,661,949	(8,122,911)	7,161,087	

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### STATEMENTS OF CASH FLOWS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2018 (CONT'D)

		The Group		The Company		
	Note	<b>2018</b> RM	<b>2017</b> RM	<b>2018</b> RM	<b>2017</b> RM	
CASH FLOWS FROM INVESTING ACTIVITIES Interest received (Increase)/Decrease in fixed		2,260,057	1,324,598	2,260,057	1,324,598	
deposits with licensed bank with tenure more than 3 months Decrease/(Increase) in pledged		(1,237,313)	563,667	(1,237,313)	563,667	
fixed deposits with a licensed bank		2,031,217	(1,696,614)	2,031,217	(1,696,614)	
Proceed from disposal of equipment Purchase of equipment		6,810 (367,650)	- (57,252)	6,810 (367,650)	- (57,252)	
NET CASH FROM INVESTING ACTIVITIES		2,693,121	134,399	2,693,121	134,399	
NET CASH FOR FINANCING ACTIVITY						
Net utilisation of government grants		(4,511,850)	(248,013)	(4,511,850)	(248,013)	
NET (DECREASE)/ INCREASE IN CASH AND CASH						
EQUIVALENTS		(9,941,697)	9,548,335	(9,941,640)	7,047,473	
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE						
FINANCIAL YEAR		18,645,967	9,097,632	16,125,121	9,077,648	
CASH AND CASH EQUIVALENTS AT END OF THE FINANCIAL						
YEAR	24	8,704,270	18,645,967	6,183,481	16,125,121	

(Incorporated in Malaysia) Company No: 462237 - T

#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 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

#### 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 Company also provides secretariat services for Green Technology Council that would support the implementation of National Green Technology Policy, contribution to the national economy and raising Malaysia's global competitiveness on green technology.

The principal activities of the subsidiaries are set out in Note 5 to the financial statements. There have been no significant changes in the nature of these activities during the financial year.

#### 3. 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.

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 3. BASIS OF PREPARATION (CONT'D)

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)

MFRS 9 Financial Instruments (IFRS 9 as issued by IASB in July 2014)

MFRS 15 Revenue from Contracts with Customers

IC Interpretation 22 Foreign Currency Transactions and Advance Consideration

Amendments to MFRS 2: Classification and Measurement of Share-based Payment Transactions

Amendments to MFRS 4: Applying MFRS 9 Financial Instruments with MFRS 4 Insurance Contracts

Amendments to MFRS 15: Effective Date of MFRS 15

Amendments to MFRS 15: Clarifications to MFRS 15 'Revenue from Contracts with Customers'

Amendments to MFRS 140 – Transfers of Investment Property

Annual Improvements to MFRS Standards 2014 – 2016 Cycles

- Amendments to MFRS 1: Deletion of Short-term Exemptions for First-time Adopters
- Amendments to MFRS 128: Measuring an Associate or Joint Venture at Fair Value

The adoption of the above accounting standards and/or interpretations (including the consequential amendments, if any) did not have any material impact on the Group's financial statements other than the new classification of financial assets under MFRS 9 which is disclosed in Note 26.3 to the financial statements.

(Incorporated in Malaysia) Company No: 462237 - T

#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### BASIS OF PREPARATION (CONT'D)

3.2 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)	Effective Date
MFRS 16 Leases	1 January 2019
MFRS 17 Insurance Contracts	1 January 2021
IC Interpretation 23 Uncertainty Over Income Tax Treatments	1 January 2019
Amendments to MFRS 3: Definition of a Business	1 January 2020
Amendments to MFRS 9: Prepayment Features with Negative Compensation	1 January 2019
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 101 and MFRS 108: Definition of Material	1 January 2020
Amendments to MFRS 119: Plan Amendment, Curtailment or Settlement	1 January 2019
Amendments to MFRS 128: Long-term Interests in Associates and Joint Ventures	1 January 2019
Amendments to References to the Conceptual Framework in MFRS Standards	1 January 2020
Annual Improvements to MFRS Standards 2015 – 2017 Cycles	1 January 2019

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.

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES

#### 4.1 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

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 tech nical 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 Non-financial Assets

The Group determines whether 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.

#### (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 amounts of trade receivables as at the reporting date are disclosed in Note 8 to the financial statements.

(Incorporated in Malaysia) Company No: 462237 - T

#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.1 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 and expected loss rates. 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 as well as forward-looking estimates at the end of each reporting period. The carrying amounts of other receivables and amounts owing by subsidiaries as at the reporting date are disclosed in Note 9 and 10 to the financial statements.

#### (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 current tax assets as at the reporting date is RM418,397 (2017 - RM45,704).

Critical Judgements Made in Applying Accounting Policies

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.

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

(Incorporated in Malaysia) Company No: 462237 - T

#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### BASIS OF CONSOLIDATION 4.2

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.

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 transactionby-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 noncontrolling interests even if this results in the non-controlling interests having a deficit balance.

(Incorporated in Malaysia) Company No: 462237 - T

#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### BASIS OF CONSOLIDATION (CONT'D) 4.2

#### (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 on initial recognition for subsequent accounting under MFRS 9 (2017 - MFRS 139) or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

#### 4.3 **FUNCTIONAL AND FOREIGN CURRENCIES**

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

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 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 a 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 - Revenue from Contracts with Customers 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.

#### (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).

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### FINANCIAL INSTRUMENTS (CONT'D) 4.4

#### (a) Financial Assets (Cont'd)

Debt Instruments (Cont'd)

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

#### 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 of these financial liabilities are recognised in profit or loss.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### FINANCIAL INSTRUMENTS (CONT'D)

#### (b) Financial Liabilities (Cont'd)

#### (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).

#### (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.

#### Accounting Policies Applied Until 31 December 2017

The Group has applied MFRS 9 retrospectively but has elected not to restate comparative information of its financial instruments. As a result, the comparative information of the Group's financial assets continues to be accounted for in accordance with their previous accounting policies as summarised below:-

Unquoted other receivables with fixed or determinable payments were classified as loans and receivables financial assets, measured at amortised cost using the effective interest method, less any impairment loss. Interest income was recognised by applying the effective interest rate, except for short-term receivables when the recognition of interest would be immaterial.

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.5 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.

#### 4.6 JOINT ARRANGEMENTS

Joint arrangements are arrangements of which the Group has joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements returns.

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor. The Group has assessed the nature of its joint arrangements and determined them to be joint ventures.

#### (a) Joint Operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, the obligations for the liabilities, relating to the arrangement. The Group accounts for each of its interest in the joint operations the assets, liabilities, revenue and expenses (including its share of those held or incurred jointly with the other investors) in accordance with the applicable accounting standards.

#### (b) Joint Ventures

A joint venture is a joint arrangement whereby the Group has rights only to the net assets of the arrangement.

The investment in a joint venture is accounted for in the consolidated financial statements using the equity method, based on the financial statements of the joint venture made up to 31 December 2018. The Group's share of the post-acquisition profits and other comprehensive income of the joint venture is included in the consolidated statement of profit or loss and other comprehensive income, after adjustment if any, to align the accounting policies with those of the Group, from the date that joint control commences up to the effective date when the investment ceases to be a joint venture or when the investment is classified as held for sale. The Group's interest in the joint venture is carried in the consolidated statement of financial position at cost plus the Group's share of the post-acquisition retained profits and reserves. The cost of investment includes transaction costs.

When the Group's share of losses exceeds its interest in a joint venture, the carrying amount of that interest is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Group has an obligation.

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.6 JOINT ARRANGEMENTS (CONT'D)

#### (b) Joint Ventures (Cont'd)

Unrealised gains on transactions between the Group and the joint venture are eliminated to the extent of the Group's interest in the joint venture. Unrealised losses are eliminated unless cost cannot be recovered.

The Group discontinues the use of the equity method from the date when the investment ceases to be a joint venture or when the investment is classified as held for sale. When the Group retains an interest in the former joint venture and the retained interest is a financial asset, the Group measures the retained interest at fair value at that date and the fair value is regarded as the initial carrying amount of the financial asset in accordance with MFRS 9 (2017 - MFRS 139). Furthermore, the Group also reclassifies its share of the gain or loss previously recognised in other comprehensive income of that joint venture to profit or loss when the equity method is discontinued. However, the Group will continue to use the equity method when an investment in a joint venture becomes an investment in an associate. Under such change in ownership interest, the retained investment is not remeasured to fair value but a proportionate share of the amounts previously recognised in other comprehensive income of the joint venture will be reclassified to profit or loss where appropriate. All dilution gains or losses arising in investments in joint ventures are recognised in profit or loss.

#### 4.7 PROPERTY AND EQUIPMENT

All items of property and equipment are initially measured at cost. Cost includes expenditure that are 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.

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.

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.7 PROPERTY AND EQUIPMENT (CONT'D)

The principal annual rates used for this purpose are:-

Leasehold land	99 years
Building	2%
Computer	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.

#### 4.8 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.

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.

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 and contract assets 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).

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 4. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.8 IMPAIRMENT (CONT'D)

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

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.

#### Accounting Policy Applied Until 31 December 2017

The Group has applied MFRS 9 retrospectively with cumulative financial impacts recognised in the opening consolidated statement of financial position on 1 January 2018 (date of initial application of MFRS 9) and hence, the comparative information of its financial instruments is not restated. As a result, the comparative information on the impairment of Group's financial assets has been accounted for in accordance with its previous accounting policy as summarised below:-

• The Group assessed at the end of each reporting period whether there was objective evidence that a financial asset (or group of financial assets) was impaired. Impairment losses were incurred only if there was objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset and that event(s) had an impact on the estimated future cash flows of the financial asset (or group of financial assets) that could be reliably estimated. In the case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost was considered an indicator that the assets are impaired.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.8 IMPAIRMENT (CONT'D)

#### (b) Impairment of Non-financial Assets

The carrying values of assets, other than those to which MFRS 136 - Impairment of Assets 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.

#### CASH AND CASH EQUIVALENTS 49

Cash and cash equivalents comprise cash in hand, bank balances, demand deposits, and shortterm, 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.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.10 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.

#### INCOME TAXES

#### (a) Current Tax

Current tax assets and liabilities are 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 are 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.

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.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### 4.11 INCOME TAXES (CONT'D)

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.

#### FAIR VALUE MEASUREMENTS 4.12

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.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### REVENUE FROM CONTRACTS WITH CUSTOMERS 4.13

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.

#### **Rendering of Services**

Revenue from providing services is recognised when the services are rendered.

#### 4.14 OTHER OPERATING 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.

#### (b) Interest income

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

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### **INVESTMENT IN SUBSIDIARIES**

			<b>2018</b> RM	
Unquoted shares, at cost			2,500,0	2,500,000
The details of the subsidiaries a	re as follows:-			
Name of Subsidiaries	Principal place of Business/ Country of Incorporation	Share Ca	e of Issued pital Held arent	Principal Activitles
		2018 %	2017 %	
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	Provide green growth training programmes, training centres, and advisory services on green technology operations.
Greentech Catalyst Sdn. Bhd.	Malaysia	100	100	Involved in advisor or consultants, exhibitors, and promoters of green technology development.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### **INVESTMENT IN A JOINT VENTURE**

	The Group		
	<b>2018</b> RM	<b>2017</b> RM	
Unquoted shares, at cost	30,000	30,000	
Share of post-acquisition losses	(24,827)	(23,821)	
	5,173	6,179	

The details of the subsidiaries are as follows:-

Name of Joint Venture	Principle Place of Business	Effective Equity Interest		·		Principal Activitles
		2018 %	2017 %			
Kloth Lifestyle Sdn. Bhd.	Malaysia	30	30	Sales of sustainable products made from recycled polyster.		

- The Group's involvement in joint arrangements is structured through separate vehicles which provide the Company rights to the net assets of the entities. Accordingly, the Group has classified this investment as joint venture.
- The summarised financial information of the joint venture is as follow:-

	2018 RM	2017 RM
At 31 December Current assets Current liabilities	66,797 (49,554)	37,296 (16,698)
Net assets	17,243	20,598
Revenue Loss for the financial year	199,851 (3,355)	28,147 (4,412)
Group's share of loss for the financial year	(1,006)	(1,324)
Group's share of net assets above / Carrying amount of the Group's interest in this joint venture	5,173	6,179

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 7. PROPERTY AND EQUIPMENT

The Group/The Company	At 1.1.2018 RM	Additions RM	Depreciation Charges RM	At 31.12.2018 RM
2018				
Carrying Amount				
Leasehold land Building Computers Energy audit equipment Furniture and fittings Motor vehicles Office equipment Renovation Solar system	2,971,605 15,196,186 90,852 27 20,048 250,916 13,490 134,584 231,530	188,649 - 4,150 139,876 18,289 16,686	(33,768) (384,753) (154,557) - (6,036) (164,823) (6,911) (30,036) (29,700)	2,937,837 14,811,433 124,944 27 18,162 225,969 24,868 121,234 201,830
	18,909,238	367,650	(810,584)	18,466,304

The Group/The Company	At 1.1.2017 RM	Additions RM	Depreciation Charges RM	At 31.12.2017 RM
2017				
Carrying Amount				
Leasehold land Building Computers Energy audit equipment Furniture and fittings Motor vehicles Office equipment Renovation Solar system	3,005,373 15,580,938 256,872 15,151 22,168 411,490 21,906 163,822 521,486	- 48,170 - 5,082 - 4,000	(33,768) (384,752) (214,190) (15,124) (7,202) (160,574) (12,416) (29,238) (289,956)	2,971,605 15,196,186 90,852 27 20,048 250,916 13,490 134,584 231,530
	19,999,206	57,252	(1,147,220)	18,909,238

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 7. PROPERTY AND EQUIPMENT (CONT'D)

The Group/The Company	At Cost RM	Accumulated Depreciation RM	Carrying Amount RM
2018			
Leasehold land	3,343,056	(405,219)	2,937,837
Building	19,077,708	(4,266,275)	14,811,433
Computers	1,959,034	(1,834,090)	124,944
Energy audit equipment	157,945	(157,918)	27
Furniture and fittings	1,449,200	(1,431,038)	18,162
Motor vehicles	942,747	(716,778)	225,969
Office equipment	223,672	(198,804)	24,868
Renovation	309,068	(187,834)	121,234
Solar system	3,334,713	(3,132,883)	201,830
	30,797,143	(12,330,839)	18,466,304

#### 2017

Leasehold land	3,343,056	(371,451)	2,971,605
Building	19,077,708	(3,881,522)	15,196,186
Computers	1,770,385	(1,679,533)	90,852
Energy audit equipment	157,945	(157,918)	27
Furniture and fittings	1,445,050	(1,425,002)	20,048
Motor vehicles	802,871	(551,955)	250,916
Office equipment	205,383	(191,893)	13,490
Renovation	292,382	(157,798)	134,584
Solar system	3,334,713	(3,103,183)	231,530
	30,429,493	(11,520,255)	18,909,238

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### TRADE RECEIVABLES

The Group's normal trade credit term is 30 days (2017 - 30 days) from the date of invoice. Other credit terms are assessed and approved on a case-by-case basis.

OTHER RECEIVABLES, DEPOSITS AND PREPAYMENTS	S The Group/T 2018 RM	oup/The Company 2017 RM	
Other receivables	69,916	70,055	
Deposits Prepayments	555,499 79,747	555,499 79,589	
GST receivables	140,282	51,973	
	845,444	757,116	

#### 10. 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.

#### 11. FIXED DEPOSITS WITH LICENSED BANKS

- (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 2.95% to 3.65% (2017 - 2.80% to 3.75%) per annum. The fixed deposits have maturity periods ranging from 1 to 12 (2017- 1 to 12) months for the Group and the Company respectively.
- Included in the fixed deposits with licensed banks of the Group at the end of the reporting period (b) was an amount of RM38,033 (2017 - RM2,069,250) which has been pledged to a licensed bank as security for banking facilities granted to the Company.

#### 12. 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.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

3.	GOVERNMENT GRANTS	The Group/T	he Company
		<b>2018</b> RM	<b>2017</b> RM
	At 1 January Addition during the financial year Utilisation during the financial year	20,486,995 8,527,628 (13,039,478)	20,735,008 49,984,088 (50,232,101)
		15,975,145	20,486,995

#### 14. DEFERRED INCOME

The deferred income represents advances received from Tesla car buyers.

#### 15. BUILDING FUND

	The Group/Th 2018 RM	ne Company 2017 RM
Cost Accumulated amortisation	25,037,500 (8,167,937)	25,037,500 (7,466,684)
At 31 December	16,869,563	17,570,816
Accumulated amortisation:-	7.455.504	C 7CF 421
At 1 January Amortisation for the financial year	7,466,684 701,253	6,765,431 701,253
At 31 December	8,167,937	7,466,684

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.

#### 16. TRADE PAYABLES

The normal trade credit terms granted to the Group range from 14 to 30 (2017 - 14 to 30) days.

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 17. OTHER PAYABLES AND ACCRUALS

	The Group		The Company	
	<b>2018</b> RM	<b>2017</b> RM	<b>2018</b> RM	<b>2017</b> RM
Other payables Accruals	964,457 2,420,274	876,802 1,467,786	963,096 2,403,263	876,791 1,445,425
	3,384,731	2,344,588	3,366,359	2,322,216
Sales and service tax	G264,525	-	264,525	-
	3,649,256	2,344,588	3,630,884	2,322,216

#### 18. AMOUNT OWING TO A RELATED PARTY

The amount owing represents non-trade balances, unsecured payments made on behalf. The amount owing is repayable on demand and is to be settled in cash.

#### 19. REVENUE

	The G	The Group		npany
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
	RM	RM	RM	RM
Services rendered	8,857,166	5,592,195	8,857,166	5,057,472
Tesla project	70,421	2,053,764	70,421	2,053,764
	8,927,587	7,645,959	8,927,587	7,111,236

#### 20. COST OF SALES

	The G	The Group		npany
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
	RM	RM	RM	RM
Services rendered	3,869,149	2,342,099	3,869,149	2,021,895
Tesla project	70,422	2,053,764	70,422	2,053,764
	3,939,571	4,395,863	3,939,571	4,075,659

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 21. OTHER INCOME

	The Group		The Company	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
	RM	RM	RM	RM
Project with grants Interest income Amortisation of building fund Gain on disposal of	12,129,632	48,867,517	12,129,632	48,867,517
	2,260,057	1,324,598	2,260,057	1,324,598
	701,253	701,253	701,253	701,253
equipment	6,810	-	6,810	-
Others	62,895	35,910	62,895	35,910
	15,160,647	50,929,278	15,160,647	50,929,278

#### 22. ADMINISTRATIVE EXPENSES

	The Group		The Company	
	2018	18 2017	2018	2017
	RM	RM	RM	RM
Project with grants	12,129,632	48,867,517	12,129,632	48,867,517
Staff costs	6,777,899	3,998,666	6,676,155	3,709,421
Others	2,084,285	739,309	2,060,786	682,298
Auditors' remuneration	85,000	84,000	68,000	63,000
	20,991,816	53,689,492	20,866,573	53,322,236

#### 23. INCOME TAX EXPENSE

	The Group		The Company	
	<b>2018</b> RM	<b>2017</b> RM	<b>2018</b> RM	<b>2017</b> RM
Income tax: - for the financial year - (over)/underprovision in the	360,000	318,000	360,000	318,000
previous financial year	(360,000)	278,322	(360,000)	278,322
	-	596,322	-	596,322

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 23. INCOME TAX EXPENSE (CONT'D)

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	
	<b>2018</b> RM	<b>2017</b> RM	<b>2018</b> RM	<b>2017</b> RM
Profit before taxation	2,845,257	641,338	2,971,506	795,399
Tax at the statutory tax rate of 24%	682,862	153,921	713,161	190,896
Tax effects of:-				
Share of results in a joint venture	241	318	-	-
Non-deductible expenses	166,917	178,483	136,859	141,826
Non-taxable income	(168,301)	(168,301)	(168,301)	(168,301)
Deferred tax assets not recognised	, , , , ,	,,,	,	, , , , , ,
during the financial year	_	153,579	_	153,579
Utilisation of deferred tax assets		200,070		200,070
previously not recognised	(321,719)	_	(321,719)	_
(Over)/Underprovision in the	(021,710)		(021,713)	
previous financial year	(360,000)	278,322	(360,000)	278,322
Income tax expense for the		506 200		500,000
financial year	-	596,322	-	596,322

Domestic income tax is calculated at the Malaysian statutory tax rate of 24% (2017 - 24%) of the estimated assessable profit for the financial year. The taxation of other jurisdictions is calculated at the rates prevailing in the respective jurisdiction.

For years of assessment 2017 and 2018, the Malaysian statutory tax rate will be reduced by 1% to 4%, based on the prescribed incremental percentage of chargeable income from business, compared to that of the immediate preceding year of assessment. The Group has accounted for the reduction in the tax rate in the current financial year, based on the percentage of increase in chargeable income of the Company and its subsidiaries.

No deferred tax assets are recognised for the following items:-

	The Group/T <b>2018</b> RM	he Company 2017 RM	
Accelerated capital allowances Unutilised tax losses	64,000 (10,000)	68,000 (1,432,000) (353,000)	
Other provisions	(430,000)		
	(376,000)	(1,717,000)	

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 24. CASH FLOW INFORMATION

The cash and cash equivalents comprise the following:-

	The Group			ompany
	<b>2018</b> RM	<b>2017</b> RM	<b>2018</b> RM	<b>2017</b> RM
Fixed deposits with a				
licensed bank	33,931,215	45,431,215	33,931,215	45,431,215
Cash and bank balances	4,957,370	4,192,971	2,436,581	1,672,125
	38,888,585	49,624,186	36,367,796	47,103,340
Less:- Fixed deposits with maturity				
of more than 3 months Fixed deposits pledged to a	(30,146,282)	(28,908,969)	(30,146,282)	(28,908,969)
licensed bank	(38,033)	(2,069,250)	(38,033)	(2,069,250)
	8,704,270	18,645,967	6,183,481	16,125,121

#### 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, joint venture, key management personnel and entities within the same group of companies.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS

The Group's activities are exposed to a variety of market risk (including foreign currency risk, interestrate 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 potentialadverse effects on the Group's financial performance.

#### FINANCIAL RISK MANAGEMENT POLICIES 26.1

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.

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.

#### 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.

Credit Risk Concentration Profile

The Group's major concentration of credit risk relates to the amount owing by a customer which constituted approximately 63% of its trade receivables as at the end of the reporting period.

#### MALAYSIAN GREEN TECHNOLOGY CORPORATION

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

#### (b) Credit Risk (Cont'd)

Exposure to Credit Risk

At the end of the reporting period, the maximum exposure to credit risk isrepresented 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).

#### 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 those financial assets are written off when there is no reasonable expectation of recovery (i.e. the debtor does not have assets or sources of income to generate sufficient cash flows to repay the debt) despite they are still subject to enforcement activities.

#### Trade Receivables

The Group applies the simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due.

The Group considers any receivables having financial difficulty or with significant balances outstanding for more than 365 days, are deemed credit impaired.

The expected loss rates are based on the payment profiles of sales over a period of 12 months from the measurement date and the corresponding historical credit losses experienced within this period.

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

#### FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

#### (b) Credit Risk (Cont'd)

(iii) Assessment of Impairment Losses (Cont'd)

Trade Receivables (Cont'd)

The information about the exposure to credit risk and the loss allowances calculated under MFRS 9 for both trade receivables and contract liabilities are summarised below:-

The Group	Gross Amount RM	Lifetime Loss Allowance RM	Carrying Amount RM
2018			
Current (not past due) 1 to 30 days past due 31 to 60 days past due 61 to 90 days past due more than 90 days past due	1,586,779 2,893,714 350,614 78,118 2,372,706	- - - -	1,586,779 2,893,714 350,614 78,118 2,372,706
	7,281,931	-	7,281,931

In the last financial year, the loss allowance on trade receivables was calculated under MFRS 139. The ageing analysis of trade receivables is as follows:-

The Group	Gross Amount RM	Individual Impairment RM	Collective Impairment RM	Carrying Amount RM
2017				
Not past due	846,327	-	-	846,327
Past due: less than 3 months 3 to 6 months over 6 months	836,799 1,088,503 437,755	- - -	- - -	836,799 1,088,503 437,755
	3,209,384	-	-	3,209,384

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

#### FINANCIAL RISK MANAGEMENT POLICIES (CONT'D)

#### (b) Credit Risk (Cont'd)

#### (iii) Assessment of Impairment Losses (Cont'd)

Other Receivables

Other receivables are also subject to the impairment requirements of MFRS 9, the identified impairment loss was immaterial and hence, it is not provided for.

Fixed Deposits with Licensed Banks, Cash and Bank Balances

The Group considers these banks and financial institutions have low credit risks. Therefore, the Group is of the view that the loss allowance is immaterial and hence. it is not provided for.

Amount Owing By Subsidiaries

The Company applies the general approach to measuring expected credit losses for all inter-company balances. Generally, the Company considers loans and advances to subsidiaries have low credit risks. The Company assumes that there is a significant increase in credit risk when a subsidiary's financial position deteriorates significantly. As the Company is able to determine the timing of payments of the subsidiaries' loans and advances when they are payable, the Company considers the loans and advances to be in default when the subsidiaries are not able to pay when demanded. The Company considers a subsidiary's loan or advance to be credit impaired when the subsidiary is unlikely to repay its loan or advance in full or the subsidiary is continuously loss making or the subsidiary is having a deficit in its total equity.

The Company determines the probability of default for these loans and advances individually using internal information available.

#### Liquidity Risk

Liquidity risk arises mainly from general funding and business activities. The Group practises prudent risk management by maintaining sufficient cash balances which majority funds are granted by government.

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

#### 26.1 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:-

The Group 2018	Carrying Amount RM	Contractual Undiscounted Cash Flows RM	Withint 1 Year RM
Non-derivative Financial Liabilities Trade payables Other payables and accruals Amount owing to a related party	5,711,202 3,384,731 14,840	5,711,202 3,384,731 14,840	5,711,202 3,384,731 14,840
	9,110,773	9,110,773	9,110,773
2017			
Non-derivative Financial Liabilities Trade payables Other payables and accruals Amount owing to a related party	10,689,990 2,344,588 14,840	10,689,990 2,344,588 14,840	10,689,990 2,344,588 14,840
	13,049,418	13,049,418	13,049,418
The Company			
2018			
Non-derivative Financial Liabilities Trade payables Other payables and accruals Amount owing to a related party	5,656,713 3,366,359 14,840	5,656,713 3,366,359 14,840	5,656,713 3,366,359 14,840
	9,037,912	9,037,912	9,037,912
2017			
Non-derivative Financial Liabilities Trade payables Other payables and accruals Amount owing to a related party	10,635,501 2,322,216 14,840	10,635,501 2,322,216 14,840	10,635,501 2,322,216 14,840
	12,972,557	12,972,557	12,972,557

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#### NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

#### 26.2 CAPITAL RISK MANAGEMENT

The Group defines capital as the total equity and debt of the Group. The objective of the Group's capital management is to maintain an optimal capital structure and ensuring availability of funds in order to support its businesses and related shareholders value. To achieve this objective, the Group may make adjustments to the capital structure in view of changes in economic conditions, such as adjusting the returning of capital to shareholders or issuing new shares.

The Group monitors and maintains a prudent level of total debt to total equity ratio to optimise shareholders value and to ensure compliance with debt covenants and regulatory, if any.

As the Group does not have any external borrowings, the debt-to-equity ratio is not presented as it does not provide a meaningful indicator of the risk of borrowings.

#### 26.3 CLASSIFICATION OF FINANCIAL INSTRUMENTS

	The Group RM	The Company
Financial Asset		
Amortised Cost Trade receivables Other receivables Amount owing by subsidiaries Fixed deposits with licensed banks Cash and bank balances	7,281,931 69,916 - 33,931,215 4,957,370	7,168,142 69,916 506,340 33,931,215 2,436,581
	46,240,432	44,112,194
Financial Liability		
Other Financial Liabilitiest Trade payables Other payables and accruals Amount owing by a related party	5,711,202 3,384,731 14,840 9,110,773	5,656,713 3,366,359 14,840 9,037,912

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

#### CLASSIFICATION OF FINANCIAL INSTRUMENTS (CONT'D)

	2017	
	The Group RM	The Company RM
Financial Asset		
Loan and Receivables Financial Assets		
Trade receivables	3,209,384	3,095,595
Other receivables	70,055	70,055
Amount owing by subsidiaries	-	377,154
Fixed deposits with licensed banks	45,431,215	45,431,215
Cash and bank balances	4,192,971	1,672,125
	52,903,625	50,646,144
Financial Liability		
Other Financial Liabilitiest		
Trade payables	10,689,990	10,635,501
Other payables and accruals	2,344,588	2,322,216
Amount owing by a related party	14,840	14,840
	13,049,418	12,972,557

#### 26.4 GAINS ARISING FROM FINANCIAL INSTRUMENTS

Financial Asset	The Group/ The 2018 RM	Company 2017 RM
Amortised Cost Net gain recognised in profit or loss	2,260,057	-
<u>Loans and Receivables Financial Asset</u> Net gain recognised in profit or loss	-	1,360,508

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#### **NOTES TO THE FINANCIAL STATEMENTS** FOR THE FINANCIAL YEAR 31 DECEMBER 2018

#### 26. FINANCIAL INSTRUMENTS (CONT'D)

#### 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.

#### 27. COMPARATIVE FIGURES

The following figures have been reclassified to conform with the presentation of the current financial

	As Previously Reported RM	As Restated RM
The Group	TCIVI	IXIVI
Statement of Comprehensive Income and Other		
Operating Income (Extract)	50 510 470	7.645.050
Revenue Cost of sales	56,513,476	7,645,959
Other income	(48,589,831) 2,061,761	(4,395,863) 50,929,278
Administrative expenses	(9,495,524)	(53,689,492)
	As Previously	As
	Reported	Restated
The Company	RM	RM
The Company		
Statement of Comprehensive Income and Other Operating Income (Extract)		
Revenue	55,978,753	7,111,236
Cost of sales	(48,269,627)	(4,075,659)
Other income	2,061,761	50,929,278
Administrative expenses	(9,128,268)	(53,322,236)
Statement of Cash Flows (Extract)		
Net Cash from Operating Activities	9,840,341	7,125,177
Net Cash (for)/from Investing Activities	(44,855)	170,309
Net Cash for Financing Activities	(2,748,013)	(248,013)



