



**KEJURUTERAAN ASASTERA BERHAD**

*One-Stop Engineering & Energy Solutions Provider*

# ANNUAL REPORT 2022



# TABLE OF CONTENTS

## 1 THE MANAGEMENT

- 2 Corporate Milestones
- 5 Corporate Information
- 6 Corporate Structure

## 2 KEY MESSAGES

- 5 Board of Directors
- 10 Profile of Directors
- 17 Other Information
- 18 Profile of Key Senior Management

## 3 PERFORMANCE REVIEW

- 24 Group Managing Director Statement
- 28 Management Discussion & Analysis

## 4 CORPORATE GOVERNANCE

- 34 Five-Year Group Financial Highlights
- 35 Share Performance Highlights
- 36 Regional Expansion
- 38 Corporate Events

## 5 FINANCIAL STATEMENTS

- 40 Sustainability Statement
- 72 Event Highlights
- 76 Corporate Governance Overview Statement
- 98 Audit Committee Report
- 102 Statement on Risk Management and Internal Control
- 105 Additional Compliance Information
- 108 Statement on Directors' Responsibility

## 6 OTHER INFORMATION

- 109 Financial Statements
- 214 List of Properties
- 219 Shareholdings Statistics
- 224 Notice of Fully Virtual Annual General Meeting Proxy Form
- 233 Administrative Guide



SCAN QR CODE  
to download our Annual Report 2022 and  
Sustainability Report 2022





# Corporate Milestones

1997

Established on 24 February 1997 as a private limited company.

Registered with Energy Commission Malaysia as a Class A electrical contractor.

1998

- Registered with the CIDB as a Grade 'G7' license holder.
- Secured first project for electrical engineering services for residential apartments at Ampang, Selangor.

1999

Accredited with the BS EN ISO 9001:2008 certificate by NQA Certification Services (M) Sdn. Bhd.

2008

2010

- Secured first refurbishment project at UE3 Shopping Mall.
- Expanded into provision of mechanical engineering services.

Secured first Fiber To The Home (FTTH) project at TTDI Adina at Shah Alam, Selangor.

2012

Secured first contract for ELV services at UniKL Malaysia Institute of Aviation Technology Campus, Subang, KL.

2014

Secured Mechanical and Electrical ("M&E") contract valued at MYR41.4 million for EkoCheras, Cheras, KL.

2016

Listed on the ACE Market of Bursa Malaysia Securities Berhad ("Bursa Securities") on 17 November 2017.

2018

- Secured M&E contract valued at MYR46.0 million for Metropolis Project.
- Ventured into Sustainable Energy Solutions ("SES") business.

2017

2022

- Issued Tranche 1 Sukuk Murabahah for MYR20.0 million with financial guarantee of Danajamin Nasional Berhad.
- KAB Telco Sdn. Bhd., a wholly owned subsidiary of KAB to build and operate telecommunication towers.
- Signed Sales Purchase Agreement to acquire an 11.0 MW hydroelectric power plant in North Sumatera, Indonesia.
- Secured a 3.4 MW solar project with Nextgreen Pulp & Paper Sdn. Bhd. to kickstart the development of a Green Technology Park at Pekan, Pahang.
- Diversified into SES with shareholders' approval on 17 November 2022.

2020

- Transferred to Main Market of Bursa Securities on 28 August 2020.
- Value of total M&E projects secured hit MYR1.0 billion mark.
- Market cap hit MYR1.0 billion during transfer listing to the Main Market of Bursa Securities.
- Making headway in sustainability agenda development.

2021

- Completed the acquisition of the entire equity interest in Dynagen Power (M) Sdn. Bhd. to supply 2.2 megawatt ("MW") power.
- Listed on FBM EMAS Index in July.
- Secured 3 out of 4 Stars in FTSE Russell ESG Ratings December Assessment.
- Lodged a Multi-Currency Islamic Medium Term Notes Programme of up to MYR500.0 million in nominal value based on the Principle of Murabahah (via Tawarruq Arrangement) ("Sukuk Murabahah").

2023

- Certified with Occupational Health & Safety Management ISO 45001: 2018 and Environmental Management System ISO 14001: 2015.
- Secured MYR230.0 million EPCC contract from Sipitang Utilities Sdn. Bhd. ("SUSB"), formerly known as Regas Terminal (Lahad Datu) Sdn. Bhd. ("RGTLD"), a wholly owned subsidiary of PETRONAS Gas Berhad ("PGB") to develop a 52.0 MW power plant and its associated facilities in Sabah ("SUSB Power Plant").
- KAB Energy Holdings Sdn. Bhd. has assumed the role of technical partner to co-own and co-develop the SUSB Power Plant.

# Corporate Milestones



# Who We Are

## ONE-STOP ENGINEERING & ENERGY SOLUTIONS PROVIDER

Founded in 1997, Kejuruteraan Asastera Berhad ("KAB") is listed on the main market of Bursa Malaysia Securities Berhad, is a Malaysia-based electrical and mechanical engineering company. KAB underwent significant growth through its subsidiary business expansions and diversified into Sustainable Energy Solutions ("SES") on 17 November 2022. Now transformed and recognised as a leading One-Stop Engineering & Energy Solutions Provider.

KAB is registered under the Construction Industry Development Board (CIDB) with a Grade 7 and Suruhanjaya Tenaga with a Class A. Our engineering expertise encompasses all aspects of electrical, mechanical, and associated engineering services, for both commercial and residential buildings. Established with a comprehensive project portfolio spanning over twenty-five (25) years' experience.

At present, KAB has transformed into various segments which includes the provision of Energy Efficient Solutions, Clean Energy Generation, and Renewable Energy Generation. The Group succeeded in its transformation into a One-Stop Engineering and Energy Solutions Provider in the industry.

1

We are a **Constituent** of **FTSE Bursa Malaysia EMAS Index**

2

We have secured **3 out of 4 Stars** ESG Ratings **FTSE Russell Assessment in 2021 & 2022**

### Vision

To excel as a one-stop engineering & energy solutions provider.

### Mission

To continuously improve our engineering competencies to new heights while reducing global carbon footprint by providing a cleaner and greener alternative which promotes a more efficient use of energy.

Our Transformational Journey has begun...

# Corporate Information

## BOARD OF DIRECTORS

### Datuk Dr. Ong Peng Su

Male, Malaysian, Company Director  
Independent Non-Executive Chairman

### Dato' Lai Keng Onn

Male, Malaysian, Company Director  
Group Managing Director

### Choong Gaik Seng

Male, Malaysian, Company Director  
Executive Director (Competent/QC Division)

### Datin Alicia Chan Pey Kheng

Female, Malaysian, Company Director  
Executive Director (Group Chief Operation Officer)

### Goh Kok Boon

Male, Malaysian, Company Director  
Executive Director (Project/Contract Division)

### Lu Chee Leong

Male, Malaysian,  
Chartered Accountant  
Independent Non-Executive Director

### Tong Siut Moi

Female, Malaysian,  
Chartered Secretary  
Independent Non-Executive Director

### AUDIT COMMITTEE

**Lu Chee Leong** (Chairman)  
Independent Non-Executive Director

**Datuk Dr. Ong Peng Su** (Member)  
Independent Non-Executive Chairman

**Tong Siut Moi** (Member)  
Independent Non-Executive Director

### REMUNERATION COMMITTEE

**Tong Siut Moi** (Chairperson)  
Independent Non-Executive Director

**Lu Chee Leong** (Member)  
Independent Non-Executive Director

### NOMINATING COMMITTEE

**Tong Siut Moi** (Chairperson)  
Independent Non-Executive Director

**Lu Chee Leong** (Member)  
Independent Non-Executive Director

### RISK MANAGEMENT COMMITTEE

**Lu Chee Leong** (Chairman)  
Independent Non-Executive Director

**Dato' Lai Keng Onn** (Member)  
Group Managing Director

**Tong Siut Moi** (Member)  
Independent Non-Executive Director

### SUSTAINABILITY COMMITTEE

**Lu Chee Leong** (Chairman)  
Independent Non-Executive Director

**Datin Alicia Chan Pey Kheng** (Member)  
Group Chief Operation Officer

**Tong Siut Moi** (Member)  
Independent Non-Executive Director

### COMPANY SECRETARIES

**Chua Siew Chuan**  
SSM PC No. 201908002648  
(MAICSA 0777689)

**Cheng Chia Ping**  
SSM PC No. 202008000730  
(MAICSA 1032514)

### REGISTERED OFFICE

Level 7, Menara Milenium,  
Jalan Damanlela,  
Pusat Bandar Damansara,  
Damansara Heights,  
50490 Kuala Lumpur,  
Wilayah Persekutuan,  
Malaysia.

**Tel No.** : +603 2084 9000  
**Fax No.** : +603 2094 9940  
**Email** : jason.cheng@sshb.com.my

### HEAD/MANAGEMENT OFFICE

No. 18, Jalan Radin Bagus 9,  
Bandar Baru Sri Petaling,  
57000 Kuala Lumpur,  
Wilayah Persekutuan,  
Malaysia.

**Tel No.** : +603 9055 3812  
**Fax No.** : +603 9055 3912  
**Email** : asastera@asastera.com  
**Website** : www.asastera.com

### AUDITORS

Kreston John & Gan (AF: 0113)  
Unit B-10-8 Megan Avenue II,  
Jalan Yap Kwan Seng,  
50450 Kuala Lumpur,  
Wilayah Persekutuan,  
Malaysia.

**Tel No.** : +603 2381 2828  
**Email** : assurance@kreston.com.my

### PRINCIPAL BANKERS

AmBank (M) Berhad  
Level 36, Menara AmBank,  
No.8, Jalan Yap Kwan Seng,  
50450 Kuala Lumpur,  
Wilayah Persekutuan,  
Malaysia.

**Tel No.** : +603-2167 3000

Public Islamic Bank Berhad  
Menara Public Bank,  
146 Jalan Ampang,  
50450 Kuala Lumpur.

**Tel No.** : +603 2176 6000 /  
+603 2716 6666 /  
+603 2163 8888 /  
+603 2163 8899  
**Fax No.** : +603 2162 2224

United Overseas Bank  
(Malaysia) Berhad  
Level 7, Menara UOB,  
Jalan Raja Laut,  
50350 Kuala Lumpur,  
Wilayah Persekutuan,  
Malaysia.

**Tel No.** : +603 2772 6575  
**Fax No.** : +603 2691 2160

### SHARE REGISTRAR

Securities Services (Holdings) Sdn. Bhd.  
Level 7, Menara Milenium,  
Jalan Damanlela,  
Pusat Bandar Damansara,  
Damansara Heights,  
50490 Kuala Lumpur,  
Wilayah Persekutuan,  
Malaysia.

**Tel No.** : +603 2084 9000  
**Fax No.** : +603 2094 9940

### STOCK EXCHANGE

Main Market of Bursa Malaysia Securities Berhad

**Stock Name** : KAB  
**Stock Code** : 0193  
**Sector** : Industrial Products & Services



# Corporate Structure

As at 05.04.2023



KEJURUTERAAN ASASTERA BERHAD

Mechanical & Electrical Engineering

100% KAB M&E Sdn. Bhd.

51% Fortune Electrical Services Sdn. Bhd.

Sustainable Energy Solutions

100% KAB Energy Holdings Sdn. Bhd.

100% KAB Energy Power Sdn. Bhd.

100% KAB TGreen Energy Sdn. Bhd. (Formerly known as KAB Bintai Energy Sdn. Bhd.)

Telecommunication Infrastructure

100% KAB Telco Sdn. Bhd.

100% KAB Technologies Sdn. Bhd.

100% KAB Core Connect O&M Services Sdn. Bhd.

100% KAB Smart Solar Energy Sdn. Bhd.

100% Genplan Advisory & Management Sdn. Bhd.

100% Z Energy Power Sdn. Bhd.

10% Sipitang Utilities Sdn. Bhd. (Formerly known as Regas Terminal (Lahad Datu) Sdn. Bhd.)

100% KAB Carewell O&M Services Sdn. Bhd.

100% KIEV CRG Sdn. Bhd.

100% Dynagen Power (M) Sdn. Bhd.

100% KAB Integrated Networks Sdn. Bhd.

70% Significant Technologies Sdn. Bhd.

89% KAB Technologies (Thai) Co., Ltd.

100% Econergy Plus Sdn. Bhd.

80% KAPT Unified Engineering Solutions Sdn. Bhd.

60% TVT Link Tech Solutions Sdn. Bhd.

80% Mayang Hijau Sdn. Bhd.

100% KAB Gree Solar Sdn. Bhd.

49.997% Energy Optimization (Thai) Co., Ltd.

98% KAB Gree Solar Thai Co., Ltd.

Others

70% KAB Robotic and Automation Solutions Sdn. Bhd.

100% Eliq Management Sdn. Bhd.

100% KAB (HK) Investment Co., Ltd.

100% KAB Signature Management Sdn. Bhd.

100% iSense Sdn. Bhd.

100% V-Tez Intelligent Solutions (V) Co., Ltd.

# Corporate Structure

As at 05.04.2023



# Board of Directors

# Board of Directors

**DATUK DR. ONG PENG SU**  
Independent Non-Executive  
Chairman



**CHOONG GAIK SENG**  
Executive Director  
(Competent/QC Division)



**DATO' LAI KENG ONN**  
Group Managing Director



**DATIN ALICIA CHAN PEY KHENG**  
Executive Director  
(Group Chief Operation  
Officer)



**LU CHEE LEONG**  
Independent Non-Executive  
Director



**TONG SIUT MOI**  
Independent Non-Executive  
Director



**GOH KOK BOON**  
Executive Director  
(Project/Contract Division)





# Profile of Directors



**DATUK DR. ONG PENG SU**  
Independent Non-Executive  
Chairman

**Malaysian, aged 69, Male**

**Date of appointment as Director:**

15 April 2021

**Length of service as director since appointment:**

2 years

**Board Committee(s) Membership:**

- Member of Audit Committee

**Academic/Professional Qualification(s):**

Datuk Dr. Ong graduated with First Class Honours Bachelor of Science in Electrical and Electronic Engineering from the University of Strathclyde, Scotland in 1976. Subsequently, he was conferred the degree of Doctor of Philosophy (PHD) in 1982.

**Present Directorship(s) in other Public Companies and Listed Companies:**

Datuk Dr. Ong does not hold any directorship in other public companies and listed corporations.

**Working experience:**

Datuk Dr. Ong started his career in the energy industry at Tenaga Nasional Berhad (TNB) from 1974 to 1990. In 1990, he joined Tanjong PLC Group as a technical manager and was later seconded to Usaha Tegas Sdn. Bhd. Group as the Head of Corporate Planning and Investment from 1995 to 2001. Since 1993, Datuk Dr. Ong was appointed to the Board of Powertek Berhad and served as an Executive Director from 2001 until 2009. In 2009, he assumed the role of Chief Executive Officer and Executive Director of Powertek Energy Sdn. Bhd.. He resigned as the Executive Director from Powertek Energy Sdn. Bhd. in 2012 but remained as the Chief Executive Officer until he retired in 2015.

Datuk Dr. Ong sat on the board of several associated companies of Powertek Energy Group and held various non-executive directorships in companies in Powertek Energy Group within and outside of Malaysia.

Datuk Dr. Ong was the President of the Association of the Independent Power Producers. He was nominated for The Asia Business Leader Awards 2005 by CNBC. He served as a Commissioner with Energy Commission, Malaysia from 15 March 2016 to 31 August 2016 and 1 November 2018 to 6 May 2020.

In 2021, Datuk Dr. Ong joins the corporate board of Kejuruteraan Asastera Berhad as the Independent Non-Executive Chairman with over 35 years of accumulated local and global experience and operational leadership.

**Time Committed:**

Board meetings' attendance in year 2022 : 6/6

# Profile of Directors



**DATO' LAI KENG ONN**  
Group Managing Director

**Malaysian, aged 54, Male**

**Date of appointment as Director:**

24 February 1997

**Length of service as director since appointment:**

26 years 2 months

**Board Committee(s) Membership:**

- Member of Risk Management Committee

**Academic/Professional Qualification(s):**

Dato' Lai obtained a Bachelor of Science in Construction Management from Greenwich University, Australia in 2002.

**Present Directorship(s) in other Public Companies and Listed Companies:**

Dato' Lai does not hold any directorship in other public companies and listed corporations but holds directorships in several other private limited companies.

**Family relationship with any Director and/or major shareholder of the Company**

Dato' Lai is a major shareholder of the Company.

He is the spouse of Datin Alicia Chan Pey Kheng, the Executive Director of the Company.

**Working experience:**

Dato' Lai started his career as a project manager at Wira Teknik Sdn. Bhd. from 1990 to 1996. On 24 February 1997, he founded Kejuruteraan Asastera Sdn. Bhd..

His leading role as the Group Managing Director has ascended the Company from KLSE ACE Market, listed on 17 November 2017 to the Main Market of Bursa Malaysia Securities Berhad on 28 August 2020. Dato' Lai is also the founder of the power generation segment of KAB Group of Companies. The power generation business established since 2018 has augured well for the sustainable growth of the company. His exceptional management and dedicated commitment have driven the transformational journey for Kejuruteraan Asastera Berhad, which mission and vision to become a One-Stop Engineering and Energy Solutions Provider in the industry.

**Time Committed:**

Board meetings' attendance in year 2022 : 6/6



## Profile of Directors



**CHOONG GAI SENG**  
Executive Director  
(Competent/QC Division)

**Malaysian, aged 62, Male**

**Date of appointment as Director:**

1 March 2013

**Length of service as director since appointment:**

10 years 1 month

**Board Committee(s) Membership:**

None

**Academic/Professional Qualification(s):**

Mr. Choong completed his secondary school education at Penang Free School, Malaysia, in 1976.

He is a certified chargeman and wireman by profession, which is registered with the Energy Commission Malaysia.

In 2002, he obtained a chargeman A0 qualification from Institut Latihan Perindustrian, Malaysia, and subsequently in 2003, he obtained a wireman PW4 qualification from Institute Kemahiran Belia Negara, Malaysia. In 2008, he obtained a chargeman A4 qualification from Pusat Latihan Teknologi Tinggi, Malaysia.

**Present Directorship(s) in other Public Companies and Listed Companies:**

Mr. Choong does not hold any directorship in other public companies and listed corporations but holds directorships in several other private limited companies.

**Family relationship with any Director and/or major shareholder of the Company**

Mr. Choong is a shareholder of the Company.

**Working experience:**

Mr. Choong began his career as a purchaser for Limamas Sawmill Sdn. Bhd. in 1981. He joined Eden Catering Sdn. Bhd. in 1985 prior moving to Eden Food Industry in 1989. In 1991, Mr. Choong joined Tan Choong Industrial Equipment Sdn. Bhd. as the sales representative. He then joined Ikhtiar Bersatu Letrik Sdn. Bhd. in 1992 as a site supervisor before joining Prinsip Serasi Sdn. Bhd. in 2004.

Mr. Choong joined our Company in 2007 as project coordinator and he subsequently became an Executive Director in 2013.

**Time Committed:**

Board meetings' attendance in year 2022 : 6/6

## Profile of Directors



**DATIN ALICIA CHAN PEY KHENG**  
Executive Director  
(Group Chief Operation Officer)

**Malaysian, aged 50, Female**

**Date of appointment as Director:**

1 March 2018

**Length of service as director since appointment:**

5 years 1 month

**Board Committee(s) Membership:**

- Member of Sustainability Committee

**Academic/Professional Qualification(s):**

Datin Alicia obtained Sijil Pelajaran Malaysia in 1990.

**Present Directorship(s) in other Public Companies and Listed Companies:**

Datin Alicia does not hold any directorship in other public companies and listed corporations but holds directorships in several other private limited companies.

**Family relationship with any Director and/or major shareholder of the Company**

Datin Alicia is a shareholder of the Company.

She is the spouse of Dato' Lai Keng Onn, the Managing Director of the Company.

**Working experience:**

Datin Alicia began her career with Ritz Print Sdn. Bhd. in 1991 and her last position held in Ritz Print Sdn. Bhd. was the head of production department in 1995 prior to joining Kejuruteraan Asastera Berhad in August 1997.

Datin Alicia has more than 30 years of experience in overseeing the daily operations of the finance, administration and purchasing department.

**Time Committed:**

Board meetings' attendance in year 2022: 6/6



## Profile of Directors



**GOH KOK BOON**  
Executive Director  
(Project/Contract Division)

**Malaysian, aged 48, Male**

**Date of appointment as Director:**

1 September 2018

**Length of service as director since appointment:**

4 years 7 months

**Board Committee(s) Membership:**

None

**Academic/Professional Qualification(s):**

Mr. Goh graduated with a Bachelor of Applied Science (Honours) in Electrical Engineering from the University of Windsor, Canada, in 1999.

**Present Directorship(s) in other Public Companies and Listed Companies:**

Mr. Goh does not hold any directorship in other public companies and listed corporations but holds directorships in several other private limited companies.

**Family relationship with any Director and/or major shareholder of the Company**

Mr. Goh is a shareholder of the Company.

**Working experience:**

Mr. Goh began his career as project engineer with Selatan Johor Electrical Engineering Sdn. Bhd. in 2000 and subsequently joined Henikwon Corporation Sdn. Bhd. as a sales manager in 2001. In 2002, he joined Letrikon Engineering Sdn. Bhd., which is also an electrical engineering contractor, as general manager and he was subsequently promoted to the position of executive director from 2004. Then, he joined Hoe Huat Electric Sdn. Bhd. in 2009 as executive director. In 2012, he set up Kitchen On Wheels Sdn. Bhd. which later became dormant in 2013.

Mr. Goh joined ConnectCounty Holdings Berhad as an executive director from August 2014 to August 2016 prior to joining Kejuruteraan Asastera Berhad in October 2016 as project director.

**Time Committed:**

Board meetings' attendance in year 2022 : 6/6

## Profile of Directors



**LU CHEE LEONG**  
Independent Non-Executive  
Director

**Malaysian, aged 58, Male**

**Date of appointment as Director:**

30 May 2017

**Length of service as director since appointment:**

5 years 11 months

**Board Committee(s) Membership:**

- Chairman of Audit Committee
- Chairman of Risk Committee
- Member of Nominating Committee
- Member of Remuneration Committee
- Chairman of Sustainability Committee

**Academic/Professional Qualification(s):**

Mr. Lu obtained his Association of Chartered Certified Accountants ("ACCA") qualification in 1989. He has been a fellow member of the ACCA since 1995. He is also a Chartered Accountant of the Malaysian Institute of Accountants since 1996.

**Present Directorship(s) in other Public Companies and Listed Companies:**

- Mikro MSC Berhad

**Working experience:**

In 1990, Mr. Lu joined Kassim Chan & Co., Kota Kinabalu (now known as Deloitte Malaysia) as an audit assistant. He left as an audit senior and subsequently joined Luyang Recreation Club Sdn. Bhd. as an accountant in 1995 and in 1997, he joined DiGi Telecommunications Sdn. Bhd. as an accountant. His last position in DiGi Telecommunications Sdn. Bhd. was the head of section (GTM), Sabah region, under the sales division of the company. Then he left DiGi Telecommunications Sdn. Bhd. at the end of 2014 and started his own corporate services firm named Johan Corporate Services in early 2015, where he provided bookkeeping and related services to customers.

**Time Committed:**

Board meetings' attendance in year 2022: 6/6



## Profile of Directors



### TONG SIUT MOI

Independent Non-Executive Director

Malaysian, aged 53, Female

#### Date of appointment as Director:

30 May 2017

#### Length of service as director since appointment:

5 years 11 months

#### Board Committee(s) Membership:

- Chairperson of Nominating Committee
- Chairperson of Remuneration Committee
- Member of Audit Committee
- Member of Risk Committee
- Member of Sustainability Committee

#### Academic/Professional Qualification(s):

Ms. Tong obtained her professional secretarial degree from the Institute of Chartered Secretaries and Administrators (United Kingdom) and was admitted as an Associate Member of the Malaysian Association of Institute of Chartered Secretaries and Administrators (MAICSA) in 1996. She has subsequently become a qualified Chartered Secretary since 1998. Ms. Tong has also completed the Advanced Women Directors' Programme in December 2015 and is now a member of the Institute of Corporate Directors Malaysia.

#### Present Directorship(s) in other Public Companies and Listed Companies:

- Niche Capital Emas Holdings Berhad
- Paragon Union Berhad

#### Working experience:

Ms. Tong has more than 28 years of working experience in the corporate secretarial advisory field and senior management level, gathered from both commercial and advisory environments. She is currently an Executive Director of CKM Advisory Sdn. Bhd., a company focusing on providing specialised training to the Board of Directors and senior management of public listed companies, investment bankers and company secretaries, in relation to Bursa Securities' Main and ACE Markets Listing Requirements.

#### Time Committed:

Board meetings' attendance in year 2022 : 6/6

## Other Information

### A. FAMILY RELATIONSHIP

Save for Datin Alicia Chan Pey Kheng who is the spouse of Dato' Lai Keng Onn, none of the Directors have any family relationship with any Director and/or major shareholder of Kejuruteraan Asastera Berhad ("KAB" or "the Company").

### B. CONFLICT OF INTEREST

None of the Directors have any conflict of interest with the Company.

### C. CONVICTION OF OFFENCES

Other than traffic offences, none of the Directors have been convicted for any offences within the past five (5) years and particulars of any public sanction or penalty imposed by the relevant regulatory bodies during the financial year.

### D. DIRECTORSHIP IN OTHER PUBLIC COMPANIES AND LISTED ISSUERS

Except for Mr. Lu Chee Leong and Ms. Tong Siut Moi, none of the Directors hold any directorships in other public companies and listed issuers.

### E. DIRECTORS' ATTENDANCE FOR BOARD MEETINGS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2022 ("FY2022")

The Directors' attendance for the Board Meetings for the FY2022 is presented on page 88 of the Annual Report.

### F. DIRECTORS' SHAREHOLDINGS

Except for Dato' Lai Keng Onn, Datin Alicia Chan Pey Kheng, Mr. Choong Gaik Seng and Mr. Goh Kok Boon, none of the Directors hold any shares, direct or indirect in the Company. The shareholdings of Dato' Lai Keng Onn, Datin Alicia Chan Pey Kheng, Mr. Choong Gaik Seng and Mr. Goh Kok Boon are disclosed in page 220 of the Annual Report.



# Profile of Key Senior Management



**HOON SIEW YEN**

Group Chief Financial Officer  
(Group CFO)

Malaysian, aged 53, Female

## Date first appointed to the Key Senior Management position:

24 March 2020

## Academic/Professional Qualification(s):

Ms. Hoon is a certified professional Chartered Accountant from the Malaysian Institute of Accountants in 2001 with a degree qualification in Business Accounting obtained from the University of Southern Queensland, Australia in 1992.

## Present Directorship(s) in other Public Companies and Listed Companies:

Ms. Hoon does not hold any directorship in other public companies and listed corporations.

## Family Relationship with any Director and/or major shareholder of the Company:

Ms. Hoon has no family relationship with any director and/or major shareholder of the Company.

## Working experience:

Ms. Hoon started her career in 1992 as an auditor at Ong & Wong and BDO Binder. Thereafter she ventured into a consulting role at BDO Consulting Sdn. Bhd. in 1995. Since 1996, she has served in various senior finance and accounting positions in both private entities and public listed companies.

Ms. Hoon was a group accountant, a senior finance manager and a financial controller. Her scope of work and responsibilities included to maintain fiscal discipline, to implement best financial structure practices, to provide solid analytical insights, to manage and to oversee the administration and operation of the finance and accounts department. Her last position was a senior finance manager at Damansara Utama Realty Sdn. Bhd. before she left in August 2019.

With over 28 years of experiences, Ms. Hoon is highly experienced in directing audit, financial management, operational finance, corporate finance, treasury, and strategy and business planning.

## Disclosure on Conflict of Interest and Conviction for Offences (if any):

Ms. Hoon does not hold any shares, direct or indirect in the Company. She has no conviction for any offences within the past five (5) years (other than traffic offences, if any) and there was no public sanction or penalty imposed by the relevant regulatory bodies during the financial year.

## ESG/Sustainability Initiatives:

- Member of Sustainability Team

# Profile of Key Senior Management



**CHIN SZE HOW**

Divisional Chief Financial Officer  
(Divisional CFO)

Malaysian, aged 33, Male

## Date first appointed to the Key Senior Management position:

1 March 2022

## Academic/Professional Qualification(s):

Mr. Chin is a certified professional Chartered Accountant, a member of the Malaysian Institute of Accountants (MIA) and a fellow of the Association of Chartered Certified Accountants (FCCA) with a degree qualification in Accounting and Finance obtained from Sheffield Hallam University, United Kingdom.

## Present Directorship(s) in other Public Companies and Listed Companies:

Mr. Chin does not hold any directorship in other public companies and listed corporations.

## Family Relationship with any Director and/or major shareholder of the Company:

Mr. Chin has no family relationship with any director and/or major shareholder of the Company.

## Working experience:

Mr. Chin started his career in 2013 as an auditor at Grant Thornton Malaysia. Throughout his career as an auditor for more than 7 years, he had gained vast exposure in audit and assurance, listings, corporate exercises and business advisory and consulting involving both local and international companies, private and public listed companies covering a broad spectrum of industries including construction, manufacturing, trading, energy, logistics, agricultures, education, public utility, real estates, automotive, tourism, brokers, services, printing, packaging and digital.

Thereafter, he led the Business Process Services and Global Mobility Services Division at Grant Thornton Malaysia as a Director in 2019, which he specialised in financial reporting advisory, outsourcing, budgeting, cost management, business operation management and global mobility services.

Mr. Chin joined KAB in March 2022 as Financial Controller and was subsequently promoted as the Divisional Chief Financial Officer in October 2022. He oversees reporting and compliance, corporate finance, corporate exercise, merger & acquisitions, strategy and business planning.

## Disclosure on Conflict of Interest and Conviction for Offences (if any):

Mr. Chin does not hold any shares, direct or indirect in the Company. He has no conviction for any offences within the past five (5) years (other than traffic offences, if any) and there was no public sanction or penalty imposed by the relevant regulatory bodies during the financial year.



## Profile of Key Senior Management



**LEE YEE LOOI**  
General Manager  
(Corporate & HR)

**Malaysian, aged 44, Female**

### Date first appointed to the Key Senior Management position:

1 June 2015

### Academic/Professional Qualification(s):

Ms. Lee graduated with a Bachelor of Business (International Business Management/Human Resource Management) from Charles Sturt University, Australia in 2001.

### Present Directorship(s) in other Public Companies and Listed Companies:

Ms. Lee does not hold any directorship in other public companies and listed corporations.

### Family Relationship with any Director and/or major shareholder of the Company:

Ms. Lee has no family relationship with any director and/or major shareholder of the Company.

### Working experience:

Ms. Lee began her career in Patimas Computers Berhad with administrative roles since 2001. She was later employed at Ann Joo Steel Berhad to assume full responsibilities for administrative duties including export division handling sales agreements, shipping, banking arrangement and secretarial duties.

Since 2007, Ms. Lee decided to take the move from supervising administration work into human resource management as well as the quality management. She has formerly served as a personal assistant or executive secretary to the managing directors, superintended entire human resource department and general administrative duties.

Ms. Lee has over the years gained extensive experience in corporate administration, secretarial and human resources matters in different industries ranging from manufacturing, trading, oil and gas, assets management and construction industry.

Joined KAB in June 2015, Ms. Lee was appointed as the HR Manager and subsequently promoted as the General Manager of Corporate and Human Resource in June 2019. She was involved and contributed to KAB's Initial Public Offering ("IPO") and Main Market transfer success. Ms. Lee has assumed duties as the Head of Human Resource Department, perform corporate secretarial matters and she is also a member of KAB's working group for corporate exercises. Since October 2021, Ms. Lee has taken on the role to manage KAB's robotic division. Ms. Lee also has taken the role as the Head of Sustainability Team to lead the team on the Group's sustainability or ESG activities.

### Disclosure on Conflict of Interest and Conviction for Offences (if any):

Ms. Lee is a shareholder of KAB. She has no conviction for any offences within the past five (5) years (other than traffic offences, if any) and there was no public sanction or penalty imposed by the relevant regulatory bodies during the financial year.

### ESG/Sustainability Initiatives:

- Head of Sustainability Team
- Compliance Officer for Anti-Bribery and Anti-Corruption compliance matters

## Profile of Key Senior Management



**CHIN FAY FAY**  
General Manager  
(Finance and Account)

**Malaysian, aged 42, Female**

### Date first appointed to the Key Senior Management position:

1 June 2019

### Academic/Professional Qualification(s):

Ms. Chin obtained her LCCI in 2001.

### Present Directorship(s) in other Public Companies and Listed Companies:

Ms. Chin does not hold any directorship in other public companies and listed corporations.

### Family Relationship with any Director and/or major shareholder of the Company:

Ms. Chin has no family relationship with any director and/or major shareholder of the Company.

### Working experience:

Ms. Chin began her career in March 2006 with KL Tan Logistics Resources as an account cum human resource officer and was handling accounts and undertaking the role of human resources management.

During the year 2010 to 2015, Ms. Chin joined a few companies and was primarily responsible for overseeing accounting matters, consolidation, cash management, credit control and financial reporting.

Ms. Chin joined KAB in August 2015 as a senior accounts executive and was subsequently promoted to the position of General Manager (Finance & Account) in 2019, where she is responsible to oversee the preparation of accounts and financial reporting. She was involved and had contributed to KAB's IPO on ACE Market in 2017, as well as the transfer listing to Main Market in 2020. Ms. Chin is also a member of KAB's working group for corporate exercises.

### Disclosure on Conflict of Interest and Conviction for Offences (if any):

Ms. Chin is a shareholder of KAB. She has no conviction for any offences within the past five (5) years (other than traffic offences, if any) and there was no public sanction or penalty imposed by the relevant regulatory bodies during the financial year.



## Profile of Key Senior Management



**LAI CHUAN SHENQ**  
Director  
(Business Marketing)

Malaysian, aged 46, Male

### Date first appointed to the Key Senior Management position:

1 January 2020

### Academic/Professional Qualification(s):

Mr. Lai graduated with a Bachelor of Science Degree in Building Construction Management from University of Newcastle, Australia along with a HND Quantity Surveying from Nottingham Trent University in United Kingdom.

### Present Directorship(s) in other Public Companies and Listed Companies:

Mr. Lai does not hold any directorship in other public companies and listed corporations but holds directorships in several other private limited companies.

### Family Relationship with any Director and/or major shareholder of the Company:

Mr. Lai has no family relationship with any director and/or major shareholder of the Company.

### Working experience:

Mr. Lai was a Malaysian property development, construction, and stakeholder management specialist with expert commercial and technical experience across a range of building industries including quantum, contractual matters, corporate strategic strategies.

He has a proven track record with more than twenty (20) years of experience in improving sustainability through the corporate management and sales growth. He had established and managed a number of companies and subsidiaries in Thailand.

His skills and expertise include project management practices in property development, construction industries, engineering, procurement, installation, commissioning including operation and maintenance of solar PV projects in Malaysia and Thailand.

### Disclosure on Conflict of Interest and Conviction for Offences (if any):

Mr. Lai does not hold any share in the Company. He has no conviction for any offences within the past five (5) years (other than traffic offences, if any) and there was no public sanction or penalty imposed by the relevant regulatory bodies during the financial year.

## Profile of Key Senior Management



**JONATHAN WU JO-HAN**  
Director cum COO  
(SES Division)

Malaysian, aged 29, Male

### Date first appointed to the Key Senior Management position:

29 August 2019

### Academic/Professional Qualification(s):

Mr. Jonathan obtained a First-Class Honours Bachelor of Mechanical Engineering from University of Portsmouth, United Kingdom in 2016 and is also a Certified Energy Manager under AEMAS since 2019.

### Present Directorship(s) in other Public Companies and Listed Companies:

Mr. Jonathan does not hold any directorship in other public companies and listed corporations but holds directorships in several other private limited companies.

### Family Relationship with any Director and/or major shareholder of the Company:

Mr. Jonathan has no family relationship with any director and/or major shareholder of the Company.

### Working experience:

Mr. Jonathan has been an integral part of KAB Technologies Sdn. Bhd. since 2018. He graduated with First Class Honours in Bachelor of Mechanical Engineering from University of Portsmouth, United Kingdom in 2016 and holds a Certified Energy Manager certification from AEMAS since 2019.

With an impressive background in engineering, Jonathan started his career as a graduate project engineer in Mitraland Group, Malaysia. Here he was responsible for liaising and coordinating with consultants, contractors, and authorities to resolve technical matters and ensure delivery objectives were met. He then moved on to TecAlliance Malaysia as a lead data analyst where he identified and implemented solutions to improve data coverage through gap analysis across multiple data sources.

Since joining KAB Technologies Sdn. Bhd., Jonathan has been appointed as a director, and has played a pivotal role in the successful negotiation of key acquisitions and setting up the MYR500.0 million Sukuk Programme. He was also part of the working committee responsible for the successful transfer of KAB to the Main Market.

Currently, Jonathan is responsible for setting up subsidiary companies, as well as the Sustainable Energy Solutions Division. He holds directorships in several subsidiary companies under KAB and manages overall operations which include setting up overall strategy of the division, structure of operations, business development, project execution, operation of assets, feasibility assessment of projects, negotiation & execution of key contracts, financial planning, and financial projections.

With his expertise and experience in engineering, energy management, and corporate strategy, Jonathan continues to play a key role in the Sustainable Energy Solutions Division as well as several other subsidiary companies under KAB.

### Disclosure on Conflict of Interest and Conviction for Offences (if any):

Mr. Jonathan does not hold any share in the Company. He has no conviction for any offences within the past five (5) years (other than traffic offences, if any) and there was no public sanction or penalty imposed by the relevant regulatory bodies during the financial year.



## DEAR VALUED SHAREHOLDERS

I am pleased to present to you the Annual Report for Kejuruteraan Asastera Berhad (“KAB” or “the Company”) and its subsidiary companies (“the Group”) for the financial year ended 31 December 2022 (“FY2022”).

**DATO' LAI KENG ONN**  
Group Managing Director



## OVERVIEW

Heeding the call to fulfil increasing global demand for sustainable, cleaner and greener energy solutions,

## KAB HAS TODAY TRANSFORMED INTO A LEADING ONE-STOP ENGINEERING AND ENERGY SOLUTIONS PROVIDER. ▶

We have built a formidable culture of engineering excellence, with an aim to address the challenges posed by climate change through comprehensive clean energy, renewable energy and energy efficient solutions.

Our Sustainable Energy Solutions (“SES”) segment has made exponential progress since our initial foray in 2018. By leveraging on our in-depth technical expertise in Mechanical and Electrical (“M&E”) engineering, the Group has emerged as a reputed industry leader with robust capabilities and advanced experience in energy efficiency and engineering projects.

Furthermore, we have expanded regionally with presence in Malaysia and Thailand.

Additionally, the Group is in the process of acquiring a sustainable energy asset in Indonesia which will provide us a presence in Southeast Asia’s most populous nation, and is also exploring expansion into Vietnam and Hong Kong through our subsidiaries to capture regional growth opportunities.

## RECENT DEVELOPMENTS

### SES segment

The Group’s SES segment reached a major milestone by securing our largest-ever endeavour to date. Our wholly owned subsidiary, KAB Energy Holdings Sdn. Bhd. (“KABEH”), was awarded a MYR230.0 million Engineering, Procurement, Construction, and Commissioning (EPCC) contract on 30 December 2022 for PETRONAS Gas Berhad’s (“PGB”) 52.0 megawatt (“MW”) gas-fired power plant in Sabah.

We are eager to successfully deliver the project, which is targeted to complete in 2026 and will feature the country’s single largest gas engine power plant, as well as serve as a key energy source to PGB’s nearshore floating liquified natural gas facility in the Sipitang Oil and Gas Industrial Park.

In a further affirmation of our capabilities, KABEH acquired a stake in PGB’s subsidiary Sipitang Utilities Sdn. Bhd. (“SUSB”) (formerly known as Regas Terminal (Lahad Datu) Sdn. Bhd.) and effectively became a joint venture partner which will own, operate, and maintain the clean power plant project. Furthermore, KABEH was appointed as a technical partner to the project, which will leverage our expertise and experience in integrated SES solutions.



The Group is in the process of acquiring a **SUSTAINABLE ENERGY ASSET** in Indonesia which will provide us a presence in Southeast Asia’s most populous nation



**OUR WHOLLY OWNED SUBSIDIARY, KAB ENERGY HOLDINGS SDN. BHD.**

was awarded a **MYR230.0 MILLION**

Engineering, Procurement, Construction, and Commissioning contract





Moving forward, the Group will target more opportunities in the region to provide our expertise in the development of large-scale energy and engineering projects.


We are grateful to be selected as a joint venture partner with PGB, which is a strong recognition and vote of confidence in our solutions expertise, and we look forward to exploring more collaboration opportunities in support of PGB's long term sustainability goals.

Notably, the award of the major gas-fired power plant project to KABEH marks a pivotal milestone in our journey, demonstrating our prowess as a one-stop solutions provider for leading corporations. Moving forward, the Group will target more opportunities in the region to provide our expertise in the development of large-scale energy and engineering projects.

Furthermore, we are bullish about the prospects of our SES segment. In FY2022, we significantly expanded our SES portfolio, which encompasses solar power, co-generation and waste heat recovery, energy efficient solutions, in addition to upcoming hydroelectric power and biogas plants.

On the solar energy front, we developed three (3) solar system projects in Thailand and one (1) in Malaysia. We are also in the process of acquiring a solar energy provider in Malaysia, and developing multiple solar energy projects in Malaysia and Thailand.

**KAB REGISTERED RECORD HIGH REVENUE OF MYR187.0 MILLION** in FY2022.



The enhanced revenue represented a growth of 7.0% from MYR174.7 million in FY2021, driven by increased contribution from both the M&E engineering and SES segments.

### GROUP PERFORMANCE

I am pleased to announce that KAB registered record high revenue of MYR187.0 million in FY2022. The enhanced revenue represented a growth of 7.0% from MYR174.7 million in FY2021, driven by increased contribution from both the M&E engineering and SES segments.

The M&E engineering segment saw a modest improvement in revenue mainly due to higher project completion progress as construction activities increased post-movement control order. Notwithstanding this, the M&E engineering segment faced persistently high raw material prices in FY2022 which compressed profitability.

On the contrary, the SES segment experienced significant expansion in revenue in FY2022, on new contributions from a co-generation power plant in Negeri Sembilan acquired in end-2021, and solar photovoltaic systems in Malaysia and Thailand that commenced in early 2022.

The combined M&E engineering and SES orderbook expanded to MYR878.4 million as at 31 December 2022.

### CORPORATE EXERCISES

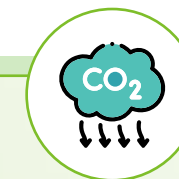
In light of the Group's strategic direction towards SES alongside its growing profit contribution and asset size, KAB proposed and obtained shareholders' approval to diversify the Group's business into the SES segment at an Extraordinary General Meeting on 17 November 2022. This enables the Group to seek further growth opportunities in the sustainable energy field.

Simultaneously, shareholders also approved a private placement exercise to issue up to 361.6 million new shares to fund our future growth and upcoming SES projects.

Additionally, we are pursuing the ongoing acquisition of a mini hydroelectric power plant asset in Indonesia that comes with an existing Power Purchase Agreement ("PPA") with the state utility provider, as well as our first biogas plant in our SES portfolio from a renewable energy solutions firm in Kedah.

### M&E Engineering Segment

The Group's M&E engineering segment continued to secure works in FY2022 and maintained a healthy orderbook of MYR204.0 million as at 31 December 2022, to be recognised until 2024.



## KAB'S NET ZERO COMMITMENT

**KAB commits to reduce Scope 1 & 2 emissions 42.0% by 2030 and 90.0% by 2050 from a 2021 base year**

### FUTURE OUTLOOK

Environmental sustainability is at the heart of our corporate identity, and forms as an integral part of our robust Environmental, Social, and Governance ("ESG") strategy. We disclosed our commitment to Net Zero in 2022, and we now have defined new targets of Scope One and Two emissions reduction of 42.0% by 2030 and 90.0% by 2050, from a 2021 base year.

In our future outlook, we foresee the SES segment continuing a strong growth trajectory. The Malaysia Renewable Energy Roadmap outlines the nation's plans to rely on renewable energy for 40.0% of its energy needs by 2035, compared to 23.0% in 2022, indicating plenty of room for expansion in this sector. Moreover, an increasing number of businesses are actively exploring our SES services to reduce their energy costs and advance their ESG goals.

Furthermore, public policies in most Southeast Asian countries are progressively more supportive of measures to transition from fossil fuels. ASEAN has set a goal of bringing the share of renewable energy in total primary energy supply to 23.0% by 2025. This bodes well for our plans to expand further into other Southeast Asian countries.

In tandem with the regional push towards sustainable energy use, we are ready to capture more opportunities, and are incurring significant capital expenditure of approximately MYR280.0 million over the next three years. These investments will go towards acquiring clean and renewable energy assets in Malaysia and regionally, as well as funding our gas-fired power plant project with PGB.

With our aggressive plans, the SES segment is expected to contribute more than half of the Group's profit moving forward, supported by higher recurring income from concession revenue.

As for the M&E engineering sector, we expect to benefit from enhanced construction industry conditions in 2023, with the sector forecasted to expand by 6.3% year-on-year due mainly to growth in industrial and residential construction. However, there remain challenges of labour shortages and higher raw material costs, which appear to be gradually easing in 2023.

We foresee firm demand for our M&E engineering services and will continue to tender for new projects to replenish our M&E engineering orderbook.

### APPRECIATION

I would like to express my sincere appreciation to our shareholders and business partners for their trust in KAB and the management's bold vision for the future. My gratitude also goes to KAB's directors, management, and all employees for their immense contributions towards our successful transformation and growth.

Together, we will nurture a sustainability-driven business with a strong regional presence for the benefit of future generations.

**Dato' Lai Keng Onn**  
Group Managing Director





## OVERVIEW

Kejuruteraan Asastera Berhad (“KAB” or “the Group”) is a leading One-Stop Engineering and Energy Solutions Provider, with specialised capabilities and technologies in Mechanical and Electrical Engineering (“M&E”) and Sustainable Energy Solutions (“SES”).

Founded in 1997, KAB has established itself as a reputed player in the M&E engineering services sector, having completed projects for prominent residential, industrial, and commercial developments.

The Group is well-regarded for its service reliability and quality, and possesses an excellent track record of meeting the project requirements of major developers and project owners. The Group has successfully secured MYR1.3 billion worth of M&E engineering projects to date.

In alignment with the global race towards more sustainable developments and technology adoption to combat climate change and cater to growing populations, KAB expanded its range of expertise into providing sustainable energy solutions in 2018. Its SES segment enables sustainable power generation and consumption through clean and renewable energy sources, in addition to energy efficient solutions.

The M&E engineering and SES segments serve a diverse range of clientele that have common interest in energy savings and optimisation in their projects, in addition to growing demands for innovative sustainable technologies that enhance performance in environmental health and energy conservation. The SES segment is supported by an experienced team of engineers with integrated expertise spanning design, implementation, operations, and maintenance of cutting-edge sustainable energy solutions for various industries.

KAB’s SES segment has a comprehensive range of technologies, with existing assets comprising co-generation and waste heat recovery plants, and solar photovoltaic (“PV”) systems. The Group also has ongoing acquisitions of a biogas plant and mini hydroelectric power plant, and will undertake the development and operations of a gas-fired power plant via a joint venture.

Apart from its core businesses of M&E Engineering and SES, KAB is also exploring opportunities in the telecommunications sector. The Group is a Network Facilities Provider (NFP) Licensee through its subsidiary Significant Technologies Sdn. Bhd. (“Sigtech”), which enables the Group to build, own and lease telecommunication towers, Inter Building Connection (IBC), and rooftop structures to telecommunication operators in Malaysia.

- M&E Engineering Services**
- High, low, and extra-low voltage electrical installations
  - Ventilation and air-conditioning systems
  - Security systems
  - Building services systems
  - Hospitality systems
  - Maintenance and services
  - Project inspection

- Sustainable Energy Solutions**
- Solar
  - Co-generation
  - Waste Heat Recovery
  - Gas-Fired Power Plant
  - Chiller Optimisation
  - Building Management System
  - Biogas/Biomass Energy
  - Hydroelectric Power

The Group’s M&E engineering segment recorded 3.6% higher revenue of RM173.8 million in the financial year ended 31 December 2022 (“FY2022”) compared to RM167.8 million in the previous financial year ended 31 December 2021 (“FY2021”).

## OPERATIONS REVIEW

### Mechanical and Electrical (M&E) Engineering

The Group’s M&E engineering segment recorded 3.6% higher revenue of MYR173.8 million in the financial year ended 31 December 2022 (“FY2022”) compared to MYR167.8 million in the previous financial year ended 31 December 2021 (“FY2021”), in line with increased progress of projects as construction activities improved to pre-movement control order levels. The segment remained the major contributor at 92.9% of group revenue in FY2022 versus 96.1% in FY2021.

However, the M&E segment’s profit declined to MYR3.7 million in FY2022 from MYR5.6 million in FY2021, due to weaker margins caused by volatile prices of key raw materials, namely copper and iron ore which are key raw materials in electrical engineering works.

The M&E segment completed twelve (12) projects in FY2022 with total project value of MYR129.0 million. Meanwhile, the segment’s order book stood at MYR204.0 million as at 31 December 2022, compared to MYR324.0 million as at end-2021.

### THE GROUP’S M&E ENGINEERING SEGMENT RECORDED

**3.6%**  
higher revenue of  
**MYR173.8 MILLION**

in the financial year ended 31 December 2022 (“FY2022”)



### THE SES ENGINEERING SEGMENT REVENUE SURGED

**64.7%** to  
**MYR11.2 MILLION**

in FY2022 from **MYR6.8 million** in FY2021



### Sustainable Energy Solutions (SES)

The SES segment’s revenue surged 64.7% to MYR11.2 million in FY2022 from MYR6.8 million in FY2021, on the back of maiden contributions from a newly acquired co-generation power plant in Negeri Sembilan, in addition to revenue from solar PV systems in Malaysia and Thailand that commenced in early 2022. As a result, the SES segment registered profit of MYR3.2 million in FY2022, turning around from an operating loss of MYR0.8 million in FY2021.

The segment’s profit contribution to the total profitable segments of the Group rose to 46.7% in FY2022 from an operating loss in FY2021. SES orderbook stood at MYR674.4 million as at 31 December 2022 from MYR157.0 million at end-2021, comprising a contract for the Engineering, Procurement, Construction and Commissioning (“EPC”) of a gas-fired power plant project in Sabah, ongoing concession assets, as well as new SES assets under acquisition.

The SES portfolio has six (6) concession assets as at 31 December 2022, namely a co-generation plant, a waste heat recovery plant, and four (4) solar PV systems.

In addition to power-generating assets, the Group also provides energy efficient solutions in the form of chiller optimisation. KAB currently manages fifteen (15) chiller optimisation projects in commercial buildings across Malaysia and Thailand.



## SES Concession Assets (as at 31 December 2022)

No.	Asset	Location	Concession Period
1	Co-generation Plant	Negeri Sembilan, Malaysia	2022-2030
2	Waste Heat Recovery Plant	Negeri Sembilan, Malaysia	2020-2030
3	Solar PV	Selangor, Malaysia	2021-2046
4	Solar PV	Rayong, Thailand	2022-2037
5	Solar PV	Rayong, Thailand	2022-2037
6	Solar PV	Chachengsao, Thailand	2022-2032

## SES Portfolio Capacity and Performance Indicators

Asset Type	Total Capacity			Energy Offset from the Grid (kWh)			GHG Emissions Mitigated (tCO <sub>2</sub> e)		
	2021	2022	%	2021	2022	%	2021	2022	%
Co-generation and Waste Heat Recovery Plants (Negeri Sembilan)	3,500 kW	3,500 kW	-	10,583,720	17,694,232	+67.2%	5,048	8,021	+58.9%
Solar PV Systems (Malaysia, Thailand)	1,580 kWp	4,533 kWp	+186.9%	214,572	5,051,780	+2,254.4%	125	2,955	+2,264.0%
Chiller Optimisation (Malaysia, Thailand)	N/A	N/A	-	1,768,570	1,234,511	-30.2%	1,034	722	-30.2%
<b>Total</b>	5,080 kW	8,033 kW	+58.1%	12,566,862	23,980,523	+90.8%	6,207	11,698	+88.5%

The Group's SES assets generated total energy of 23,980,523 kWh in FY2022, as well as displaced 11,698 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), representing an improvement of 90.8% and 88.5% respectively. With our expanding SES assets portfolio, we are projecting a 50% increase in both energy generation and greenhouse gas (GHG) emissions savings in the next year.



### THE GROUP'S SES ASSETS GENERATED TOTAL ENERGY OF

**23,980,523 kWh**

in FY2022, as well as displaced

**11,698 TONNES**

of carbon dioxide equivalent (tCO<sub>2</sub>e)

## SES Developments

The SES segment experienced significant progress in FY2022 with the acquisition of several new assets as well as new contracts secured.

The Group's subsidiary in Thailand, Energy Optimization (Thailand) Co., Ltd., developed three (3) solar power projects in Thailand with estimated aggregate capacity of 2,953.44 kWp in FY2022. The projects involved the construction, installation, operations, and maintenance of Grid-Connected Photovoltaic (GCPV) solar systems and come with Power Purchase Agreements with total estimated value of MYR22.7 million over a period of up to fifteen (15) years.

Additionally, KAB's subsidiary KAB Gree Solar Sdn. Bhd. entered into an agreement with MYDIN Mohamed Holdings Berhad ("MYDIN") on 12 April 2022 to develop, operate, and maintain a solar PV system in Kota Bahru, Kelantan, with an estimated capacity of 1,925.7 kWp. The solar PV system will generate and supply energy to MYDIN for twenty-one (21) years from its targeted operational commencement in the 2<sup>nd</sup> quarter of 2023.

The Group had also, on 29 July 2022, through its wholly-owned subsidiary KAB Energy Holdings Sdn. Bhd. ("KABEH") entered into a Share Sale Agreement with Sarawak Cable Berhad to acquire the latter's subsidiary PT Inpolo Mitra Elektrindo ("PT IME") together with its 11.0 megawatt ("MW") Kombih III mini hydroelectric power plant in Indonesia. PT IME has a twenty (20) year concession agreement to supply energy to state-owned utility company PT Perusahaan Listrik Negara, with estimated concession value of MYR227.0 million. The acquisition is targeted to complete in 2023.

Additionally, on 18 August 2022, KABEH entered into a Share Sale Agreement with Unique Forging & Components Sdn. Bhd. to acquire the entire equity stake of Matahari Suria Sdn. Bhd. ("MSSB") for a purchase consideration of MYR5.3 million. MSSB owns a solar PV system on the rooftop of Universiti Teknologi Malaysia Kuala Lumpur and has an ongoing power purchase contract to supply energy to Tenaga Nasional Berhad ("TNB") under a feed-in tariff concession until 2037. The acquisition is expected to complete in the 2<sup>nd</sup> quarter of 2023.

Subsequently, on 9 November 2022, KABEH proposed to acquire a 100% stake in Future Biomass Gasification Sdn. Bhd. ("FBG"), which owns a 2.4 MW biogas power plant in Kuala Ketil, Kedah for a consideration of MYR15.0 million. FBG commenced supply of power to TNB since 2018 under a Renewable Energy Power Purchase Agreement with estimated concession value of MYR41.9 million, which will be effective until 2034. The acquisition is targeted for completion in the 2<sup>nd</sup> quarter of 2023, and is the SES segment's 1<sup>st</sup> biogas power plant.

Further to that, on 14 November 2022, the Group through its wholly-owned subsidiary KAB Core Connect O&M Services Sdn. Bhd. entered into two (2) twenty (20) year solar PPAs with Nextgreen Pulp and Paper Sdn. Bhd. ("Nextgreen") to design, construct, install, own, operate, and maintain solar PV systems with total combined capacity of 3,387 kWp. The solar PV systems will be installed at Nextgreen's Green Technology Park in Pekan, Pahang. The PPAs are expected to contribute to KAB's financial performance in 2023, upon their completion within nine (9) months of installation commencement. The contracts with Nextgreen will pave the way for future collaborations in providing a wider range of SES expertise in its sustainable Green Technology Park, positioning KAB as an integral solutions provider to integrate renewable energy and zero-waste technology for sustainable industries in Malaysia.

With our growing expertise and experience in SES, the Group successfully secured our single largest SES project on 30 December 2022, as KABEH obtained a Letter of Award from Sipitang Utilities Sdn. Bhd. ("SUSB") (formerly known as Regas Terminal (Lahad Datu) Sdn. Bhd.), a wholly owned subsidiary of PETRONAS Gas Berhad ("PGB") for the EPCC of a 52.0 MW gas-fired power plant and its associated facilities in Sabah, with contract value of MYR230.0 million.

Additionally, KABEH signed a share purchase agreement with PGB on 9 February 2023 to acquire a 10.0% stake in SUSB, which is responsible for owning and undertaking the power plant project. KABEH also signed a shareholders' agreement with PGB to assume the role of technical partner in the joint venture. Upon the project's targeted completion in 2026, SUSB will commence supply of power to PGB's upcoming nearshore floating liquified natural gas facility in Sipitang, Sabah over a twenty (20) year concession period.



# Management Discussion & Analysis

## FINANCIAL OVERVIEW

Group revenue increased 7.0% to a record high of MYR187.0 million in FY2022 from MYR174.7 million FY2021. The improved topline performance was largely due to the SES segment's strong growth trajectory, on top of higher contribution from the M&E segment.

Gross profit amounted to MYR28.1 million in FY2022 versus MYR30.4 million in FY2021. The decline of 7.6% was attributed to higher raw material prices faced by the M&E segment, mitigated by increased SES contribution.

However, group net profit reduced 29.3% to MYR2.9 million in FY2022 from MYR4.1 million in FY2021, mainly due to cost of merger and acquisition activities for expansion, as well as higher finance costs in line with the Group's larger assets portfolio.

The Group's total assets rose to MYR286.9 million in FY2022 from MYR259.0 million in FY2021, mainly contributed by its growing SES portfolio and related concession assets. Total liabilities increased moderately to MYR149.9 million from MYR134.5 million previously, primarily due to higher borrowings and trade payables.

Shareholders' equity grew 10.0% to MYR137.0 million in FY2022 from MYR124.5 million in FY2021. The increase was primarily on account of issuance of 30.0 million new ordinary shares amounting to MYR9.8 million via private placements, in addition to higher retained earnings.

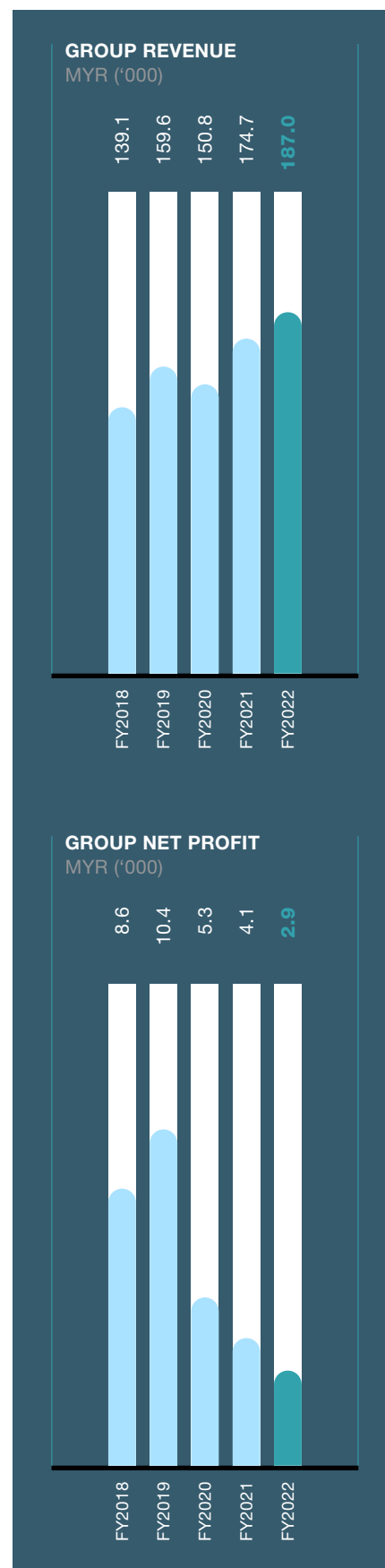
The Group's net gearing rose to 0.22 in FY2022 from 0.18 in FY2021 due to increased term loans related to the acquisitions and growing projects in the SES segment.

## CORPORATE EXERCISES

KAB had, on 11 October 2022, proposed a diversification plan of its business to include SES, as well as a private placement of up to 361.6 million new shares representing approximately 20.0% of its existing issued shares to independent third-party investors. The Group's shareholders approved the proposals at an Extraordinary General Meeting on 17 November 2022.

The diversification plan was announced in line with Bursa Malaysia listing requirements as the SES business is anticipated to contribute 25.0% or more of the Group's net profit, and/or result in a diversion of 25.0% or more of net assets moving forward. The approved diversification enables the Group to generate an additional source of income from SES on top of contribution from the M&E engineering business, and provides opportunities for expanded participation in the fast-growing renewable energy, clean energy and energy efficiency industries.

Meanwhile, the independent investors for the private placement and the placement issue price will be determined in future. Based on an illustrative issue price of MYR0.3705 and potential proceeds raised of MYR134.0 million, the Group intends to allocate MYR36.0 million for working capital purposes, MYR31.0 million for repayment of bank borrowings, MYR66.2 million for funding existing and future SES projects, and MYR0.8 million for estimated listing expenses. The Group had obtained approval from Bursa Malaysia for an extension of the private placement exercise for a period of six (6) months until 10 October 2023.



# Management Discussion & Analysis

## FUTURE OUTLOOK AND GROWTH

### Construction Sector Outlook

The Malaysian construction sector is expected to expand by 6.3% in 2023, continuing its growth trajectory following a rebound of 5.0% in 2022, supported by the implementation of mega-projects and growth in industrial and residential construction activities.

Notwithstanding the improved outlook, several challenges remain that could dampen the recovery of the construction sector. These include labour shortages which may hamper progress of construction activities, and higher cost of construction materials.

The M&E segment will continue to leverage on its strong track record to bid for more projects, and has a tender book of MYR357.6 million across a favourable mix of residential, commercial, and industrial building projects.

### SES Outlook

The SES segment is expected to remain the Group's rising star in the year ahead and is rapidly gaining reputation as a leading and technologically advanced solutions provider with regional reach.

The segment performance will be boosted by concession revenue from the ongoing acquisition of a biogas plant in Kuala Ketil, Kedah, as well as concession revenue from the ongoing acquisition of PT IME and its mini hydroelectric power plant in Indonesia.

Furthermore, KAB's joint investment and role as strategic technical partner with PGB for its 52.0 MW gas-fired power plant project in Sabah represents a significant recognition of the Group's capabilities to meet the advanced requirements of leading multinational corporations. The Group will also leverage its track record to pursue more large-scale SES projects.

Going forward, KAB will sustain the SES segment's momentum by targeting new clients and exploring potential opportunities across Southeast Asia, amid increasing demand for sustainable energy solutions as most countries in the region step up their commitment to greener energy.

Notably, the International Energy Agency estimates that the region will require annual investments of approximately USD180.0 billion by 2030 to meet its climate goals, substantially higher from an average of USD30.0 billion between 2016-2020. The vast investments required presents a positive outlook for the SES segment's future growth potential.

## RISKS

### Raw Material Price Volatility

Headwinds posed by high raw material prices could persist into 2023, with iron ore prices expected to remain elevated on the back of a recovering global economy in addition to China's economic and borders reopening. Copper prices are also expected to rise as manufacturing activity in China, the world's largest copper consumer, starts to return significantly.

KAB will endeavour to prudently manage the impact of high iron ore and copper prices, which are key raw materials for the M&E engineering segment. The Group closely monitors movements in commodity prices and engages with stakeholders to explore mitigating measures.

### Economic and Policy Risks

A weaker economic sentiment could pose a risk of slower capital deployment by governments and corporations.

Malaysia's real gross domestic product (GDP) growth is expected to slow to between 4.0% to 5.0% in 2023 from 8.7% in 2022, affected by a slowdown in the global economy and more restrictive credit conditions. However, the cautious growth in the Malaysian economy and expected improvements in the construction sector in 2023, as well as increasing demand for sustainable energy, will provide stable growth opportunities in both the M&E engineering and SES segments. The Group welcomes the Malaysian government's 2023 budget and believes it will help reinvigorate the country's economy after the economic fallout of the COVID-19 pandemic.

Meanwhile, Thailand's economy is expected to remain resilient with anticipated growth of 3.6% in 2023 compared to 2.6% in 2022, providing a conducive environment for more investments into sustainable energy solutions.

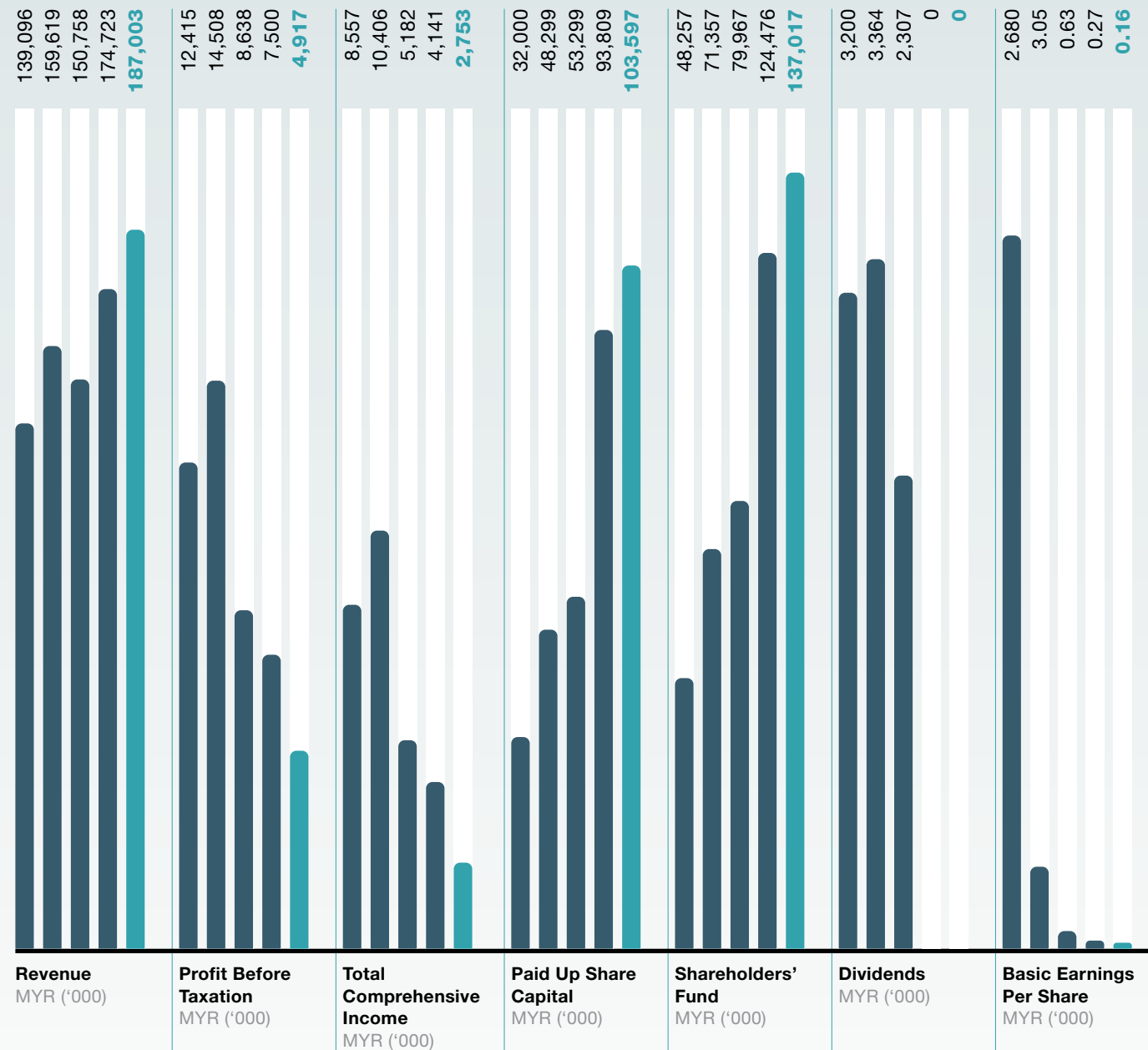
Additionally, potential deferments of pro-sustainability initiatives and delays in achieving sustainability goals could weigh on the growth prospects of the SES segment. Nonetheless, the Malaysian and regional governments continue to pursue sustainability measures and this bodes well for the SES segment.

## CONCLUSION

KAB's successful transformation into a reputed player with integrated expertise in engineering and energy solutions, positions us strategically to address the fast-growing demand for sustainable energy across various markets in Southeast Asia. The Group's strengths in technology and engineering enables us to play a greater role in supporting governments, communities, and businesses that are pursuing the sustainability agenda.

# Five-Year Group Financial Highlights

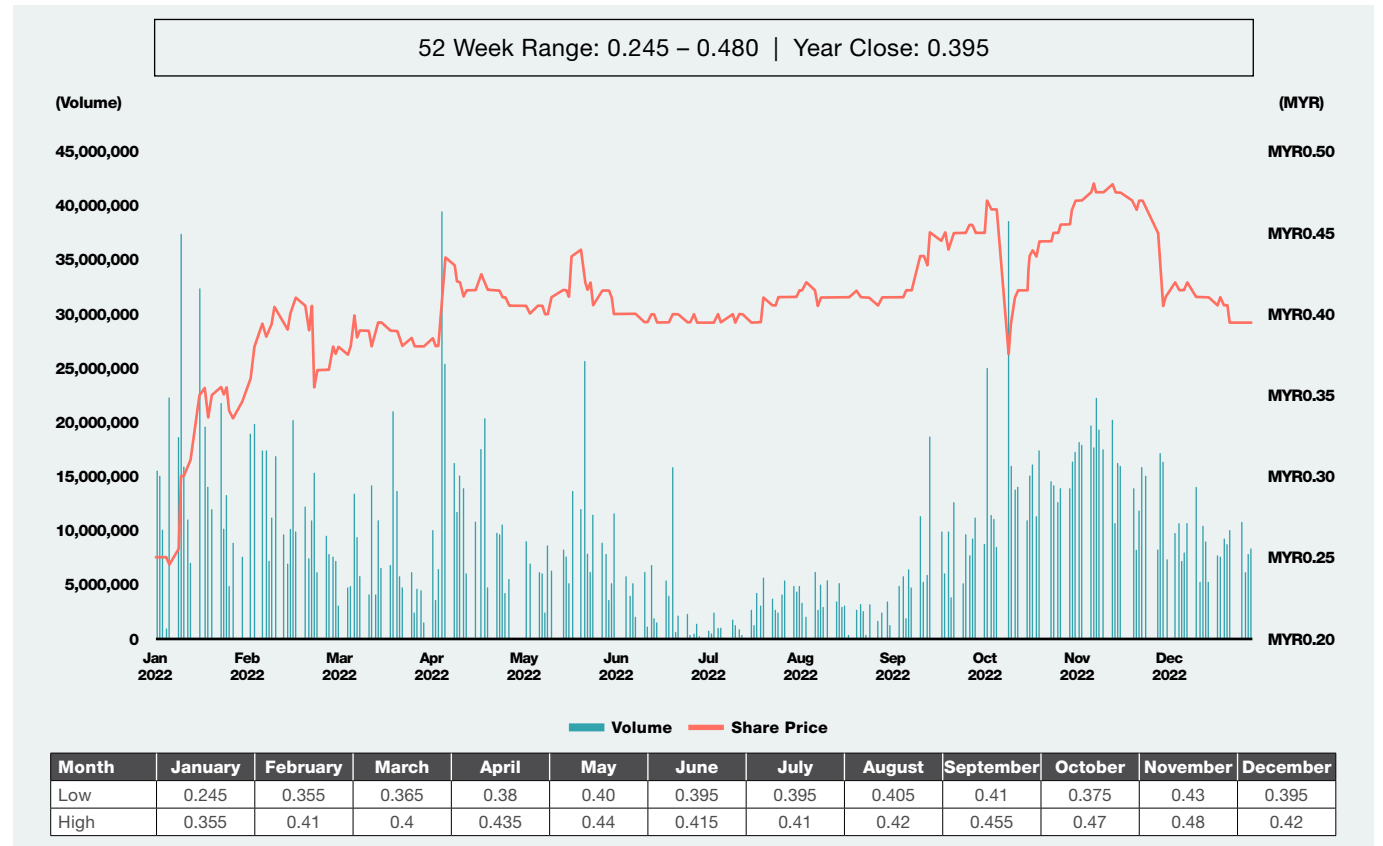
Financial Year Ended Dec-31	2022 MYR ('000)	2021 MYR ('000)	2020 MYR ('000)	2019 MYR ('000)	2018 MYR ('000)
Revenue	<b>187,003</b>	174,723	150,758	159,619	139,096
Profit Before Taxation	<b>4,917</b>	7,500	8,638	14,508	12,415
Total Comprehensive Income	<b>2,753</b>	4,141	5,182	10,406	8,557
Paid Up Share Capital	<b>103,597</b>	93,809	53,299	48,299	32,000
Shareholder's Fund	<b>137,017</b>	124,476	79,967	71,357	48,257
Dividends	<b>0</b>	0	2,307	3,364	3,200
Basic Earning Per-Share (Sen)	<b>0.16</b>	0.27	0.63	3.05	2.680



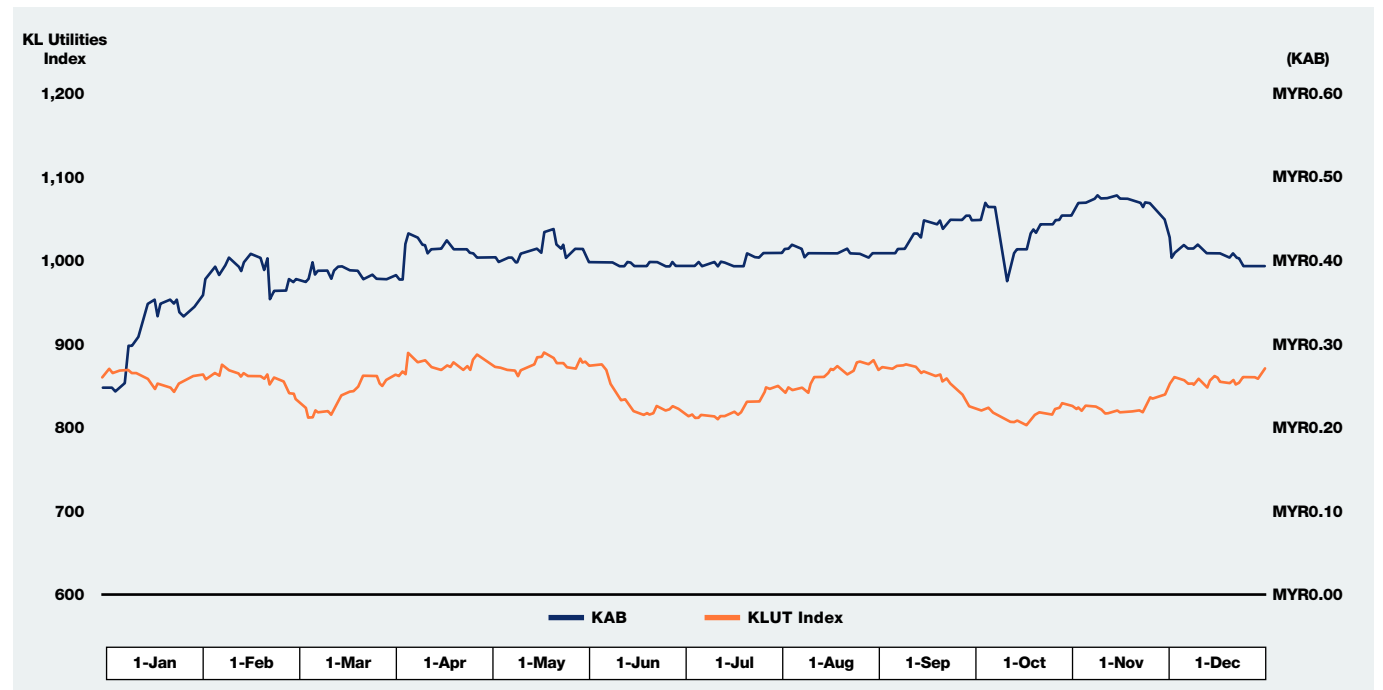
# Share Performance Highlights

## Kejuruteraan Asastera Berhad ("KAB" or "the Company")

### SHARE PRICE AND VOLUME (3 Jan 2022 – 30 Dec 2022)



### KAB HISTORICAL SHARE PRICE AND KL UTILITIES INDEX (KLUT INDEX)





# Regional Expansion

# Regional Expansion



## THAILAND

- KAB TECHNOLOGIES THAI CO., LTD.
- ENERGY OPTIMIZATION (THAILAND) CO., LTD.
- KAB GREE SOLAR THAI CO., LTD.



## MALAYSIA

- KEJURUTERAAN ASASTERA BERHAD
- KAB ENERGY HOLDINGS SDN. BHD.
- KAB TECHNOLOGIES SDN. BHD.
- KAB ENERGY POWER SDN. BHD.
- KAB SMART SOLAR ENERGY SDN. BHD.
- KAB TELCO SDN. BHD.
- KAB UNIFIED ENG. SOLUTIONS SDN. BHD.
- KAB CORE CONNECT O&M SERVICES SDN. BHD.
- KAB CAREWELL O&M SERVICES SDN. BHD.
- KAB GREE SOLAR SDN. BHD.
- KAB ROBOTIC & AUTOMATION SOLUTIONS SDN. BHD.
- KAB M&E SDN. BHD.
- KAB SIGNATURE MANAGEMENT SDN. BHD.
- KAB INTEGRATED NETWORKS SDN. BHD.
- KAB TGREEN ENERGY SDN. BHD. (FORMERLY KNOWN AS KAB BINTAI ENERGY SDN. BHD.)
- DYNAGEN POWER (M) SDN. BHD.
- KIEV CRG SDN. BHD.
- ECONERGY PLUS SDN. BHD.
- TVT LINK TECH SOLUTIONS SDN. BHD.
- MAYANG HIJAU SDN. BHD.
- ISENZE SDN. BHD.
- SIGNIFICANT TECHNOLOGIES SDN. BHD.
- ELIQ MANAGEMENT SDN. BHD.
- GENPLAN ADVISORY & MANAGEMENT SDN. BHD.
- Z ENERGY POWER SDN. BHD.
- SIPITANG UTILITIES SDN. BHD. (FORMERLY KNOWN AS REGAS TERMINAL (LAHAD DATU) SDN. BHD.)



## HONG KONG

- KAB (HK) INVESTMENT CO., LTD.

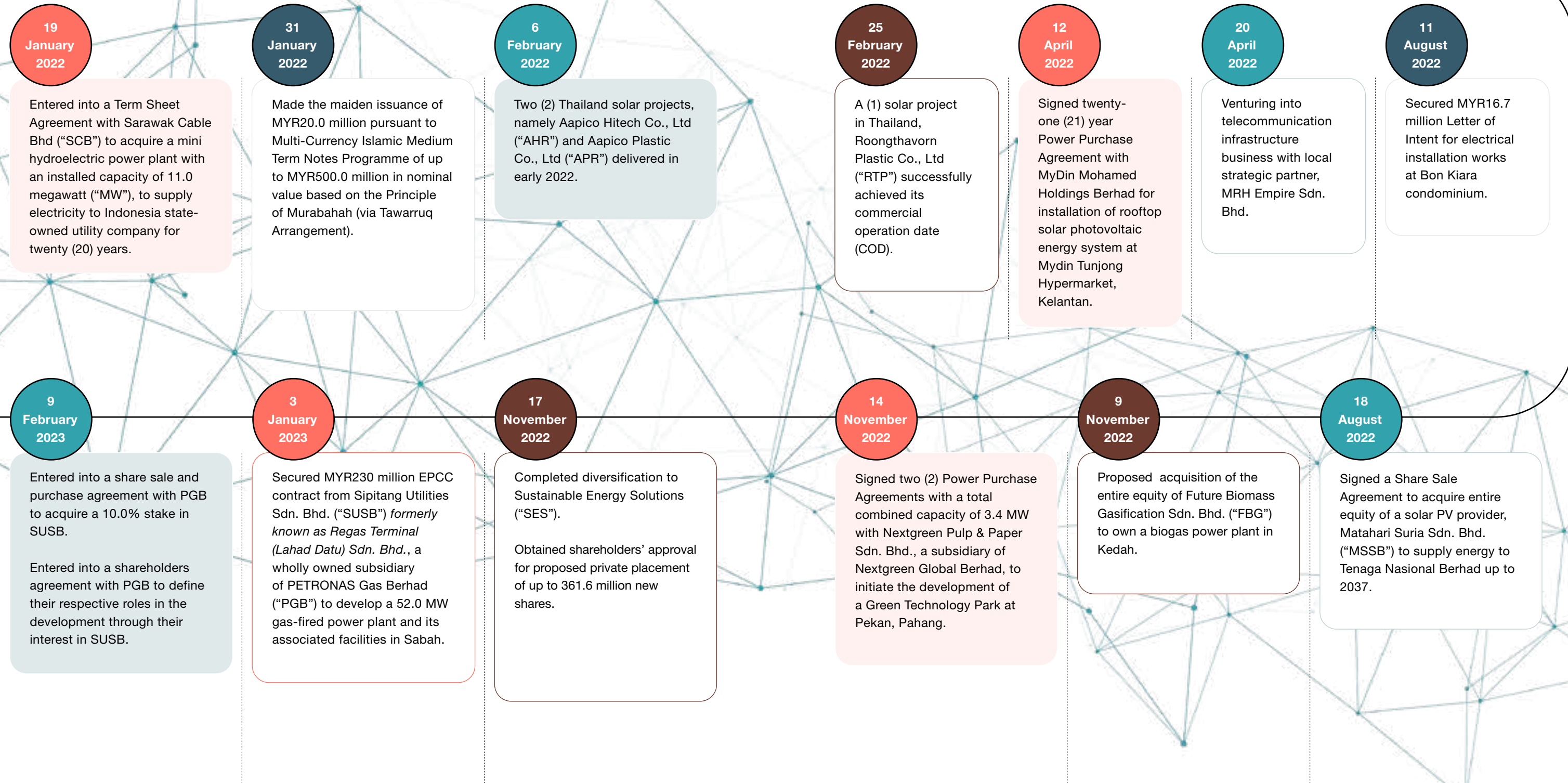


## VIETNAM

- V-TEZ INTELLIGENT SOLUTIONS (V) CO., LTD.



## ANNOUNCEMENTS & EVENTS



Kejuruteraan Asastera Berhad (KAB) is a Group that aspires to be a leading provider in responsible and sustainable energy and engineering solutions, with operations expanding across ASEAN. Since 1997, we have established ourselves as a reputable and experienced engineering solutions provider for a wide range of projects spanning commercial, industrial, and residential developments. At present, KAB has ventured into various segments. On 17 November 2022, KAB diversified its SES segment, which includes the provision of Energy Efficient Solutions, Clean Energy Generation, and Renewable Energy Generation. The Group succeeded in its transformation into a One-Stop Engineering and Energy Solutions Provider in the industry.

At KAB, we believe in the principles of “Sustainable Development” – development that meets the needs of the present without compromising the ability of future generations to meet their own needs. We look at sustainable development as forwarding our own business interests while at the same time also considering broader economic, environmental and societal interests.

We are committed to understanding, assessing, and managing our impacts on the economy, the environment and society, which will be an indication of our commitment and contribution to Sustainable Development.

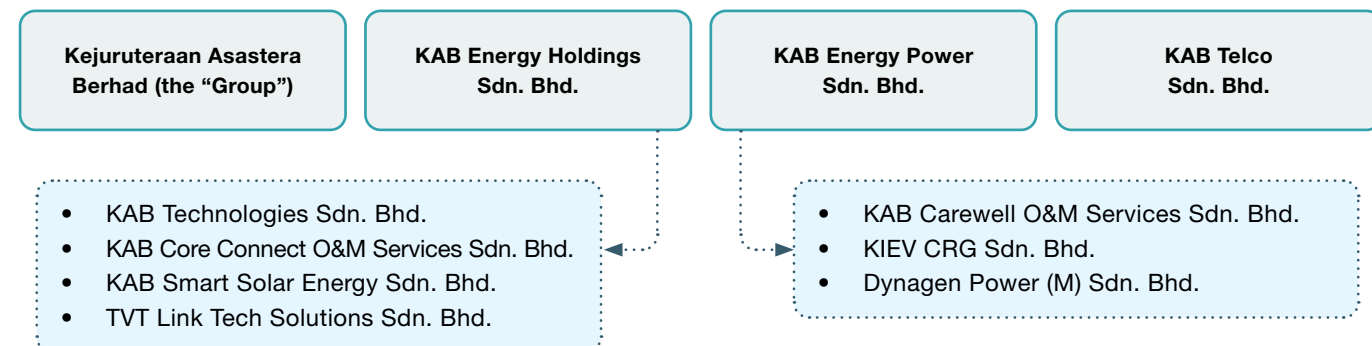
In addition to focusing on Sustainable Development, the Group also understands that upholding Human Rights must not be neglected. We adopt the principles of Human Rights as expressed by the United Nations.

Since the Group’s establishment as an electrical engineering and contracting services provider in the 1990s, our role as a bridge between energy providers and energy

consumers gave us the opportunity to provide more and more sustainable solutions in terms our engineering and project expertise. Our operations have grown from strength to strength, starting from our origins and headquarter in Malaysia to Thailand, Vietnam and Hong Kong. Moving forward in 2022, the Group has forged forward in the Sustainable Energy Solutions (“SES”) space, to both capture climate-related opportunities enabling our customers to mitigate climate-related risks.

The Sustainability strategy and approach that is applied across the Group’s subsidiaries and partnerships are approved by the Board and executive management, and are applied and implemented by the working groups and operational teams in each entity within the Group. The Group has also begun developing Sustainability measures when engaging with business relations in the supply chain because we understand that in order for Sustainable Development to truly work, the supply chain of the Group must also seek to avoid and mitigate negative impacts and contribute to positive impacts together.

In managing Sustainability, our main operational and organisational boundaries for our material Sustainability matters, include KAB and its active subsidiaries:



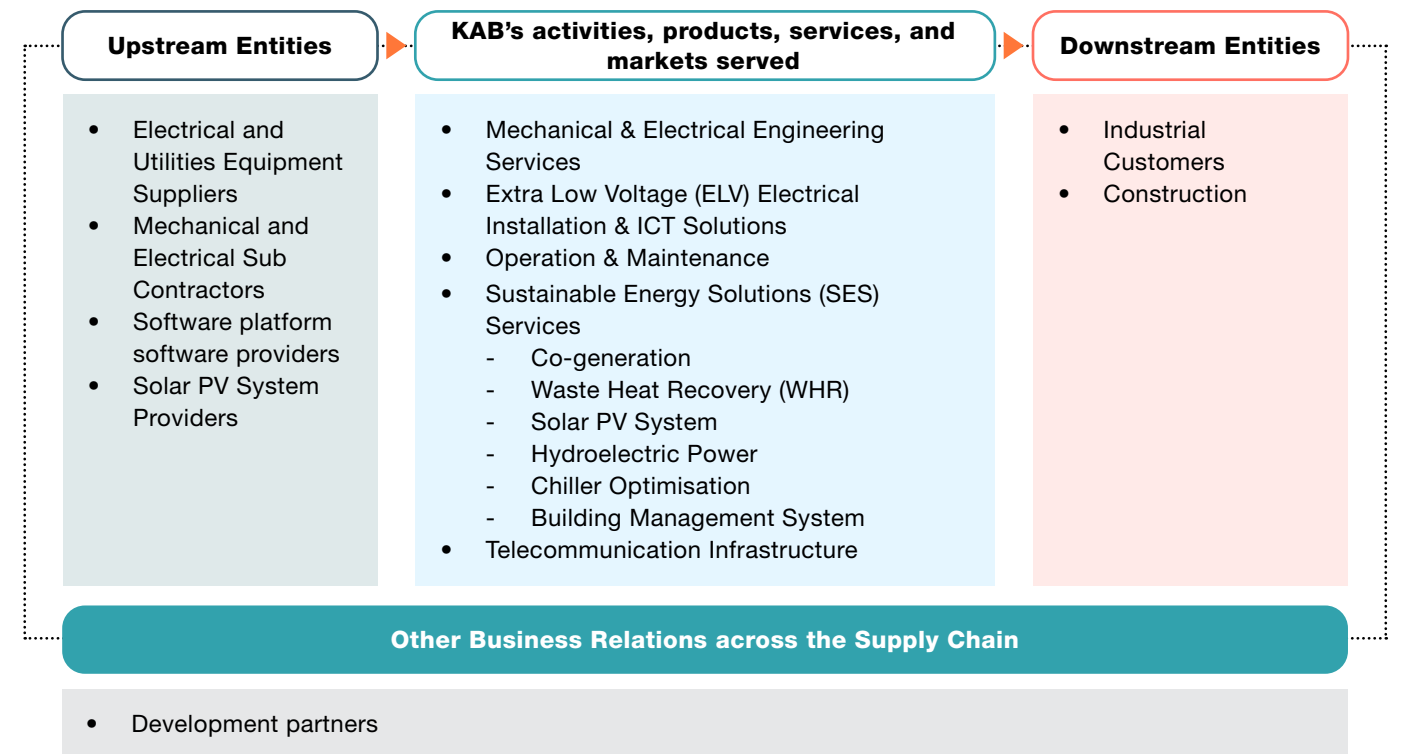
The five (5) key Sustainability aspirations of the Group are:

- To be a long-term constituent in the world recognised FTSE4Good Index or any Global Indices
- To grow our energy portfolio to at least 300 megawatt (“MW”) by 2025 and to seek more business opportunities in the SES segment
- To develop enhanced internal policies and guidelines to improve all our Sustainability Performance Targets
- To embed an integrated health and wellbeing strategy, and to build a future-ready, diverse workforce which reflects and responds to the evolving nature of work
- To reduce our negative impacts while endeavouring to bring about positive contribution to the environment and society

In 2022, we have prepared our Sustainability Report 2022 in addition to our Sustainability Statement to showcase and provide details of our performance on our material Sustainability matters, and how we have continued to build ourselves on Sustainability principles. Our annual Sustainability Report has been prepared in accordance with the GRI Standards 2021, and covers the reporting period from January to December 2022. A GRI Content Index is provided, along with information on how the various United Nations Sustainable Development Goals (UN SDGs) guide the management of Sustainability in the Group.

The Group’s Sustainability Report 2022 and its contents have been approved and reviewed both by our Sustainability Team and Board Sustainability Committee. Full version of Sustainability Report 2022 can be viewed at [www.asastera.com](http://www.asastera.com). Any questions with regards to this Sustainability Report can be directed to the Group via email: [kabsustainable@asastera.com](mailto:kabsustainable@asastera.com).

## OUR BUSINESS VALUE CHAIN

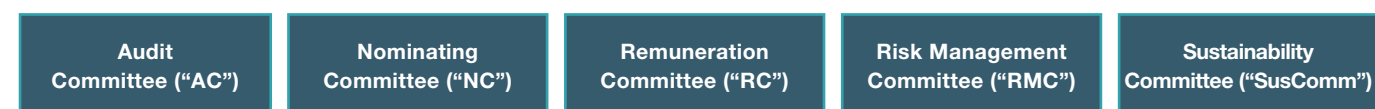


The Group has been actively engaging with all stakeholders in the value chain, including informal participation in trade or non-trade organisations. In 2022, however, there are no industry associations, other membership associations, and national or international advocacy organisations in which the Group participates in a significant role. The Group practices its strategy and governance without any external influence, neither does the Group contribute to any influence on any organisations not within its business structure.



## OUR GOVERNANCE STRUCTURE

The Board is responsible for strategic planning, oversight, and the overall management of the Group. The Board has also delegated specific matters to various Board Committees which operate within their respective approved Terms of Reference (“TOR”). The Board leads and controls the affairs on behalf of the shareholders. The Board considers the interests of all stakeholders when making decisions to ensure that the twin objectives of enhancing prosperity and creating long term shareholders’ value are met. In addition, the Board monitors the performance of the Group’s various areas of operations. Further to elevate the compliance and to improve the Group’s control environment, the following Board Committees are established:



In 2022, the Group established its Board Sustainability Committee to provide more exact and robust oversight and governance on Sustainability matters. The roles, responsibilities and scope of the Sustainability Committee is defined clearly in the Terms of Reference (TOR) that is approved by the Group’s Board.

The principal objectives of the Sustainability Committee are to assist the Board of Directors in discharging its statutory duties and oversight responsibilities relating to supporting and monitoring the sustainable development strategy of the Group’s businesses covering economic, environmental and social aspects, including contribution to Sustainability-related impacts in the course of the Group’s operations, and to oversee the integrity of the Group’s Sustainability reporting and associated statements on matters within its Scope. The Scope of the Committee includes, but is not limited to:

1. Group-wide occupational safety and health;
2. Management of environmental matters:
  - a. Energy
  - b. Greenhouse Gas (GHG) Emissions
  - c. Water and Effluents
  - d. Waste
  - e. Land use
  - f. Biodiversity
3. Communities and social performance:
  - a. Human rights monitoring and management
  - b. The economic and social development of the communities in which the Group operates, including employment, training and development, and local supply chain development
  - c. Sustainable development issues as they relate to suppliers and supply chains, including child labour, human trafficking and modern slavery
  - d. Community relations, including with indigenous peoples’ policies
  - e. Diversity, inclusion and non-discrimination;
4. Determine and oversee the quality, adequacy and effectiveness of the Group’s Sustainability related policies;
5. Ensure Sustainability disclosures and reporting comply with regulations and standards;
6. As another peer to the whistleblowing or grievance mechanism policy and procedures;
7. Oversee the Group’s Sustainability Team.

In 2022, the Sustainability Committee as reviewed and approved the Group’s Human Rights Policy, Environmental Policy, Sustainability Policy, Sustainability Due Diligence Procedures, Materiality process and Materiality results, in addition to Sustainability governance and performance improvements of the Group.

The Sustainability Committee and the Sustainability Team of the Group tracks the effectiveness of all actions, relating to Material and Non-Material Topics established by the Group, taken in line with the policies and commitments established by the Group. The Sustainability Team provides periodical, usually quarterly, reports to the Sustainability Committee on matters including the setting of goals and targets such as those pertaining to occupational safety and health or those relating to Net-Zero, regulatory compliances that various goals and targets have to align with, the activities and business relations that are impacted by the goals and targets, the baseline for goals and targets such as having 2021 as the base-year for the Group’s Net Zero journey, and the timeline for the goals and targets such as Net Zero Scope 1 and Scope Emissions by 2050.

The Sustainability Committee, along with the Sustainability Team adopts “lessons learnt” from various mechanisms such as Sustainability due diligence, stakeholder engagements, and mechanisms for feedback, raising concerns and whistleblowing. This applies to all Material and Non-material Topics of the Group.

## SUSTAINABLE ENERGY SOLUTIONS

The Group is targeting significant growth in its SES segment, with more than 50.0% contribution to its bottom line in the coming years. In the beginning of the year, the Group has estimated that SES segment’s contribution to the Group’s bottom line will be at least 25.0% in the financial year ending 31 December 2022 (FY2022), before rising to 50.0%. The Group expects a profit margin of 15.0% to 25.0% in the SES segment.

Revenue generation will come from the Group’s growing asset portfolio in clean energy generation, renewable energy generation, and provision of energy-efficient solutions.

This strategy became evident by the fact that by the first half of FY2022 ending 30 June 2022, revenue generated by the SES segment stood at MYR8.2 million, already surpassing the recorded revenue of the entire FY2021 which stood at MYR6.8 million. In terms of business expansion, the Group’s estimated capital expenditure for existing contracts and potential projects as of the 4th Quarter of FY2022 amounts to MYR52.3 million for solar photovoltaic projects of over 17,000 kilowatt-peak (“kWp”) in capacity, and MYR220.0 million for clean energy projects of up to 65.0 MW.

The Group’s journey in 2022 began when its wholly-owned subsidiary KAB Energy Holdings Sdn. Bhd. (KABEH) entered into a term sheet agreement with Sarawak Cable Bhd (SCB) to acquire the entire issued share capital of the latter’s Indonesia-based subsidiary, PT Inpolo Mitra Elektrindo (PT IME) in January. PT IME is a Group that designed, constructed, developed and operates a mini hydroelectric power plant, named Kombih III, whereby it had begun operations in October 2021 with an installed capacity of 11.0 MW.

This marks the group’s maiden venture into the hydroelectric power generation sector, which is a quantum leap from its existing Solar PV projects. The Kombih III plant generates approximately 49.056 million kWh, which is estimated to result in an offsets 26,784 tonnes of CO2 emissions based on power generation in Indonesia. This project is expected to generate MYR270.0 million in revenue to the Group over the twenty (20) year concession period. The Group continues to keep an eye on opportunities in line with Indonesia’s National Electricity Master Plan, whereby the ratio of renewable energy for energy resources is anticipated to continue accelerating to 23.0% by 2025, and hydroelectric power generation capacity is expected to grow to about 40.0% in this trajectory.

Further developments in the beginning of January 2022 also included Danajamin Nasional Bhd’s guarantee of Tranche 1 of KAB Energy Power Sdn. Bhd. (KABEP), a wholly-owned subsidiary of the Group, for its inaugural issuance of MYR500.0 million Multicurrency Islamic Medium-Term Notes Programme (or “Sukuk Programme”). The proceeds of the said MYR500.0 million war chest will be used to propel the Group’s expansion into the SES segment - funding KAB’s future energy-related ventures, greenfield projects and brownfield assets in Malaysia and across Asia, including Vietnam, Indonesia and India. At the same time, proceeds from the issuance will also be used for a 2.0 MW waste heat recovery facility at Safran Landing System Malaysia Sdn. Bhd., a leading global manufacturer of aircraft landing gear and braking systems.

In March, the Group has continued in its direction to capture opportunities in the SES segment by inking five (5) Rooftop Solar Power Generating System Construction and Power Purchase Agreements (“PPAs”) worth MYR46.8 million with an estimated aggregate capacity of 4,284 kWp in Thailand spanning over the next twenty-five (25) years. The agreements require the Group to construct, install, operate, and maintain the Grid-Connected Photovoltaic (GCPV) solar system for Siam Machinery and Equipment Co Ltd and four subsidiaries of Aapico Group of Companies (Aapico Ayutthaya). The total savings on purchased electricity that the clients could achieve for the projects would be up to 135,433 MW throughout the project duration. This is a step further towards developing the Group’s solid base within Thailand’s renewable energy space, adding to the Group’s total combined installed capacity of 12,695 kWp of solar projects by the 1<sup>st</sup> quarter of the year.

Moving forward, the Group then concluded its Power Purchase Agreement (“PPA”) with Mydin Mohamed Holdings Bhd for a solar photovoltaic (PV) system at the latter’s Mydin Tunjong Hypermarket in Kelantan, Malaysia, in April. The agreement was for the Group’s subsidiary KAB Gree Solar Sdn. Bhd. to design, construct, install, own, operate and maintain a grid-connected solar PV energy system on the roof of Mydin Tunjong Hypermarket’s open car park. The Group is to generate and supply solar PV energy to Mydin for a twenty-one (21) year period, whereby 55.0 million kWh in purchased-electricity is saved and approximately 32,432 tonnes of CO2 equivalent is calculated to be avoided over the duration.

As the SES business of the Group continues to grow, the Group in September then proposed to raise MYR119.0 million from a private placement partly to fund this business strategy. This shows the commitment of the Group to continue capturing sustainable business in the energy segment, proving further that contributing to Sustainable Development and meeting global climate targets is not a trade-off but a profitable business opportunity.

At the end of 2022, the Group continued expanding its SES segment through the proposed acquisition of the entire equity of Future Biomass Gasification Sdn. Bhd. (FBG) for MYR15.0 million, whereby FBG owns a biogas power plant in Kedah with an installed capacity of 2.4 MW. The Group stands to gain long-term recurring income via FBG’s existing renewable energy power purchase agreement (REPPA) with Tenaga Nasional Bhd (TNB) until 2034. This adds to the strength of the Group’s SES portfolio as the biogas industry has great untapped potential in Malaysia given the vast availability of palm oil effluent as fuel.

In addition to the biogas power plant, the Group had also signed twenty (20) year solar PPAs with a subsidiary of Nextgreen Global Bhd, via the Group’s wholly owned Group KAB Core Connect O&M Services Sdn. Bhd. The two (2) PPAs are for the Group to design, construct, install, own, operate, and maintain solar photovoltaic (PV) systems on the rooftops of multiple production plants and buildings at the customer’s Green Technology Park in Pekan, Pahang, Malaysia. These projects establish the Group as an integral solutions provider to the customer’s pioneering model to integrate renewable energy and zero-waste technology for sustainable industries in Malaysia, whereby the PV systems will be installed on two (2) phases having installed capacities of 1,343 kWp and 2,043.7 kWp respectively. There will be a calculated 90,087 megawatt hours (“MWh”) in purchased-electricity savings and an estimated reduction of 52,701 tonnes of tCO2e over the next twenty (20) years.

By the end of 2022, the Group’s SES segment has four (4) operational solar PV contracts in Malaysia and Thailand with a combined installed capacity of 4,533 kWp, as well as co-generation and waste heat recovery facilities.

In addition to the sustainable business that is driving the Group forward, KAB has also established its Board Sustainability Committee with clear terms of reference providing the necessary oversight and governance on internal and external Sustainability matters. To be a sustainable and responsible Group for our stakeholders including our investors, customers, employees and regulators, the Group has established its Sustainability Policy and the related Sustainability due diligence processes to meet internal and external expectations.

### SUSTAINABILITY POLICY

This KAB Sustainability Policy and its implementation applies to the entire Group, including the management of its internal and external stakeholders. It is designed to provide a comprehensive framework for all members of the Group when managing all dimensions of Sustainability covering economic, environmental and social matters that are material to the Group.

In ensuring that the Group as a whole continually adheres to its commitments, takes adequate measures to manage its Sustainability risks, opportunities and impacts, and implements Sustainability-related processes systematically, the Group has established the following governance structure:

1. The Board of Directors (“the Board”) determines the Group’s overall Sustainability strategy, quantitative and qualitative targets for the year.
2. The Sustainability Committee (the “Committee”), comprising three (3) board members and chaired by an independent director who is not the Chairman of the Board, assists the Board of Directors in discharging its statutory duties and oversight responsibilities relating to supporting and monitoring the sustainable development strategy of the Group’s businesses covering economic, environmental and social aspects, including contribution to Sustainability-related impacts in the course of the Group’s operations, and to oversee the integrity of the Group’s Sustainability reporting and associated statements on matters within its scope.
3. The Sustainability Team of the Group, delegated to assist the Committee, responsible for realising the Group’s Sustainability strategy, and to implement and policies and procedures related to Sustainability objectives across the Group’s business operations and with all business relations.

The Sustainability Policy states the Group commits to aligning with the United Nations Sustainable Development Goals (UN SDGs) based on the Group’s vision, mission and business model:

- Goal 5 Gender Equality – Achieve gender equality and empower all women and girls
- Goal 6 Clean Water and Sanitation – Ensure availability and sustainable management of water and sanitation for all
- Goal 7 Affordable and Clean Energy – Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8 Decent Work and Economic Growth – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9 Industry, Innovation and Infrastructure – Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
- Goal 11 Sustainable Cities and Communities – Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12 Responsible Consumption and Production – Ensure sustainable consumption and production patterns
- Goal 13 Climate Action – Take urgent action to combat climate change and its impacts
- Goal 15 Life on Land – Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss
- Goal 17 Partnership for the Goals – Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

Additionally, the Group also commits to aligning with the Paris Climate Agreement:

- The Paris Agreement’s central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.
- As part of the engineering, energy and utilities sectors, the alignment to the Paris Climate Agreement is for the Group to be a leader in zero-carbon energy generation and on the path to reach zero carbon emissions by 2050 or earlier.
- The Group ensures that all processes are socially and environmentally sustainable.



In the Sustainability Policy, the Group has established its Sustainability Due Diligence principles:

- The Group considers actual and potential impacts that it causes or contributes to through its activities, as well as actual and potential impacts that are directly linked to its operations, products, or services by its business relationships. Business relationships are relationships that the Group has with business partners, with entities in its value chain including those beyond the first tier, and with any other entities directly linked to its operations, products, or services.
- Due diligence tools and methodologies are issued by the Sustainability Team, and approved by the Sustainability Committee, in order to gauge Sustainability impacts along with the related risks and opportunities, including surveys, grievance mechanisms and other two-way communication processes with internal and external stakeholders.
- The due diligence process is used to identify negative or positive impacts following the following three aspects:
  - “Causes” - The Group ‘causes’ a negative or positive impact if its activities on their own result in the impact.
  - “Contributes to” - The Group ‘contributes to’ a negative or positive impact if its activities lead, facilitate, or incentivise another entity to cause the impact. The Group can also contribute to a negative or positive impact if its activities in combination with the activities of other entities cause the impact.
  - “Directly linked to” - Even if the Group does not cause or contribute to a negative impact, its operations, products, or services may be ‘directly linked to’ a negative impact by its business relationships.
- The due diligence process is further used to assess the significance of the negative or positive impacts:
  - The significance of an actual impact is determined by the severity of the impact. The significance of a potential impact is determined by the severity and likelihood of the impact.
  - The severity of an actual or potential impact is determined by the following characteristics:
    - ▶ Scale: how grave the impact is
    - ▶ Scope: how widespread the impact is
    - ▶ Irremediable character: how hard it is to counteract or make good the resulting harm
- The Group conducts Sustainability due diligence process in accordance to stakeholder groups, onboarding of new business relations, the beginning of any new projects, or periodical review of projects and operational activities.
- The Group responds accordingly to the negative and positive impacts, and the resulting risks and opportunities, such as improving process to avoid, mitigate and remedy Sustainability impacts.

The Group’s Sustainability Due Diligence is aligned with the United Nations (UN) Guiding Principles on Business and Human Rights, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, and the OECD Due Diligence Guidance for Responsible Business Conduct

The Sustainability Committee, assisted by the Sustainability Team, is responsible for developing strategies to meet the objectives of the Policy, as well as monitoring the progress of achieving the objectives.

## HUMAN RIGHTS POLICY

The Group upholds the “protect, respect and remedy” principles as stated in the UN Guiding Principles in order to avoid, mitigate and manage any people-related impacts in the course of our employment, labour relations and business relations. Additionally, we also comply with International Labour Organisation (ILO) conventions that are ratified by Malaysia.

We have launched our own Human Rights Policy in 2022 to reflect our commitments on various people-related matters including those that are highly material to us. In our Human Rights Policy, our commitments include:

1. Equality, diversity and inclusion
2. Freedom of association and collective bargaining
3. Safe and healthy workplace
4. Workplace security
5. Forced labour and human trafficking
6. Child labour
7. Work hours, wages and benefits
8. Minimum wage
9. Stakeholder engagement

The Group’s Human Rights Policy covers the following areas:

## 1. Equality, Diversity and Inclusion

The Group is committed to the principles of equal opportunity and equal pay and maintains a zero-tolerance policy on discrimination and harassment. We work to maintain workplaces that are free from discrimination and harassment on the basis of race, sex, colour, national or social origin, ethnicity, religion, age, disability, sexual orientation, gender identification or expression, political opinion or any other status protected by applicable law.

## 2. Freedom of Association and Collective Bargaining

The Group respect our employees’ right to join, form or not to join a labour union without fear of reprisal, intimidation or harassment.

## 3. Health and Safety

The Group is committed to providing a safe and healthy workplace and comply with applicable safety and health laws and regulations. We work closely in consultation with our employees, by addressing and remediating identified risks of accidents, injury and health impacts.

Internally, we commit to continuous improvement of our health and safety practices and processes towards reducing negative health and safety impacts. At the same time, externally, we engage with all our contractors and external Stakeholders in our business value chain to ensure occupational health and safety standards are met.

## 4. Workplace Security

The Group is committed to maintaining a workplace that is free from violence, harassment, bullying, intimidation and other unsafe or disruptive conditions due to internal and external threats. Violence, harassment, bullying, and intimidation is not tolerated in the workplace and in any work-related circumstance outside the workplace. Security measures for employees are provided, as needed, and are maintained with respect for employee privacy and dignity.

## 5. Forced Labour and Human Trafficking

Forced or compulsory labour are work and service that is exacted from any person under the menace of any penalty and for which the said person has not offered herself or himself voluntarily. We prohibit the use of all forms of forced labour, including prison labour, indentured labour, bonded labour, military labour, modern forms of slavery and any form of human trafficking.

The Group conducts various forms of due diligence, when necessary, in order to prevent the involvement of forced labour or human trafficking within its activities. It is also to avoid contributing to, or becoming complicit in, the use of forced labour or the occurrence of human trafficking through its relationships with its external Stakeholders (e.g., suppliers, customers).

## 6. Child Labour

Child labour is work that ‘deprives children of their childhood, their potential and their dignity, and that is harmful to their physical or mental development including by interfering with their education. Specifically, it means types of work that are not permitted for children below the relevant minimum age.’ (International Labour Organisation). We prohibit the hiring of individual that is under eighteen (18) years of age for any position in the Group. The Group conducts any forms of due diligence, when necessary, in order to prevent the use of child labour within its activities. It is also to avoid contributing to, or becoming complicit in, the use of child labour through its relationships with its external Stakeholders (e.g., suppliers, customers).

## 7. Work Hours, Wages and Benefits

The Group compensates employees competitively relative to the industry and local labour market, and in accordance with terms of applicable collective bargaining agreements (if any). We work to ensure full compliance with applicable wage, work hours and benefit laws. We do not encourage excessive working hours unless otherwise required by urgent and emergency situation.

## 8. Minimum Wages

The Group is committed to complying to the latest minimum wages regulation set by the authorities to protect employees against any unduly low pay. We also believe that minimum wages can also be one element of a policy to overcome poverty and reduce inequality, including those between men and women, by promoting the right to equal remuneration for work of equal value.

## 9. Stakeholder Engagement

The Group is committed to frequent engagement with all our internal and external stakeholders in order to identify and manage any risks that arise from human rights violations or non-compliances. Engagements and consultations shall be documented. Measures will be taken to avoid or mitigate any potential negative human rights impacts with the cooperation of the Stakeholders.

Our Human Rights policy provides for a whistleblowing and grievance mechanism, whereby any employee or any 3<sup>rd</sup> party may anonymously report any violation related to this policy via a designated confidential e-mail. The Management will investigate, address and respond to the concerns in the substantiated report and will take appropriate corrective action in response to any violation, and commits to remedy affected parties where it has been identified that it has directly caused or contributed to human rights impacts.

## ENVIRONMENTAL POLICY

Climate change poses serious risks to the global economy and will have an impact across communities and many economic sectors. Environmental dimension of sustainability concerns an organisation's impacts on living and non-living natural systems, including land, air, water, and ecosystems.

As part of its commitment to Sustainability, the Group commits to having a holistic approach on its environmental management towards contributing to climate action, climate change adaption and sustainable development goals. It is also crucial for all our relevant stakeholders to understand that the Group has taken steps to identify, manage and prepare itself with regards to the risks and opportunities of climate change in its business strategies, practices and processes. Hence the Group has established its Environmental Policy in 2022.

This Environmental is designed to provide a framework for the Group to achieve the following:

1. To have effective governance and oversight on environmental and climate change impacts;
2. To embed environmental considerations into the implementation of the Group's strategies;
3. To promote environmentally-oriented processes, practices, services and products; and
4. To establish environmental metrics and contribute to environmental goals and targets.

The policy covers the following areas:

1. Stakeholder Engagement and Material Environmental Matters
2. Energy
3. Greenhouse Gas Emissions (GHG Emissions)
  - Direct GHG emissions - Scope 1
  - Energy indirect GHG emissions - Scope 2
  - Other indirect GHG emissions - Scope 3
4. Water
5. Biodiversity
6. Waste

The Board, assisted by the management, is responsible for developing strategies to meet the objectives of the policy, as well as monitoring the progress of achieving the objectives.

Any employee or any third party may anonymously report any feedback related to this policy via the Group's Sustainability e-mail at [sustainability@asastera.com](mailto:sustainability@asastera.com). The Group will investigate, address and respond to the concerns expressed in the feedback will take appropriate corrective action in response to any negative environmental impacts. The entire process and its results shall be documented and shall be properly disclosed in accordance to any applicable laws or Sustainability standards.

## OUR NET ZERO COMMITMENTS

At KAB, we have begun our Net Zero journey in 2022. We understand that as we strive to support our customers in achieving the Net Zero aspirations through our Sustainable Energy Solutions and other project offerings, we as a Group has to be responsible and sustainable in our business operations. Building Sustainability into our DNA and aligning our commitments with the Paris Agreement aspirations means that we as a Group have to also commit to Net Zero targets and commitments.

As stated in our Environmental Policy, we manage and set targets for emissions, in accordance with the GHG Protocol when accounting for our Scope 1, Scope 2 and Scope 3 emissions. As with most of the large corporates, in line with regulatory expectations such as those of the Bursa Malaysia, and ESG ratings criteria such as those of FTSE4Good, the first steps in our Net Zero journey is to focus on our Scope 1 and Scope 2 emissions. Net Zero means cutting GHG gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.

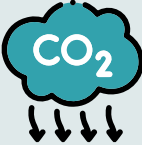
For the initial stages, we have begun focusing on energy and Scope 1 and Scope 2 emissions throughout our office locations where our active subsidiaries operate in. In the later stages in our planning, a more comprehensive list of Scope 3 emissions would be identified for upstream and downstream activities.

To track the performance of our programmes and initiatives to reduce energy consumption and GHG emissions, we have set the base year at 2021.

**KAB COMMITS TO REDUCE SCOPE 1 & 2 EMISSIONS**

**42.0%**

by 2030 and **90.0%** by 2050 from a 2021 base year.





## WORKPLACE ENVIRONMENT, OCCUPATIONAL SAFETY AND HEALTH POLICY

The Group is committed to workplace environment, occupational safety and health (WOSH) management system compliance, and hence have updated the Workplace Environment, Occupational Safety and Health Policy in 2022. This policy provides a framework for establishing, measuring, and reviewing Group key performance indicator for WOSH objectives and target. All employees are advised to communicate this policy to all person working under Group.

This policy is designed to provide a framework for the Group in order to achieve the following:

- To comply with the Occupational Safety and Health Act 1994 or any amendments that follow.
- To have effective governance and oversight on occupational safety and health throughout the organisation, and to demonstrate commitment to employees' and workers' safety and health.
- To prevent of physical and mental harm, and promote of employees' and workers' health.
- To plan, support, operate, and continually evaluate the effectiveness of the occupational health and safety management system and programs.
- To include hazard identification, risk assessment, worker training, and incident identification and investigation in the occupational safety and health management system.
- To engage employees and workers in the development, implementation, and performance evaluation of an occupational health and safety policy, management system and programs.
- To have safe and healthy work conditions in line with authoritative instruments such as the International Labour Organisation (ILO), the Organisation for Economic Co-operation and Development (OECD), and the World Health Organisation (WHO), and the United Nations Sustainable Development Goals (UN SDGs).








The policy clearly defines the following:

- Occupational Health and Safety (OH&S) Management System
- Hazard identification, risk assessment, and incident investigation
- Occupational health services
- Employee participation, consultation, and communication on occupational safety and health
- Training on occupational safety and health
- Promotion of employee health

## OUR STAKEHOLDER ENGAGEMENT

Stakeholders are individuals or groups that have interests that are affected or could be affected by the Group's activities. An interest (or 'stake') is something of value to an individual or group, which can be affected by the activities of the Group. Stakeholders can have more than one interest. Not all interests are of equal importance and they do not all need to be treated equally. An important point to note is that human rights have a particular status as an entitlement of all people under international law – we see more and more instances of regulators sanctioning business that have significant infringements of human rights and human rights laws which results in monetary and opportunity losses. The most acute impacts the Group can have on people are those that negatively affect their human rights.

Key interests and concerns from major stakeholder groups are addressed after our ongoing engagements, whereby more detailed information is used in impact assessment and materiality process.

Stakeholder Groups	Interests and Concerns	Our response
 <p><b>Board of Directors</b></p>	<ul style="list-style-type: none"> <li>Governance matters</li> <li>Climate-related risk and opportunities</li> <li>Sustainability performance</li> <li>Sustainable financing and capital opportunities</li> <li>Sustainability ratings and indices</li> <li>Employees: Diversity</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulations and legislations on all governance matters</li> <li>Work with external professional to build internal Sustainability (governance, environmental, social) competencies, policies, and processes</li> <li>Improve our sustainability performance to improve sustainability ratings and target to be on FTSE4Good Index</li> </ul>
 <p><b>Shareholders</b></p>	<ul style="list-style-type: none"> <li>Corporate Governance</li> <li>Climate-action, green, energy saving related projects that positively impact the environment and business</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulations and legislations on all governance matters</li> <li>Aggressively pursue business opportunities in the power generation business segments</li> </ul>
 <p><b>Employees</b></p>	<ul style="list-style-type: none"> <li>Privacy and data protection</li> <li>Human rights and labour relations</li> <li>Training and education</li> <li>Employment practices, diversity, non-discrimination and inclusion</li> <li>Occupational Health and Safety</li> </ul>	<ul style="list-style-type: none"> <li>Continue to maintain good privacy and data protection practices in accordance to the Personal Data Protection Act 2010</li> <li>Human Rights Policy</li> <li>New training sessions on Sustainability in 2022</li> <li>Improvements in employment practices</li> <li>Workplace Environment Occupational Safety and Health Policy</li> </ul>
 <p><b>Customers</b></p>	<ul style="list-style-type: none"> <li>Occupational Safety and Health</li> <li>Privacy and data protection</li> <li>Products and services that achieve Sustainability targets</li> </ul>	<ul style="list-style-type: none"> <li>Workplace Environment Occupational Safety and Health Policy</li> <li>Continue to maintain good privacy and data protection practices in accordance to the Personal Data Protection Act 2010</li> <li>Sustainable Energy Solutions</li> </ul>
 <p><b>Suppliers and Contractors</b></p>	<ul style="list-style-type: none"> <li>Price fluctuations</li> <li>Safety measures</li> </ul>	<ul style="list-style-type: none"> <li>Managing procurement practices</li> <li>Compliance with government regulations</li> <li>Strict compliance to our safety and health standards, policies and regulations</li> </ul>
 <p><b>Engineering Consultants</b></p>	<ul style="list-style-type: none"> <li>Price fluctuations</li> <li>Compliance with regulations</li> </ul>	<ul style="list-style-type: none"> <li>Managing procurement practices</li> <li>Compliance with government regulations</li> <li>Strict compliance to our safety and health standards, policies and regulations</li> </ul>
 <p><b>Government Departments</b></p>	<ul style="list-style-type: none"> <li>Occupational Safety and Health</li> <li>Climate Change and Renewal Energy Policies</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with government regulations</li> <li>Strict compliance to our safety and health standards, policies and regulations</li> <li>Participation in Sustainable Energy Solution targets to meet National Determined Contribution (NDC) of different governments</li> </ul>

# Sustainability Statement

The Group established its Stakeholder Identification and Engagement Policy in 2021, that sets out the guidelines governing the identification, management and engagement of our internal and external stakeholders. As a responsible Group, we systematically manage stakeholder relationships and impacts through regular Stakeholder Engagements as part of our Sustainability commitments.

The Stakeholder Identification and Engagement Policy that was established in 2021, lays out the following:



Main stakeholders are grouped as the following:

1. Board
2. Employees
3. Customers
4. Vendors
5. Sub-contractors

Stakeholder surveys are designed to enable stakeholders to reflect the significance of KAB's impacts in the course of business. The significance of an actual impact is determined by the severity of the impact, whereby the severity of an actual or potential negative impact is determined by their scale, scope and irremediable character.

Surveys conducted by the Group are designed to have a rating of zero (0) to five (5), for stakeholders to rate the significance of each Sustainability topic based on the severity of the impact in the course of business with KAB. The higher the rating, the more significant the positive or negative impact. The result of each stakeholder group varies as the impacts that are "caused" by, "contributed to" or "directly linked to" the course of business with KAB is different, with varying degrees of severity.

Each stakeholder group would rank Sustainability topics differently according to how the positive or negative impacts exists in different boundaries. The specific impact assessment of each Stakeholder groups would be used for Stakeholder management and Sustainability impact management in the next period.

Annual stakeholder engagements and surveys are carried out across the active subsidiaries of the Group.

As of 31 December 2022, there were a number of two hundred and fifty-five (255) participants in the annual Sustainability stakeholder engagement. Even though the overall Material Topics are a consolidation of impact assessment across all stakeholder groups, individual stakeholder groups have Sustainability matters that are distinct to the group itself, hence the Group takes the appropriate actions to target specific impacts in the stakeholder group.

All results of the stakeholder engagement and impact assessment are documented in the Group's Stakeholder Engagement, Impact Assessment and Materiality Report 2022.

## IMPACT ASSESSMENT AND MATERIALITY

The process of determining material topics is informed by the Group's identification and assessment of impacts in its business relations and business activities. The identification and assessment of impacts involves engaging with relevant stakeholders and it is conducted in line but sometimes independently of the Sustainability reporting process.

For the purposes of Sustainability, impact refers to the effect the Group has or could have on the economy, environment, and people, including effects on their human rights, as a result of the Group's activities or business relationships. The impacts can be actual or potential, negative or positive, short-term or long-term, intended or unintended, and reversible or irreversible. These impacts indicate the organisation's contribution, negative or positive, to sustainable development. The impacts of the Group's activities and business relations on the economy, environment, and people can also have risks and consequences for the Group itself. These risks and consequences can be operational or reputational, and may lead to financial implications. For example, the high use of non-renewable energy contributes to climate change and could, at the same time, result in increased operating costs for the Group internally due to decarbonisation policies that seeks to shift energy use toward renewable sources.

It is also important to note that the management of Sustainability and related economic, environmental and social impacts, is independent of the consideration of financial implications. The Group understands that material topics cannot be deprioritised on the basis of not being considered financially material by any of its stakeholders.

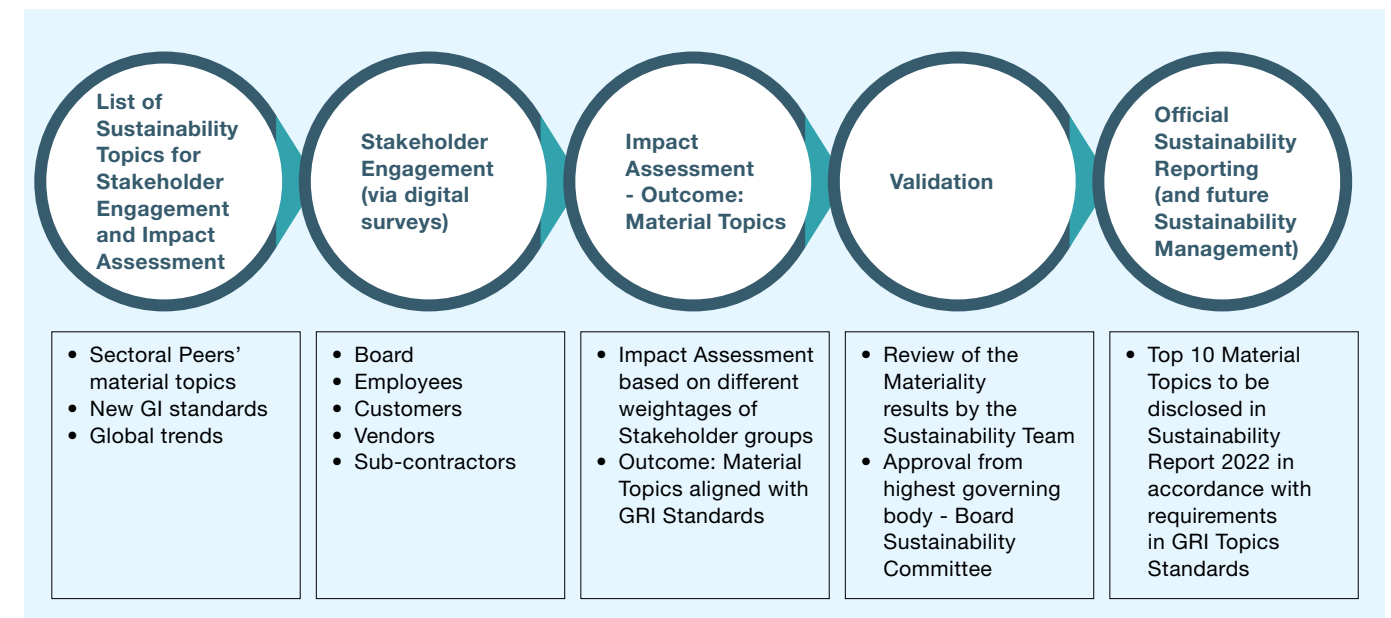
The basis of the Group's impact and materiality is based on two key concepts covered in the GRI Standards 2021, namely "due diligence" and "stakeholders", which are embedded in the Group's Sustainability Due Diligence procedures and stakeholder engagement process.

# Sustainability Statement

In accordance with the GRI Standards 2021, the Group has followed the four steps in determining its Material Topics:

- Step 1:** Understand the organisation's context
- Step 2:** Identify actual and potential impacts
- Step 3:** Assess the significance of the impacts
- Step 4:** Prioritise the most significant impacts for reporting

KAB's process of determining material topics is mapped on the steps structured by the GRI Standards:



The Materiality process is carried out by the Group every two years, or sooner when there is significant changes to the Group's business structure, business model, or external business landscape. The list of Material Topics determined by the impact assessment and Materiality process will be reported annually, and will be updated only when the impact assessment and Materiality process leads to a different result.

All results of the stakeholder engagement, impact assessment materiality process is documented in the Group's Stakeholder Engagement, Impact Assessment and Materiality Report 2022.

In 2022, we have conducted our Materiality Analysis to identify our material Sustainability matters based on the new GRI Standards 2021. Upon following the requirements of the new standards, the Group published its internal Stakeholder Engagement, Impact Assessment and Materiality Report 2022 to document the impact that is reflected across all Stakeholder group and the final Material Topics of the Group.

In accordance with the new GRI Standards, Materiality will no longer be presented in the form of a Materiality Matrix as with the previous standard. This enables the list of material topics to be more streamlined and objective without the subjective element of "influence on Stakeholder's assessments and decisions."

The process of Materiality in 2022 began with engagements with Stakeholders, in particularly via detailed Sustainability surveys. Each stakeholder group would rank Sustainability topics differently according to how the positive or negative impacts exists in different boundaries. The specific impact assessment of each Stakeholder groups would be used for Stakeholder management and Sustainability impact management in the next period. The consolidate result of all Stakeholder groups would form the basis of our impact assessment which thereafter results in the list of Material Topics.

For the assessment of impact, a certain Sustainability topic will appear as the most significant impact when it has the highest cumulative score as rated by the stakeholder group. Each stakeholder group is provided with a weightage when assessing the significance of impacts throughout all stakeholder groups:

1. Vendor – 15.0%
2. Sub Contractors – 15.0%
3. Employees – 20.0%
4. Customers – 25.0%
5. Board – 25.0% (Here the Board would also be a proxy to other stakeholders such as regulators and investors, which is related to the Group in a more strategic and oversight level.)



In 2022 a list of nineteen (19) Sustainability topics were listed out based on the Group's sector and position in the market, covering economic, environmental and social aspects:

- Economic performance and business resilience
- Market presence and local economic development
- Responsible procurement and sustainable supply chain
- Corporate governance, ethics and compliance
- Anti-corruption and anti-bribery
- Responsible and fair competition
- Responsible tax management
- Reducing materials and waste
- Climate action (energy and emissions management and targets)
- Wildlife and biodiversity
- Responsible water-use and preventing water pollution
- Employment policies and practices
- Occupational health and safety standards and practices
- Training, education and competency building
- Promoting diversity, inclusion, and non-discrimination
- Upholding human rights and fair labour practices
- Customer experience, and health and safety of customers
- Responsible marketing and communications, and fair dealing
- Cybersecurity, privacy and data governance

Upon merging the rating from all Stakeholder groups and by factoring the weightages allocated to each Stakeholder groups, the prioritisation of Material Topics is presented below in the order of importance, the first being listed as the most important Material Topic:

1. Reducing materials and waste
2. Occupational health and safety standards and practices
3. Anti-corruption and anti-bribery
4. Customer experience, and health and safety of customers
5. Training, education and competency building
6. Market presence and local economic development
7. Employment policies and practices
8. Responsible and fair competition
9. Climate action (energy and emissions management and targets)
10. Upholding human rights and fair labour practices

In the final analysis, the Material Topics of 2022 has been revealed to be different from 2021 after applying the principles and procedures laid out in the new GRI Standards 2021. In 2021, the top five (5) Material Topics were occupational health and safety, business ethics and corporate governance, anti-corruption, economic performance, and human rights.

The most important change to note is that environmental impact, via the Group's management of materials and waste, is now the most prioritised Sustainability topic. Being an engineering and construction Group in the mechanical and electrical sector, the Group has to be vigilant and mindful that even though the Group focuses on meeting Sustainability objectives of its customers (e.g. renewable energy facilities), the Group's footprint in terms of materials and waste in the course of its operations have to be managed sustainably and responsibly.

The Board Sustainability Committee of the Group has reviewed the analysis and results, and have validated and approved the Materiality analysis and final Material Topics.

## Managing Our BUSINESS IMPACTS THROUGH GOOD GOVERNANCE



The Group's Stakeholders have continued to emphasise on anti-corruption, and other governance and integrity matters that ties-in with our economic performance, as part of our Material Topics. All of these matters create impacts to all of our organisational boundaries, from our headquarters to our subsidiaries wherever our operations are.

Our Board, Board committees, and our management teams are deeply involved in preventing negative impacts that arise out of corporate governance and integrity matters, while actively ensuring that all regulations, legislations, standards and guidelines are complied with. While managing these matters internally, we also ensure that there are no negative impacts throughout our business relationships, such as corruption or unethical issues with our suppliers, contractors or customers.

As a Group listed on the Main Board of Bursa Malaysia Securities Berhad and even more so as a constituent of EMAS Index, our first responsibility in managing business and economic performance is to meet all Main Market Listing Requirements ("MMLR") as set out by Bursa Malaysia Securities Berhad, and the Malaysian Code of Corporate Governance ("MCCG") as set out by the Securities Commissions Malaysia, along with all laws and regulations that apply.

Specifically, we comply with Chapter 15: Corporate Governance of the MMLR that sets out the requirements that must be complied with by a listed issuer and its directors with regard to corporate governance. The requirements

include the those that relate to the composition of the board of directors, nominating committee, audit committee, auditors, corporate governance disclosure whereby we, as a listed issuer, must ensure that our board of directors provides an overview of the application of the principles set out in the MCCG in our annual report, internal audit and anti-corruption and whistleblowing.

The MCCG reflects global principles and internationally recognised practices of corporate governance which are above and beyond the minimum required by statute, regulations or those prescribed by Bursa Malaysia. The MCCG is based on three key principles of good corporate governance, which are:

- board leadership and effectiveness;
- effective audit and risk Management; and
- integrity in corporate reporting and meaningful relationship with stakeholders.

In accordance to the MCCG, our corporate governance disclosures in our Annual Report reflects the Comprehend, Apply and Report approach – CARE. Comprehend, Apply and Report or CARE encourages companies to clearly identify the thought processes involved in practising good corporate governance, including providing fair and meaningful explanation of how the Group has applied the practices.

We wish to note that our management of Sustainability is in line with the latest MCCG updates (2021), as per the principle below:



**Effective board leadership and oversight also require the integration of sustainability considerations in corporate strategy, governance and decision-making, as sustainability and its underlying environmental, social as well as governance (ESG) issues become increasingly material to the ability of companies to create durable and sustainable value and maintain confidence of their stakeholders. For companies to be resilient, boards need to take a much more holistic view of the business coupled with proactive and effective measures to anticipate and address material ESG risks and opportunities.**



# Sustainability Statement

Hence, as a part of effective board leadership and oversight, we have established our Board Sustainability Committee and Sustainability Team to monitor and manage Material Topics in terms of economic, environmental and social dimensions, while the board itself has also been engaging in competency building and actual implementation of sustainability considerations in the strategy, governance and decision-making process.

The Group has a series of codes and policies that expresses our commitments, our procedures and processes on these governance and integrity matters:

1. Code of Conduct and Ethics
2. Ethics and Compliance Whistleblowing Policy and Procedures
3. Insider Trading Policy
4. Anti-Bribery and Corruption Policy
5. Personal Data Protection Policy

Additionally, the updated MCGG further requires that the Group's Sustainability strategies, priorities as well as targets and performance against these targets should be communicated to the internal and external stakeholders of the Group. Employee awareness and understanding of the Group's approach to sustainability ('what we do and why we do it') will keep them engaged on sustainability issues and support actions on sustainability across the Group.

Therefore, we have continued with the Group's Stakeholder Engagements in terms of Sustainability matters. Specifically, we have increased employee awareness and understanding of our approach to Sustainability by conducting topic-specific sustainability trainings throughout our boundaries and also published our very first Sustainability Handbook in 2021 for the guidance of all employees.

The Group's Sustainability Handbook guides us on how to be active contributors in Sustainability – providing the best of sustainable solutions to our customers and contribution to our economy, while vigilantly observing responsible and sustainable practices in our very own business operations. The board has mandated that the Sustainability Handbook serve as a compass and create a shared knowledge reference of Sustainability concepts, rationale and values to all levels of Management and employees.

At KAB, we are committed to conducting our business according to the highest ethical, moral and legal standards. Hence in line with this commitment and our commitment to open communication, our whistleblowing and grievance mechanism provides an avenue for employees, third parties and other stakeholders, on an anonymous basis if appropriate, to raise concerns or report any known or potential misconduct, violation of our policies or applicable laws and regulations, without retaliation or retribution.

## ANTI-CORRUPTION AND ANTI-BRIBERY

In KAB we ensure that our Anti-Bribery and Corruption Policy is in compliance with:

- The Malaysian Anti-Corruption Commission Act 2009
- The Malaysian Anti-Corruption Commission (Amendment) Act 2018
- Any amendments or re-enactments made periodically by the relevant authority

# Sustainability Statement

We take a zero-tolerance approach on bribery and corruption. Our Anti-Bribery and Corruption Policy clearly prohibits:

- The offer or promise of a bribe or anything that can be interpreted as a bribe to secure or award an improper business advantage;
- Individuals from requesting or receiving a bribe or anything that may be construed as a bribe from a third party knowing or suspecting it is offered with the expectation that it will obtain a business advantage;
- Anyone from making or accepting facilitation payments or kickbacks of any kind; and
- Associates from engaging in any activity that might lead to facilitation payments or kickbacks being made or accepted.

Upholding anti-corruption and anti-bribery in our Group is a core part of maintaining integrity in our business operations and business practices. In 2022, we have made sure that all levels of the organisation have been involved with anti-corruption measures.

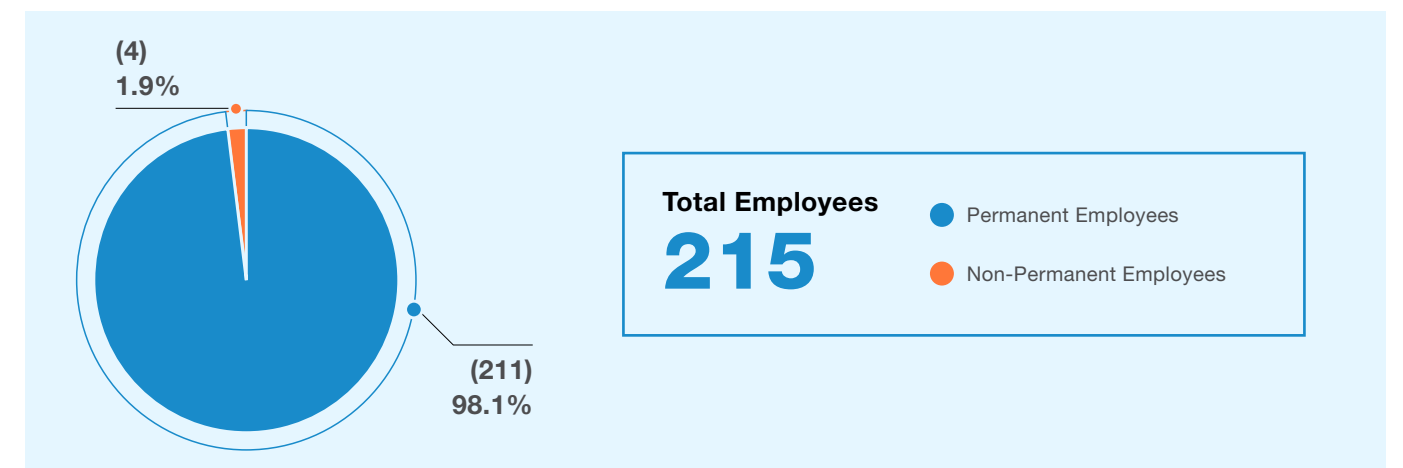
Anti-corruption Measures in 2022	Board Members	Employees in Management Positions	Employees below Management Positions
Communication of anti-corruption policies and procedures	100%	100%	100%
Training on anti-corruption	100%	100%	100%

Besides ensuring that our Board and employees meet our expectations on anti-corruption, we also engage with our suppliers, contractors and customers in this regard.

Anti-corruption Measures in 2022	Suppliers/ Contractors	Customers
Communication of anti-corruption policies and procedures	100%	100%

Any contributions and donations are made in good faith in compliance with the Code of Business Conduct and Ethics and other relevant policies and procedures. Further, there were no contributions or donations that were made for the purposes of political parties or political campaigns.

In 2022, the Group has conducted a comprehensive series of communication and trainings aimed at promoting compliance, providing knowledge and building a culture of integrity with regards to anti-corruption policies and procedures. Two hundred and fifteen (215) employees, comprising 98.1% of KAB's permanent employees (211 individuals) and 1.9% of non-permanent employees (4 individuals), attended the sessions.





## MARKET PRESENCE AND LOCAL ECONOMIC DEVELOPMENT

The Group's employment policy and practices also extend to the commitment towards local employment. Local recruitment and offering jobs to young talent help strengthen the local community where operations are based. In 2022, there is 100.0% local hiring including engineers and supervisors at all projects.

Throughout our operations in the headquarters and the diverse operational sites, the Group supports local economic development by hiring 100.0% locally, this means that 100.0% of senior management is also hired from the local community.

Additionally, the Group abides by Malaysia's Minimum Wage Order (PMG) 2022 that came into effect on 1 May 2022 where all sectors will have to comply with the MYR1,500 minimum pay (exemption were given to employers who employed five (5) staff or below who would need to implement them only on 1 January 2023). All employees within the Group are compensated based on wages subject to minimum wage rules. Hence, 100.0% entry level employees including both male and female comply with the minimum wage regulations.

## RESPONSIBLE AND FAIR COMPETITION

For the first time, the Group's stakeholders have measured the impact that the Group business activities and operations have in terms of responsible and fair competition. This is indeed the case in some areas where market players engage in unfair methodologies such as illegal lobbying, price fixing, or collusion with potential competitors, with the purpose of limiting the effects of market competition.

The Board of the Group, in its decision-making process, is determined to avoid any anti-competitive behaviour throughout the value chain of the Group. Anti-competitive behaviour that the Group avoids, includes:

- Allocating customers, suppliers, geographic areas, and product lines
- Coordinating bids
- Creating market or output restrictions
- Fixing prices
- Imposing geographic quotas

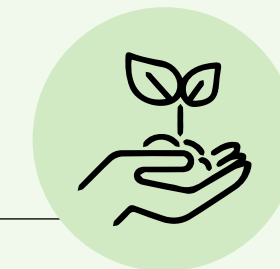
Additionally, the Group also avoids anti-trust and monopoly practice, i.e. actions that can result in collusion to erect barriers for entry to the sector, or another collusive action that prevents competition, these include:

- Abuse of market position
- Anti-competitive mergers
- Cartels
- Unfair business practices

In 2022, there were no legal actions pending or completed regarding anti-competitive behaviour and violations of anti-trust and monopoly legislation in which the Group has been identified as a participant.

## Managing Our

# CLIMATE AND ENVIRONMENTAL IMPACTS



In 2022, we continue our journey in "Energising Climate Action" since 2021. Climate change continues to be perceived as the gravest threat to humanity, according to the latest World Economic Forum Global Risk Report. "Climate action failure" was rated as the risk with potential to inflict the most damage at a global scale over the next decade. In the Report, "extreme weather" and "climate action failure" are among the top five short-term risks to the world, but the five most menacing long-term threats are all environmental.

In this regard, the Group has continued to forge ahead to align its operations internally, and services externally to meet global climate change and climate action commitments. As we are still at the beginning of our climate action journey, we continue to accelerate our progress towards achieving our sustainability aspirations particularly in the environmental dimension. Once again, the Group reiterates the mantra "For a Greener Earth" in our Sustainable business and operations in 2022.

## MANAGING MATERIALS AND WASTE RESPONSIBLY

A large quantity of materials is consumed and substantial waste is generated as a result of the Group's activities, such as during the provision of our services in various locations. It can also be generated by entities upstream and downstream in the Group's value chain. The Group understands that our business activities cause and contribute to environmental impacts through the use materials and disposal of waste. The Group has implemented its environmentally sound material and waste management, also through encouraging reusing and recycling.

In 2021, materials and waste were not listed as Material Topics. However, the Group has reporting useful information with regards to materials and waste in the Group's Sustainability Report 2021. In 2022, the latest stakeholder engagement, impact assessment and materiality process has enabled the Group to identify that materials and waste are ranked as the No. 1 material topic amongst all Sustainable matters.

As an engineering services and energy solutions provider, the Group manages its environmental impacts by tracking its materials and waste. The type and number of materials the Group uses can indicate its dependence on natural resources, and the impacts it has on the availability of these resources. The Group's contribution to resource conservation can be indicated by its approach to recycling, reusing and reclaiming materials, products, and packaging. Proper material planning and selection enables the Group to not only manage its environmental impacts, but also its costs and other business risks.

The primary materials that are used for the Group's business activities in engineering and energy solutions are cables. In 2022, there are a total number of forty-five (45) projects sites that were in operation across the Group that had contributed to the usage of cables. These are non-renewable materials that are sourced from our suppliers:

- A total of 23,444,031.73 kilogram ("kg") of cables were used in 2022.
- The calculation of the consumption of cables were from direct measurements across all forty-five (45) project sites.
- Cables supplies are delivered to the various sites at periodical schedules, whereby a record across all sites are tabulated in a consolidated monthly record.

Additionally, paper for office use was also one of the primary materials that are used for the Group's business activities in 2022, including for the functions of the headquarters and active subsidiaries:

1. 539 rims of A4 (70g) paper, with each rim consisting 500 sheets.  
The total usage of A4 paper used in 2022 is 18,865 kg.
2. 39 rims of A3 (80g) paper, with each rim consisting 500 sheets.  
The total usage of A3 paper used in 2022 is 1,560 kg.
3. The total usage of paper in 2022 comes to a total of 20,425 kg.

## Sustainability Statement

The Group has noticed the significant amount of paper that is used in the business operations. High amounts of paper consumption create significant environmental impact. On the other hand, due to internal and regulatory requirements as an engineering and energy solutions provider, there are certain information that require paper submission or paper records. To continue reducing its environment impact, the Group will begin its baselining process to further identify digitisation targets in line with internal and regulatory requirements.

In the digitisation process, the Group does not decrease one form of material consumption while increasing another form of resources in the process – i.e. reducing paper consumption through digitisation but consuming more physical information technology (IT) resources. One significant differentiator between the Group and other industry players in the sector is its effort to reduce electronic waste through an innovative way of utilising its IT equipment.

Since 2019, the Group has signed up with a vendor, Rentwise Malaysia, who specialised in remanufactured carbon neutral computers, to green its IT infrastructure by using rental and remanufactured IT equipment such as laptops and computers. Reusing and recycling IT products help reduce e-waste, which fits with our Sustainability principles to manage and reduce materials and waste in our operations. To date, the Group has a total of one hundred and twenty-three (123) units of remanufactured laptop and four (4) units of remanufactured desktops which are on rental basis.

On 2 February 2023, Rentwise Malaysia presented to Datin Alicia Chan, Executive Director (Group Chief Operation Officer) also a member of the Sustainability Committee, being the representative of KAB Group of Companies to receive a token of appreciation for embracing circular economy and embarking on the decarbonisation journey with the use of remanufactured computers.

The Group has also maintained its commitments to limit negative environmental impacts that relate to the waste in the Group's business activities. The Group's business operations, entities and stakeholders comply overarchingly with the Group's Environmental Policy. Specific to various areas of waste management, the Group has more detailed procedures, processes and plans.

The Group manages materials and waste in accordance to the grouping of the product:

<b>Plastic</b> - PVC Conduit - Package material	Keep separated in designated areas on-site. Keep separate for reuse by on-site construction or by site employees.
<b>Timber</b> - Drum Cable	Keep separated in designated areas on-site. Recycle with waste Management.
<b>Scrap Metal</b> - Trays - Trunkings	Keep separated in designated areas on-site. Keep separate for reuse by on-site construction or by site employees.
<b>Scrap cable</b>	Keep separated in designated areas on-site; Management will keep at storage Keep separate for reuse by on-site construction or by site employees
<b>Paper</b>	Online document submission system to centralise documents in cloud-based folders – minimise paper waste and boosts efficiency as files are stored digitally and printing is significantly reduced.

## Sustainability Statement

In 2022, the Group has begun to track its waste more targetedly in accordance with the Integrated Management System (IMS), beginning in the last quarter of the year.

Scheduled Waste at Headquarters	Metric Tonnes
1. E-waste	0.011
2. Contaminated Waste (Contaminated Container)	0.0002
<b>Total</b>	<b>0.013</b>

Scheduled Waste from Project Sites	Metric Tonnes
1. Contaminated Waste (Contaminated Container)	0.0441
<b>Total</b>	<b>0.0441</b>

Recyclable Waste (diverted from Landfill Disposals)	Metric Tonnes
1. Paper Material	0.2085
2. Plastic Material	0.008
3. Steel	0.0005
<b>Total</b>	<b>0.217</b>

The Group, in line with its IMS implementation and certification, puts more detailed emphasis on the significant waste-related impacts it has on the environment, whereby the Group has established its Environmental Aspects Impacts Register.

On October 2022, the Group had fully implemented its waste management practices. For the past two (2) years, the Group has been practicing these measures to ensure that all employees are familiar with and can easily adapt to the changes. The Group recognises the importance of proper waste management in reducing the impact on the environment.

Therefore, three types of waste management have been implemented:

- General Waste
- Recycle Waste
- Schedule Waste

For General Waste, the Group's has set up a collection schedule occurring three (3) times per week. General Waste refers to waste that cannot be recycled or reused, and proper disposal aims to reduce the environmental impact.

For Recycle Waste, the Group's has set up a collection schedule occurring twice a month, with two (2) types of Recycle Waste: plastic and paper. Proper recycling of these materials aims to reduce environmental impact and contribute to a more sustainable future.

In addition, the Group has registered with the Department of Environment (DOE) for Schedule Waste collection, which occurs every six (6) months. The Group's has registered for three (3) types of Schedule Waste: code SW110, SW409, and SW418. The use of a DOE-licensed transporter for Schedule Waste collection ensures that the waste is disposed-off properly and in compliance with DOE regulations.



## MANAGING OUR ENERGY AND EMISSIONS FOOTPRINT

Being a significant player in the electrical engineering sector, it is obvious that environmental matters evolving around “energy” would be significantly material to us. Our business model, business strategy and our stakeholders through our stakeholder engagements have shown that energy matters are deeply rooted in our identity and growth trajectory. While energy is at the core of our business, the generation, distribution and use of energy is the main contributor to climate change through greenhouse gas emissions. Hence, the Group along with its stakeholders view that both the management of energy and energy-related emissions is inseparable.

The impacts of energy and emissions are present in every organisation and operational boundary, as long as we consume energy or electricity one way or another. The burning of coal, natural gas, and oil for electricity and heat is the largest single source of global greenhouse gas emissions. Hence, we link our approach to energy and emissions by using the GHG Protocol Corporate Accounting and Reporting Standard as a key guidance and reference, where our calculations use the location-based method across our headquarters and active subsidiaries.

As an engineering and energy solutions provider, we manage energy and emissions both internally through our operations, and externally via our products and services. We do our best to minimise negative impacts and increase positive impacts by both having internal initiatives and also providing the market with better and more efficient energy solutions such as renewable energy with our business relationships (such as vendors and customers) in the value chain.

Internally, we continue to drive the reduction of energy and emissions. All our offices and sites focus on reducing the energy consumption by implementing energy-efficient programmes and practices. We continue with practices to reduce energy consumption by:

- Turning off non-essential electrical appliances including lighting that are not in use such as during lunch breaks and when the employees of the location is required to work from home
- Increasing the use of energy saving LED lights
- Using timers on air conditions in our offices for be more efficient in reducing energy wastage

Externally through our Sustainable Energy Solutions (SES) portfolio, we have several key areas of focus, namely chiller optimisation, co-generation, waste heat generation and solar photovoltaic systems. For the purposes of energy to emissions calculations, the Group uses the Grid Emission Factor of Peninsular Malaysia in 2017 of 0.585 tCO<sub>2</sub>e/MWh according to the Malaysia Green Technology Corporation’s CDM Electricity Baseline for Malaysia.

### 1. Chiller Optimisation

- There are currently 4 projects in operations throughout Malaysia by 2022
- The of energy saved for these 4 projects in 2022 comes to a total of 1,234,511 kWh.
- This means that there is an estimated avoidance of 722.19 tCO<sub>2</sub>e avoided emissions in 2022 from the reduction of energy consumption in the chiller operations of the buildings in these projects.

Chiller Optimisation Savings	2021	2022
Energy Saved (Electricity)	1,768,570 kWh	<b>1,234,511 kWh</b>

### 2. Co-generation

Co-generation	2021	2022
Energy Produced (Electricity)	3,328,891 kWh	<b>7,784,290.54 kWh</b>

### 3. Waste Heat Recovery

- The Group’s ORC waste heat recovery facility started operations since July 2020.
- For the year 2022, the project generated a total of 9,909,942.00 kWh, whereby an equivalent of 5,797.32 tCO<sub>2</sub>e was avoided compared to fossil-fuel generation.

Waste Heat Recovery	2021	2022
Energy Produced (Electricity)	7,254,829 kWh	<b>9,909,942 kWh</b>

### 4. Solar Photovoltaic System

As of 2022, we have a total of 5 awarded projects with a total capacity of 16,176kW peak output. We will continue to pursue aggressively solar projects that has been proven to be one of the cleanest energy generation technologies to-date.

Solar PV System	2021	2022
Energy Produced (Electricity)	214,572 kWh	<b>5,051,779 kWh</b>

The Group is proud to have increased solar photovoltaic energy generation by more than 20 times from 2021 to 2022. In 2022, the Group has avoided the total of 2,955 tCO<sub>2</sub>e through its renewable energy generation.

In totality, the energy consumption within the Group in 2022 includes purchased energy from the national grid, and also natural gas for the generation of electricity in our co-generation project.

Non-renewable – Natural Gas	2019	2020	2021	2022
kWh	0	0	9,525,668	<b>21,687,511.37</b>

Electricity Purchased for Consumption	2019	2020	2021	2022
kWh	95,334	83,701	101,357	<b>108,174</b>

Electricity Sold	2019	2020	2021	2022
Co-generation (kWh)	0	0	3,328,891	<b>7,784,290.54</b>
Waste Heat Recovery (kWh)	0	0	7,254,829	<b>9,909,942</b>
Solar (kWh)	0	0	214,572.94	<b>5,051,779.30</b>
Total (kWh)	0	0	10,690,083.94	<b>22,746,011.84</b>

Description	kWh
Non-renewable fuel consumed (Natural Gas)	21,687,511.37
Renewable fuel consumed	0
Electricity purchased for consumption	108,174
Self-generated electricity which are not consumed	0
Electricity sold (-)	(22,746,011.84)
<b>Total Energy Consumption (Net)</b>	<b>(950,326.47)</b>

## Sustainability Statement

The total energy consumption shows that the Group has produced more than it has consumed energy in 2022, to the amount of 950,326.47 kWh.

While managing our energy mix and energy balance, the Group is also focusing on reducing our emissions.

For the initial stages, we have begun focusing on energy and Scope 1 and Scope 2 emissions throughout the Group, in line with our Environmental Policy and our Net Zero Commitments. The Group is aspiring to achieve its Scope 1 and Scope 2 emission Net Zero goals by 2050. In the later stages of our planning, a more comprehensive list of Scope 3 emissions would be identified for upstream and downstream activities, whereby our Net Zero goals would include our Scope 3 emissions.

We base all our management and calculation of emissions data based on the GRI Standards and also the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition). The consolidation approach for emissions of our boundaries is where we have full or significant equity share of the entity.

For the purposes of our calculations, the global warming potential (GWP) values, when necessary, shall be based on the IPCC 5th Assessment Report 2014 (AR5), while the emission factor for energy, i.e. 0.585 tCO<sub>2</sub>/MWh, is according to Malaysia Green Technology Corporation's CDM Electricity Baseline for Malaysia (2017) – Peninsular Grid.

### Scope 1 Emissions

In 2022, the Group has begun tracking the fuel consumption for all Group-owned vehicles, separated in detailed monthly reports for both Petrol and Diesel fuel. The emissions factor used for Petrol is 0.002162 tCO<sub>2</sub>e/litre and Diesel is 0.002558 tCO<sub>2</sub>e/litre, in accordance with Carbon Trust's Energy and Carbon Conversion 2022 Update. The increase in the emissions of Group-owned vehicles in 2022 was due to the addition of diesel in our GHG accounting.

Group-owned Vehicles	Litres	Emissions (tCO <sub>2</sub> e)
Petrol	26,230.94	56.71
Diesel	1,179.00	3.02
<b>Total</b>	-	<b>59.72</b>

Group-owned Vehicles	2019	2020	2021	2022
Emissions (tCO <sub>2</sub> e)	32.6	30.1	54.3	<b>59.72</b>

Since September 2021, we have an addition of emissions from co-generation as a result from the combustion of natural gas. This project continued in 2022, but was in operation only for eight (8) months of the year, at the usage of 21,687,511.37 kWh of natural gas. The Group has also applied the latest emission factor in accordance with Carbon Trust's Energy and Carbon Conversion 2022 Update, i.e. 0.00018254 tCO<sub>2</sub>e/kWh. The difference and increase in emissions is because of increase natural gas consumption in the co-generation operations in the period of 2022.

Stationary Combustion – Natural Gas	2021	2022
Emissions (tCO <sub>2</sub> e)	1,702	<b>3,958.84</b>

Hence the total of Scope 1 emissions for the year 2022, including both owned transport and natural gas combustion, is 4,018.56 tCO<sub>2</sub>e. The year 2021 has been set as the base-year of the Group. From the consumption in 2022, there is an increase in Scope 1 compared to the base-year. The Group is aware of this increase, which is significantly due to the contribution from natural gas consumption in our co-generation operations, the Group continues to look into better solutions to manage Scope 1 emissions.

Total Scope 1 of the Group	2021	2022
Emissions (tCO <sub>2</sub> e)	1,756	<b>4,018.56</b>

## Sustainability Statement

### Scope 2 Emissions

For the reporting period from January to December 2022, our purchased electricity was 108,174 kWh.

Energy indirect – Purchased Electricity	2019	2020	2021	2022
Emissions (tCO <sub>2</sub> e)	55.8	49.0	59.3	<b>63</b>

In 2022, emissions began to rise as a result of increased purchase electricity linked to the expansion and increase in business activities. The Group considers this increment a guiding indicator for its plan to utilise renewable energy in its own operation and at the same time explore Renewable Energy Certificates (REC) to reduce its Scope 2 emissions.

### Scope 1 and Scope 2 Emissions

Total Scope 1 and Scope 2 of the Group	2021	2022
Emissions (tCO <sub>2</sub> e)	1,815.3	<b>4,081.56</b>

The Group is currently giving significant attention to the reduction of its combined Scope 1 and Scope 2 emissions, taking note that there is more than two (2) times increase when compared between 2021 and 2022. This does not mean that the Group is increasing direct and indirect emissions intentionally, but is part of the Group taking on customer-side emissions in its expansion of co-generation business. Nevertheless, the Group would continue being transparent on its Net Zero journey, and will be putting in place significant measures by 2023 to reduce these emissions.

### Scope 3 Emissions

For business travel (air travel) calculations, 2021 has been set as the base-year, as reported in the previous year's Sustainability Report. Estimation is based on airport-to-airport flight distance estimations. From 2022, emissions factor of the Group refers to the Carbon Trust's Energy and Carbon Conversion 2022 Update for short haul flights based on passenger kilometres (pkm). A total number of 12,568.00 pkm was estimated for the year 2022.

Category 6: Business travel – air travel	2019	2020	2021	2022
Emissions (tCO <sub>2</sub> e)	4.4	1.2	1	<b>1.93</b>

In 2022 the Group continues to track significant Scope 3 emissions that come from our employee commuting (Category 7: Employee Commuting), whereby 2021 has been set as the base-year. The average data method in accordance to GHG Protocol is used as the base for calculations, with parameters including two hundred and sixty-one (261) working days (average five (5) working days a week) in Malaysia in 2021 and assumption that employees use private passenger cars, and an average of 20km round-trip per day for commuting to work.

According to the GHG Protocol Technical Guidance for Scope 3 Emissions: "Companies may use average secondary activity data to estimate distance travelled and mode of transport. This may include using:

- Average daily commuting distances of typical employees
- Average modes of transport of typical employees
- Average number of commuting days per week and average number of weeks worked per year."



## Scope 3 Emissions

Emissions conversions are based on Carbon Trust's Energy and Carbon Conversion 2022 Update for Medium 1.4-2.0 liter petrol passenger transport.

Category 7: Employee commuting	2021	2022
Emissions (tCO <sub>2</sub> e) – Passenger Cars	19.65	<b>19.55</b>

The total amount of Scope 3 Emissions in 2022, including both Categories 6 and 7, is 21.48 tCO<sub>2</sub>e.

Total Scope 3 Emissions (Category 6 and 7)	2021	2022
Emissions (tCO <sub>2</sub> e)	20.65	<b>21.48</b>

## BEING RESPONSIBLE FOR OUR WATER IMPACTS

Through understanding its water use, the Group can assess the impacts it has on water resources that benefit the ecosystem, other water users, and the Group itself. The Group uses relevant information for effective water management.

Employees, workers, supplier, contractors and customer workers need to adhere to the Environmental Policy. Water usage at sites is monitored, water wastage is reduced by minimising leakages in water distribution, e.g. pipes and faucets. The Group works with local water authorities and local contractors whenever necessary to minimise non-revenue water (NRW). The Group's sites also practice shared water resource with other parties at the same site, as much as it is possible.

Water consumption and usage increases proportional to the increase of headcount in the workplace. Targets will be set as to the average water use per employee, in order to track the reduction of water.

The Group currently does not engage in operations at water-stressed areas and areas with high water-related risks, and at present does not have financial quantification of water-related risks. The Group does not have any withdrawal from natural sites, nor has any water and effluent discharge at natural site (only to the national sewerage system).

Potable water consumption				
Year	2019	2020	2021	2022
(m <sup>3</sup> )	411	412	433	<b>822</b>

## Managing Our

# PEOPLE AND SOCIAL IMPACTS



In our Sustainability journey, we continue to be responsible for people throughout our business operations, from our corporate headquarters, to our subsidiaries locally and overseas, and to our various ongoing project sites, where all our impacts occur. Our Board and management have central oversight and measures of all people-related matters throughout the entire organisation through various committees including Sustainability Committee and Sustainability Team. Even though we have cross-country operations, we ensure that all people-related matters comply with our Group policies, the respective local legislations, and international principles and standards.

As seen in the Group's Sustainability strategy and approach, our specific policies such as our Sustainability Policy and Human Rights Policy enables the Group to manage our people and social impacts effectively, while tracking the performance of the Group year after year.

The Group implements its Workplace Environment, Occupational Safety and Health Policy throughout its activities and operations in its headquarters and subsidiaries. To achieve our goals and responsibilities in terms of occupational safety and health, The Group has been implementing its Occupational health and safety management system (OH&S) management system, that is in compliance with Occupational Safety and Health Act 1994 (Act 514) and Regulations, Factories and Machinery (Building Operation and Works of Engineering Construction) (Safety) Regulations 1986, and in accordance to the Group's Workplace Environment Occupational Safety and Health Policy. In addition to regulations, the occupational safety and health management system at project sites that we are involved in also follow globally recognised standards such as ISO 45001:2018.

The safety goals of every contract that is signed between KAB and its main contractors and sub-contractors are:

1. Zero (0) fatal accidents
2. Zero (0) dangerous incidents
3. Accident Frequency Rate (AFR) of less than sixty (60) serious accidents per one thousand (1,000) workers per year

The OH&S management system in principle covers all levels of employees, activities and workplaces within the Group's operations. The OH&S management system also achieves continual improvements in overall OH&S performance, by integrating practises such as five (5) S - sort, set in order, shine, standardise and sustain.

The occupational health and safety management system of the Group encompasses roles and responsibilities that are defined clearly for all key persons to implement the Group's policies.

1. Safety and Health Manager
2. Safety & Health Officer / Site Safety Supervisor / Safety Engineer / Junior Site Safety Supervisor

The Group implements its Hazard Identification, Risk Assessment and Risk Control (HIRARC) rigorously and diligently to ensure processes are used to identify work-related hazards and assess risks on a routine and non-routine basis, and to apply the hierarchy of controls in order to eliminate hazards and minimise risks. The Group's HIRARC criteria have been reviewed and updated in 2022 in line with its IMS.

The HIRARC Procedure of the Group was also established, to provide actions and guidance to achieve ongoing hazard identification, risk assessment and determination of necessary controls, and planning for the development of risk control. The procedures are also to evaluate and identify non-tolerable and tolerable risks and create the framework for establishment of the OH&S improvement programs.

The Group maintains an updated HIRARC Register Master List that covers areas such as welding, conduit installation, electrical works, scaffolding, ceiling light installation, and housekeeping, whereby Hierarchy of Control includes elimination, substitution, engineering, administrative, signage, standard operating procedures and PPE.

In order to promote health in the Group, employees are covered under general medical expenses according to the Employment Act & Labour Law of Malaysia as per Clause 60(F). The Group facilitates employees' access to non-occupational medical and healthcare services by providing annual medical expenses to eligible employees in accordance to their work grades in the organisational structure.

In addition to annual expenses, insurance plans are also provided for employees to cover the following:

- In-Hospital Care (Hospital Room and Board)
- Ambulatory Care
- Temporary Disability
- Permanent Disability
- Life Insurance

While taking full responsibility and care over the safety and health of our employees and workers, the Group also seeks to prevent and mitigate OH&S impacts that are linked to our business relationships and projects. We work very closely with our subcontractors to ensure that any OH&S impacts are well managed. To start off, contract provisions require subcontractors to prepare, implement and monitor safety plans, while at the same time subcontractors have to ensure that their own subcontractors also comply with these safety plans. Education and training are also coordinated with our subcontractors that relate to safety regulation, safety patrol, safety committee meetings, and safety instructions.

Additionally, the Group conducts Environmental, Safety and Health (ESH) induction on ESH requirements for new joiners. This is implemented at workplaces and Toolbox talks are held on a weekly basis at sites which covers specific topic relevant to events to be conducted. A record of the Toolbox talks that are conducted including any photographic evidence taken must be submitted into WhatsApp's Safety Group.

All employees and workers in the Group in 2022 are covered by the OH&S management system.

Generally, there are no major incidents or accidents that have occurred during the year involving our employees and workers.

Description	2018	2019	2020	2021	2022
Fatality Cases	0	0	0	0	0
Lost Workday Cases	0	0	0	0	0
Restricted Workday Cases	0	0	0	0	0
First Aid Cases	0	0	0	0	0
Near Miss / Close Call Cases	0	0	0	0	0
Dangerous Occurrence Cases	0	0	0	0	0
Fire Cases	0	0	0	0	0
Property Damage Cases	0	0	0	0	0
Vehicle Accident Cases	0	0	0	0	0
No. of Days Lost	0	0	0	0	0

As the number of our projects continue to grow, we continue to uphold our responsibilities in terms of safety and health in all our project sites to contribute to ensuring zero (0) incidents with our contractors' workers and any member of the public. Where there are any incidents involving fatalities or high-consequence work-related injuries that are not suffered by our own employees and workers, but are suffered by our contractor's workers or any member of the public that are involved in our project sites, our management and safety committee shall provide full cooperation in any engagements and investigations with the relevant authorities.

Specifically, for all our employees in 2022:

Description	Number of Incidence(s)	Rate
<b>Fatalities due to Work Related Injuries</b>	Zero incident	0.0
<b>High Consequence Work Related Injuries</b> (excluding fatalities)	Zero incident	0.0
<b>Recordable Work-Related Injuries</b>	Zero incident	0.0
<b>Main Types of Work-Related Injuries</b>	Death, amputation of a limb, laceration, fracture, hernia, burns, loss of consciousness, and paralysis, etc.	
<b>Number of Hours Worked</b>	200,000	

For all workers who are not employees but whose work and/or workplace is controlled by the Group in 2022:

Description	Number of Incidence(s)	Rate
<b>Fatalities due to Work Related Injuries</b>	Zero incident	0.0
<b>High Consequence Work Related Injuries</b> (excluding fatalities)	Zero incident	0.0
<b>Recordable Work-Related Injuries</b>	Zero incident	0.0
<b>Main Types of Work-Related Injuries</b>	Death, amputation of a limb, laceration, fracture, hernia, burns, loss of consciousness, and paralysis, etc.	
<b>Number of Hours Worked</b>	200,000	

"High Consequence Work Related Injuries" relates to work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within six (6) months.

"Recordable Work Related Injuries" refers to work-related injury or ill health that results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness; or significant injury or ill health diagnosed by a physician or other licensed healthcare professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

The safety and health of employees is a top priority for the Group. In order to maintain a safe work environment and minimise the risk of accidents or injuries, the Group ensures that ESH activities are implemented smoothly by providing regular refreshers on ESH requirements to employees. The Group also provides proper orientation to new employees and ensures that all competent persons wear proper personal protective equipment (PPE) when handling switching or energisation of power supply. Additionally, clear signage is displayed to alert employees to any potential hazards or unsafe work areas.

Other important measures include conducting regular safety audits, providing ongoing training and education opportunities, and maintaining emergency response plans. Project teams and competent personnel are responsible for enforcing safety protocols and leading by example in their adherence to PPE and other safety requirements. By prioritising the safety and well-being of all employees, the Group can maintain a productive and positive work environment.



## TRAINING, EDUCATION, AND COMPETENCY BUILDING

The development of our employees through training, education and competency building programs are part of how the Group manage our social impacts. This is because the Group values human capital development and understands that social development begins within the organisation as well.

The Group has established its training policies and procedures across its business units to ensure training needs are identified in line with the achievement for competency of all personnel. The following are considered when identifying training needs:

- (a) Job performance
- (b) Level of skill/education
- (c) Requirements of specific jobs

Time spent on employee development training to enhance knowledge or individual skills in 2022 has largely increased. In 2021, the tracked training hours amount to an average of two (2) hours per employee. However, in 2022, the total hours of training for employees (including directors) is 3,254 hours, this comes to an average of fifteen (15) hours of training, education and competency building.

## EMPLOYMENT, HUMAN RIGHTS AND FAIR LABOUR PRACTICES

The Group in totality abides and complies with its Human Rights Policy as the central part of its employment management. All policies and practices on employment have to be anchored on the Human Rights Policy and also the Sustainability Policy (including the Group's Sustainability due diligence) so that social impacts with regards to employment is managed and addressed adequately.

Additionally, the Employee Handbook of the Group serves as a crucial policy and guidance for all matters directly involving employment and labour relations. Matters that are covered include location of employment, working hours, probation, promotion, transfer/secondment, termination, remuneration etc.

The Board's Sustainability Committee and the Sustainability Team continually reviews the people-related policies, processes and our approach to managing people. Matters are identified on a regular basis and are brought to the attention of the Sustainability Committee or the Board when necessary for decision making. Policies and procedures are reviewed at least once every two years and resulting changes would be made when deemed necessary to keep up with recent developments in standards, conventions, laws and regulations. We also benchmark ourselves with the industry that we are in by learning from peers and also the wider global trends. It comes to show that we are not taking a passive, but an active approach on our employment, labour relations and human rights dimensions.

Our Board, assisted by the Management, is responsible for developing strategies to meet the objectives of employment related policies, as well as monitoring the progress of achieving the objectives such as meeting Malaysia's target to have at least 30.0% women representation in decision-making positions and at least one female Board member, and zero involvement with forced labour, human trafficking and child labour.

For full time employees, the Group provides benefits that include:

- Group Term Life Insurance
- Group Hospitalisation Insurance
- Group Personal Accident Insurance
- Outpatient Medical Claim

The Group has established commitment and guidelines to provide a diverse workplace as the Group recognises the benefits arising from board and employee diversity. Diversity includes, but not limited to, gender, gender-orientation, age, race/ethnicity, religious, cultural background, and disabilities.

The Group commits to achieving:

- I. A diverse and skilled workforce, leading to continuous improvement in service and achievement of Group goals;
- II. Career development opportunities and improved employment for women;
- III. A workplace that value and utilise the contribution of employees with diverse backgrounds and exposures through awareness of the benefits of workforce diversity.

The Group's strategies include:

- I. Recruiting from a diverse pool of candidates for all positions;
- II. Continuously identify any factor and to take into account the recruitment and selection process to encourage gender diversity;
- III. Periodically review the succession plan to ensure gender diversity is in place.

The application of the Diversity Policy and Human Rights Policy in employment will increase the performance in increasing diversity and reducing discrimination. The Group is moving towards setting targets to improve additional workforce diversity, equal opportunities, or reduce discrimination – on race, religion, gender, gender-orientation, age, nationality and disabilities.

The Group also provides parental leave for employees. In 2022, six (6) male employees were entitled to parental leave, while two (2) female employees were given parental leave after delivering their new-borns. For female employees, they are given sixty (60) days parental leave in accordance with regulations.

To continue developing our internal competencies to manage people-related impacts, our Board, Management and employees attend trainings with regards to Human Rights in business and the workplace that are conducted by consultants and specialists in the area.

### Human Rights training in in 2022:

Hours of training	2 hours
Number of Board Members Trained	5
Number of Senior Management and Management Trained	31
Percentage of Total Employees Trained	28%

While the Board and management have ultimate oversight and governance on people-related and human rights matters, the management also takes the views of the employees when making decisions.

We ensure that timely discussions, consultations and engagements are conducted with employees of different levels when there are any significant operations changes. Unless otherwise stated in the employment contract, policies or government regulations (during emergency situations such as during the pandemic or other forms of crisis), we practice a minimum notice period of two (2) weeks, prior to the implementation of significant operational changes. This minimum notice period would also be present if there are any collective bargaining agreements that arise in the course of our business. Being responsible employers, timely and meaningful consultation allows for the affected parties to understand and be prepared for the impacts of any significant changes.