



**RANHILL UTILITIES BERHAD**

**September 2022**

**Enriching Lives Through  
Sustainable Solutions**



# AGENDA



- **Corporate Snapshot**
- Business Overview & Sustainability
- Prospects
- Financials
- Q & A

# COMPANY SNAPSHOT

## RANHILL AT A GLANCE



- Interests in **Environment, Power & Engineering Services**
- Listed on the Main Market of Bursa Malaysia since 16 March 2016

## Geographical presence - Asset Ownership & Long Term Contracts



Malaysia



China



Thailand

## KEY INVESTMENT HIGHLIGHTS



### Strong water operator with proven track record

23 years of operating track record with the lowest NRW per km pipeline



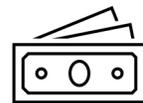
### Defensive business nature

Environment and Power being basic needs to economic activities and social well being



### Tailwind supported by government initiatives

Spillovers from various Government initiatives



### Dividend payout

Dividend payout policy of 50 - 70%

## FINANCIAL SNAPSHOT FYE2021

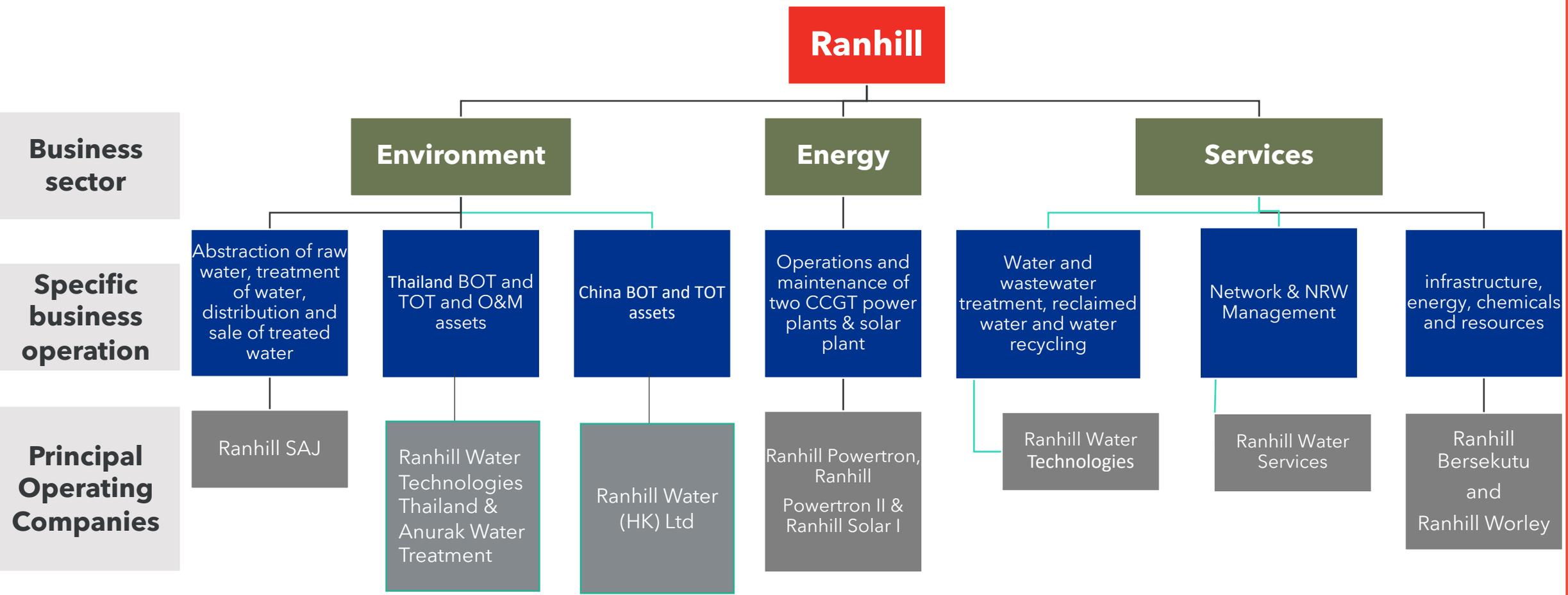
Revenue  
**RM1,530 million**

Gross Profit  
**RM339 million**

Profit before tax and zakat  
**RM 93 million**

PATAMI  
**RM 30.5 million**

# CORPORATE STRUCTURE

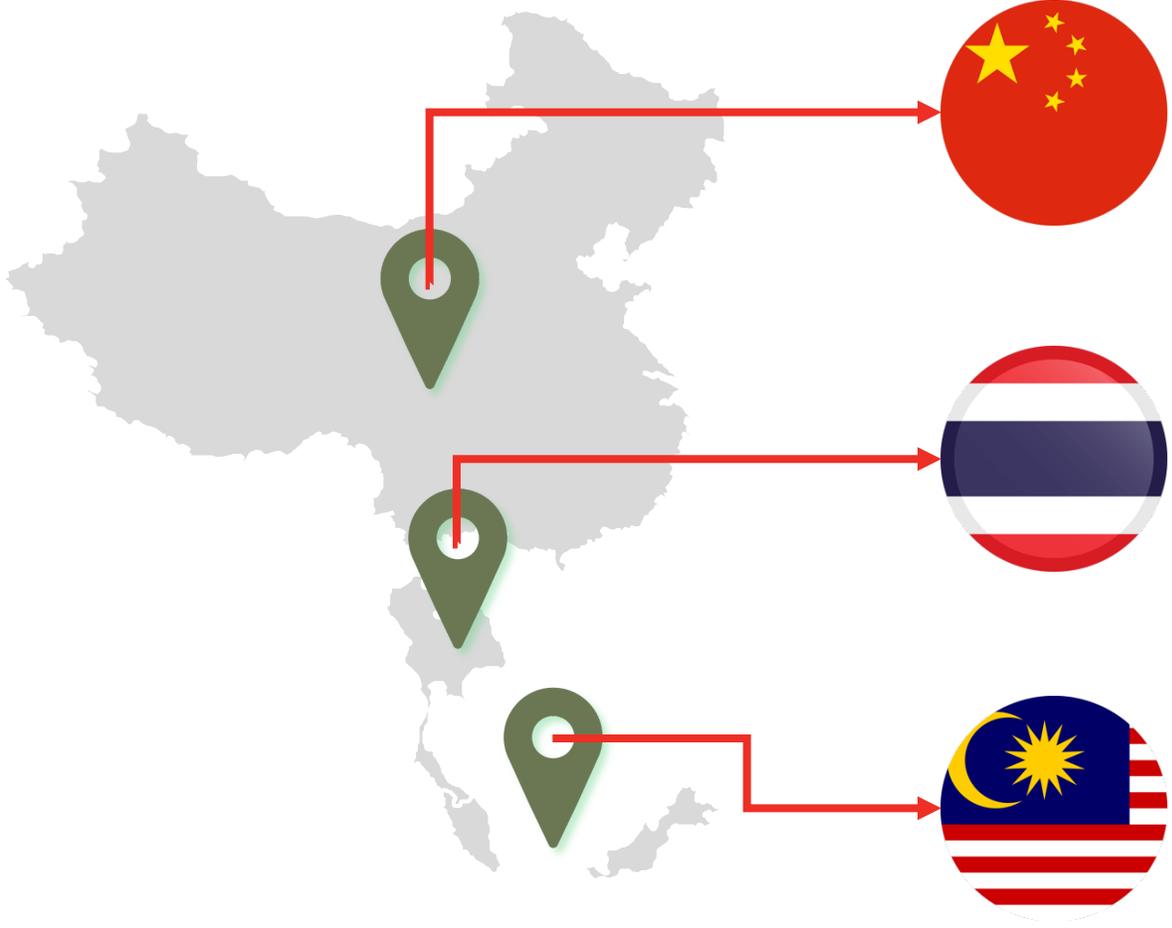


**Business sector**

**Specific business operation**

**Principal Operating Companies**

# GEOGRAPHICAL PRESENCE



- **12** wastewater treatment plants with concession period ranging from 25-30 years and design capacity of **227 MLD**



- **10** Wastewater and reclaimed water treatment plant with concession period ranging from 8-25 years and design treatment design capacity of **112 MLD**



- **Source-to-Tap Water Supply Services in Johor**
  - **46** treatment plant with total treatment design capacity of **2,133 MLD**
- **Power Business in Sabah, Malaysia**
  - **Largest IPP in Sabah** with **380MW CCGT power plants** in Kota Kinabalu Industrial Park
- **50MW LSS4 in Bidor, Perak**



Corporate Snapshot

## **Business Overview & Sustainability**

Prospects

Financials

Q & A

# BUSINESS OVERVIEW

Our Group's principal activities are segmented into the following:

## Environment



Sole and exclusive provider of source-to-tap water supply for the state of Johor since 1999



Build, own and operate Wastewater, Reclaimed water and water treatment plants in China (12) and Thailand (10)

## Energy



Build, own and operate power plants as Independent power producer in Sabah & a player in renewable energy through solar and geothermal

## Engineering Services



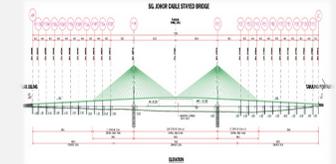
Provide multi-disciplinary engineering in various sectors and provides engineering services and MMO in the energy, chemicals, and resources sectors



Network management services on water-related projects, specialising in Non-Revenue Water management and reduction



Operate & maintain power plants



Provide multi-disciplinary engineering and PMC services in the infrastructure sector

# ENVIRONMENT

- Provides a complete *Source-to-Tap* solution for the abstraction, treatment and supply of potable water:
  - i. source to tap solution for the abstraction, treatment and supply of potable water to customer
  - ii. Billing and collections
  - iii. the treatment of wastewater
  - iv. production of reclaimed water (greywater)
  - v. Network and Non-Revenue Water ("NRW") management
- Some Key Facts:

## Total capacity

**2,133 MLD**

Clean water treatment

12 wastewater treatment plants in China with total design capacity of **227MLD**

10 wastewater and water treatment & reclaimed water treatment plant in Thailand with total treatment design capacity of **114 MLD**

**46**

Water Treatment Plants ("WTP")

**25.1%**

NRW level

**23,628 km**

Pipelines  
Distribution: 3,528 km  
Reticulation: 20,099 km

- Solid track record having consistently met KPIs set under the Operating License. Johor's water loss per km of pipeline is the lowest in the country.

# ENERGY

- The Energy Division consists of the development, ownership, operation and maintenance of two (2) Combined Cycle Gas Turbine ("CCGT") power plants and a solar farm secured in the LSS4 tender exercise.

## Ranhill Powertron I



## Ranhill Powertron II



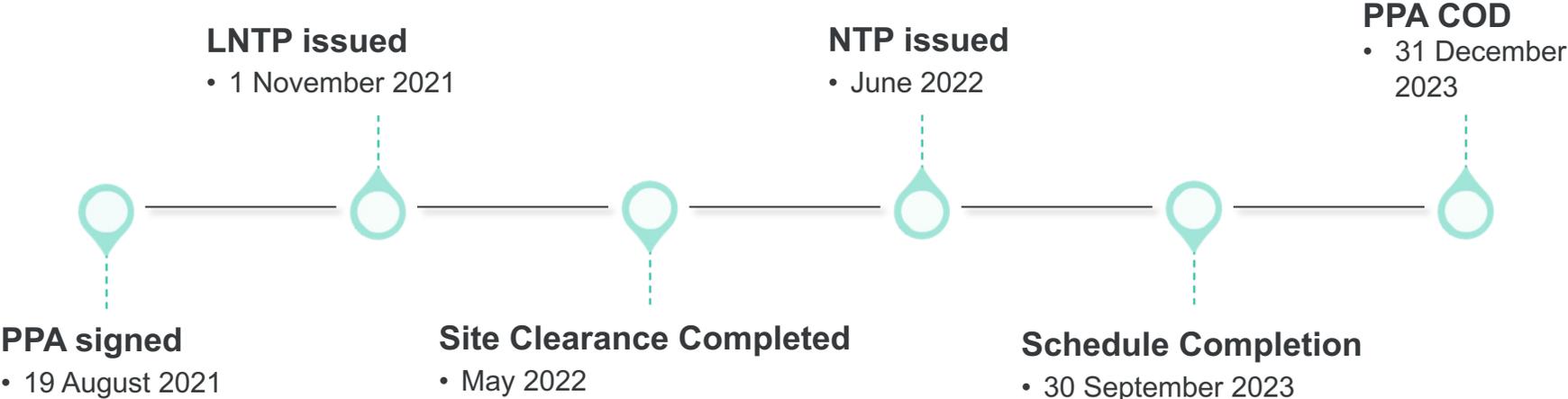
## Latest project

## Ranhill Solar Farm I



	Ranhill Powertron I	Ranhill Powertron II	Ranhill Solar Farm I
<b>Plant</b>	<ul style="list-style-type: none"> <li>CCGT power plant</li> </ul>	<ul style="list-style-type: none"> <li>CCGT power plant</li> </ul>	<ul style="list-style-type: none"> <li>Solar plant</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>190MW</li> </ul>	<ul style="list-style-type: none"> <li>190MW</li> </ul>	<ul style="list-style-type: none"> <li>50 MWac / 79.6 MWdc</li> </ul>
<b>Location</b>	<ul style="list-style-type: none"> <li>Kota Kinabalu, Sabah</li> </ul>	<ul style="list-style-type: none"> <li>Kota Kinabalu, Sabah</li> </ul>	<ul style="list-style-type: none"> <li>Bidor, Perak</li> </ul>
<b>PPA</b>	<ul style="list-style-type: none"> <li>Signed on 9 December 2004</li> </ul>	<ul style="list-style-type: none"> <li>Signed on 16 July 2008</li> </ul>	<ul style="list-style-type: none"> <li>Signed on 19 August 2021</li> </ul>
<b>Commercial Date</b>	<ul style="list-style-type: none"> <li>25 October 2008</li> </ul>	<ul style="list-style-type: none"> <li>22 April 2011</li> </ul>	<ul style="list-style-type: none"> <li>31 December 2023</li> </ul>
<b>Tenure</b>	<ul style="list-style-type: none"> <li>Expiry on 24 October 2029 (current PPA)</li> </ul>	<ul style="list-style-type: none"> <li>Expiry on 21 April 2032 (current PPA)</li> </ul>	<ul style="list-style-type: none"> <li>25 years</li> </ul>
<b>Energy Production</b>	<ul style="list-style-type: none"> <li>1,145 GWh (2021 Actual Energy Output)</li> </ul>	<ul style="list-style-type: none"> <li>1,174 GWh (2021 Actual Energy Output)</li> </ul>	<ul style="list-style-type: none"> <li>108,810 MWh (Year 1 P90 Output)</li> </ul>
<b>Off-taker</b>	<ul style="list-style-type: none"> <li>SESB</li> </ul>	<ul style="list-style-type: none"> <li>SESB</li> </ul>	<ul style="list-style-type: none"> <li>TNB</li> </ul>
<b>Status</b>	<ul style="list-style-type: none"> <li>Operating since February 1999</li> </ul>	<ul style="list-style-type: none"> <li>Operating since April 2011</li> </ul>	<ul style="list-style-type: none"> <li>19.46% completion as at August 2023</li> </ul>

# ENERGY: SOLAR FARM PROGRESS



Access road to Solar



Solar farm land clearing works completed



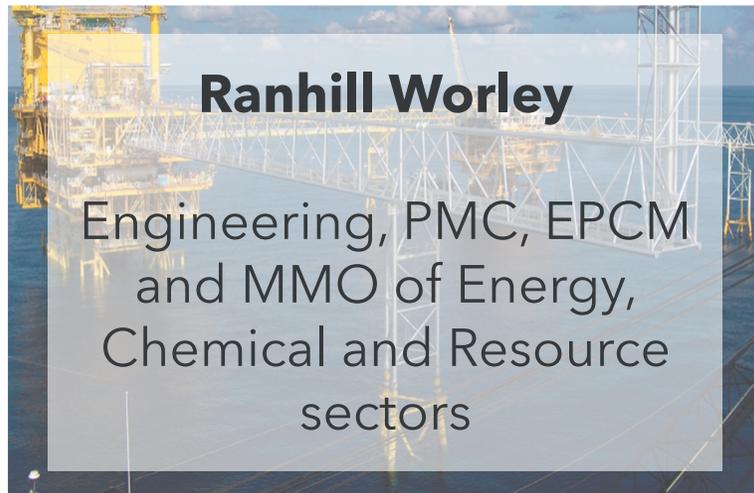
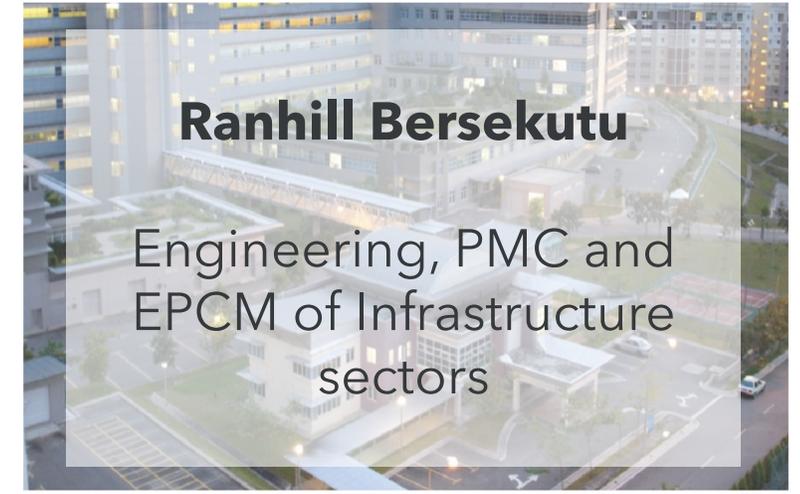
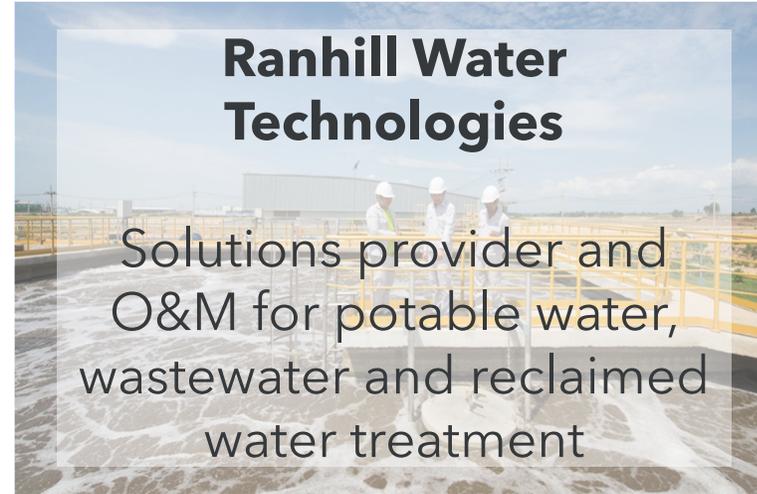
Retention pond construction

**Construction Progress**

As at 4 August RSI Solar Plant construction progress is 19.46% completed

# SERVICES

- Engineering Services sector comprises the following companies:



# SUSTAINABILITY JOURNEY

E



## Sustainability pillars

### Environmental Awareness & Preservation

- Long term NRW target level of 10%.
- Carbon Neutrality by 2050.
- Increased use of solar and mini-hydro in water operations

S



### Contribution Towards Social Wellbeing

- Provide access to underserved areas
- To develop talents for both the water and power industry
- Continuation of 100% customer complaints resolution rate

S



### Inspirational Workplace & Culture

- Encourage greater employee diversity and inclusivity
- Provide opportunities for person with disability
- Identify and equip employee with Industry 4.0 knowledge

G



### Enhancing Governance Across the Group

- Implementation of ISO Certification group wide (ISO 45001 Occupational health and safety).
- External assurance and certification on our Sustainability practices for SR reporting

## Achievements

25%  
NRW

level reduction  
in Johor



8%  
In total carbon  
emissions



Solar and mini-  
hydro to power  
water operations



10 kW hybrid micro  
hydro and solar at  
Kampung Walou, Ranau



Contributions to  
poor and hardcore  
poor households



100% customer  
complaints resolution  
rate

100%

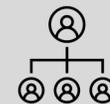
Return post  
parental leave



Disclosure  
male-female  
salary ratio

RM3.1 mil

For employee  
medical care &  
healthcare



Business continuity  
management policy  
and procedures



Anti corruption  
stance



Whistleblowing  
policy

# SUSTAINABILITY: ESG ELEMENTS

## Our commitments:



<b>6</b> CLEAN WATER AND SANITATION 	<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	<b>13</b> CLIMATE ACTION 
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## Our achievements:



Ranhill scores in the **-Top 25% ESG Rating** amongst PLCs in FBM Emas

### Ranhill Sustainability Pillars

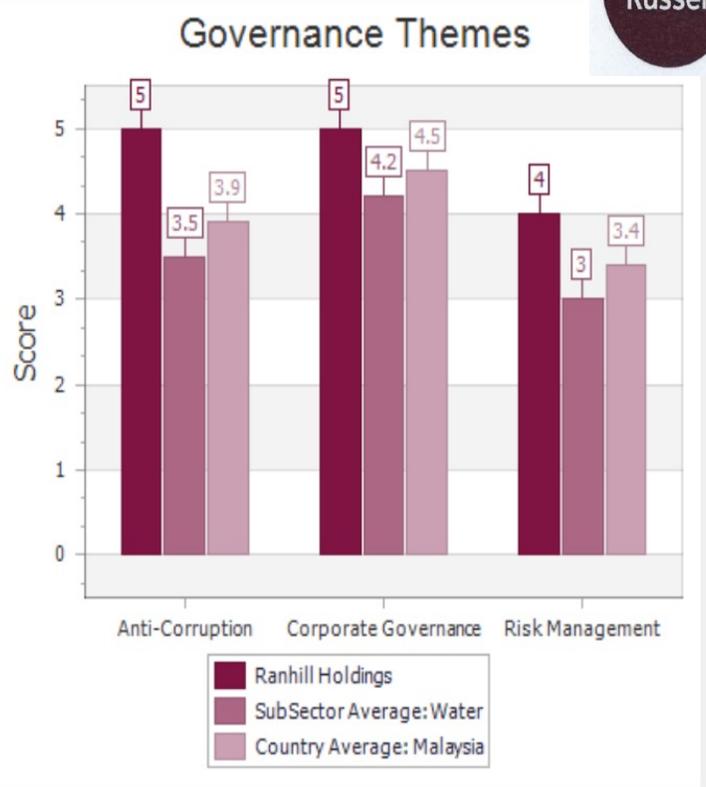
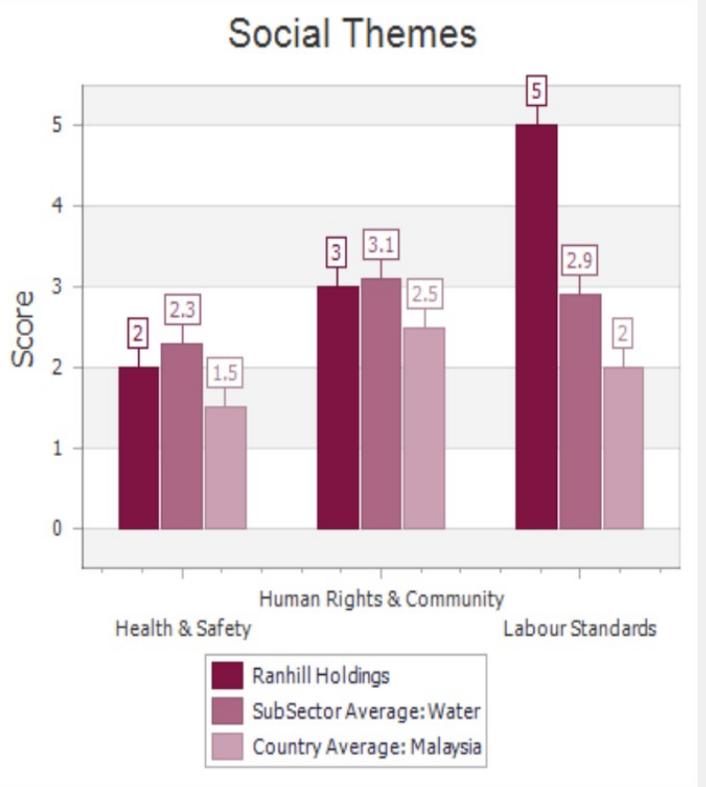
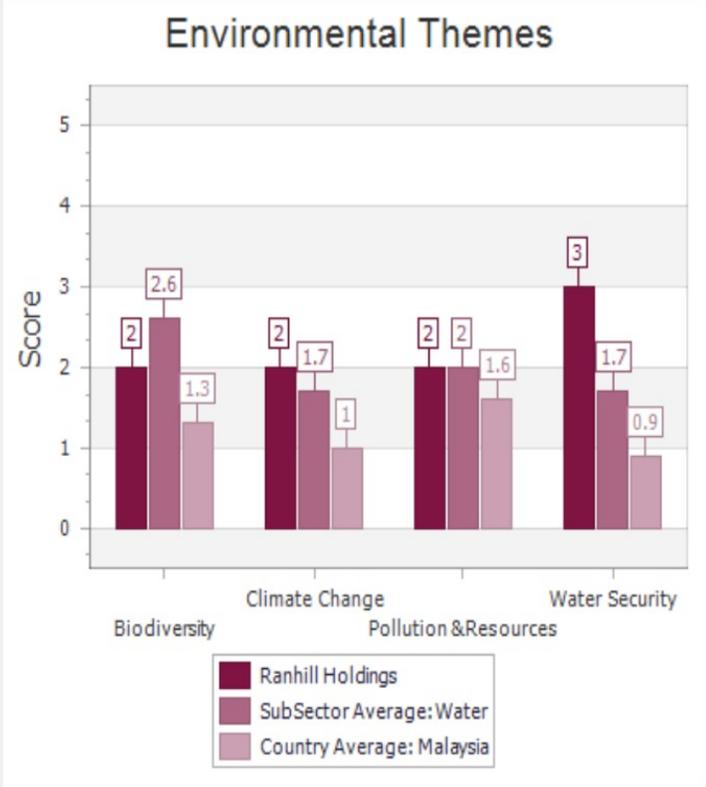
**Environmental Awareness & Preservation**

**Contribution Towards Social Wellbeing**

**Inspirational Workplace & Culture**

**Enhancing Governance Across the Group**

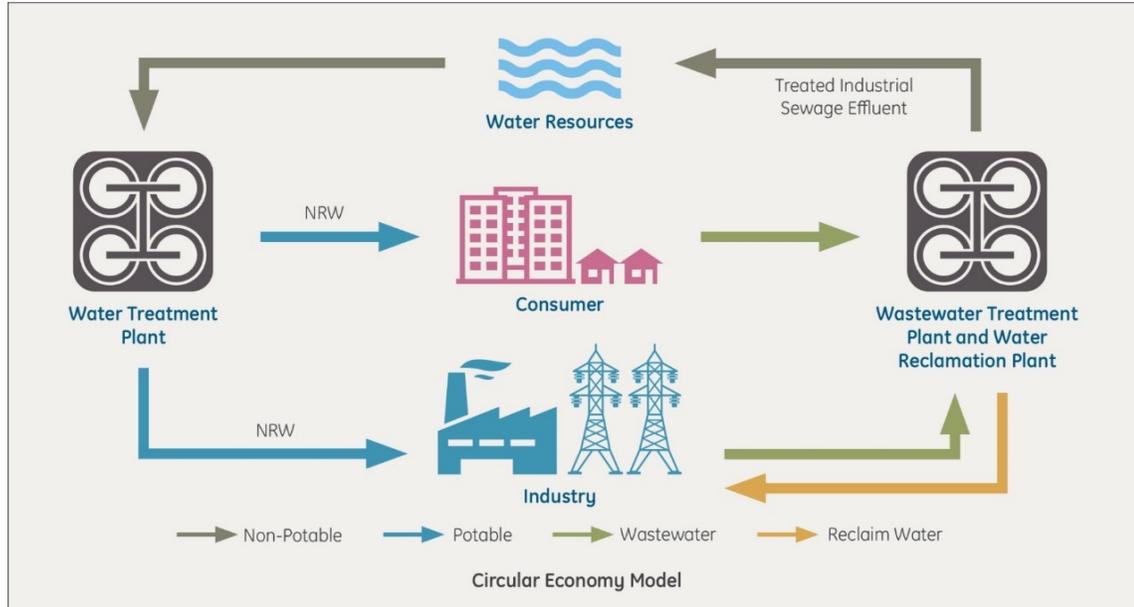
# FTSE4GOOD INDEX



*Scores Higher than Country Average in Environment, Social and Governance Themes  
 – Maximum Score in Labour Standards, Anti Corruption & Corporate Governance : 5.0 of 5.0*

# CIRCULAR ECONOMY MODEL

- Long-term sustainability



## CIRCULAR ECONOMY MODEL

- Premised on a triple-bottom line; people, planet and profit
- Goes beyond traditional profit oriented approach
- At Ranhill, implementation is reflected via our reclaim wastewater and water loss reduction
- Guided by the International Water Association's ("IWA") guideline, "Water Utility Pathways in a Circular Economy"

## ENVIRONMENTAL OPERATIONS

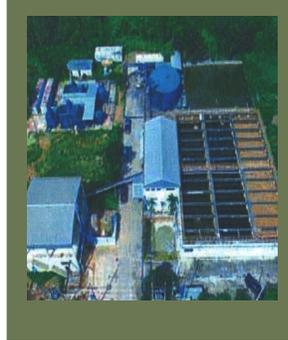
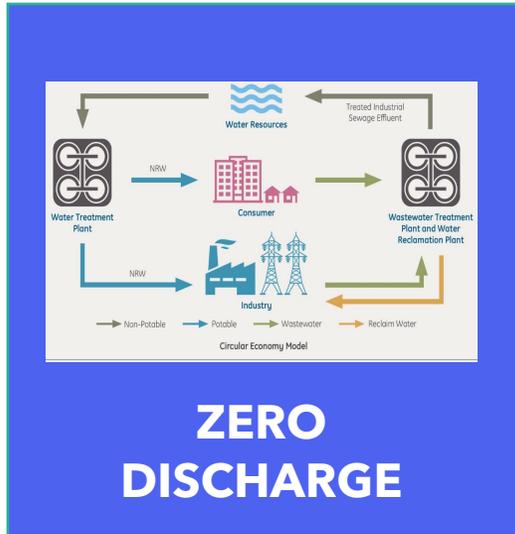
- Zero discharge policy at Amata City Chonburi, and Rayong, Thailand
- Effluent from wastewater treatment plant is treated at Ranhill's reclamation plants to a required standard for safer and cleaner waterways
- For FY2018, total volume was 3,060,386 m<sup>3</sup>

## ENERGY OPERATIONS

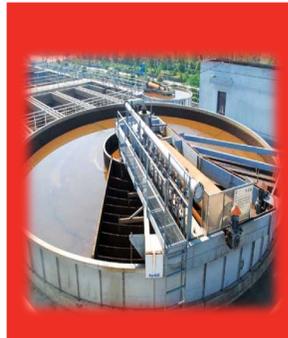
- CCGTs use both gas and steam to produce up to 50% more electricity from the same fuel than a traditional simple-cycle plant
- Resulted in lower fossil fuel consumption, reduced carbon footprint and cleaner energy - meeting 37% power requirements for Sabah state

# CIRCULAR ECONOMY MODEL

- Zero Discharge



**Producing zero waste and reclaim or recycling resources used in a complete cycle.**



**Comply with laws and requirements in the countries and able to treat the wastewater to higher than contractual standard compliance**



**Growing the Renewable Energy with the deployment of Solar Power PV and mini hydro in water operations**



- Corporate Snapshot
- Business Overview & Sustainability
- **Prospects**
- Financials
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# ENVIRONMENT: PROSPECTS

## Djuanda Project Expansion into Indonesia



- ❖ A Source-to-Tap project with fixed concession period of Build-Operate-Transfer (“BOT”) and defined concession areas.
- ❖ Aims to extract 10,000 liter per second (864 MLD) of raw water from Jatiluhur Dam and supply the treated water to the following 5 regions:
  - ✓ Daerah Khusus Ibukota Jakarta (“**DKI Jakarta**”)
  - ✓ Kota Bekasi;
  - ✓ Kabupaten Bekasi;
  - ✓ Kabupaten Karawang; and
  - ✓ Kabupaten Bogor.
- ❖ The Government of Indonesia has classified Djuanda project a ‘National Strategic Project’.
- ❖ The Project will be tendered out by the Central Government and as project promoter, Ranhill Consortium will be accorded the Initiator Status.
- ❖ This gives the Consortium the ‘Right-to-Match’ privilege.

# ENVIRONMENT: PROSPECTS

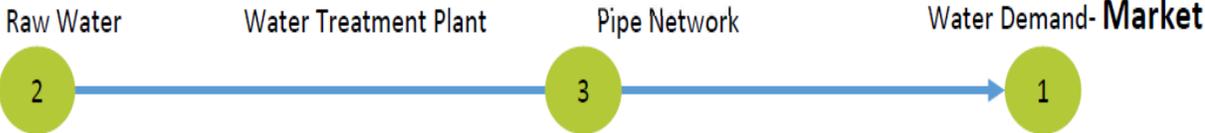
## Project Details

- End to end Source-to-Tap BOT Concession.
- Approximately 507,000 connections serving 2.8 million population.

## Equity Holdings of the Consortium

- Ranhill holds majority stake in the Consortium with 75%.
- PT Varsha (5%) is the Promoter of Project Djuanda and are owned and managed by local Indonesian professionals in the water and infrastructure sectors.
- PT Perusahaan Perumahan ("PT PP") (20%) is a large Indonesian State Owned Entity ("SOE") listed on the Jakarta Stock Exchange with 51% of the shares held by the Indonesian Government.
- PT PP is primarily involved in housing development and construction, infrastructure development and energy sector.

## General Approach



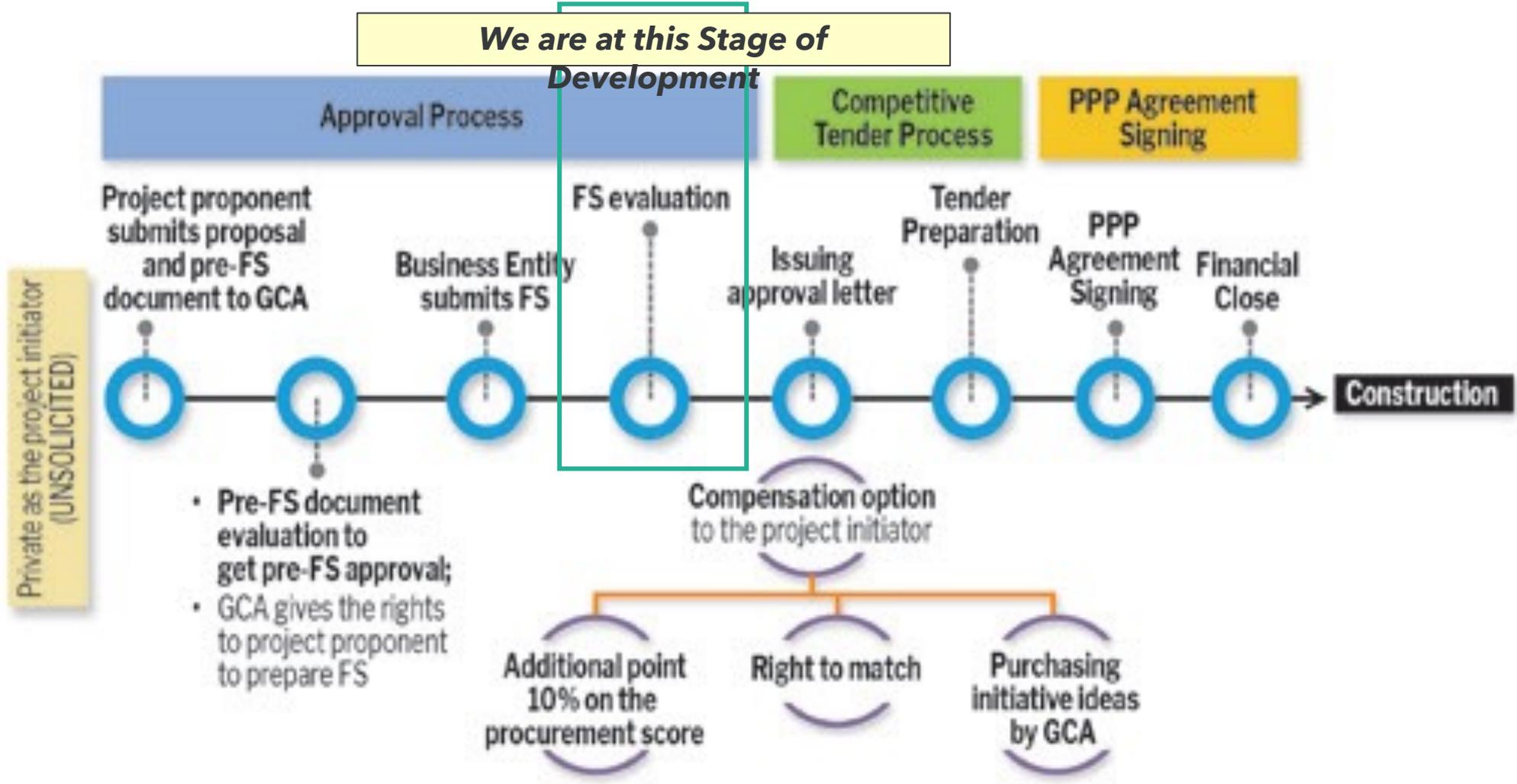
- Raw Water Availability
- Pipe Distribution Availability
  - Investment needed
- Investment phase and scenario
  - Water Charge

- Demand and Affordability
- Water Consumption Behaviors
- Legal aspects related to ground water
- Current End User Tariff
- Growth

### Financial Projection / Model

- Contract Agreements, End to end as an integrated contract
  - Unsolicited

# ENVIRONMENT: PROSPECTS



- Unsolicited Proposal made by the Consortium.
- Completed the Pre-Feasibility ("Pre-FS"), Pre-FS document submitted and the Consortium received the approval from the Government of Indonesia.
- Consortium had submitted the Feasibility Study and is now in discussion with the Ministry for acceptance. 20

# ENVIRONMENT: PROSPECTS



[“BGS” = BOT; “KBA” = BLT; “KBK” = Performance Based Contract]

- ❖ Supplies directly to the consumers - domestic and non-domestic BUT counter-party to the Agreements are local provinces’ District and State owned water supply agencies;
- ❖ Coordinated by Ministry of Public Works and Public Housing;
- ❖ The Central Government of Republic of Indonesia provides financial supports in terms of ensuring payments by the local provinces’ District and State owned water supply agencies.

# ENERGY: PROSPECTS

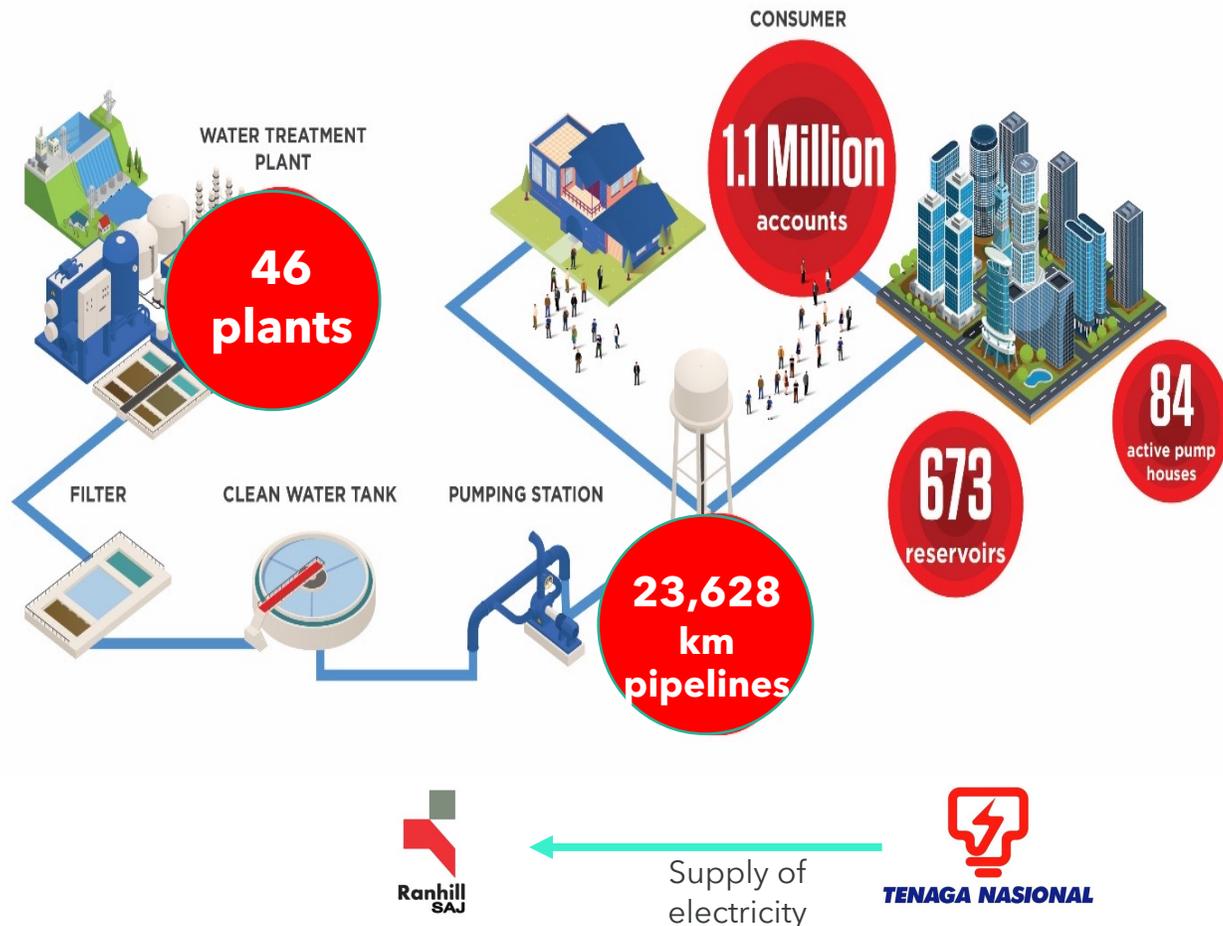
## Renewable Energy in Water Operations to Replace Fossil Fuel Energy from the National Grid

- In discussion with SPAN and EC to develop a 75MWac - 200MWac solar photovoltaic ("PV") power generation plants for the **sole and exclusive** electricity consumption of Ranhill SAJ Sdn Bhd ("**SAJ**"), our water operator for the State of Johor under the 'Self Consumption' guidelines.
- Driven by our vision for SAJ operation to produce clean water sustainably with the use of green solar energy, SAJ will be able to **reduce its carbon emission by more than 200,000 tCO2 per year by implementing the energy matching concept with the projection of Net Electrical Output ("NEO") produce by the PV plant to match the RSAJ annual electricity consumption.**
- This Project will also be able to directly save electricity cost and hedge against future electricity tariff increases by providing certainty to the electricity cost for the next 25 years.



# ENERGY: PROSPECTS

RanhillSaj Water Treatment and Distribution Business



- Currently, the National Grid supplies electricity our 46 Water Treatment Plants (“WTP”) with 5 different tariff categories: Ds, E1, E1s, E2s and B1

- Connections at various distribution voltage levels - 33, 22, 11, 0.415 kV.

- Energy transaction in **2021**:

Maximum Demand	=	73.114 MW
<b>Consumption</b>	=	<b>314.44 GWh</b>
Electricity bill	=	RM114.35 million
Average cost	=	42.32 sen/kWh

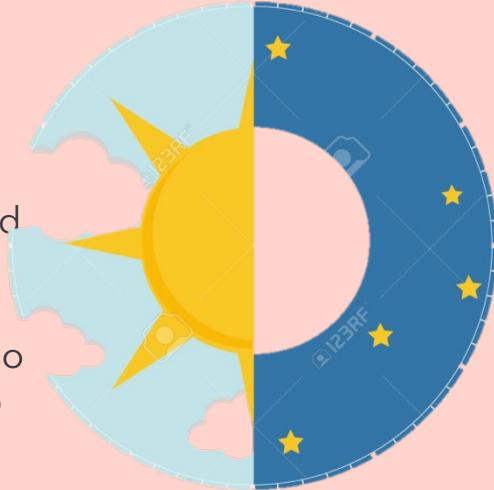
- Carbon emission based on electricity purchased in 2021 is 219,220 tCO<sub>2</sub>.**

# ENERGY: PROSPECTS

Solar Plant supplies water operation needs

Daytime excess power is supplied to National Grid

National Grid also provides backup power to water operations



Solar Plant not generating

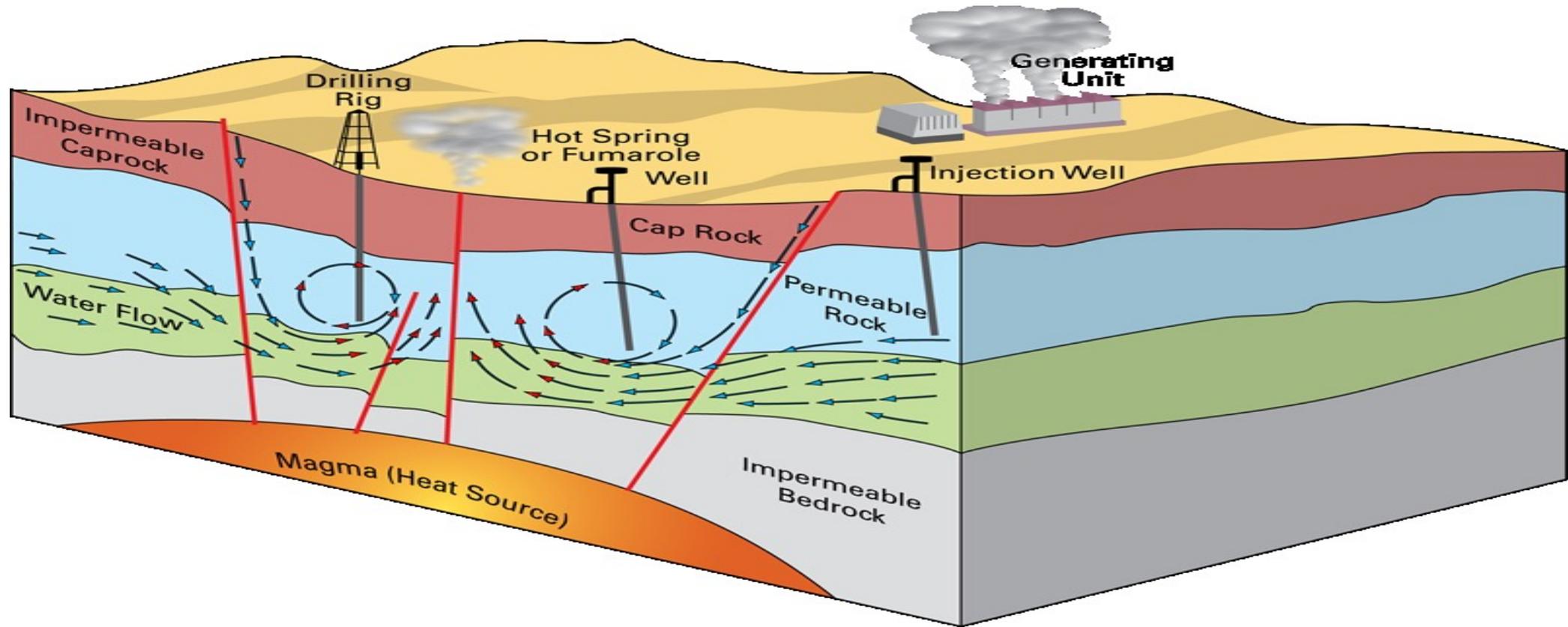
Water operations power requirement is supplied by the National Grid

**At the end of accounting period, settlement of energy is done with National Grid to ensure electricity generated matches water operations' consumption**

- Generating license and business framework from Energy Commission
- Energy from Solar Plants distributed to SAJ through TNB's National Grid with payment of network charges.
- Energy generated will match SAJ's consumption and no excess energy will be sold to other party.
- $\text{Buying Price} = \text{Generator Selling Price} + \text{Tolling Fee (i.e. Network charges)}$
- Generator Selling Price is the tariff imposed by the Solar Plant Developer at the National Grid interconnection facilities.
- Tolling Fee is paid to TNB for the use of the national grid network to distribute electricity
- Ranhill also receives the right to the **Solar Generation Green Certificate** from generator.

# ENERGY: PROSPECTS

## The Concept of Fully Renewable Geothermal Energy



### How it makes electricity?

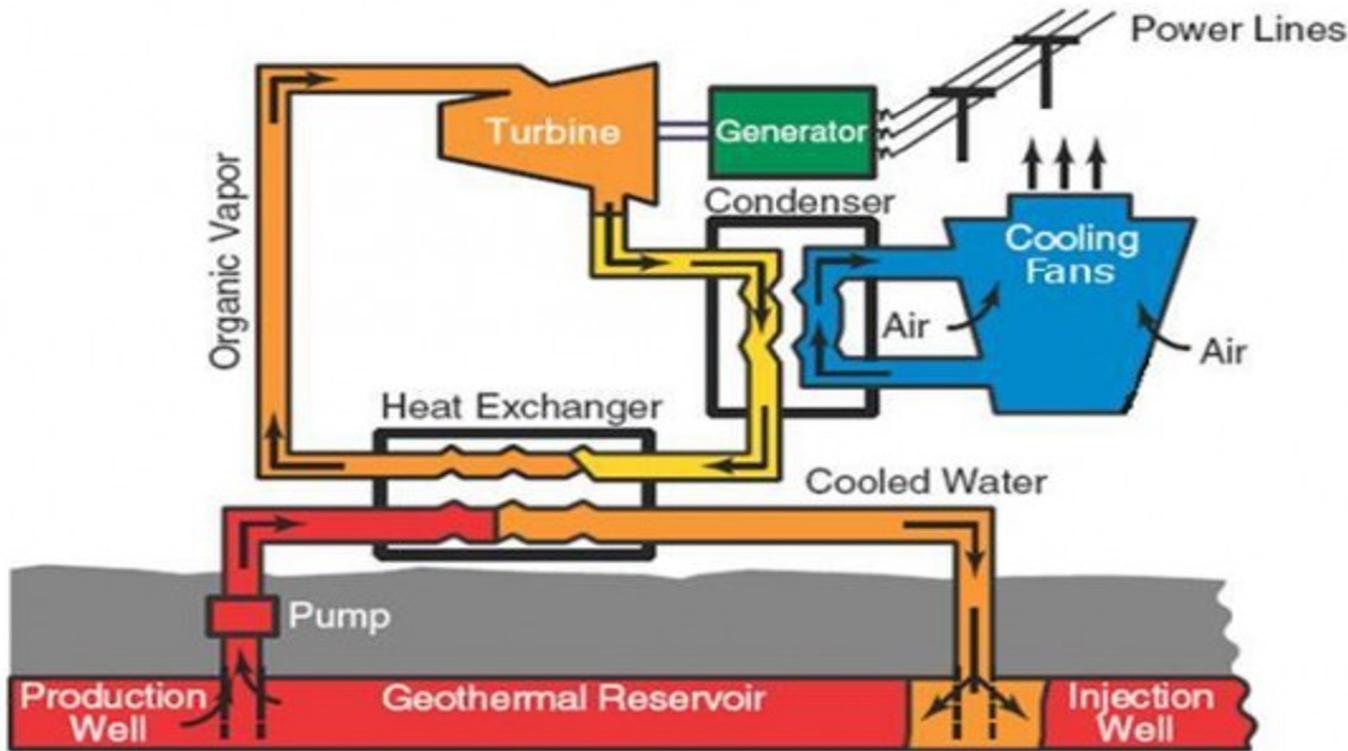
- ✓ Hot water from geothermal reservoirs produces stream of high pressure steam which is used to spin a turbine that will rotate a generator.
- ✓ Generators then produce electricity and through power lines, bring electricity to home and business

# ENERGY: PROSPECTS

## Geothermal System

- Field Development – drilling, wellheads, pipeline, separators.
- Geothermal Power Plant – 37 MW (Phase 1) binary system with potential of up-to 150MW.
- Power Export – power generated (30MW) will be exported to the SESB's grid.

## Binary Cycle Power Plant Example



- The thermal energy of the geothermal fluid is transferred via a heat exchanger to a secondary working fluid with low boiling point
- Has 2 closed loop cycles:
  - 1<sup>st</sup> loop - heat exchange of geothermal fluid
  - 2<sup>nd</sup> loop - Organic Rankine Cycle : used for geothermal fluid temperatures below 180°C and commonly uses hydrocarbons as the appropriate secondary working fluid.
- These 2 cycles are separated and only heat exchange takes place at heat exchangers which allows naturally hot geothermal fluid to heat the secondary working fluid

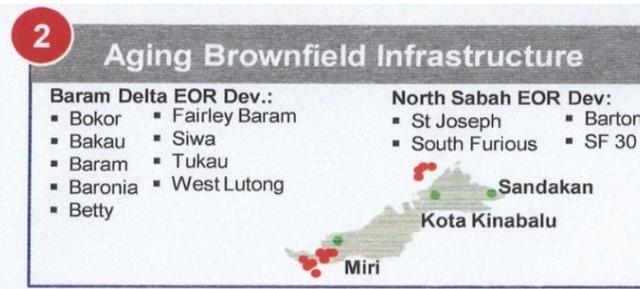
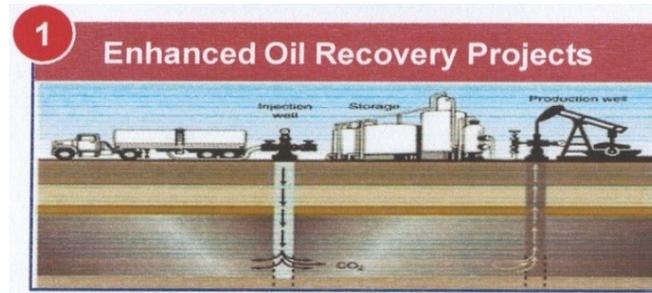
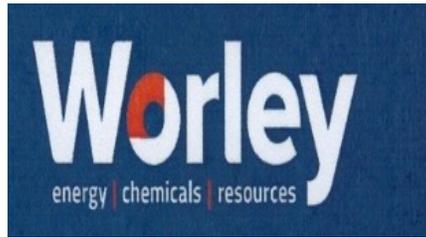
# ENERGY: PROSPECTS

## Work Activities to-date - Results of the Drilling Activities ~ Slim-Hole

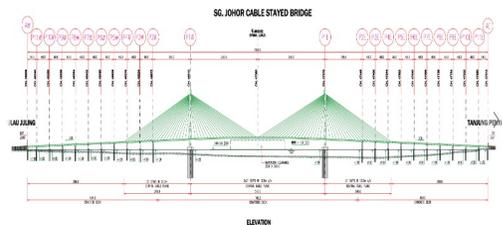
- The success of this project will result in Malaysia's first geothermal power plant.
- Set to export 30 Megawatt (MW) to the Sabah Electricity Sdn Bhd (SESB) grid under the Feed-In-Tariff (FIT) scheme
- This geothermal energy technology is considered as **both very green with extremely low carbon footprints and has very high availability and reliability rate** as clearly demonstrated in other operating plants worldwide.
- The success of the Slim-Hole drilling programme, and after an extensive research, followed by geology, geophysics and geochemistry analysis and modelling by GeothermEx Inc, USA and Jacobs New Zealand, indicated the existence of an active geothermal system centred around the flanks of Mt Maria on Apas Kiri, Tawau, Sabah.
- Ranhill then engaged both Halliburton, USA and PT. Thermochem, Indonesia to conduct the pressure/temperature profile which confirmed temperature of 197 °C, low pressure but no permeability.
- Drilling of the slim-hole drilling was conducted up to 1,449.38 meters.



# SERVICES - OPPORTUNITIES AHEAD



- The aging oil & gas infrastructure in the country require workover and rejuvenation for cost effectiveness production
- High oil and gas prices drives Enhanced Oil recovery programme to improve production
- The need for sustainable development of oil & gas industry incentivise the development of Carbon Capture & Storage projects for energy transition
- Long term partnership with Worley, a leading ECR group with global presence and over 55,000 workforce



- Increased development allocation by Government on infrastructure such as transportation, water supply development, flood mitigation and sewerage
- Private sector developments through privatisation of toll highway, ports and large scale township development

- Government and state water operators initiatives to reduce country's NRW level
- Solutions for industries to improve and comply with environmental standards
- Cost savings initiatives



- Corporate Snapshot
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# FINANCIAL OVERVIEW

Snapshot as at 30 June 2022



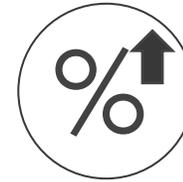
**RM3,051M**

Total Assets



**RM2,174M**

Total Liabilities



**RM877M**

Total Equity



**RM277M**

Cash and Bank  
Balances



**1.09x**

Gearing

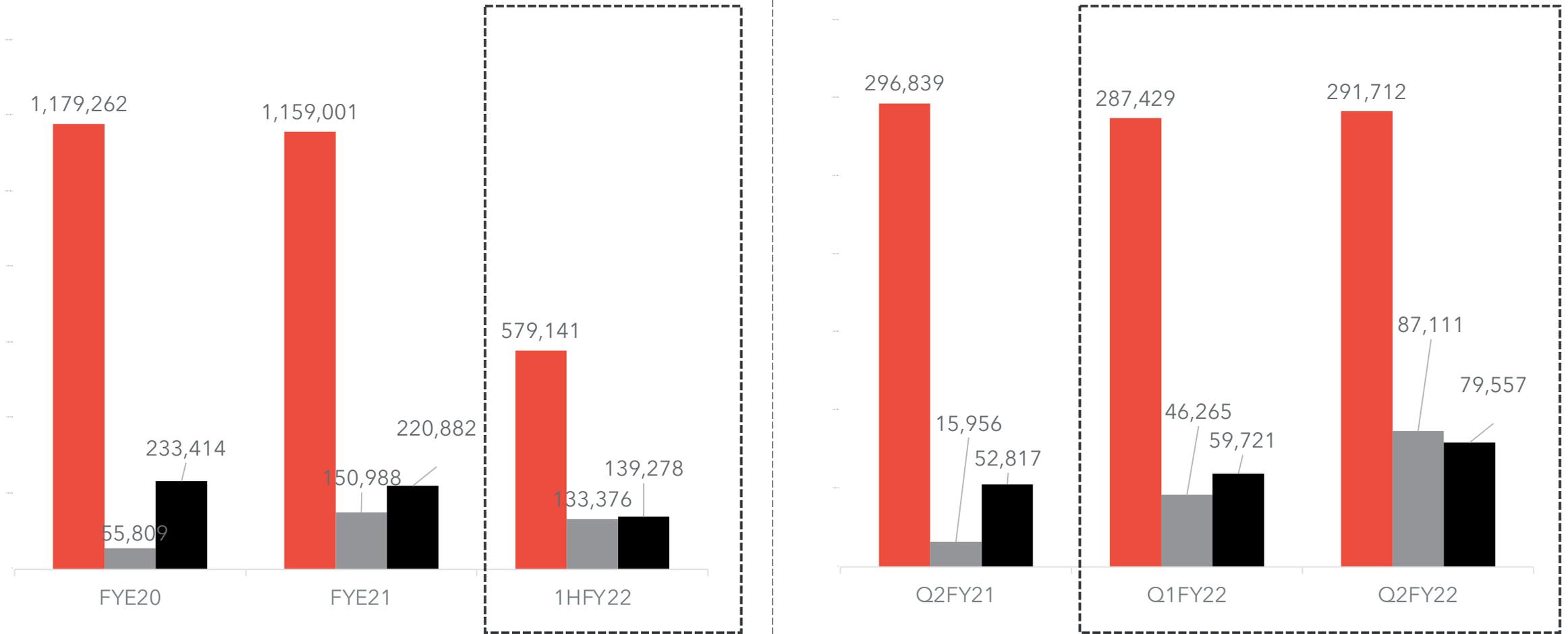


**0.31x**

Debt-to-Asset

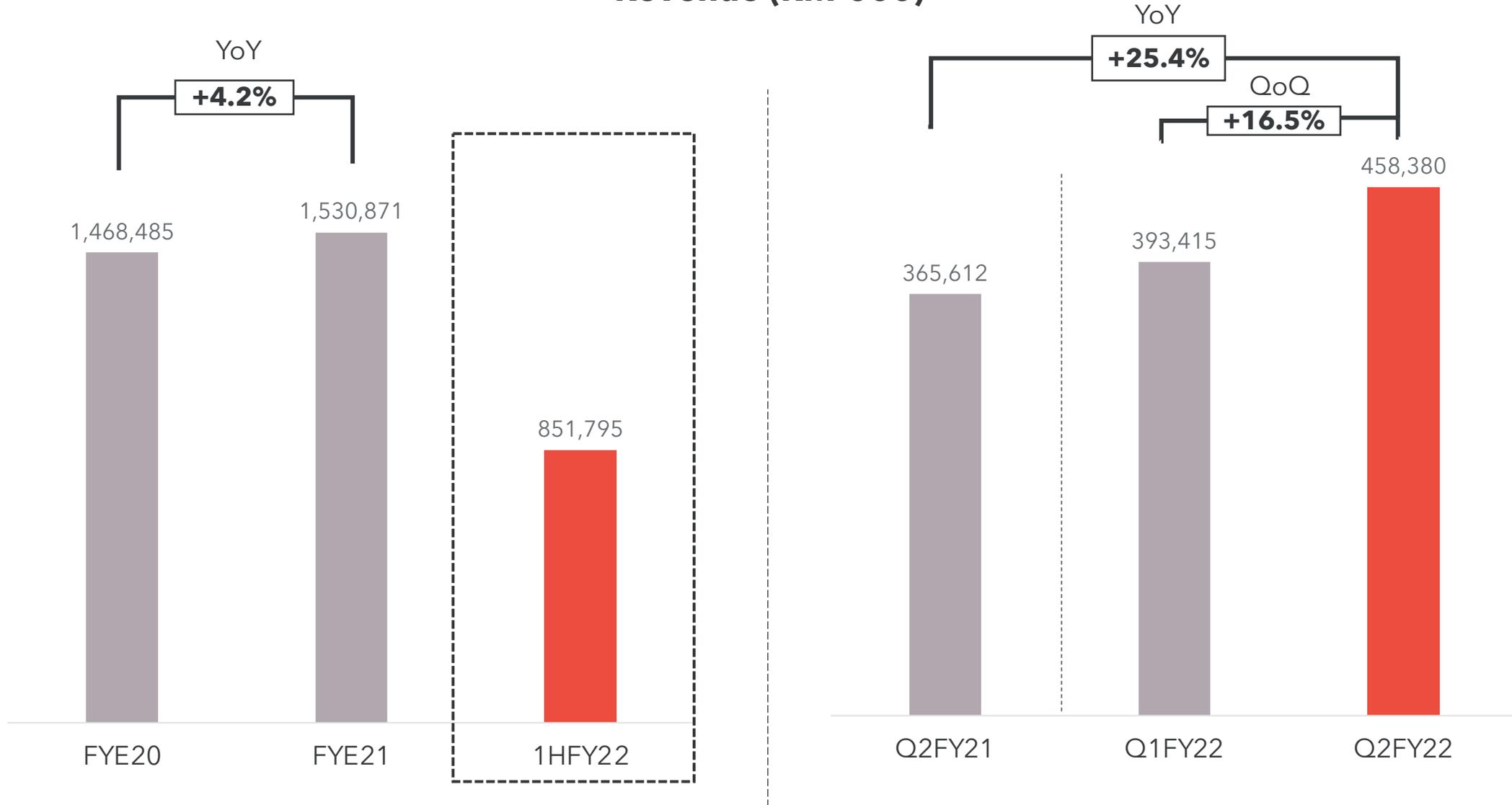
# REVENUE BY BUSINESS SEGMENT

Revenue by business segment RM ('000)



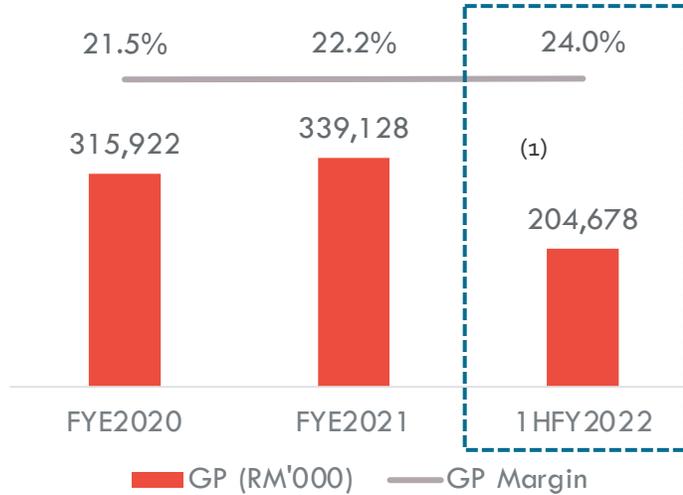
# TOTAL REVENUE ON YOY/QOQ BASIS

Revenue (RM'000)

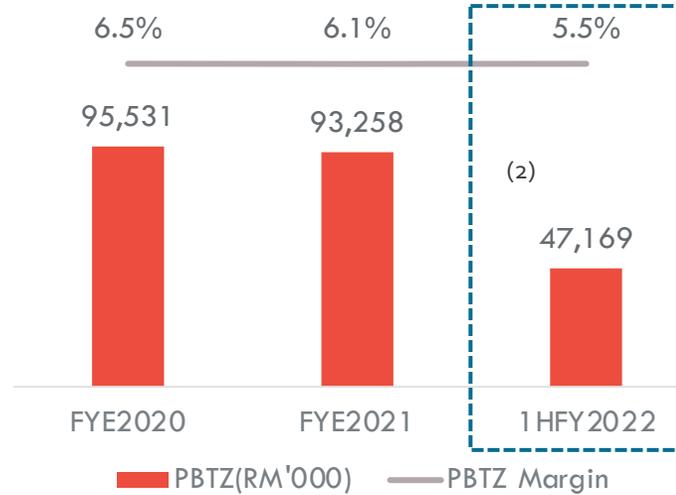


# OVERALL PROFITABILITY

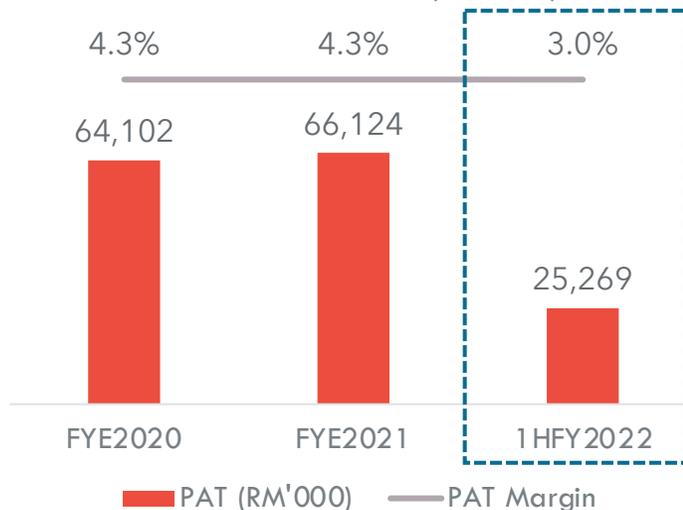
### Gross Profit ("GP")



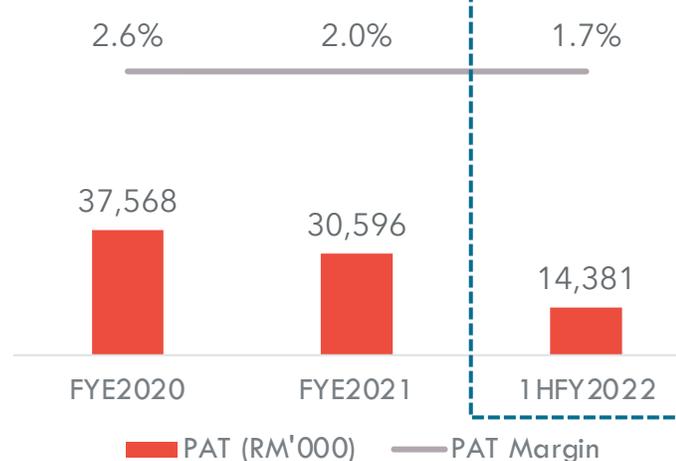
### Profit Before Tax Zakat ("PBTZ")



### Profit After Tax ("PAT")



### Profit After Tax Minority Interest ("PATAMI")



Notes:

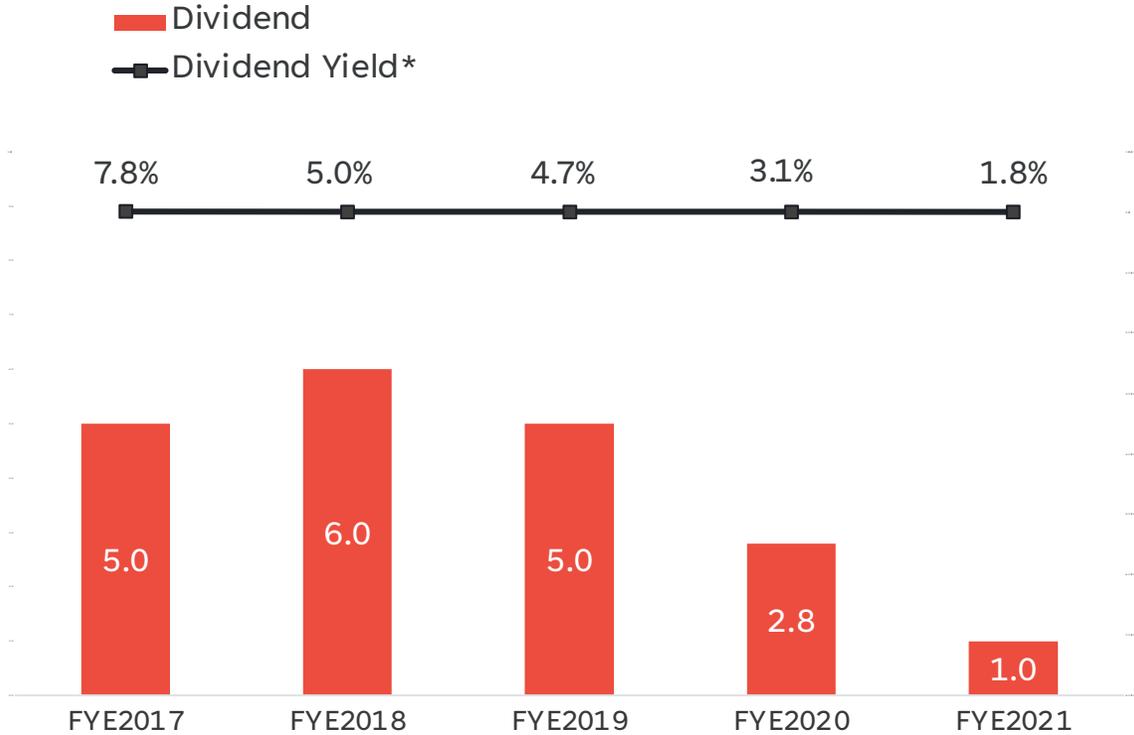
(1) The increase in revenue for the quarter (against prior year corresponding quarter) substantially due to increase revenue in Services segment contributed by RW and RBSB

(2) Lower profit were recorded mainly due to recognition of higher maintenance cost in Energy segment following RPI and RPII ST1C Planned Outage-DOSH Inspection & Steam Turbine Maintenance

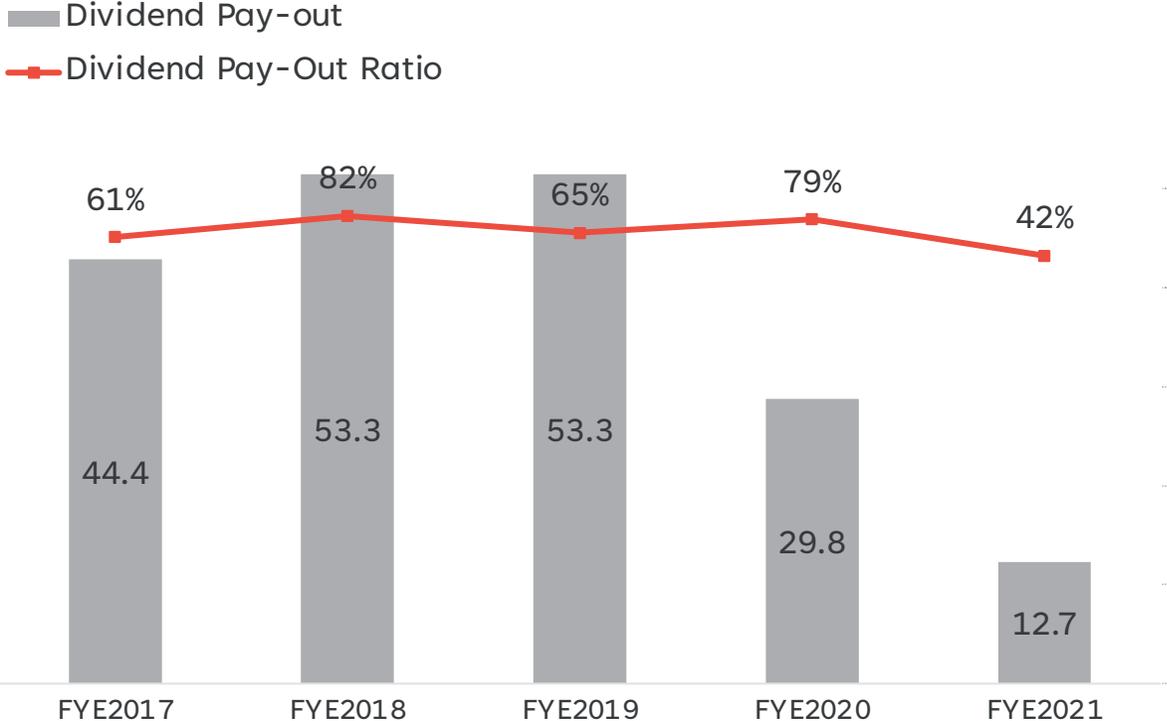
# DIVIDEND TRACK RECORD

- Despite operating in a challenging environment, we have been consistently rewarding our shareholders with dividend since FYE2001. The group has a targeted dividend payout ratio of 50 - 70%.

**Dividend per Share and Dividend Yield**



**Dividend Pay-Out (RM million)**



Note\*: Dividend yields are based on financial year end closing price



- Corporate Snapshot
- Business Overview & Sustainability
- Prospects
- Financials
- **Q & A**



# Enriching Lives Through Sustainable Solutions