Ranhill

CONSOLIDATING STRENGTHS

CAPITALISING OPPORTUNITIES

ANNUAL REPORT 2022

BUSINESSES

WE ARE A RESPONSIBLE GLOBAL BUSINESS

Ensuring a sustainable balance between environmental protection, social responsibility and profitability in all aspects of where we do business

Environment Sector

Treated Water Supply Services

Water, Wastewater Treatment & Reclaimed Water Treatment

Energy Sector

Energy and Renewable Energy ("RE")

Engineering Services Sector

Engineering, Procurement and Construction Management ("EPCM"), Engineering, Procurement, Construction and Commissioning ("EPCC"), Project Management Consultancy ("PMC"), Operations and Maintenance ("O&M")

Non-Revenue Water Management

OUR REPORTS

REPORTING SUITE

ANNUAL REPORT 2022 ("AR2022")

The AR2022 provides a comprehensive account of Ranhill's financial performance including audited financial accounts of the Group.

It also provides information pertaining to the Group's business and operational strategies, risks and opportunities, outlook and prospects, as well as information pertaining to the business model and industry value chain.

SUSTAINABILITY REPORT 2022 ("SR2022")

The SR2022 provides a detailed account of the Group's sustainability performance as per its identified material Economic, Environmental and Social ("EES") topics.

SR2022 is developed in accordance with the Global Reporting Initiative 2020 – Core Option ("GRI"), Bursa Malaysia FTSE4Good Index, Sustainability Accounting Standards Board ("SASB") disclosures and (where relevant), the Task Force on Climate-Related Financial Disclosures ("TCFD").

CORPORATE GOVERNANCE REPORT ("CG2022")

The CG2022 demonstrates how Ranhill has applied corporate governance practices of the Malaysian Code of Corporate Governance 2021 ("MCCG 2021") including updates prescribed by the code in FY2022.

9th Annual General Meeting

Date
17 May 2023, Wednesday

Time
2.30 p.m.

Venue
Taming Sari 1 & 2, Ground Floor,
Royale Chulan Kuala Lumpur,
No. 5 Jalan Conlay, 50450 Kuala Lumpur.

For more information:
Scan the QR code to view
our AR2022

https://www.ranhill.com.my/investor-relations/reports-presentations/

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Ranhill Utilities Berhad

("Ranhill" or "the Group") consists of three business or sectors. These are the Environment, Energy and Engineering Services sectors. Ranhill's Environment sector accounts for **68.0%** of revenue, with **15.3%** coming from the Group's Energy sector and **16.7%** from the Engineering Services sector.

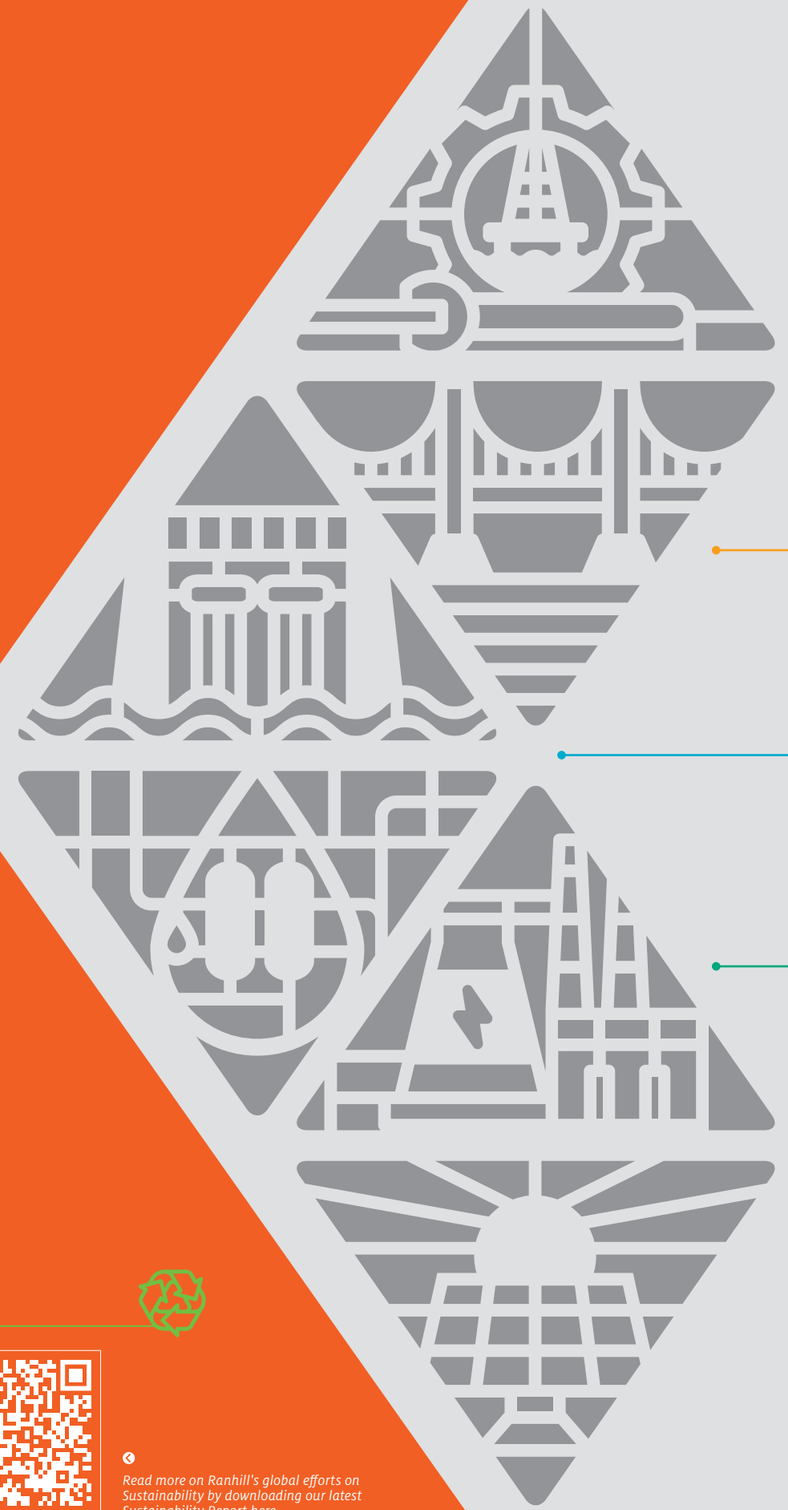
Cover Rationale

As a diversified group, Ranhill collaboration with its diverse businesses are imperative and affiliates in a way that fortifies business synergies and growth.

In line with the theme, this concept highlights our diversity by showing the dynamism that it creates. Creative die-cut brings the reality of an organisation to life that thrives through synergy between a variety of different elements.

In addition, the cover design depicts Ranhill has laid out a strategic foundation that will drive force to synergise our diverse range of products and services to enrich our core competencies and redefine progress so that to remain steadfast in achieving our business goals.

All these pave the way for future opportunities and industry's sustainability.



SUSTAINABILITY AND ENVIRONMENTAL, SOCIAL AND GOVERNANCE ("ESG")

Our ESG and sustainability agenda reflects our commitment to reduce the environmental impact of our business as a principal focus area. This is underpinned by excellence across our other ESG priorities.

As part of our commitment to protect the environment, this annual report is printed on FSC® certified paper and is fully recyclable.

Read more on Ranhill's global efforts on Sustainability by downloading our latest Sustainability Report here

9th

Annual General Meeting

Date
17 May 2023, Wednesday

Time
2.30 p.m.

Venue
Taming Sari 1 & 2, Ground Floor,
Royale Chulan Kuala Lumpur,
No. 5 Jalan Conlay, 50450 Kuala Lumpur.

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CORPORATE PHILOSOPHY

Our Mission

TO BE A REGIONAL LEADER IN WATER, WASTEWATER AND ENERGY WITH EMPHASIS ON CIRCULAR ECONOMY

Our Vision

ENRICHING LIVES THROUGH SUSTAINABLE SOLUTIONS

Our Values

Respect

Respect for the environment, communities we serve and for our employees

Resourceful

Determination in sourcing and adopting innovative solutions

Result

Focused on delivering growth and value to our stakeholders

ENRICHING LIVES

Ranhill aspires to lift the quality of life by being at the forefront of nation building through sustainable environment and energy solutions using innovative and clean technology

SUSTAINABLE SOLUTIONS

Ranhill aspires to meet the needs for an enhanced quality of life and a cleaner planet through innovation

We subscribe to the triple-bottom-line approach, to the Environment (Planet) and Communities (People) whilst achieving our Financial Objective (Profit)

We inspire our employees to be innovative in providing solutions beyond customers' expectations

Pontian Dam, Johor

RANHILL FACT SHEET

Provides Clean Water to
4 Million
Consumers in Johor, Malaysia

99.8%
Treated Water Supply Coverage (Rural)

100%
Treated Water Supply Coverage (Urban)

46
Water Treatment Plants

714
Active Treated Water Reservoirs

Ranhill had engineered:

Over **800 MLD** Water Treatment Plants
Over **601 KM** of Highways
Over **200 KM** of Railway
Over **70,000 Acres** of Landbank
Over **4 million sq.m** of Building Space

24,002 KM
Total Pipelines

3,631 KM
Mains Distribution

20,371 KM
Reticulation

Total Capacity
2,133 MLD
Treated Water Treatment in Johor, Malaysia

Total Potable Water, Wastewater & Reclaimed Water Treatment Capacity:
Thailand:
117 MLD
(100 MLD for WTP & WWTP)
(17 MLD for WRTP)
China :
227 MLD

Provide Electricity
1.2 Million
People in Sabah, Malaysia

Owns and operates Combined Cycle Gas Turbine (CCGT) power plants
Rugading:
190 Megawatt
Teluk Salut:
190 Megawatt
2,392 GWh of electricity generated for Sabah

NRW Level
26.3%
20.9 m^3 / KM of Pipe / Day

Employees
4,018

Total Potable Water, Wastewater and Reclaimed Water Capacity
Local:
86.0%
International:
14.0%

Senai-Desaru Expressway Bridge, Johor

Ranhill is a constituent of the **FTSE4Good Bursa Malaysia Index since 2019**

Participant of **United Nation Global Compact (UNGC) since 2008**

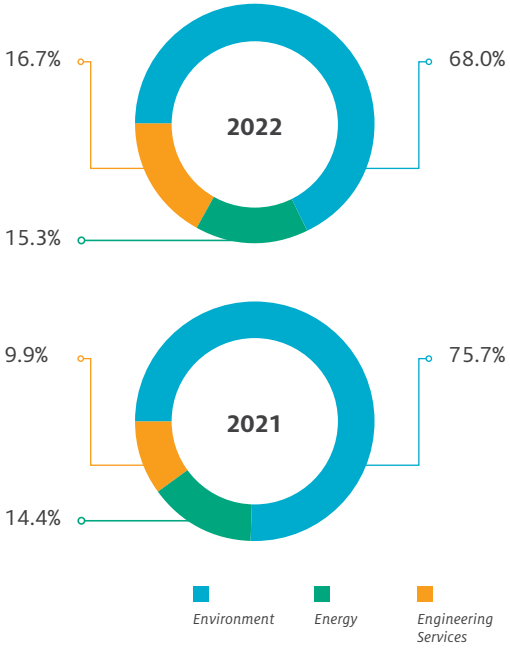
Recipient of **The Edge Malaysia ESG Awards 2022 (Gold) Utilities sector**

You can find more details on our website on www.ranhill.com.my

GROUP CORPORATE PROFILE

Ranhill Utilities Berhad ("Ranhill" or "the Group") consists of three business sectors. These are the Environment, Energy and Engineering Services sectors. Ranhill's Environment sector accounts for 68.0% of revenue, with 15.3% coming from the Group's Energy sector and 16.7% from the Engineering Services sector. Information detailing the operations and capabilities of each business sector is provided below.

SECTOR REVENUE



Environment Sector

Ranhill's Environment sector provides a complete source to tap into solutions for the abstraction, treatment and and supply of raw potable water. This includes provision of technical services in the management and optimisation of water utility assets. Ranhill's Environment sector accounts for a contribution of 68.0% of the Group's revenue. Information detailing the operations and capabilities of each business sector is provided below.

Ranhill's Environment sector's operations comprises the following operating companies: Ranhill SAJ Sdn Bhd ("Ranhill SAJ"), Ranhill Water (HongKong) Ltd. ("RWHK"), Ranhill Water Technologies (Thai) Ltd. ("RWTT") and AnuRAK Water Treatment Facilities Co. Ltd. ("AnuRAK"). Together, they provide a complete source to find solutions for the abstraction, treatment and supply of potable water, contribute to non-revenue water ("NRW") programmes, the treatment of wastewater and production of reclaimed water.

Customers include the general public, governments, municipal authorities, industrial and commercial customers.

PEOPLE

Driven by the SDGs, Ranhill continues to focus on creating value for local communities. These include talent development and socio-economic improvements through the provision of job opportunities, nurturing local supply chains, and infrastructure development.

CUSTOMER EXPERIENCE

Upholding operational excellence and prioritising quality and service responsibility, Ranhill continues to set new performance benchmarks for customer satisfaction and elevate standards to world-class levels.

GLOBALISATION

Harbouring ambitions of greater growth, Ranhill aims to further expand its presence on the international stage, bringing its proven track record of expertise, world-class capabilities, and long-standing experience to new markets across the world.

OUR BUSINESSES

- Treated Water Supply Services
- Water and Wastewater Treatment & Reclaimed Water Treatment
- Energy and Renewable Energy
- Multi Disciplinary EPCM, PMC, O&M Services and Consultancy Services
- Non-Revenue Water Management

RANHILL SAJ SDN BHD ("Ranhill SAJ")

As Johor state's sole water operators, Ranhill SAJ Sdn Bhd ("Ranhill SAJ") undertakes raw water abstraction, treatment, distribution, sale and operates the entire water supply network in Johor. It operates 46 water treatment plants ("WTPs") state-wide with a total treatment capacity of 2,133 million litres daily ("MLD").

As at 31 December 2022, Ranhill SAJ's network comprises 716 reservoirs and 24,002 KM of pipelines that supply treated water to 4 million people in Johor as well as industries across the state.

With a low NRW rating of 20.9 m^3 / KM of Pipe / Day, the NRW percentage for Johor state is 26.3% in FY2022.

Working together with Ranhill Water Services Sdn Bhd ("RWS"), which specialises in NRW reduction and management, Ranhill SAJ has set a target of further reduction of Johor's NRW levels to 20.9% by 2025.

RANHILL WATER (HONGKONG) LTD. ("RWHK")

On the international front, the Group owns a 40% share in Ranhill Water (Hong Kong) Ltd. ("RWHK"), which owns 12 industrial wastewater treatment plants with a total design capacity of 227 MLD. Assets are operated based on a Build-Operate-Transfer ("BOT") and Transfer-Operate-Transfer ("TOT"). Our 60% joint venture partner, SIIC Environment Holdings Ltd., a China state-owned entity has vast experience and good rapport with local authorities, which provides a good platform for negotiation and potential expansion.

RANHILL WATER TECHNOLOGIES (THAI) LTD. ("RWTT") AND ANURAK WATER TREATMENT FACILITIES CO. LTD. ("AnuRAK")

Ranhill Water Technologies (Thai) Ltd. ("RWTT") and AnuRAK Water Treatment Facilities Co. Ltd. ("AnuRAK") undertakes water, wastewater and reclaimed water treatment assets, as well as operations and project maintenance of related assets. Most assets are operated based on a Build-Operate-Transfer ("BOT") and Rehabilitate-Own-Transfer ("ROT") contracts.

To date, the Group, has achieved 344 MLD or 86.0% of its targeted 400 MLD for international water and wastewater operations.

GROUP CORPORATE PROFILE

Energy Sector

RANHILL POWERTRON SDN BHD ("RPI") AND RANHILL POWERTRON II SDN BHD ("RPII")

Via subsidiaries, Ranhill Powertron Sdn Bhd ("RPI") and Ranhill Powertron II Sdn Bhd ("RPII"), the Group owns, operates and maintains two CCGT power plants located at the Kota Kinabalu Industrial Park, Sabah.

RPI owns and operates the 190 MW Teluk Salut Power Station while RPII owns and operates the 190 MW Rugading Power Station. The former comprises four 30 MW gas turbines, four vertical heat recovery steam generators and two 35 MW steam turbines. The latter consists of two 65 MW gas turbines, two horizontal heat recovery steam generators and a 60 MW steam turbine.

Cumulatively, the Group's power plants deliver up to 380 MW of energy, which is equivalent to approximately 40% of the total installed capacity among Independent Power Producers ("IPP") in Sabah. This makes Ranhill the largest IPP player in Sabah.

Engineering Services Sector

RANHILL WATER SERVICES SDN BHD ("RWS")

Ranhill Water Services Sdn Bhd ("RWS") is a leader in NRW management – having saved more than 751 MLD of treated water across various states in Malaysia and in Riyadh, Saudi Arabia. The following is RWS' growing track record in reducing NRW:

State/Region	MLD
Johor	475
Melaka	59
Kedah	54
Saudi Arabia	54
Terengganu	50
Kelantan	43
Pahang	16

Besides revenue loss, high NRW levels negatively impact the water supply system. High NRW levels equate to significant quantities of treated and potable water being lost. As a result, more water source needs to be abstracted from rivers to compensate (for the lost amounts) to meet consumption demand. This translates into increased workload on existing water assets, increased Operating Expenses ("OPEX") and an increased environmental footprint (due to power consumption and emissions from WTPs for operations).

By reducing NRW levels, the stress on WTPs and supporting assets can be reduced significantly, resulting in lower maintenance costs as well as lower consumption of power, water and other resources. Savings in water will increase the reserve margin and the surplus generated can be redistributed to high demand areas such as Johor Bahru city in Johor state. This also simultaneously contributes to increased revenue.

In FY2022, RWS continues to expand its presence nationwide – successfully undertaking NRW projects under Approach One National NRW Reduction programme under the 12th Malaysia Plan. These include projects in Perlis and Pahang.

RANHILL WATER TECHNOLOGIES SDN BHD ("RWT")

Ranhill Water Technologies Sdn Bhd ("RWT") undertakes varied water, wastewater and reclaimed water utility projects in Malaysia and China (through associate companies).

In FY2022, RWT was successful in securing 10 contracts with a total cumulative value of RM41 million. The completion of several projects also contributed to higher revenue recognition in FY2022.

In the previous years, RWT has successfully completed the design and build contract of the 50,000 population equivalent ("PE") sewerage treatment plant ("STP") known as STP4 Forest City in Gelang Patah, Johor, that consist of water reclamation facilities.

RANHILL BERSEKUTU SDN BHD ("RBSB")

Ranhill Bersekutu Sdn Bhd ("RBSB") is a multi-disciplinary engineering company services provider providing comprehensive engineering solutions. These include design services for geotechnical, civil infrastructure, structural, mechanical, electrical, water resources, linear transportation, project management and EPCC solutions.

Since its inception five decades ago, RBSB has established a stellar track record of more than 2,300 successful projects for clients within Malaysia as well as overseas.

RBSB continued to register steady progress in completing all projects in hand in FY2022. The completed projects are Ranhill's Large Scale Solar 4 ("LSS4") landmark project, various water supply related and flood mitigation infrastructure projects nationwide.

Other accomplishments are landmark projects in Asia, the Middle-East and Africa comprising civil structure and township design, transportation related projects such as highways, roads, bridges, airports, ports, rail and transit systems; water distribution, catchment and wastewater treatment infrastructure; flood mitigation; power and industrial plants, as well as residential, commercial and public facilities.

FY2022 has seen RBSB venture into the designing and building of solar facilities via its undertaking of the construction of the 50 MW LSS 4 solar farm, awarded to Ranhill. RBSB has also progressed into designing of hospitals, the KLIA baggage handling system, flood mitigation and various infrastructure development projects.

RANHILL WORLEY SDN BHD ("RW")

Ranhill Worley Sdn Bhd ("RW") is a well-regarded global brand name for professional project and asset services. RW is excellently positioned as a carbon storage, decarbonisation and technology leader with the recent award of Malaysia Kasawari Carbon Capture Storage ("CCS"), world's largest offshore CCS, together with ESG solutions for the oil and gas industry.

For over 25 years, RW, via partnership with Worley Ltd. global leader in Energy, Chemical and Resources ("ECR") has provided engineering, design, management and consultancy services to the energy, chemicals and resource sectors. RW has developed a credible track record for brilliance by delivering high-quality, value-driven solutions for complex requirements.

Recently in year 2022, RW secured projects worth RM252 million in Malaysia and overseas.

RW has over the years, lent its expertise to the development of various successful projects in Malaysia and projects globally including the Middle East, North Sea UK, Myanmar, Vietnam, Africa, China, India, and Brazil. It continues to set the benchmark for project management, asset services and solutions within the region.

RW has ventured into the niche but highly in demand sector of CCS solutions, particularly for the oil and gas sector. Among projects secured include the world's largest Carbon Capture Storage ("CCS") project: the Malaysia Kasawari CCS project and Brazil P-82 Floating Production Storage and Offloading ("FPSO").

OUR PRESENCE

We aspire to lift the quality of life by being at the forefront of nation building through sustainable environment and power solutions using innovative and clean technology.

MALAYSIA

Water Supply Services in Johor, Malaysia

- Exclusive licence to provide source to tap water supply services throughout the State of Johor
- 46 Water treatment plants
- The second largest water operations in the country with total design capacity of 2,133 MLD

Engineering and Infrastructure Solutions Specialist

- ExxonMobil Exploration and Production Malaysia Inc ("EMEPMI") - Provision of Engineering, Procurement and Construction Management ("EPCM") Services
- Develop the Kasawari Gas Development Project as part of the overall block SK316 development strategy off the coast of Sarawak
- Shell Rosmari & Marjoram Project Offshore Gas Plant
- Senai-Pasir Gudang-Desaru Expressway (with 500m main span cable-stayed bridge)
- Kuala Lumpur International Airport and KLCC
- The world's largest Carbon Capture Storage ("CCS") project - the Malaysia Kasawari CCS in Sarawak

Power Business in Sabah, Malaysia

- The largest IPP in Sabah, Malaysia
- Owns and operates two (2) 190 MW CCGT power plants in Kota Kinabalu Industrial Park
- 21-year PPA with SESB for the sale of up to 380 MW of electricity generating capacity.

NRW Specialist:

- Ranhill has achieved savings of 751 MLD
- Developed 251 strategic and all mains models with over 1 million total number of connections
- Designed and established over 1,200 District Metered Areas ("DMAs")

CHINA

- Concession agreement with local authorities or industrial park management councils
- 12 Wastewater treatment plants ranging from 25-30 years
- Total treatment capacity of 227 MLD

THAILAND

- 9 water, wastewater treatment plant and reclaimed water treatment plant
- 100 MLD of total water and wastewater treatment capacity
- 17 MLD of reclaimed water

OTHER COUNTRIES

(Multi Disciplinary of Engineering Services)

- Engineering works for Santos WHP EPCI with Sapura Engineering, Western Australia
- Pre-FEED for HI Development Project, Nigeria
- Engineering Support to Sembcorp Marine under an EPCI contract awarded by North Oil Company ("NOC") for Gallaf Batch 2 project, located field, off Qatar
- Block 15-1/05 Lac Da Vang Oil Development, Vietnam
- Neptune Deep Project, a FEED for gas de-hydration fixed platform (NNM CPP) in 120m of water in the Black Sea off the coast of Romania
- Zawtika M-9 Development Project, Offshore, Myanmar
- Marina Doha Residential Doha Office Tower, Qatar
- Built a 113.5 MLD potable water treatment plant for Haldia Development in West Bengal
- Bangladesh-Engineering for Public Sanitation Facility for 26 districts funded by Islamic Development Bank
- First designed for float over project and detailed design, procurement support in Offshore Bombay, India for the B193 Development Project
- Detailed engineering and project management services of 10,800 residential in Tajura, Libya
- Provide project management services to Saudi Aramco, King Abdullah University of Science and Technology ("KAUST")
- Provide management and construction services of King Saud University for Girls ("KSUG") in Riyadh
- P-82 Floating Production Storage and Offloading ("FPSO") contract, which will incorporate carbon capture and closed flare technology features in Brazil

CORPORATE INFORMATION

BOARD OF DIRECTORS

TAN SRI HAMDAN MOHAMAD
Chairman and Chief Executive
Non-Independent Executive Director

DATUK SERI LIM HAW KUANG
Executive Director

DATUK ABDULLAH KARIM
Senior Independent
Non-Executive Director

MR LIM HUN SOON @ DAVID LIM
Independent
Non-Executive Director

MS LEOW PEEN FONG
Independent
Non-Executive Director

ENCIK ABU TALIB ABDUL RAHMAN
Independent
Non-Executive Director

DR ARZU TOPAL
Independent
Non-Executive Director

ENCIK AMRAN AWALUDDIN
Executive Director and
Chief Operating Officer

CIK ZURINA ABDUL RAHIM
Executive Director and
Chief Commercial Officer

AUDIT COMMITTEE ("AC") MEMBERS

MR LIM HUN SOON @ DAVID LIM
Chairman
Independent Non-Executive Director

DATUK ABDULLAH KARIM
Member
Senior Independent Non-Executive Director

ENCIK ABU TALIB ABDUL RAHMAN
Member
Independent Non-Executive Director

GOVERNANCE AND RISK MANAGEMENT COMMITTEE ("GRMC") MEMBERS

MS LEOW PEEN FONG
Chairman
Independent Non-Executive Director

TAN SRI HAMDAN MOHAMAD
Member
Chairman and Chief Executive
Non-Independent Executive Director

DATUK SERI LIM HAW KUANG
Member
Executive Director

ENCIK ABU TALIB ABDUL RAHMAN
Member
Independent Non-Executive Director

DR ARZU TOPAL
Member
Independent Non-Executive Director

CIK ZURINA ABDUL RAHIM
Member
Executive Director and
Chief Commercial Officer

NOMINATING AND REMUNERATION COMMITTEE ("NRC") MEMBERS

DATUK ABDULLAH KARIM
Chairman
Senior Independent Non-Executive Director

ENCIK ABU TALIB ABDUL RAHMAN
Member
Independent Non-Executive Director

MS LEOW PEEN FONG
Member
Independent Non-Executive Director

DR ARZU TOPAL
Member
Independent Non-Executive Director

LONG TERM INCENTIVE PLAN COMMITTEE ("LTIP") MEMBERS

DATUK ABDULLAH KARIM
Chairman
Senior Independent Non-Executive Director

ENCIK ABU TALIB ABDUL RAHMAN
Member
Independent Non-Executive Director

MS LEOW PEEN FONG
Member
Independent Non-Executive Director

DR ARZU TOPAL
Member
Independent Non-Executive Director

CORPORATE INFORMATION

COMPANY SECRETARIES

MS LAU BEY LING
Chartered Secretary
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Practising Certificate No. :201908004064

MS LEONG SHIAK WAN
Chartered Secretary
MAICSA 7012855
Practising Certificate No. :202008002757

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Facsimile No. : +(603) 2716 5662
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PRINCIPAL BANKER

Affin Bank Berhad

Bank Islam Malaysia Berhad

Malayan Banking Berhad

MIDF Amanah Investment Bank Berhad

STOCK EXCHANGE LISTING

Main Market of Bursa Malaysia Securities Berhad
(Listed on 16.12.2015 and traded on 16.03.2016)

Stock Name : RANHILL
Stock Code : 5272

FORM OF LEGAL ENTITY

Incorporated on 28 April 2014 as a private limited liability company in Malaysia under the Companies Act 1965. On 24 October 2014, converted into a public company limited by shares under its name, Ranhill Holdings Berhad ("Ranhill"). Commenced its business on 16 December 2015 following the completion of the pre-offering reorganisation. On 16 December 2015, also assumed its listing status on the Main Market of Bursa Malaysia Securities Berhad following the completion of the reverse takeover of Symphony House Berhad.

Ranhill assumed its present name of Ranhill Utilities Berhad effective from 13 May 2020. The present name is consistent with Ranhill's Vision, Mission and circular economic model. The chosen brand name provides a unified identity for Ranhill's Environment, Energy and Engineering Services sectors and highlights the Group's proven expertise and experience as a leading player for environment, energy and engineering services.

OUR APPROACH TO VALUE CREATION

A SUSTAINABLE FUTURE, A BETTER TOMORROW.

In essence, this is the purpose Ranhill continues through its operations in the Environment, Energy and Engineering Services sectors to provide solutions that enable value creation, beyond the realisation of pure revenue and profits.

While growth in financial performance remains a fundamental aspect of the Ranhill business model, the Group's Vision and Mission are environmental and societal focused, that is addressing the challenges faced by society and the nation in relation to sufficient water supply and preserving the nation's water resources, meeting the developmental needs of the country by providing sustainable energy generation solutions and contributing to socio-economic growth and prosperity by emphasising sustainable infrastructure development.

OUR MATERIAL MATTERS

E Environmental

- Biodiversity
- Climate Change and Greenhouse Gas Emissions
- Energy Usage and Energy Efficiency
- Material Management
- Waste (Solid) and Wastewater Management
- Water Security, Accessibility and Tariff

S Social

- Community Engagement
- Customer Experience and Satisfaction
- Employee Engagement
- Human Rights, Diversity, Equity and Inclusion
- Safety, Health and Wellbeing (Employee and Public)
- Supply Chain Management and Responsible Sourcing
- Talent Acquisition, Retention and Development

G Governance

- Anti-Bribery and Anti-Corruption
- Corporate Governance and Regulatory Compliance
- Data and Cyber Security
- Economic Performance
- Ethics and Integrity
- Innovation
- Operational Excellence
- Risk Management
- Technology and Digitalisation

OUR APPROACH TO VALUE CREATION

Ranhill's approach of preserving finite and dwindling water resources, delivering renewable and cleaner energy generation and adopting "green" infrastructure technologies directly address climate change, global warming, societal development and are consistent with the United Nations Sustainable Development Goals ("SDG").

RANHILL SUSTAINABILITY STRATEGY

VALUE WE CREATE

- ENVIRONMENTAL AWARENESS & PRESERVATION
- CONTRIBUTION TOWARDS SOCIAL WELLBEING & CAPACITY BUILDING
- INSPIRATIONAL WORKPLACE & CULTURE
- ENHANCING GOVERNANCE ACROSS THE GROUP

OUR IMPACT ON THE SDGS

RANHILL SUSTAINABILITY FRAMEWORK

OUR APPROACH TO VALUE CREATION

RETHINKING VALUE CREATION

Ranhill's focus on environmental and social performance are driven not just by the desire to serve as a force for good – creating positive impact for people and the natural landscape. The Group is of the view that people, planet and profit are intrinsically linked and a strategic focus that addresses the dynamic and integrated inter-relationships, between each element is a prerequisite for continued business success.

A business that is dependent on water resources must focus on both increased supply to meet growing consumption demand whilst safeguarding the ecosystem that supplies the water. The capital dependency on natural resources is clear and while abstracting and selling more water equates to greater revenues, preserving the ability of the ecosystem to regenerate, eliminating wastages, promoting improved water consumption per capita per day go hand-in-hand and developing reclaimed water as a viable commercial alternative are equally, if not more vital than focusing on increased water supply and sales.

DEVELOPING ALTERNATIVE WATER SOURCES THROUGH CIRCULAR APPROACHES, ENABLING EXISTING RIVERS TO REPLENISH SUFFICIENTLY

Tapping reclaimed water for non-potable, industrial and commercial applications, encouraging rainwater harvesting in more developments, focusing on desalination and other alternatives.

ELIMINATING WASTAGES, PROMOTING EFFICIENCY, INCREASING CAPACITY

Focusing on NRW loss reduction, promoting more efficient consumption practices by increasing tariffs, developing Off River Storage ("ORS"), undertaking raw water transfer projects.

INCREASED WATER SUPPLY AND SALES

Abstracting more water from river sources, developing and upgrading WTPs and the overall water supply network towards supplying and selling more water to meet current consumption demand.

OUR APPROACH TO VALUE CREATION

Likewise, with climate change, global warming and other physical effects, it is imperative that the world transitions to alternative sources for energy, beyond hydrocarbons.

Through its Energy and Engineering Services sector, Ranhill is designing and building as well as promoting the use of solar, hydro, geothermal and other renewable energy ("RE") options to reshape Malaysia and the region's future energy mix.

However, even as the world transitions to RE, certain hydrocarbons will remain integral to meeting global energy needs in the interim. Ranhill's Combined Cycle Gas Turbine ("CCGT") based power plants provide a viable solutions as a significantly cleaner form of carbon based energy generation.

The Group's Engineering Services sectors continues to provide solutions of new technologies such as Carbon Capture Storage ("CCS") and Carbon Capture Usage Storage ("CCUS"), design and build of RE facilities as well as flood mitigation projects. Other projects include designing of hospitals towards meeting society's increasing need for affordable, yet quality healthcare. These projects alone have generated the Group's Engineering Services sector growing revenues and an expanding order book on the back of contracts secured in FY2022.

In essence, Ranhill's business model continues to integrate both financial and non-financial value creation perspectives that are akin to a virtuous cycle, mutually dependent and mutually supporting each other, which ultimately create positive outputs and outcomes over a multiple capitals perspective.

OUR APPROACH TO VALUE CREATION

Ranhill

Financial Values

Aspirations

Non-financial Values

OUR BUSINESSES

- Treated Water Supply Services
- Water and Wastewater Treatment & Reclaimed Water Treatment
- Energy and Renewable Energy
- Multi Disciplinary EPCM, PMC, O&M Services and Consultancy Services
- Non-Revenue Water Management

Supports the development of a better world and future

Sustains revenues and earnings over the short, medium and long-term

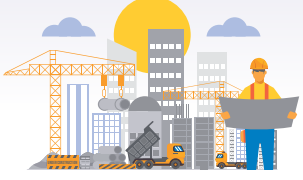
Continues to earn the trust and confidence of shareholders, regulators, financiers and other stakeholders

Creates the following values:

Clean and reliable water supply; contribute to the health of communities and economic development

Generation of electricity required for socio-economic development

Develops local supply chains and local employment

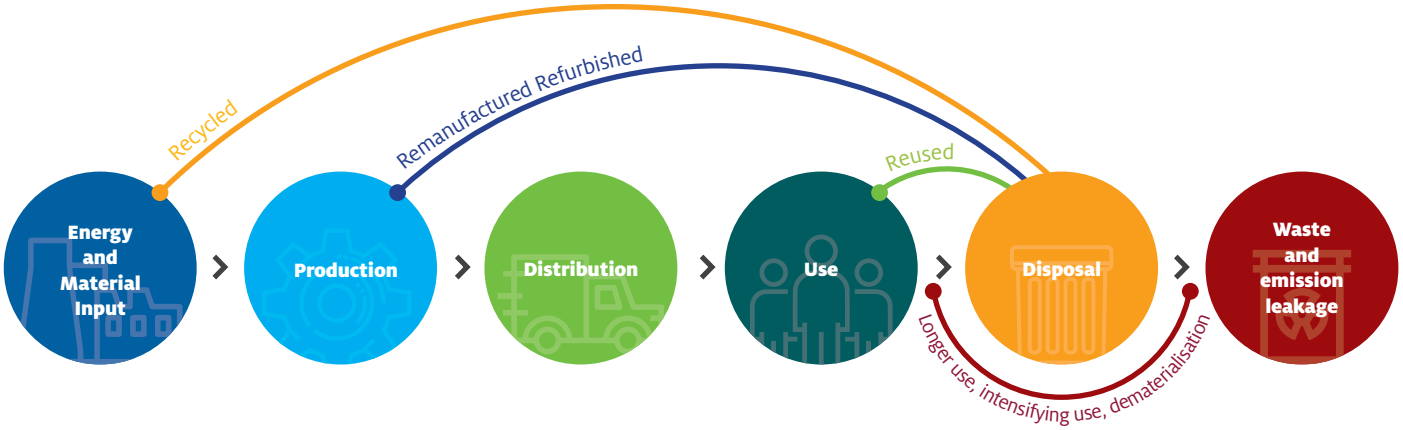


Indirectly spurs infrastructure development, commercial activities and attracts investments

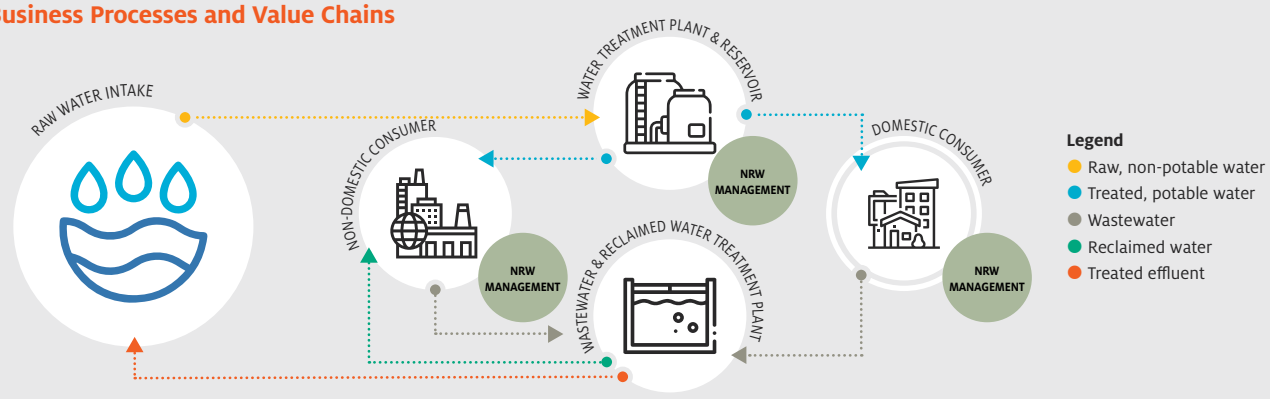
APPLICATION OF THE CIRCULAR ECONOMY MODEL

Ranhill's business divisions apply the principles of the circular economy model. In essence, operations as well as solutions implemented to clients are premised on virgin resource and material optimisation (which promotes resource efficiency and reduced consumption of virgin materials), reduction of waste and recycling waste into useable by products or even upcycling waste to be converted into inputs for the production process.

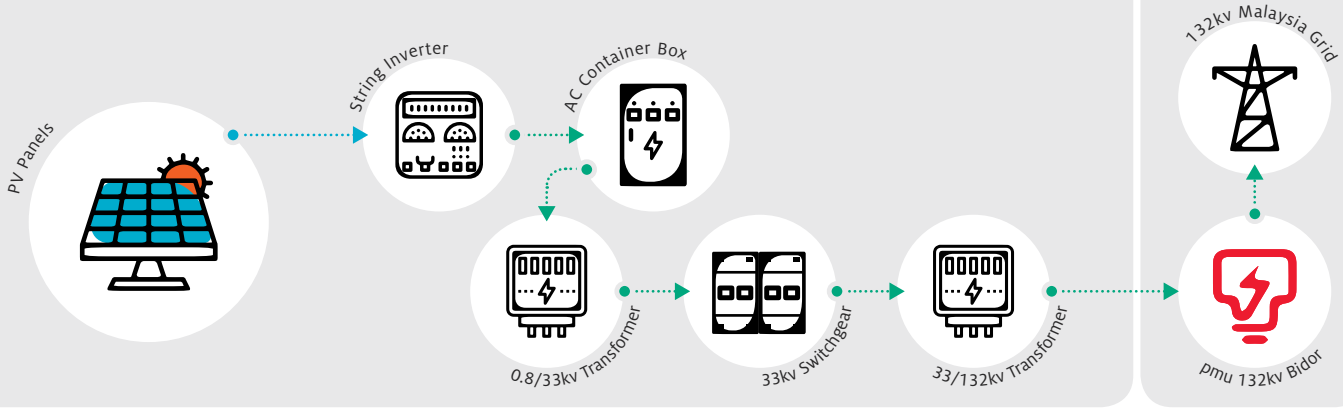
The circular economy model approach is reflected in the implementation of CCS and CCGT applications as well as use of reclaimed water. It addresses material matters toward preserving resources and creating financial and non-financial values for stakeholders. The values created involve revenues, reliable water supply, preservation of water resources, reduction in NRW, and contributing to water security.



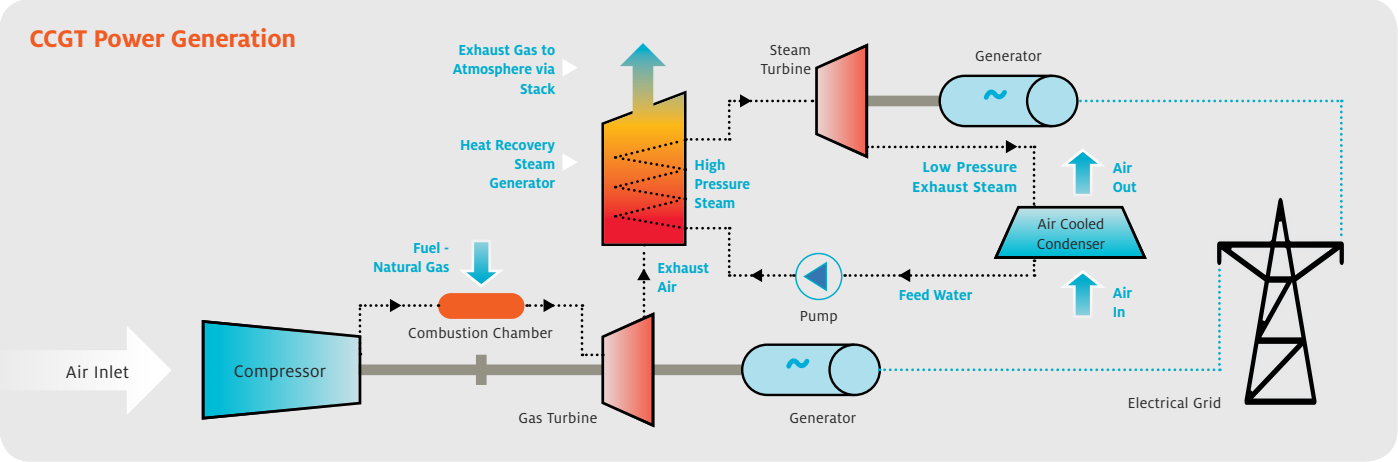
Business Processes and Value Chains



Renewable Energy (Solar) Generation



OUR APPROACH TO VALUE CREATION



CAPITAL DEPENDENCIES

WATER RESOURCES PRESERVATION

The Group's Environment sector comprises the abstraction, treatment and supply of potable water to the state of Johor, Malaysia. Operations also include addressing non-revenue water ("NRW") with its effort, of which Johor state has the lowest NRW rate in Malaysia based on m^3/KM of Pipe/Day.

The Environment sector also undertakes wastewater treatment and reclamation of wastewater in Thailand.

Given that a large portion of Ranhill's revenue is presently derived from environment sector revenues, it is evident that the Group's business is dependent on sustainable water supply from the state's rivers.

However, amidst increasing water consumption due to population growth and rapidly expanding industrial and commercial activity as well as economic development, together with climate change and other environmental impacts, rivers across the state continue to come under increased pressure.

Further details of the Group's plans in addressing its capital dependency on water is provided in the Message of Chairman and Chief Executive as well as the Ranhill Sustainability Report 2022 ("SR2022").

CLIMATE CHANGE RESPONSE

RISK	OPPORTUNITIES
Adverse weather effects such as droughts affects river water quantity and quality. This can necessitate water rationing activities which would impact revenues as well as customer satisfaction levels.	Climate change and other environmental related impacts have led to greater awareness and urgency of action in addressing NRW and other issues faced by the water industry. These include expediting water infrastructure related projects such as ORS facilities, repairs, upgrading and construction of pipelines and WTPs and also enabled new opportunities for business expansion across Malaysia.
A sudden deluge of torrential rain such as experienced in early FY2023, where Johor experienced a 32-year record high rainfall could lead to flash floods that could affect operations of the WTPs and the water supply network.	

STAKEHOLDER MANAGEMENT

RISK	OPPORTUNITIES
It is essential that Ranhill continues to feel the pulse of its many stakeholders – maintaining a clear understanding of the aspirations and objectives of stakeholders, notably regulators, the government and financiers. Being unaligned to stakeholders may lead to various issues such as regulatory non-compliance, loss of access to financing or even not being included in ESG indices that would impact brand reputation and visibility.	By aligning closely to stakeholders, Ranhill continues to ensure that its business goals and objectives continues to remain relevant and that it retains the support of diverse stakeholder groups. Collaborating with stakeholders amplifies value creation – improving brand perceptions and enables opportunities to share the Group's perspective on a wide range of material matters.

TALENT DEVELOPMENT AND RETENTION

RISK	OPPORTUNITIES
Talent scarcity continues to be an issue faced, especially skilled talent with specific technical proficiencies. In addition, recruiting and retaining talent with business acumen and leadership attributes also remains a challenge. Business development and growth are intrinsically linked with talent and the inability to secure and retain high-performing employees can impact the realisation of KPIs and targets over the medium to long-term.	Talent scarcity necessitates new approaches include rethinking conventional talent recruitment and management approaches. The situation has propelled Ranhill to look internally towards meeting its requirements for technically proficient and skilled employees. This includes developing inhouse talents through company organised and sponsored training courses and programmes, and focusing on internal promotions. Other alternatives include recruiting directly from universities, technical institutions and also redesigning business processes to reduce reliance on manual labour. This promotes cost savings and supports operational efficiencies.

TECHNOLOGY AND INNOVATION

RISK	OPPORTUNITIES
The proliferation of technology enables new solutions and possibilities for value creation. However, technology acquisition may require significant CAPEX and there may be a period of adjustment before the full value creation impact of the implementation can be realised. During the transition, there may also be challenges such as user rejection, ineffective implementation, the costs associated with trial and error and potentially, the lack of concrete results achieved that may undermine user acceptance of the implementation process. Selection of unsuitable technologies may also negatively impact operations leading to financial and operational losses.	Technologies such as carbon capture and storage provide new business opportunities for Ranhill. Emerging and existing technologies enable cost and operational efficiencies across the value chain, strengthen competitive edge and enable the development of new industry breakthroughs that strengthen the Group's value proposition.

OUR VALUE CREATION MODEL

The Ranhill FY2022 Value Creation Model is a visual summation of the Group's approach to value creation. It provides a concise, multi-capitals perspective of how the Group consumes a wide range of resources beyond financial capitals and how these are transformed via the business model to create multiple stakeholder outputs and outcomes. In essence, the value

CAPITAL RESOURCES

FINANCIAL

Shareholders' equity, debt and reinvested capital, internally generated funds and borrowings used to fund CAPEX and OPEX towards creating financial values and to deploy other forms of capital.

MANUFACTURED

Physical assets required for business operations such as WTPs and power plants as well as machinery, vehicles fleet and more utilised for the execution of the business model.

HUMAN & INTELLECTUAL

The cumulative skills, expertise and competencies of Senior management and staff as well as proprietary business processes, systems and relevant industry knowledge and experience.

SOCIAL

Harnessing existing relationships with various stakeholder groups to further the interest of Ranhill and its industries as well as stakeholders for mutual benefit.

NATURAL

Consumption of natural and other resources such as land, fossil fuels, water, gas, electricity to deploy and operate the business model.

INPUTS

- **RM66.2 million** in CAPEX
- **RM339.8 million** in cash and bank balances
- **RM680.8 million** in total equity
- **RM3,281.2 million** in total assets
- **RM1,044.3 million** in loans and borrowings
- **RM1,439.0 million** in share capital

- **714** reservoirs
- **46** WTPs
- **24,002 KM** pipeline network comprising mains distribution: **3,631 KM** and reticulations: **20,371 KM**
- **11.13 million m³** incoming wastewater for Thailand operations
- In Thailand: **100 MLD** for water and wastewater treatment) and 2 reclaimed water plants with **17 MLD** capacity
- Two CCGT fired power plants with total capacity of **380 MW**

- Long-standing industry knowledge, experience and expertise
- High employee satisfaction and morale
- Empowered organisational culture
- Talent development and retention programmes
- Succession planning
- New technology and innovation
- **4,018** total workforce strength
- **361** internships provided
- Management trainee programme

- Proactive engagements with regulatory and other stakeholder groups. These include investors, the media, Jom Sembang customer engagements, and the community
- Key focus areas include water conservation and NRW
- Exploration of joint-ventures ("JV"), strategic partnerships to penetrate new markets and tap new business opportunities

- **Water consumption:**
  Ranhill SAJ: 686,891,245 m³ total raw water abstraction
  RWTT and AnuRAK: 9,169,864 m³
  RPI and RPII: 133,707 m³
- **Energy consumption:**
  Ranhill SAJ (direct energy): 1,059,220.29 GJ
  Ranhill SAJ (indirect energy): 374,292,054.90 GJ
  Ranhill SAJ (RE derived electricity generated): 134,631.00 kWh
- **Gas consumption:**
  RPI and RPII: 10,054,138.5 litres of diesel
  RPI and RPII: 21,025,790.1 MMBtu of gas

VISION
Enriching Lives Through Sustainable Solutions

MISSION
To Be A Regional Leader In Water, Wastewater And Energy With Emphasis On Circular Economy

CORE VALUES
› Respect
› Resourceful
› Result

Securing Capital

SUSTAINABILITY

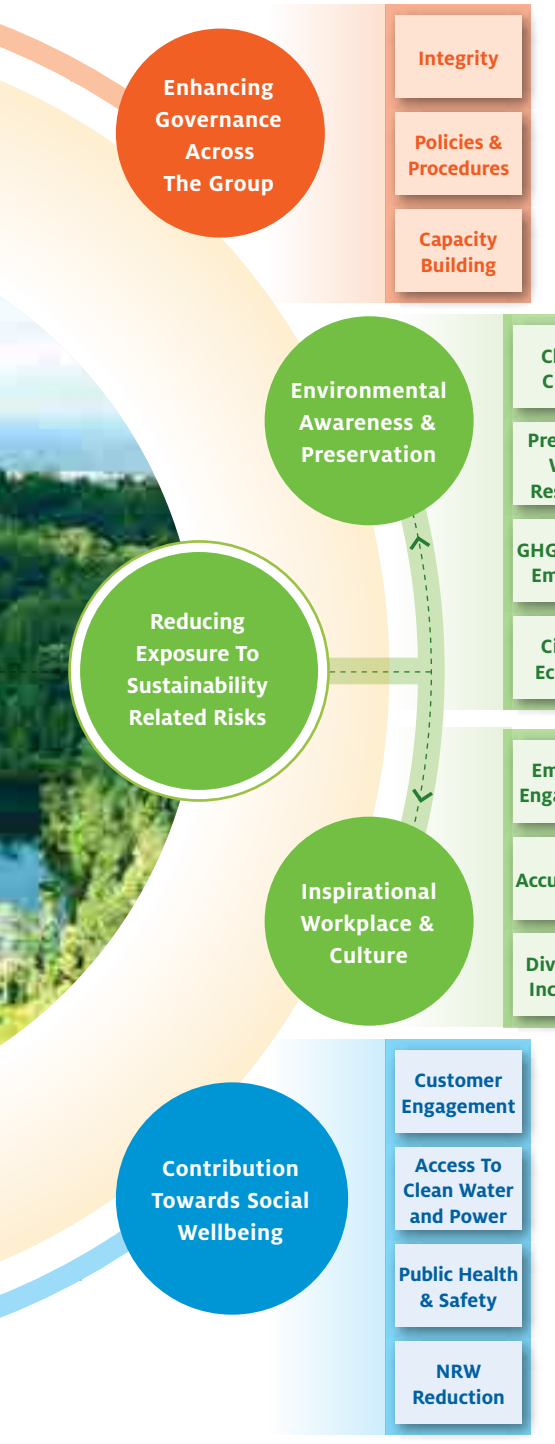
Enhancing Brand Value

OUR VALUE CREATION MODEL

creation model presents Ranhill from a more comprehensive value creation perspective. It enables readers to view the Group's business model beyond typical financial performance and disclosures and to ultimately develop insights into how Management is embedding a triple bottomline approach into its strategic thinking.

The Value Creation model illustrates how Ranhill is progressively focusing on creating value across multiple perspectives, beyond just revenues, earnings and shareholders returns and in doing so, continues to ensure the relevance of its business model over the short, medium and long-term perspectives.

BUSINESS MODEL



>> REALISING GROUP ASPIRATIONS AND CREATING VALUES THROUGH

Environment Sector

Energy Sector

Engineering Services Sector

>> **Financial Growth**

Risk Mitigation

Sustainable ESG Performance

Future Ready

OUTPUTS

- **RM1,726.3 million** in revenue
- **RM203.4 million** in profit before taxes
- **RM389.0 million** cash and bank balances
- **RM3,261.7 million** in total assets
- **RM2,306.6 million** in total liabilities
- **RM1,439.0** in share capital
- **RM1,099.2 million** in borrowings

- **2,133 MLD** total treatment capacity
- **17 MLD** in reclaimed water
- **2,392 GWh** of electricity generated for Sabah
- High customer satisfaction levels for water supply services in Johor
- NRW level of **26.3%**
- **48,397 kWh** of solar energy generated
- **64,822 kWh** of mini-hydro energy generated

- **699** new hires, **525** male, **174** female, **363** aged 30 and below, **279** aged 31-50, **53** aged 51-65, **4** aged 65 and above, **one** employee with physical disabilities
- **4018** workforce strength, **2.8%** increase
- **284** resignations, **7.1%** attrition rate
- Development of leadership bench
- Incorporation of new technologies into business processes
- **7.7%** increase in women employees
- **284** staff turnovers, **7.1%** attrition rate
- Hiring of one physically disabled staff
- **4018** total workforce strength (**2.8%** growth)
- Development of leadership bench
- Incorporation of new technologies into business processes
- **121** YWP participants
- **23** interns absorbed
- **6** management trainees retained
- **63.8%** of employees covered by collective bargaining agreements (Ranhill SAJ)

- Expansion into new sectors and geographic locations
- Contribution to industry conducive policymaking
- Improving relationships with the Government and industry regulators
- **RM0.84 million** in water rebates to **3,216** hardcore and poor households
- Implementation of new water tariffs
- **32.3** average training hours per employee (men: **32.2**, women: **32.6**)
- **RM0.71 million** spent on employee social and health activities
- **100.68%** bill collection rate (Ranhill SAJ)
- **89.0%** customer satisfaction score (Ranhill SAJ)
- **100%** and **94%** customer satisfaction scores for RPI and RPII respectively

- **93,788,980 m³** total sludge (Ranhill SAJ)
- **5,645,833 m³** of effluent discharge (RWTT and AnuRAK)
- **11,559 m³** water discharge (RPI and RPII)
- **226,796.4165** total Co_2e tonnes of carbon (Ranhill SAJ)
- **78,759.2 $kgCO_2eq$** avoided through RE usage

OUTCOMES

- **RM32.2 million** in dividend payout
- Share price depreciation of **16.5%** in FY2022
- **RM586.3 million** market capitalisation as at end FY2022
- **RM95.3 million** profit attributable to owners of the parent
- **RM44.6 million** paid in income taxes
- **RM358.3 million** paid in wages

- Additional **25 MLD** saved in Johor
- Expansion of water system capacity and provision of reliable service
- Compliance to SPAN KPIs save for NRW loss
- Continued reduction of NRW levels in various states in Malaysia
- Ensuring grid stability and meeting the energy requirements of Sabah state
- Fulfilling key role as the largest IPP in Sabah
- **10%** increase (to **54 MLD**) for Thailand operations wastewater treatment capacity
- **2,392 GWh** of power delivered to the Sabah grid (RPI and RPII)
- **95%** DMA Connection coverage in Johor
- **124,379** customer water meters replaced
- Successful replenishment of order books for the Engineering Services Sector, including undertaking carbon capture and flood mitigation projects

- Continued cultivation of equality and gender and ethnic diversity
- **30.6%** increase in female managerial staff
- High employee satisfaction scores ranging **70%-90%**
- Development of local talents, provision of high-paying jobs that uplift socio-economic status

- Providing access to clean water, a basic human right and enabling the realisation of SDG 6: Clean Water and Sanitation
- Higher water tariffs support revenues and also sustainable water operations
- Progress on project Indonesia as well as Sabah related plant-ups

OUR STRATEGIC SNAPSHOT

ENVIRONMENT SECTOR

Business Strategies / Focus Areas	Outputs, Performance Highlights & Achievements, Values Created	Potential Risks, Issues & Challenges	Opportunities	Strategic Priorities
• Continued implementation of COVID-19 SOPs across water operations. Strict adherence to SOP discipline is necessary to prevent operational disruptions and to protect staff and stakeholders from infection risks. • Maintaining a high level of operations to ensure continued achievement of the industry regulator's KPIs. • Intensified focus on addressing NRW levels, which include pipe rehabilitation and replacement works, meter replacement and other measures. • Initiated a chemical substitution programme at several WTPs to reduce OPEX. • Implementation of new technologies, i.e. AquaSMART, to increase water yield, reduce costs and achieve increased efficiencies. • Expanding existing and constructing new WTPs. • Harnessing RE to power water operations. • Continued business development activities, targeted at the industrial water sector and potential non-revenue water ("NRW") customers. • Leveraging technology and innovation for business growth. • Talent development and retention.	• RM1,173.7 million in revenues. • RM261.6 million PBT. • Met or exceeded all of SPAN's KPIs save for NRW loss, which marginally exceeded the KPI of 26% (FY2022: 26.3%). • 70,929 leaks detected and rectified through ALC activities. • Initiated solar farm proposal to fully power water operations in Johor. • Implementation of first pollutant removal system. • Creating seamless workflow and moving progressively towards greater implementation of paperless, web-based solutions, and significant cost savings. • 2,895 water theft cases successfully reported and 904 imposed with water charges. • Continued progress on construction and upgrade of several WTP projects. • Completed upgrading of the Amata Rayong WWTP, thus increasing wastewater treatment capacity by 10% to 54 MLD.	• Continued rising costs especially energy costs. • Shortage of raw water quantity especially in locations with low water reserve margins. • Discontinuity of water operator licence from SPAN and Raw Water Abstraction Licence from BAKAJ. • Continued delays in reduction of rental for leased assets from PAAB. • Change in Government regulations. • Continued delays in upward tariff revision. • Extreme weather events caused by climate change and global warming. • Increasingly poor river water quality leads to increased treatment costs. • Challenging incoming water and wastewater quality. • Dwindling river water supply. • Delays in funding and progress for pipe rehabilitation and replacement works. • Acts of terrorism, security breach, vandalism, theft, etc. that cause disruption to WTP and WWTP operations. • Lack of skilled and specialised water industry talents. • Overspending or underspending on technology and to disburse technology budgets.	• Exploration of water concessions in other states in Malaysia as well as Indonesia. • Growing demand for water supports stability of revenues and necessitates expansion of construction of new water assets. • Increased tariffs and CGPP support revenue and earnings growth. • Successful negotiation of lower lease rental rates and capping maximum rental rates from PAAB will also support margins • Government support to addressing NRW and using reclaimed water. • Provide and enable new prospect business models and income sources through robust technology.	• Reinstatement of a downward trend for NRW by completing all five Rehab packages. • Completion of all WTP expansion, upgrade activities as well as construction of additional WTPs. • Lobbying regulators and government to impose harsher sentences on polluters. • Develop strategic partnerships with Original Equipment Manufacturer ("OEM") product manufacturers. • Continued talent development especially for specialised and niche skillsets. • Developed engagement with technical resources identify applicable and potential technology ideas and adapt to business operations.

Note: Please refer to the Management Discussion and Analysis section of this report for further details.

OUR STRATEGIC SNAPSHOT

ENERGY SECTOR

Business Strategies / Focus Areas	Outputs, Performance Highlights & Achievements, Values Created	Potential Risks, Issues & Challenges	Opportunities	Strategic Priorities
• Continued implementation of COVID-19 SOPs across power operations. Strictly follow the SOP to prevent operational disruption and protect staff and stakeholders from the risk of infections. • Maintain a high level of operational performance to ensure continual achievement of industry regulator's and Power Purchase Agreement ("PPA") KPIs with high Equivalent Availability Factor ("EAF"), RPI/Availability Target ("AT"), RPII and low Force Outage Rate ("FOR"), RPI/Unplanned Outage Rate ("UOR"), RPII. • Reduction of gas consumption to reduce OPEX through efficient heat rate management. • Continue the pursuit of new conventional power plant projects in Sabah (immediate term), Peninsular Malaysia and South East Asia (long term). • Increase efforts to explore RE potentials, both locally and abroad.	• Both RPI and RPII had achieved total gas consumption that meet the requirement of the Gas Sales Agreement ("GSA"). No penalty is imposed. • Generated 2,392 kWh for the Sabah electricity grid. • Outperformed the PPA for EAF/AT and FOR/UOR. • GT11 and GT22 at RPI was successfully commissioned with a new refurbished Rotor and Rotor that has undergone the Lifetime Extension. • RPOMII, which is operating and maintaining RPII, Rugading Power Station, achieved ISO9001 certification in first quarter ("Q1") of 2023.	• Lack of conventional plant-ups or RE projects in Sabah. • Lack of heavy industries to drive up consumption demand. • Low power dispatch during off-peak. • Changes in state government policies and regulatory with regard to the energy sector in Sabah. • Non-renewal of PPAs. • Lack of success with the Rugading Tax appeal. • The requirement for both Teluk Salut and Rugading to stay connected to the grid for prolonged periods to support peak demand can disrupt scheduled maintenance activities. • Uncertainty of currency exchange rate may escalate project costs.	• Expected increase in plant-ups to address Sabah's low energy generation capacity situation. • Expected increase in manufacturing based investments into Sabah to provide increased impetus to expedite plant-ups. • Continued positive prospects in demand for RE projects in Malaysia and Southeast Asia. • Ability to leverage the Group's international presence to pursue potentials in Southeast Asia. • Increasing appetite among private sector companies to adopt RE, notably solar i.e. Corporate Green Power Program ("CGPP"). • With the possible liberalisation of the gas supply industry and the implementation of the third-party agreement in the future, there is potential to explore a wide range of suppliers. • Continuous running of both plants has improved the Load Factor ("LF") which is translated to high Net Energy Output ("NEO") gained.	• Continued stakeholder engagement for projects such as LSS potentials, the 100 MW CCGT in Sabah and Tawau geothermal power plant. • Pursuit of potential opportunities in hydro, mini-hydro, wind and solar, locally and abroad. • Continue to outperform the EAF/AT and meet the requirement of FOR/OUR in the PPA by proper execution of scheduled and preventive maintenance. • Achieve Commercial Operation Date ("COD") for Ranhill Solar 1, 50 MWac in Bidor, Perak.

ENGINEERING SERVICES SECTOR

Outputs, Performance Highlights & Achievements, Values Created	Potential Risks, Issues & Challenges	Opportunities & Strategic Priorities
Business Strategies - Ranhill Water Services ("RWS")		
• Additional 25 MLD saved from undertaking NRW projects in Johor. Total NRW reduction track record now stands at 751 MLD. • Established 26 DMAs (95% connection coverage in Johor.) • Secured two pipe rehabilitation contracts from PAAB and JKR with a cumulative value of RM100 million. • Secured an integrated command centre development contract with Ranhill SAJ. • Collaboration with PETRONAS Global Technical Solution ("PGTS") to co-develop analytical tools to further upgrade AquaSMART.	• Inability to deliver on contracts due to further lockdowns or delays in regulatory approvals. • Lack of skilled and specialised industry talents. • Lack of competent and qualified contractors and sub-contractors post the COVID-19 pandemic.	• Opportunities to propose and undertake NRW loss management programmes under Approach 2 of the Matching Grant for Johor, Melaka, Selangor, Perak, Penang and Terengganu. • Target private sector players and as government agencies for NRW related projects. • Develop strategic partnerships with OEM product manufacturers.to strengthen supply chain and drive cost efficiencies.

OUR STRATEGIC SNAPSHOT

ENGINEERING SERVICES SECTOR

Outputs, Performance Highlights & Achievements, Values Created	Potential Risks, Issues & Challenges	Opportunities & Strategic Priorities
Business Strategies - Ranhill Water Technologies ("RWT")		
• Successful replenishment of order book on the back of contracts secured in FY2022. • Completed the Small Sewerage Treatment System ("SSTS"), at the Penawar Toll Plaza. • Secured retender of the 2 MLD desalination WTP in Forest City, Johor. • Ventured into high-growth sectors through non-traditional clients.	• Change in policies with regard to wastewater management, especially reclaimed water (Thailand). • Inability to complete construction work on time due to pandemic or other disruptive factors. • Intensified competition due to many players and new market entrants. • Challenging incoming wastewater quality.	• Leverage in internal technologies to offer customised solutions and specialised facilities that offer competitive value propositions. • Leverage on established presence to pursue potentials in industrial parks in Malaysia and Thailand. • Develop strategic partnerships with OEM product manufacturers.to strengthen supply chain and drive cost efficiencies. • Growing interest (and demand) for reclaimed water use of non-potable applications.
Business Strategies - Ranhill Bersekutu Sdn Bhd ("RBSB")		
• Successful replenishment of order book on the back of contracts secured in FY2022. • Achieved financial close for the LSS4 Bidor, Perak project. • Undertaking of significant infrastructure projects such as flood mitigation as well as development of hospitals and the KLIA baggage handling system project. • RBSB is expanding into O&M service which has secured O&M service contract for Bidor LSS plant for 21 years. • Secured Water Supply Upgrading project from PAAB, Genting and managed to continue engineering consultancy services for 2 new Hospital projects consecutively from the same client.	• Economic slowdown in 2023, a spillover economic pressure from 2022 due to rising inflation and a slow growth in construction sector effect from post Covid-19 pandemic. • New business line in O&M without past experience. However, as RBSB is constructing the plant and with continuation of key resources from project construction for mitigating this risk. • Completing the LSS4 in Bidor by December 2023 is a tight timeline but being managed. • Stiff market competition. • Differing interpretation on contract terms & conditions and stringent performance targets set by clients.	• Achievement of Scheduled Commercial Operation Date ("SCOD") for LSS 4 Bidor. • Build solid order book from RBSB's bedrock sectors – Water Resources, Transport and Civil Infra by capitalising on existing client relationships in water projects (PAAB, Genting etc). • Continue to capitalise on RBSB's strength and capability in Road Safety Audit (RSA) and Independent Checking Engineer ("ICE") for roads and highway projects. • Capitalise on the completed study for National Sewerage Catchment Master Plan to bid for upcoming centralised sewerage plant projects. • Capitalise on proven project delivery track record with Jabatan Pengairan dan Saliran ("JPS") • Increase focus and build solid capability in renewable energy and power infrastructure projects. • EPCC sector to participate and support the corporate group power program as Solar Project Developer. • Continue development, retention of talent and development of technology capabilities i.e. Solar PV engineering, Digital Engineering, Building Information Modelling ("BIM") and 3D modelling. • Be at forefront of the industry and first choice for BIM. • RBSB is seeking opportunity to setup and diversify into Facility Management (FM) services. • Pursue data center and industrial logistic hub projects based on infrastructure experience. • Expand its geographic presence to other markets, namely Saudi Arabia, Bangladesh and Indonesia.

Note: Please refer to the Management Discussion and Analysis section of this report for further details.

ENGINEERING SERVICES SECTOR

Outputs, Performance Highlights & Achievements, Values Created	Potential Risks, Issues & Challenges	Opportunities & Strategic Priorities
Business Strategies - Ranhill Worley ("RW")		
• Successful replenishment of order book on the back of contracts secured in FY2022. • Continued to expand an undertaking well rejuvenation projects or working on marginal fields. • Secured the world's largest offshore CCS project, the RM18 million Design Competition Phase and RM52 million for Detailed Design Phase - Malaysia Kasawari CCS project. • Secured the USD27.0 million Brazil P-82 Floating Production Storage and Offloading ("FPSO") facility, awarded by Sembcorp Marine Integrated Yard Pte Ltd. • Secured the RM43 million FEED contract for offshore facilities at the SK410b Lang Lebah Development off the coast of Sarawak, Malaysia. • Secured RM15 million detail engineering design including follow on engineering for EPC services of Fixed Offshore Platform for Rosmari-Marjoram Gas Project; Solar Powered Offshore Platform for Sarawak Shell Berhad.	• The United Nations Climate Change Conference ("COP27"), saw growing scrutiny on industry players' moves in delivering their respective commitments to limit emissions and increase in global temperature. • Create huge challenges as well as opportunity to the industry player where development of new fields requires more technological advancement in minimising emission which may increase cost of investment.	• Pursue projects in tandem with the ongoing recovery of the oil and gas sector, namely brownfield or marginal field related projects in Malaysia. • To target offshore works in overseas markets related to FEED development, design of offshore facilities and expansion contracts. • Anticipated growing trend on decarbonisation and CCS on oil and gas projects moving forward. RW is exceptionally well positioned with carbon storage and decarbonisation knowhow and technology with recent award of Malaysia Kasawari CCS, world's largest offshore carbon capture and storage, and Brazil P-82 FPSO where FPSO will incorporate carbon capture, closed flare technology, which increases gas utilisation in a safe and sustainable manner and prevents it from being burned into the atmosphere. • RW's strategic priority is to target the design and engineering of offshore facilities work for both international and local customers. This includes FEED and detail engineering for offshore wellheads, compression and processing facilities as well as greenfield facilities & brownfield modifications and enhancements.

Note: Please refer to the Management Discussion and Analysis section of this report for further details.

MESSAGE FROM CHAIRMAN AND CHIEF EXECUTIVE

TAN SRI HAMDAN MOHAMAD

Chairman and Chief Executive

Dear Stakeholders,

FY2022 saw Ranhill continue to pursue its strategic objectives towards strengthening its position as a leader in the Environment, Energy and Engineering Services sectors, both in Malaysia and abroad.

OVERVIEW

In FY2022, COVID-19 related restrictions on business activities were lifted. This enabled full operational capacity for all businesses, and Ranhill correspondingly looked to capitalise on the recovery in demand for water, energy, and infrastructure consulting and project management services. Ranhill's business operations comprises three economic sectors. These are the Environment, Energy and Engineering Services sectors.

Across our Environmental sector, our focus was to expedite completion of water treatment plants ("WTP") and related works to boost water supply and capacity at key locations in Johor, to undertake continued non-revenue water ("NRW") loss reduction efforts across the state and to drive further progress on our proposed source to tap potable water project in Indonesia via a consortium. Ranhill SAJ's operations in Johor as well as RWTT and AnuRAK in Thailand and RWHK in China have continued to achieve a high level of compliance for the key performance indicators ("KPIs") set by regulatory authorities.

The Group's Energy sector continued to deliver as Sabah's largest independent power producer, providing up to 40% of the installed energy generation capacity in the state. The energy sector had also tendered for several projects locally and we await the outcome of these efforts in FY2023. I am pleased to share that we have received positive news from the Energy Commission of Malaysia ("EC") that Ranhill has been selected as the successful bidder under the Request for Proposal dated 28 February 2022 ("RfP") : New Power Generation Capacity Required in Year 2024 for West Coast, Sabah (the "Project"). With the project's expected commercial operation date ("COD") of 1 March 2026, it shall contribute financially to Ranhill's future revenue and earnings. Further details on the project and other Energy sector highlights are provided in the Management Discussion and Analysis section of this annual report.

Our Engineering Services sector underpinned by an upturn in the oil and gas and construction sectors also successfully replenished their order books on the back of new contracts secured during the financial year.

These achievements have bolstered the Group's financial performance for FY2022 while paving the way for further value creation going forward. While we continue to face rising costs due to inflationary pressures as well as other challenges such as disruptions in global supply chains, Ranhill has continued to persevere against the challenges to fulfil

Ranhill own and operates 380 Megawatt power plants and produce electricity to 1.2 million people in Sabah

HIGHLIGHT

Targets:

- **3,000 MLD**
  Water, Wastewater and Reclaimed Water Treatment Capacity by 2024
- **1,000 MW**
  Continue to Pursue Energy Target Capacity
- **10% NRW**
  Reduction by 2028

Revenue (RM'000):

- Environment Sector
  RM1,173.7
- Energy Sector
  RM263.9
- Engineering Services Sector
  RM288.7

its role as a provider of sustainable water, energy and infrastructure solutions while rewarding shareholders with value.

FINANCIAL PERFORMANCE

Group revenue grew by 12.8% to reach RM1,726.3 million (FY2021:RM1,530.9 million) while pre-tax earnings stood at RM203.4 million, 118.0% higher year-on-year. (FY2021:RM93.3 million).

FY2022 saw a 6.29% increase in non-domestic water consumption in Johor on the back of a recovery in commercial and industrial activities. This contributed positively to Group revenues, given that close to 60% of Ranhill SAJ's water sales is driven by non-domestic consumers. Revenue was also higher on the back of increased contributions from Ranhill Worley Sdn Bhd ("RW") for the financial year.

Earnings had improved on the back of recognition of non-revenue water reduction incentives received by Ranhill SAJ amounting to RM142.3 million. This was for the successful achievement of a NRW level of 25.1% for Johor in FY2021, well below the target of 26.1%. Ranhill SAJ was eligible for 75% of the costs incurred for undertaking related works and the grant is expected to be disbursed by the first half of FY2023

Group financial performance, specifically the Environment sector, which accounts for 68.0% of Group revenues, were impacted by the deferment in the implementation of new water tariffs.

The increased tariffs coupled with the continued upward trend in consumption, will support revenues and earnings going forward into FY2023. We estimate that the 9% increase in non-domestic tariffs will bring in additional revenues for Ranhill SAJ for FY2023.

The tariff increase was long overdue, given that the last revision was in year 2015. Against rising operating costs and inflationary pressures, it is timely that new rates which will underpin better financial sustainability for water operations are implemented.

The full details of the Group's financial, business and operational performance as well as sectoral breakdowns are provided in the Management Discussion and Analysis ("MD & A") section of this report.

DIVIDENDS

On 16 December 2022, Ranhill declared its first interim dividend of 0.5 sen per share on 1,288,638,058 ordinary shares amounting to a total dividend payout of RM6.44 million, which was duly paid out to shareholders on 18 January 2023. On 6 April 2023, Ranhill declared a second interim dividend of 2.0 sen per share on 1,288,638,058 ordinary shares amounting to a payout of RM25.77 million per share. The said dividend allotment shall be paid to shareholders on 15 May 2023.

Total dividend declared in respect of FY2022 amounts to 2.5 sen per share on 1,288,638,058 ordinary shares with a total dividend payout of RM32.21 million, equivalent to 33.8% of the Group's FY2022 profit after tax and minority interests.

A NOTE OF THANKS

On behalf of the Board of Directors and Executive, I wish to firstly thank all Ranhill employees for their professional contributions and work ethic during the year under review.

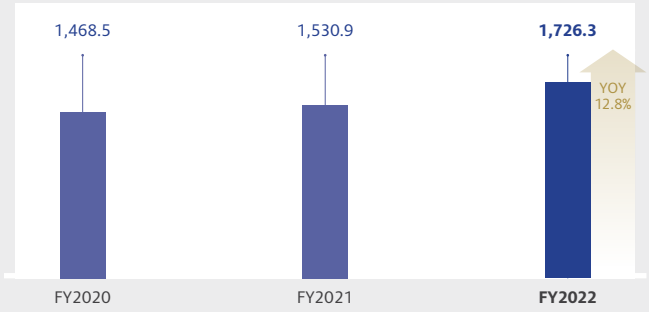
Thank you for your performance, and we look forward to your continued leadership, dedication, and innovative spirit as we progress towards greater heights.

In a similar vein, I also wish to express our gratitude to all government agencies and industry regulators, shareholders, bankers, clients, investors, financiers and other stakeholders who have journeyed together with Ranhill in FY2022. We look forward to your continued support as we embark on a new chapter of continued value creation and the realisation of a better, more sustainable future together.

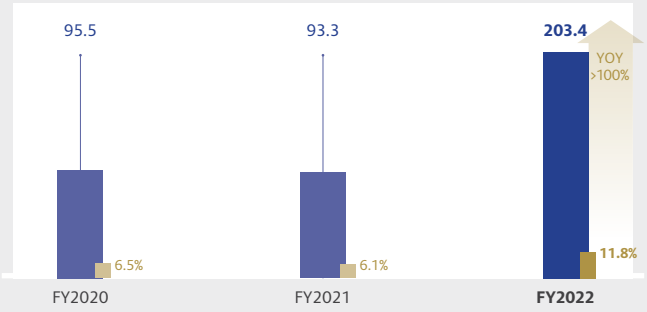
Tan Sri Hamdan Mohamad
Chairman and Chief Executive

GROUP FINANCIAL HIGHLIGHTS

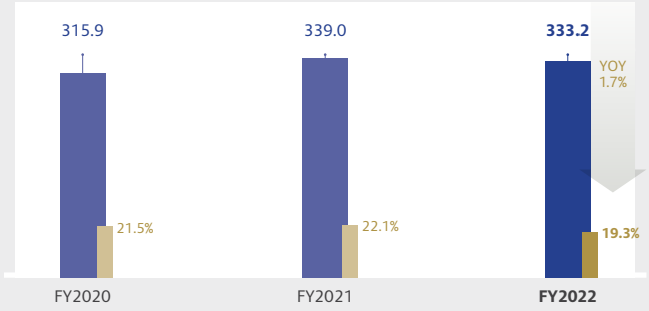
Revenue (RM'Million)



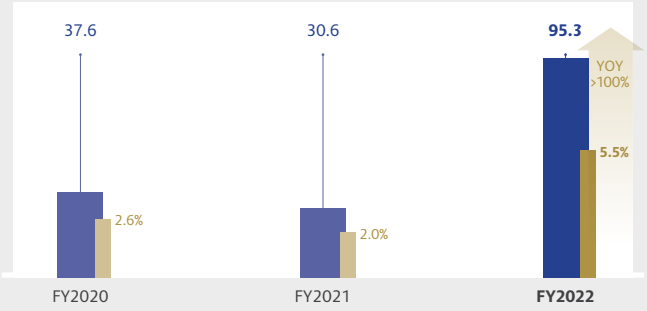
Profit Before Tax (RM'Million)



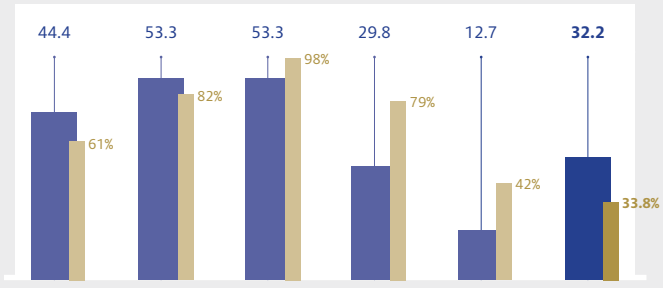
Gross Profit (RM'Million)



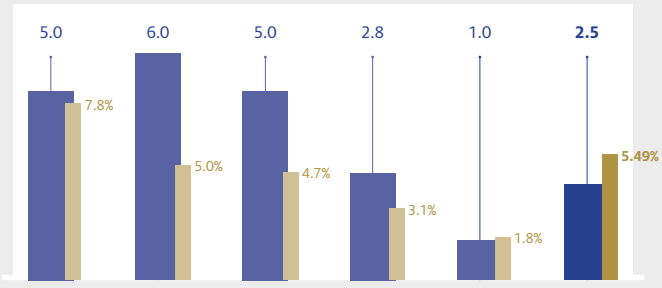
Profit After Tax Minority Interest (RM'Million)



Dividend Pay Out (RM'Million)

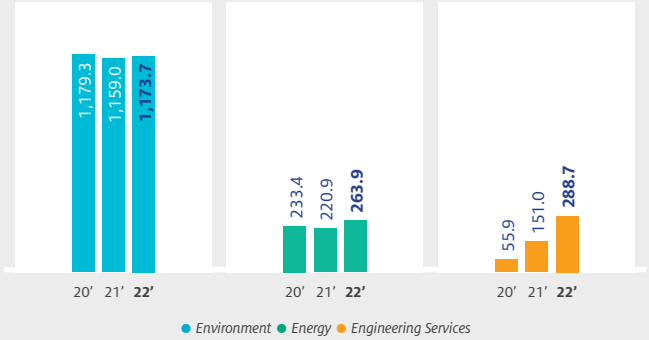


Dividend per Share and Dividend Yield

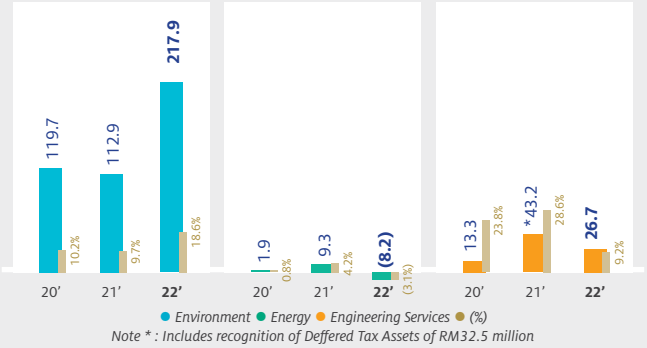


* Dividend yields are based on financial year end closing price

Revenue By Business Sector (RM'Million)



Segmental Profit and Margin By Business Sector



Note * : Includes recognition of Deffered Tax Assets of RM32.5 million

MANAGEMENT DISCUSSION & ANALYSIS

INDUSTRY AND OPERATING OVERVIEW

> "In line with our aspirations, Ranhill has established its **Net Zero Carbon by 2050** milestone. Ranhill will progressively align its business strategies and operations to this goal."

FY2022 MARKED THE FIRST FULL FINANCIAL YEAR WHERE THE COVID-19 RELATED RESTRICTIONS ON INDUSTRIAL SECTORS AND BUSINESSES WERE LIFTED. WHILE SOME SAFEGUARDS REMAINED, ON THE WHOLE, BUSINESSES COULD RETURN TO FULL OR ALMOST FULL OPERATIONS, AND THIS WAS REFLECTED IN THE STRONG ECONOMIC GROWTH POSTED AT BOTH GLOBAL AND DOMESTIC LEVELS.

At the global level, positive economic growth was reported at 3.2% year-on-year, underpinned by the recovery in economies across the world, but tempered by various headwinds.

In Malaysia, consistent with global recovery trends, the country posted an improved gross domestic product ("GDP") growth performance of 8.7% on the back of strong recovery in the services, construction, manufacturing and oil and gas sectors. Despite robust GDP growth, businesses still grappled with multiple challenges including inflationary pressures, supply chain disruptions and a continued slowdown public sector expenditure on infrastructure projects.

REVENUE CONTRIBUTORS

Environment sector:
RM1,173.7 million
(FY2021: RM1,159.0 million)
1.3% increased

Energy sector:
RM263.9 million
(FY2021: RM220.9 million)
19.5% increased

Engineering Services Sector:
RM288.7 million
(FY2021: RM151.0 million)
91.2% increased

GROUP EARNINGS PERFORMANCE

Profit from Group operations:
RM200.6 million
(FY2021: **RM95.1** million)

DIVIDENDS DECLARED

2.5 sen per share with total dividend payout of **RM32.2 million** (FY2021: **0.99** sen per share with total dividend payout of **RM12.7** million)

As the exclusive provider of source-to-tap water in Malaysia's second most populous state since 1999, Ranhill SAJ supports the state's robust growth and development by ensuring the availability and efficient management of quality water supply

Water Consumption in Johor State (FY2018 – FY2022):

	2018	2019	2020	2021	2022
Domestic (million m³)	295.1	304.6	316.4	320.8	**316.5**
Non-Domestic (million m³)	205.8	211.4	191.1	184.2	**195.7**
Total Consumption (million m³)	500.9	516.0	507.5	504.9	**512.2**
% Increase	4.6	3.0	-1.6	-0.5	**1.5**

	2018	2019	2020	2021	2022
Domestic (% Increase)	2.9	3.2	3.9	1.4	**-1.3**
Non-Domestic (% Increase)	7.0	2.7	-9.6	-3.7	**6.3**

Ranhill looked to capitalise on the recovery in demand for water, energy, oil and gas and project management services. Through effectively implemented strategies, contract order book building activities and by continuing to adopt cost and operational efficiency, all operating sectors of the Group registered notable business and operational achievements (except for energy segments).

In a similar vein, electricity consumption in Sabah had also improved. The increase in power supplied and sold by Ranhill's power plant operations (on the back of increased consumption demand), is less apparent due to the nature of economic activities in Sabah; which is more retail and tourism based, compared to being industrial driven in peninsular Malaysia.

The Group's Engineering Services sector also registered increased business activities in FY2022. Underpinned by the upswing in exploration and production ("E & P") activities in the oil and gas sector. There also was increased private sector projects tendered in FY2022 year-on-year.

FINANCIAL PERFORMANCE

GROUP FINANCIAL PERFORMANCE

	FY2020 (RM'Million)	FY2021 (RM'Million)	FY2022 (RM'Million)	2022 VS 2021
Financial Indicators				
Revenue	1,468.5	1,530.9	1,726.3	12.8%
Profit Before Tax ("PBT")	95.5	93.3	203.4	118.0%
Profit After Tax ("PAT")	64.1	66,1	142.2	115.1%
Profit Attributable to Owners of the Parent	37.6	30.6	95.3	211.4%
EBITDA (includes amortisation of services concession assets)	469.3	490.6	602.3	22.8%
Earnings Before Interest and Tax	92.2	111.6	216.3	93.8%
Net Dividend Payout / Proposed (sen)	2.79	0.99	2.5	(152.0%)
Earnings Per Share (sen) Attributable to Owners of the Parent (Sen)	3.5	2.6	7.4	182.2%

SECTORAL FINANCIAL PERFORMANCE

	FY2021			FY2022		
	Revenue (RM'Million)	PBT (RM'Million)	PAT (RM'Million)	Revenue (RM'Million)	PBT (RM'Million)	PAT (RM'Million)
Environment	1,159.0	145.8	112.9	1,173.7	261.6	217.9
Energy	220.9	9.7	9.3	263.9	(0.7)	(8.2)
Engineering Services	151.0	11.3	43.2	288.7	35.6	26.7

SUBSIDIARIES' PERFORMANCE

	FY2021			FY2022		
	Revenue (RM'Million)	PBT (RM'Million)	PAT (RM'Million)	Revenue (RM'Million)	PBT (RM'Million)	PAT (RM'Million)
Ranhill SAJ	1,141.4	129.0	96.1	1,154.9	244.5	201.0
RWS	124.8	7.2	5.3	102.0	1.7	1.2
RWT	14.0	(4.6)	(4.6)	19.6	(1.7)	(3.1)
RPI	111.0	3.9	1.6	127.0	-	(0.4)
RPII	106.9	6.7	*8.7	120.1	1.8	(5.4)
RBSB (6 months)	20.3	3.8	2.9	53.3	13.2	11.8
RW (6 months)	86.9	6.8	**34.6	209.7	16.4	12.5

Note
* : *Include recognition of RM4.8 million Deferred Tax Assets*
** : *Include recognition of RM27.7million Deferred Tax Assets*

MANAGEMENT DISCUSSION & ANALYSIS

In FY2022, Ranhill posted revenues of 1,726.3 million, 12.8% higher year-on-year (FY2021: RM1,530.9 million). As in previous financial years, the Environment Sector was the main contributor to Ranhill's topline performance, accounting for 68.0% of Group revenues. Subsidiary, Ranhill SAJ alone, accounted for 66.9% of Group revenues contributing RM1,154.9 million, (FY2021: RM1,141.4 million).

Profit before tax ("PBT") stood at RM203.4 million, 118.0% higher year-on-year. (FY2021:RM93.3 million). Profit after tax ("PAT") stood at RM142.2 million, 115.1% higher year-on-year (FY2021: RM66.1 million), while profits attributable to the owners of the parent was RM95.3 million, 211.4% higher year-on-year (FY2021: RM30.6 million).

The Environment Sector posted improved PAT of RM217.9 million (FY2021:RM112.9 million), a 93.0% increase year-on-year. Earnings had improved due to the recognition of non-revenue water reduction incentives to be received by Ranhill SAJ amounting to RM142.3 million.

However, as the implementation of revised tariffs for non-domestic water categories were only implemented on 1 January 2023, revenues and earnings for the Environment sector were impacted for FY2022.

While the federal government had agreed to the implementation of tariff hike commencing 1 August 2022, the effective date of implementation was delayed to FY2023, upon consent of the state government. Commencing January 2023, back dated charges for the months of August-December 2022 based on the new tariff will be imposed on a staggered basis, thus bolstering revenues going forward. The back dated charges together with the new non-domestic tariffs, which are 9% higher, should provide an estimated RM48 million in additional revenues (based on present increasing water consumption trends from commercial and industrial consumers).

Starting from February 2022 energy costs has increased by RM25.41 million or 19.48% for treated and distribution water as compared to previous year due to imposition of Imbalance Cost Pass-Through ("ICPT") surcharges by Tenaga Nasional Berhad ("TNB") RM0.037kwh.

The lack of a decision on a downward revision in present lease rental rates payments proposal to Pengurusan Aset Air Berhad ("PAAB") had also dampened Group earnings. The Group is seeking a restructuring in the present mechanism that will yield a 11% reduction in lease rental rates. This would provide a RM16 million reduction in OPEX savings and Ranhill remains in active negotiations with PAAB towards revising lease rates for all assets leased from PAAB.

Together with potential savings derived from negotiations with PAAB, the Group is expected to achieve improved cost efficiencies that will support profitability for the Environment sector.

The Energy sector recorded increased revenues of RM263.9 million, a 19.5% rise (FY2021: RM220.9 million) mainly attributed to higher energy payments received by RPI and RPII to compensate for higher diesel consumption (pass through cost) during Petronas gas curtailment in FY2022. Revenue contributions from Ranhill Solar I Sdn Bhd ("RSI") derived from revenue recognition from completed construction works for the Large Scale Solar 4 ("LSS4") was also a contributing factor to higher topline performance.

The Engineering Services sector recorded improved revenues of RM288.7 million, a 91.2% rise year-on-year (FY2021: RM151.0 million), on the back of higher topline contribution from RBSB and RW. Earnings, however stood at RM26.7 million, a 38.2% decline year-on-year (FY2021: RM43.2 million) attributed to one off recognition of deferred tax asset by RW post acquisition in FY2021.

CASHFLOW

	FY2020 (RM'Million)	FY2021 (RM'Million)	FY2022 (RM'Million)
Cash at banks and on Hand	137.7	197.9	314.7
Short-term deposits with licensed banks	120.5	141.9	74.3
Total deposits, cash and bank balances	258.2	339.8	389.0
Net cash generated from operating activities	121.3	230.8	124.9
Net cash generated / (used) in investing activities	(51.9)	2.6	(50.7)
Net cash used in financing activities	(118.1)	(155.9)	(32.1)
Net increase / (decrease) in cash and cash equivalent	(48.7)	77.5	42.1

ASSETS AND LIABILITIES

	FY2020 (RM'Million)	FY2021 (RM'Million)	FY2022 (RM'Million)	2022 VS 2021
Non-Current Assets	1,525.6	2,251.5	1,958.9	(13.0%)
Current Assets	837.6	1,029.7	1,302.8	(26.5%)
Total Assets	2,363.3	3,281.2	3,261.7	(0.6%)

	FY2020 (RM'Million)	FY2021 (RM'Million)	FY2022 (RM'Million)	2022 VS 2021
Share Capital	1,282.9	1,439.0	1,439.0	--
Total Equity Attributable to Owners of the Company	506.9	680.8	763.8	12.2%
Non-Current Liabilities	1,346.4	1,567.2	1,293.9	(17.4%)
Current Liabilities	373.9	854.1	1,012.7	18.6%
Total Liabilities	1,720.3	2,421.3	2,306.6	(4.7%)
Total Equity and Liabilities	2,363.3	3,281.2	3,261.7	(0.6%)

ENVIRONMENT SECTOR

RANHILL SAJ SDN BHD ("Ranhill SAJ")

Total pipelines:
24,002 KM
Distribution:
3,631 KM
Reticulation:
20,371 KM

Reservoirs:
714

WTPs:
46

NRW Rating:
- **26.3%**
- **20.9**
  m³ / KM of Pipe / Day

Treatment Capacity:
2,133 MLD

INTERNATIONAL OPERATIONS

Thailand Operation:
100 MLD for water and wastewater treatment (addition of 5 MLD Amata City Rayong WWTP P4)

2 reclaimed water treatment plants with **17 MLD** for total treatment capacity

China Operation:
Together with local partner, SIIC, RWHK operates **12** wastewater treatment plants on BOT and TOT basis.

Total capacity:
227 MLD

Achieved **344 MLD**, or **86%** of Ranhill's targeted **400 MLD** for international water, waste water and reclaimed water operations

MANAGEMENT DISCUSSION & ANALYSIS

BUSINESS AND OPERATIONAL HIGHLIGHTS

Pontian Dam, Johor

Ranhill's Environment sector comprises the Group's water operations in Malaysia, Thailand and China. Operations primarily consists of the abstraction, treatment and distribution of potable water as well as treatment of wastewater and conversion of wastewater into reclaimed water. Operating companies under the Environment sector are as follows:

Ranhill SAJ Sdn Bhd ("Ranhill SAJ")	Ranhill Water (Hong Kong) Ltd. ("RWHK")	Ranhill Water Technologies (Thai) Ltd. ("RWTT")	AnuRAK Water Treatment Facilities Co. Ltd. ("AnuRAK")

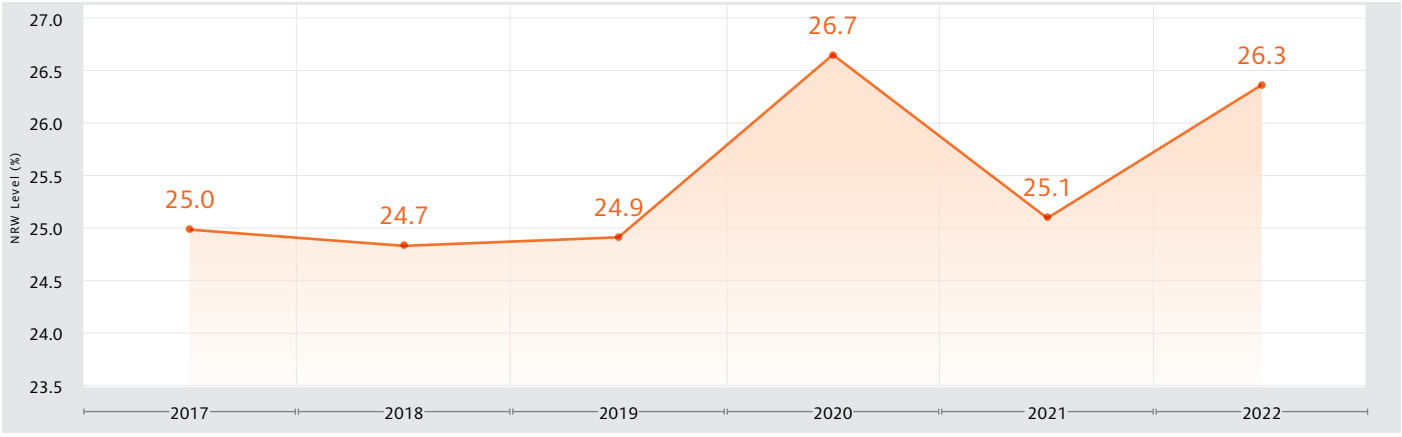
RANHILL SAJ

In FY2022, with the exception of non-revenue water ("NRW") loss, Ranhill SAJ has continued to comply with all key performance indicators ("KPI") set by the industry regulator, Suruhanjaya Perkhidmatan Air Negara ("SPAN"). These include KPIs for water quality, customer services, response and resolution rates for breakdowns and water pressure.

NRW for FY2022 stood at 26.3%, marginally higher than SPAN's KPI level of 26.0%. Pipe rehabilitation and replacement works that were earmarked for FY2022 were delayed due to approval and budget allocation to undertake necessary works. This led to increases in the natural rate of rise ("NRR") in pipes that led to NRW levels marginally exceeding the FY2022 KPI. In particular, operating costs per 1,000 accounts and operating costs per cubic metre of water was 11% and 7.5% below SPAN's threshold respectively.

No.	Performance Measure	Key Performance Indicator ("KPI")	SPAN KPI Target	Achievement
1	**Water Services Performance**			
1.1	**Water Supply Coverage**	a) Urban Areas (%)	100.0	100.0
		b) Rural Areas (%)	99.5	99.8
1.2	**Treated Water Quality Compliance Rate**	Water quality tests that meet the National Drinking Water Quality ("NDWQ") Standards (%)		
		a) Residual Chlorine	99.0	100.0
		b) E-Coli	99.9	100.0
		c) Res.Chlorine & E.Coli	99.95	100.0
		d) Turbidity	99.7	100.0
		e) Aluminium	95.0	98.4
1.3	**Continuity of Water Supply**	a) Communication pipe failures to be repaired within 24 hours (for cases where services affected) (%)	95.0	100.0
		b) Pipe repair and restoration of supply for pipe below 200 mm diameter to be within 24 hours (%)	95.0	100.0
		c) Pipe repair and restoration of supply for pipe size 200 mm up to 600 mm diameter to be within 36 hours (%)	95.0	100.0
		d) Pipe repair and restoration of supply for mains exceeding 600 mm diameter to be within 48 hours (%)	95.0	100.0
1.4	**Water Pressure Compliance**	Minimum pressure of 10 meter at meter point to be maintained for all premise types (%)	99.0	99.9
2	**Customer Services**			
2.1	**Water Supply Complaints**	**Response time to complaint (%)**		
		a) Responded within 24 hours	99.5	100.0
		b) Response and resolution of complaints	99.3	99.7
		c) Telephone (responded within 10 seconds) *- Excluding at event crisis (beyond control)*	92.0	92.9
3	**Operational and Economic Performance**			
3.1	**Non-Revenue Water ("NRW")**	**NRW Level for Johor State (%)**	26.0	26.3
		a) Physical losses volume: Litre/Connection/Day (l/con/day)	306.0	319.1
		b) Commercial loss: Number of meters not functioning or stop (%)	0.2	0.15
		c) Infrastructure Leakage Index ("ILI")	8.8	9.0
3.2	**Operating Cost**	a) Operating cost per 1000 accounts	616,348	531,881
		b) Operating cost per cubic meter produced: RM/m^3	1.07	0.96

NON-REVENUE WATER MANAGEMENT



NRW level is slightly exceeding the target due to several operational factors

With the exception of three locations – Kluang, Segamat and Pontian, Ranhill SAJ has met all of SPAN's NRW KPI targets for Johor. Overall commercial losses were also within the set threshold for FY2022. However, cumulative NRW levels for Johor were slightly higher than the set KPI at 26.3% (SPAN's KPI: 26.0%).

Efforts to continuously reduce NRW year-on-year were hampered by delays in pipe replacement and rehabilitation ("Rehab") programmes. Rehab 2018, Rehab 2019 and Rehab 2020 were hampered by difficulties faced in obtaining work permits from relevant authorities, budgetary issues and other challenges faced such as lack of sub-contractors to undertake works post the pandemic.

Consequently, NRW increased due to the Natural Rate of Rise ("NRR"), which is the continuing increase in leakage that would occur in the absence of any leak repairs. NRR increases when there is a breakout of new leaks in the network, in addition to increase in volume of water loss from existing leaks.

Other contributory factors to the NRW increase were increments in leakage volume due to ageing reticulation and distribution assets, as well as unplanned water supply disruption (due to lower quality of raw water quality violation and disruption of electricity power supply).

Another notable factor was the lack of inventory for key items caused by disruptions in global and domestic supply chains. Consequently, necessary works to address leaks and NRR could not be undertaken at the required level and intensity to prevent an increase in NRW.

Despite the delays and challenges, Ranhill SAJ expedited pipe rehabilitation and replacement works comprising Active Leakage Control ("ALC"), Infrastructure Leakage Index ("ILI") and establishment of more District Metering Areas ("DMA") to address NRW loss. Ranhill SAJ has also successfully established 26 DMAs in FY2022. This brings the total number of DMAs to 1,184 and with this, 95% connection coverage has been achieved in Johor. Additional ALC Teams were deployed as well as supporting teams which comprised personnel for commercial loss, trunk mains and reservoir monitoring. In FY2022, a total of 70,929 leaks were detected and rectified through intensified ALC activities.

Other measures taken were increased use of timer controlled pressure reducing valves ("PRV") within the water supply system to conserve water during off peak periods such as night time. Equally effective was the implementation of portable valve actuators to assist ground personnel to expedite the operations of large valves. This also has an added benefit as it reduces risks of occupational injuries to workers.

Timer controlled PRV is part of Ranhill SAJ's ongoing adoption of human factors engineering ("HFE") towards ensuring improved quality and worker safety across operations. PRVs reduce workers' risks to muscle injuries from repetitive stretching as well as back injuries.

Following is the progress achieved as well as plans going forward under the relevant Pipe Rehab plans:

Year	Details and Status
Rehab 2018 / 2019	96.5% achieved for both Package One and Package Two The remaining 3.5% portion of works is centred on 3 KM of pipe rehabilitation and replacement works located within the Johor Bahru city centre. Said works are scheduled for completion by the first half of FY2023. Works are to be undertaken concurrently with new drainage works so as to avoid having to dig twice to replace and repair piping.
Rehab 2021	To be awarded by PAAB in Q2 FY2023.
Rehab 2022	Preparation and submission of tender documents to be undertaken in FY2023.
Rehab 2023	To be implemented under OP6

WATER TREATMENT PLANT UPGRADES AND RAW WATER TRANSFER

In tandem with growing consumption demand – post pandemic, Ranhill SAJ has continued to upgrade, expand and develop the water treatment and distribution network. This is an ongoing process undertaken every year under the respective operational plans. FY2022 comes under Operating Period 5 ("OP5").

In FY2022, several new WTP that were proposed for construction in the previous financial year were approved by PAAB. Among the approved were the RM65 million 50 MLD Semangar Package Plant and the RM41 million Sg Ulu Sedili Besar raw water transfer project.

APPROVED INFRASTRUCTURE WORKS

WTP / Others	Million Litres Daily ("MLD")	Location	Progress of Works
Semangar Package Plant	50	Kota Tinggi	Tendering stage
Kayu Ara Pasong WTP	40	Pontian	Design stage
Ulu Sedili raw water transfer to Sg Gembut	18	Kota Tinggi	Design stage

MANAGEMENT DISCUSSION & ANALYSIS

The 160 MLD Sultan Iskandar 2 WTP has achieved 81.26% completion and is expected to be operational by 2023

On 6 April 2022, Ranhill SAJ received the PEL for the 50 MLD Semangar Package Plant. Project work comprises design and build of the 50 MLD package plant, installation of a new 800 mm and 450 mm raw water pipelines, replacement of the submersible pump & treated water pump, all related mechanical and engineering ("M & E") works, interconnection works and project management and pre-development costs including land acquisition costs. The project has received approval and construction works are expected to commence by Q2 FY2023.

Works for the 40 MLD Kayu Ara Pasong WTP comprises development of the 30 MLD raw water intake, 30 MLD WTP structure, a new 7 MLD balancing tank dan pump house, development of the auxiliary system (M & E and piping works), laying of 700 mm pipelines consisting of 0.5 KM and 9.5 KM of raw water and treated water pipelines respectively and also pre-development works, project management and consultancy costs as well as land acquisition costs.

The Final Conceptual Design Report for the project has been amended to facilitate several following changes to the proposal. Among these changes are the WTP to be located approximately 14 KM upstream of Sungai Pontian Besar and the water treatment process at the WTP to leverage advanced filtration techniques such as Dissolved Air Floatation ("DAF") and Nanofiltration ("NF") and Ultra Filtration ("UF"). A final amendment was for the Off River Storage ("ORS") process to leverage Wave-flow maker and Fine bubble aeration. The next phase is to proceed with the preparation of the Preliminary Engineering Design Report ("PEDR").

The Sg Ulu Sedili Besar raw water transfer project reached the design stage in FY2022. The aim of this project is to channel 18 MLD of raw water to the Gembut WTP.

The project is vital in developing the necessary infrastructure to complement the existing Gembut WTP upgrading works. The Gembut upgrading works will increase existing water treatment capacity from 9.1 MLD to 20 MLD to meet growing consumption demand from the area. Hence, the importance of the raw water transfer project to ensure sufficient volume of water.

WTPs under construction during the financial year continued to see encouraging levels of progress.

WTP	Million Litres Daily ("MLD")	Location	Project Value (RM'Million)	Progress of Works
Sultan Iskandar 2 WTP (Phase One)	160	Johor Bahru, Johor	166.5	85.15%
Sultan Iskandar 2 WTP (Phase Two)	160	Johor Bahru, Johor	Expected to be tendered in Q2 FY2023	Awaiting Phase 1 completion
Air Panas C WTP	15	Segamat, Johor	26.98	85.2%

The RM165.5 million 160 MLD Sultan Iskandar 2 WTP has achieved close to 81.26% completion and is expected to achieve its commercial operation date ("COD") by December 2023. The second phase of the 160 MLD, which is expected to be completed by FY2025, will double water treatment capacity to 320 MLD.

At the RM26.9 million, 15 MLD Air Panas C WTP, upgrading works are nearing completion with up to 82.0% of physical progress achieved. Once completed in August 2023, Air Panas C will see its water treatment capacity increase from 11.5 MLD to 26.5 MLD – effectively meeting increasing water consumption demand from the areas of Pekan Tenang, Felda Moakil, Pekan Bekok, Pancha Jaya, Pekan Chaah, Sg. Berlian and surrounding areas.

Also in progress are works under Ministry of Natural Resources, Environment and Climate Change ("NRECC") for the Ulu Sedili Besar raw water transfer project. Completion of this projects, expected in August 2023, will enable 260 MLD of raw water to be transferred from Sg Ulu Sedili Besar to the Seluyut dam.

International Operations

THAILAND

Ranhill Water Technologies (Thai) Ltd. ("RWTT") and AnuRAK operate 9 water, wastewater and reclaimed water treatment plant facilities at the Amata Industrial Estate ("Amata") in Amata City, Chonburi and Rayong, Thailand. The total capacity of these plants is 117 MLD, 100 MLD is for water and wastewater and 17 MLD is for reclaimed water.

No	Description	Company	Capacity (MLD)	Concession Type	Expiration of Concession / License
1	Amata City Chonburi Industrial Estate WTP2-CB Stage 2, 10.5 MLD	AnuRAK	10.5	Potable Water / BOT	2028
2	Amata City Chonburi Industrial Estate WWTP1-CB, 24 MLD	AnuRAK	24	Wastewater / BOT	2028
3	Amata City Chonburi Industrial Estate WRTP1-CB, 10 MLD	AnuRAK	10	Reclaim Water / BOT	2033
4	Amata City Rayong Industrial Estate WTP1/2-RY, 15 MLD	AnuRAK	15	Potable Water / BOT	2032
5	Amata City Rayong Concession (Industrial Estate) WWTP4-RY, 20 MLD	AnuRAK	20	Wastewater / BOT	2043
6	Amata City Rayong Concession Industrial Estate WRTP2-RY, 7 MLD	AnuRAK	7	Reclaim Water / BOT	2039
7	Amata City Rayong Industrial Estate WTP2- RY, 10.5 MLD	RWTT	10.5	Potable Water / ROT	2039
8	Amata City Rayong Industrial Estate WWTP2- RY, 9.6 MLD	RWTT	9.6	Wastewater / ROT	2039
9	Amata City Chonburi Industrial Estate WTP2-CB Stage 1, 10.5 MLD	RWTT	10.5	Potable Water / ROT	2041

As the effects of the COVID-19 pandemic continued to wane in FY2022, there were increased operational activities across all industrial parks. The increased activities consequently led to larger volume of wastewater treated, which translated into stronger revenue flows for RWTT and Anurak year-on-year.

Total Incoming Wastewater	Year			
	2019	2020	2021	2022
Plant	**Volume (m^3'000)**	**Volume (m^3'000)**	**Volume (m^3'000)**	**Volume (m^3'000)**
WWTP, Amata City Chonburi Industrial Estate 24 MLD	4,473.0	3,605.0	3,724.0	3,893.0
WWTP, Amata City Rayong Industrial Estate 9.6 MLD	2,996.0	2,588.0	2,881.0	3,139.0
WWTP, Amata City Rayong Industrial Estate 20 MLD	3,458.0	3,549.0	3,773.0	3,942.0
Asian Institute of Technology ("AIT") 1.5 MLD	0.5	0.4	0.5	156
Total Wastewater (Incoming)	10,927.0	9,743.0	10,339.0	11,130.0

Total water sales from Thailand operations in FY2022 stood at THB188.85 million.

Water Sales	FY2020 (THB million)	FY2021 (THB million)	FY2022 (THB million)
RWTT	27.62	30.99	31.46
AnuRAK	150.89	161.45	157.39
TOTAL (Thailand)	178.51	192.44	188.85

On 23 December 2022, the Group completed upgrading works on the Amata Rayong wastewater treatment plant ("WWTP") P4 project and with this the Group's total wastewater treatment capacity increased by 10% to stand at 54 MLD as at 31 December 2022. The increased capacity will ensure the operations in Amata Rayong and Chonburi are able to meet the increasing incoming volume of wastewater.

OUTLOOK AND PROSPECTS - ENVIROMENT SECTOR

With the continued upswing in economic activities, consumption demand for potable water, especially non-domestic consumption is expected to maintain its upward trajectory going into FY2023. Supported by rapid economic growth and influx of investments into Johor, the state economy should experience a significant recovery going forward.

Among the economic highlights include the RM25 billion Ibrahim International Business District ("IIBD"). The project serves as a catalytic infrastructure development plan that will attract foreign and domestic investments through the establishment of new businesses. It will create jobs and spur local socio-economic multiplier effects such as improving accessibility and connectivity. Cumulatively, these positive developments will promote population growth as well as attract more industrial and commercial businesses into Johor.

The Johor Bahru-Singapore Rapid Transit System ("RTS") scheduled for completion by 2026 and the revival of the High-Speed Rail ("HSR") also bodes well for the state. These rail projects will improve accessibility and connectivity, enhance logistics and facilitate the movement of people across the Causeway and from the west coast of peninsular Malaysia. The convenient travel mode and shorter travel times (compared to driving) will certainly spur increased business activities. All of the aforementioned allude to increased consumption demand for potable water.

As consumption increases, the implementation of higher tariffs will further support revenues going forward. The revised tariffs have been long overdue and it is timely that the introduction comes amidst this juncture.

The increases in water tariffs for non-domestic users range between 20 sen and 30 sen / Cu M or a 6-10% rise. At the same time, the minimum monthly charges for non-domestic users and special segments (which have minimum contributions to Ranhill SAJ's total non-domestic billings) such as houses of worship, welfare institutions, and shipping have increased by 3%, 129%, and 40% increases respectively.

Increased consumption coupled with revised tariffs will support the medium to long-term financial sustainability of the water business in the state. The revised tariffs are still comparatively lower than those charged in neighbouring Singapore and in many other Southeast Asian countries.

The focus remains on reducing NRW levels going into FY2023. Ranhill SAJ aims to complete all five packages under Rehab 2018, Rehab 2019, and Rehab 2020 by FY2023. This will deliver a further NRW savings of 70 MLD by end FY2023. The implementation of Rehab 2021 in FY2023 will yield another 12 MLD of NRW savings. With this, the Group foresees qualifying for the Matching Grant Under Approach Two of the National NRW Program.

On 30 December 2022, Ranhill SAJ submitted its Business Plan for Operating Period 6 ("OP6") for the period of 2024-2028. Our Business Plan includes an aggressive, ambitious NRW reduction target of 10%. We are confident that given the right financial and regulatory support, the reduction to just 10% NRW loss is feasible.

ENERGY SECTOR

Ranhill's Energy sector comprises the following companies:

RANHILL POWERTRON SDN BHD ("RPI") & RANHILL POWERTRON II SDN BHD ("RPII").

380 MW
power generating capacity from two CCGT fired power plants

Largest IPP in Sabah, producing **40%** among IPPs of the state's energy capacity

Provides Electricity to **1.2 million population** in Sabah

BUSINESS AND OPERATIONAL HIGHLIGHTS

Ranhill's power plants are expected to benefit from higher power dispatch from West to East Sabah once the grid upgrade is completed

MANAGEMENT DISCUSSION & ANALYSIS

RPI and RPII each operate a Combined Cycle Gas Turbine ("CCGT") power plant, located in the Kota Kinabalu Industrial Park ("KKIP") in Sabah. Each CCGT has a power generating capacity of 190 MW. Together, both power plants deliver 380 MW to the Sabah grid. This is equivalent to about 40% of the total power generating capacity in the state and makes Ranhill the largest independent power producer ("IPP") in Sabah.

In FY2022, Ranhill's two power plants continued to outperform against all major key performance indicators ("KPI") stipulated in the PPA with SESB.

RPI

	FY2021	FY2022	SESB's KPI
Equivalent Availability Factor ("EAF")(%)	92.54	90.25	87
Forced Outage Rate ("FOR")(%)	1.65	4.08	4
Total electricity delivered to the grid (GWh)	1,145	1,214	1,129

While RPI posted a higher FOR for FY2022 – the 4.08% marginally exceeds SESB's KPI and was due to a single forced outage incident in FY2022. However, the incident was due to a thrice postponement of scheduled maintenance, at the order of SESB.

The postponements were necessary towards ensuring sufficient power was supplied to the grid, given the low energy capacity situation in Sabah. Ultimately, maintenance could not be delayed further due to limitations in running hours of the turbine and with that, a forced outage was necessary. Excluding this single incident, FOR was only 2.99% and far below the 4% threshold.

The insurance auditor for plant operations has agreed to exclude the forced outage incident in the determination of future premiums.

RPII

	FY2019	FY2020	FY2021	FY2022	SESB's KPI
Average Available Time ("AT")(%)	93.57	95.86	97.59	90.64	Not Applicable
Contract Year Block AT (%)	94.12	95.42	94.56	94.69	94
Unplanned Outage Rate ("UOR")(%)	2.85	2.96	1.77	2.67	4
Total electricity delivered to the grid (GWh)	1,058	1,145	1,174	1,178	1,168

While RPII's overall AT for FY2022 was 90.64%, the actual Contract Year Block AT stands at 94.56%, higher than the stipulated PPA requirement of 94%. The Contract Year Block is calculated using a three-year average while Average AT is calculated based on a single year. Availability Capacity Payment ("ACP") is calculated based on the Contract Year Block AT. The decline in AT was due to increased scheduled and unscheduled maintenance works undertaken during the financial year.

Ranhill's expansion into solar via its 50 MW Large Scale Solar 4 ("LSS4") solar farm continues to see steady progress during the year. The project is expected to achieve its scheduled commercial operation date by end 2023 with a revised concession period of 25 years, from the original 21 years. The experience gained from the successful bidding process as well as undertaking of the EPCC works will hold Ranhill in good stead in bidding for similar Large Scale Solar ("LSS") projects, both locally and abroad. Post SCOD, in December 2023, Ranhill shall undertake ("O&M") of the solar farm, located in Bidor, Perak.

On 17 November 2022, Ranhill issued RM145.0 million being tranche 1 of the RM310.0 million Sukuk Murabahah program towards financing the LSS4 solar plant in Bidor, Perak. The remaining Sukuk has been earmarked for the potential extension of RPI's concession, which will expire in October 2029.

The Group had participated in the Request for Proposal ("RFP") by the EC for the 100 MW CCGT power plant West Coast Sabah tender. The Group is happy to report that the EC has announced that the unincorporated consortium comprising RCSB and Sabah Energy Commission ("SEC") have been selected as the successful bidder for the project.

The Project involves the design, construction, ownership, operation and maintenance of a 100MW gas-fired CCGT power plant on a build, own, operate and transfer basis ("BOOT"). In accordance to the PPA to be executed with SESB, the project shall have a concession term of 21 years effective from the COD of 1st March 2026.

The project shall contribute positively to the Group's financial performance from FY2026 onwards. Ranhill will finance its portion of investments in the consortium and project through internally generated funds as well as bank borrowings.

The project further entrenches Ranhill's position as the leading IPP in Sabah, with the additional 100MW of energy generation capacity (upon attaining COD in March 2026), bringing the Group's total power producing capability in Sabah to 480MW. It also further strengthens the Group's reputation as a leader in the construction, operations and maintenance of CCGT power plants in Malaysia and the region.

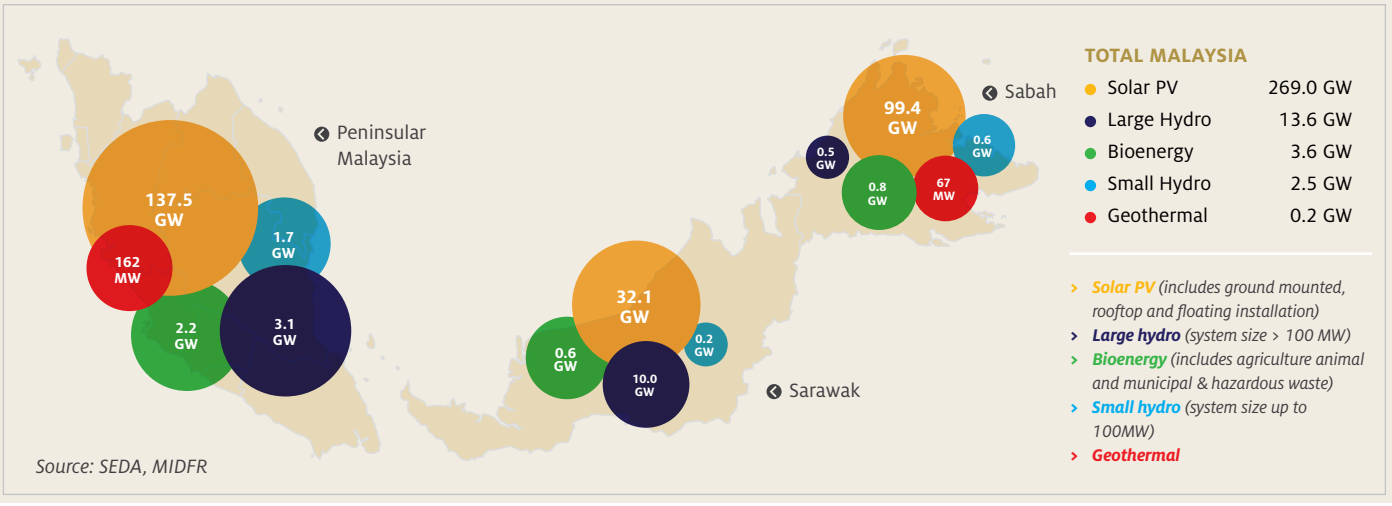
Scheduled maintenance works on the gas turbine

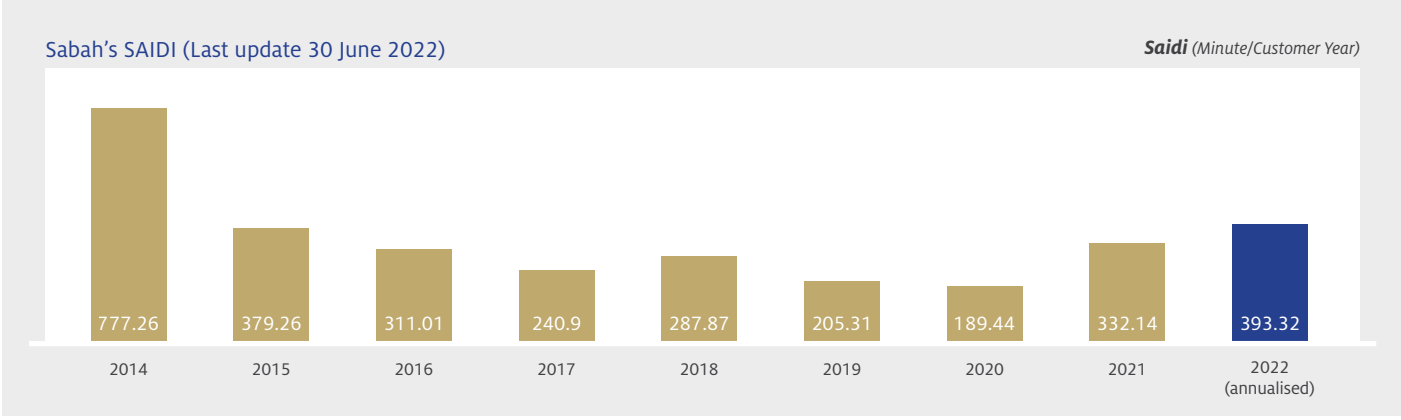
On the matter of the deferred tax appeal on the 7-Year Time Limitation of Investment Allowances, Ranhill had again submitted an appeal to the Ministry of Natural Resources, Environment and Climate Change (NRECC) to allow RPII to utilise its unutilised investment allowance up to the end of the concession period (FY2032) based on terms previously granted, thereby maintaining deferred tax assets of RM42.1 million. The Group is awaiting for a meeting with the Ministry to be scheduled in FY2023 and remains positive of a favourable outcome being reached from discussions.

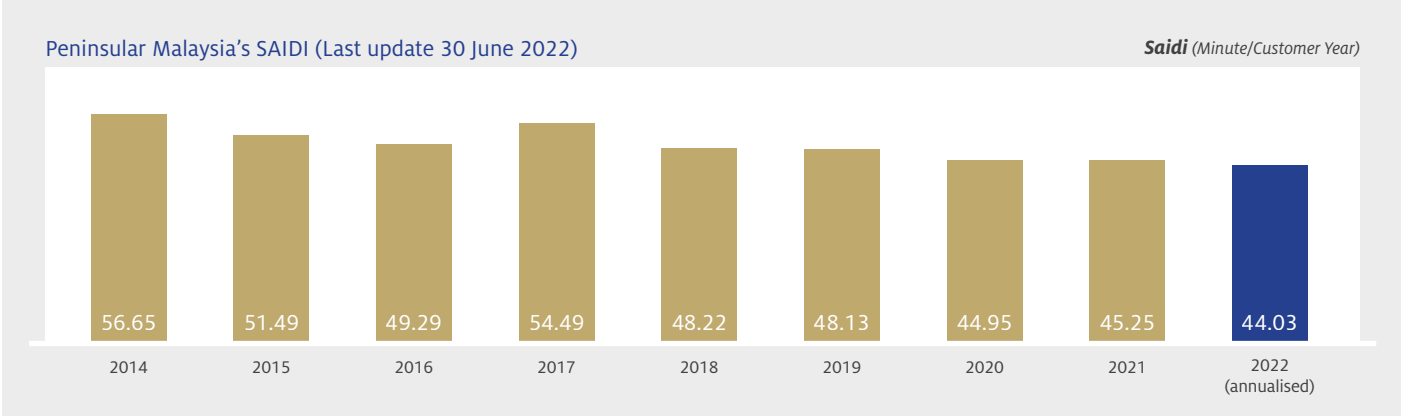
OUTLOOK AND PROSPECTS

The focus, going forward is to develop Sabah's energy generation capacity towards addressing the state's existing low power capacity, especially in the eastern part of the state. In addition, the eastern part of the state, is also highly dependent on diesel based power plants. The insufficient energy generating capacity has contributed to Sabah having a comparatively high System Average Interruption Duration Index ("SAIDI), which indicates frequent and protracted power supply disruptions. While efforts are focused on increasing energy generation capacity, the ongoing upgrading of the West-East transmission line will enable an additional 400 MWh of electricity power to be channelled from Sabah's west coast to the east. The upgrades, once completed will enable IPPs including Ranhill to supply more energy to the grid, thus driving revenues going forward. This would also make it feasible to develop power plants either in the east or west of the state (Ranhill's existing power plant operations are located in the latter.)

Exhibit 2: 289GW of RE potential in Malaysia







Given the Energy Sector's proven track record for operational performance and its successful maiden LSS4 project, the Group is well positioned to continue expanding its footprint in Sabah as well as other locations locally and potentially abroad. This includes both CCGT based plant-ups as well as RE based projects and initiatives.

In Sabah, Ranhill's bid for the Tawau geothermal project supports the progressive decarbonisation of Sabah's energy portfolio, while also meeting the state's requirement to increase energy generation capacity.

Also, with the expected increase in manufacturing based investments into Sabah such as SK Nexillis, Korea (copper component for batteries) and Kibing Group (M) Sdn Bhd (glass component for solar panels), the Group foresees increased non-domestic consumption demand which will augur well for RPI and RPII going forward.

Ranhill is also considering participating in the Corporate Green Power Programme ("CGPP"). The intention is for Ranhill to build, own and operate a 29.9MW renewable energy ("RE") facility to supply clean energy to partially power Ranhill SAJ's water operations in Johor and thereby reduce carbon footprint. The Group will submit its proposal to the EC and we expect a positive response in FY2023. This is part of the decarbonisation strategy towards tapping solar for self-consumption by Ranhill SAJ.

Under the CGPP, Corporates can directly purchase solar energy from asset owners via a virtual power purchase agreement ("VPPA"), or a Corporate Green Power Agreement ("CGPA"). Ranhill SAJ's electricity costs alone amounts to RM157.4 million per annum. The addition of the ICPT adjustment further increases energy costs.

While Ranhill SAJ consumed 355 GWh of electricity in 2022 and the CCGP model will only provide 62 GWh of electricity, this will enable Ranhill SAJ to partially meet its energy requirements with a cleaner and cheaper energy alternative over the long term. The model will support a partial reduction in energy costs of some RM30 million.

It is also possible that Ranhill could leverage the CGGP model to build solar based energy generating facilities and to sell power produced to other corporates, especially those with energy intensive operations.

ENGINEERING SERVICES SECTOR

RM553 million
total value New Projects

RM862 million
Order Book

RM1,523 million
Tender Book

BUSINESS AND OPERATIONAL HIGHLIGHTS

Ranhill's Engineering Services sector comprises the following companies: Ranhill Water Services Sdn Bhd ("RWS"), Ranhill Water Technologies Sdn Bhd ("RWT"), Ranhill Bersekutu Sdn Bhd ("RBSB"), Ranhill Worley Sdn Bhd ("RW") and Ranhill Power O&M Sdn Bhd, ("RPOM") & Ranhill Power II O&M Sdn Bhd ("RPOM II")

The Engineering Services sector secured over RM553 million new projects in FY2022. With the recovery in economic momentum in FY2022, RBSB, RW, RWS and RWT have been successful in replenishing their order books on contracts secured during the financial year.

The replenishment attests to the competitive nature of Ranhill as a Group and its subsidiaries. It also attests to the collective, synergistic capabilities within Ranhill and by leveraging the various skill sets and expertise within, we continue to offer distinctive value propositions that distinguishes the Group as an innovative provider of sustainable solutions for infrastructure development as well as for asset management and maintenance.

Company	Order Book (RM'Million)	Tender Book (RM'Million)
RBSB	367	81
RW	265	1,151
RWS	192	92
RWT	38	199
Total	862	1,523

RANHILL WATER SERVICES ("RWS")

Secured pipe rehabilitation contracts from PAAB and JKR with a cumulative value of
RM100 million

Ranhill has achieved savings of
751 MLD
as at December FY2022

MANAGEMENT DISCUSSION & ANALYSIS

Ranhill contributes to water supply sustainability for the benefit of mankind and environment through efficient water network management services specialising in Water Loss Reduction

Ranhill Water Services Sdn Bhd ("RWS") is a leader in NRW management. With a highly skilled workforce of more than 450 trained water and NRW management professionals.

The company's integrated capabilities comprising in-depth technical consultation, tailored NRW management activities and NRW related civil works distinguishes its competitive edge and value proposition. In addition, internally developed NRW Management systems such as AquaSMART provides RWS with increased efficiency and enhanced capabilities. In recent years, RWS has diversified its business to include pipe rehabilitation works as one the services offered.

RWS' revenue declined in 2022 due to several factors. Among these were lower Johor Pipe Rehab 1 projects undertaken (and therefore reduced revenue recognition). This was due to delays in the approval of work permits from local authorities. There was also lower contribution from the Johor Phase 7 project due to slow progress of onsite, notably during the commencement phase of the project in January 2022. Similarly, revenue recognition from the Pahang AquaSmart and Lower Muar Rising Pipe projects due to delay in works had affected overall revenue performance.

Besides delays in approvals from local authorities for pipe replacement and rehabilitation works, another issue faced was the lack of capable contractors to undertake such works. The COVID-19 pandemic had affected many small to medium sized contractors – impacting their financial, technical and operational capacity. Many were unable to meet project criteria and specifications necessary for participation.

Despite the challenges faced, RWS was still successful in adding an additional 25 MLD saved from the progress achieved on existing NRW projects in Johor. This brings the total track record of NRW saved to 751 MLD from projects undertaken in Malaysia and Saudi Arabia.

PROJECTS IN JOHOR

Under the PR1JB (Johor Rehab) programme, RWS achieved 95.3% physical progress with financial progress standing at 59.2% as at end FY2022. For rehab 2020, 2021 and 2022, RWS is developing the list of areas for pipeline rehabilitation and repair works as well as estimated costs. The company is completing its third pipe replacement contract in the Johor Bahru district involving over 40 KM of old pipes and over 48,000 customer connections.

The Command Center of Ranhill SAJ also reflects Ranhill's strong commitment to continuous improvement in water supply services and customer services in Johor

RWS continues its concerted partnership with Ranhill SAJ for the joint implementation of the following:

Strategy	Rationale / Benefit
Integrating AquaSMART with other operation systems utilised by Ranhill SAJ such as Geographic Information Systems ("GIS"), Billing Information System ("BIS"), NRW Manager, etc.	Enables a more accurate, insightful and efficient DMA desktop study.
Operating AquaSMART from the Ranhill SAJ Command Centre	By operating AquaSMART from the command centre, RWS can integrate Big Data and Artificial Intelligence (A.I) capabilities into the existing system, thus achieving significant improvements in the accuracy of daily DMA analysis.
Monitor DMA performance through analysis of the Water Supply System (WSS) diagrams	By closely tracking WSS performance indicators, it is possible to develop a larger perspective on leakage levels within a particular DMA. This enables faster and more accurate identification of problematic DMAs.

MANAGEMENT DISCUSSION & ANALYSIS

PROJECTS NATIONWIDE

In Kelantan, in March 2022, RWS secured another pipe replacement contract in the districts of Kota Bharu, Machang, Kuala Krai and Tanah Merah with a total pipe length of 103 KM involving 11,000 customer connections. The first two projects secured in Kelantan were pipe replacement contracts awarded by PAAB in Kota Bharu Utara and Tumpat. Both projects cumulatively entailed replacing 54 KM of old pipes in total and more than 6,300 customer connections. Both projects were completed on 3 May 2021 (Kota Bharu) and 20 February 2020 respectively (Tumpat).

The latest Kelantan project is valued at RM61.5 million and is expected to be completed by March 2024. As at 31 December 2022, financial progress stood at between 9.7%-11.3% while physical progress stood at 7.1%-9.8%.

In Perlis, FY2022 saw RWS successfully complete two subcontracts under the National NRW Programme Approach One of the Ministry of Natural Resources, Environment and Climate Change ("NRECC"), Malaysia. These subcontracts were secured in FY2021. The scope of works for both subcontracts entailed replacement and installation of SIV meters, boundary valves, updating GIS data, supply of equipment and customers' meter replacement.

In Pahang, RWS secured a RM4.5 million subcontract under Approach One National NRW Programme. The projects entail development of the GIS infrastructure and NRW Management System with completion expected in May FY2023.

In Lumut, Perak, RWS successfully secured a RM38.5 million design and build contract from Jabatan Kerja Raya (JKR) in December 2022. The project, Peningkatan Sistem Bekalan Air Tawar Di Pangkalan TLDM Lumut (Reka & Bina) involves the design and building of a new water supply system within the whole TLDM Lumut navy base, to replace the existing dilapidated pipelines. The completion of the new water reticulation system is targeted by end March 2025.

Ranhill continuously satisfies customers and stakeholders by optimising available resources and delivering quality services

RANHILL WATER TECHNOLOGIES ("RWT")

Securing contracts with a sum value of **RM41 million**

Design and construct the **2 MLD** Desalination WTP

ISO 9001:2015 (Quality Management System)

In FY2022, Ranhill Water Technologies Sdn Bhd ("RWT") posted a topline performance of RM20.0 million, a 62.6% improvement year-on-year. RWT in FY2022 has successfully replenished its order book to the tune of RM41 million during the financial year.

The RWT was successful in securing contracts with a total cumulative value of RM41 million. The completion of several projects also contributed to higher revenue recognition in FY2022.

No	Project Description	Client	Contract Value (RM'Million)	Timeline
1	Supply of equipment for sequential batch reactor and chemical dosing on 10th Feb 2022 by AnuRAK Co Ltd for Upgrading work Amata City Rayong WWTP P4	AnuRAK Co Ltd	THB 15.9 million *MYR: 2.0	**Start**: 10 Feb 2022 **End**: 10 Aug 2022 **EOT**: 31 Oct 2022
2	Kerja-Kerja Horizontal Directional Drilling (HDD) 11kV (Interim) Bagi Negeri Perlis, Kedah & Perak, SBU Asset Development, Distribution Network, TNB	Ibrahim & Sons Engineering Sdn Bhd	7.3	**Start**: 15 May 2022 **End**: 15 May 2023
3	Contract to Supply, Deliver, Install Including Testing and Commissioning for Upgrading of Industrial Effluent Treatment Plant at MSM Sugar Refinery (Johor) Sdn Bhd, Tanjung Langsat, Johor	MSM Sugar Refinery (Johor) Sdn Bhd	6.1	**Start**: 8 Jun 2022 **End**: 30 Jun 2023
4	Kerja-Kerja Pembinaan Sistem Rawatan Tangki Air (Tangki Enapan) serta Kerja- Kerja Berkaitan dengannya di Loji Rawatan Jeneri, Kedah Darul Aman	HHF Trading/ Syarikat Air Darul Aman (SADA)	2.9	**Start**: 21 Jun 2022 **End**: 30 Jun 2023
5	Proposed Rehabilitation Of Sembrong Barat Water Treatment Plant, Kluang, Johor For Package 1: Design, Construction, Testing And Commissioning Of Microstrainer System And Associated Works	Ranhill SAJ	9.8	**Start**: 15 Oct 2022 **End**: 14 Jul 2023
6	Proposed Design, Construction, Testing And Commissioning For Extension Of Additional 4 MLD Package Plant At Loji Rawatan Air Lok Heng, Kota Tinggi, Johor	Ranhill SAJ	11.9	**Start**: 1st Nov 2022 **End**: 30 Apr 2023

*Note * : Average rate (RM vs THB) for project*

In terms of completed projects, RWT completed several projects in FY2022 such as:

No	Project Description
1	Refurbishment works consisting of supply, deliver & install sparepart for RVC-30 swivel joint DAF system at Endau WTP, Mersing
2	Kerja-kerja pembaikan "High Pressure Inlet Pipe" di LRA Endau Mersing
3	Sewerage works approval for obtaining letter of completion for Senai-Desaru Expressway
4	Design and build contractor to convert Sewerage Treatment Plant (STP) to Small Sewerage Treatment System (SSTS) at Penawar toll plaza complete with obtaining of the letter of completion from Jabatan Perkhidmatan Pembentungan (JPP) for Penawar Toll Plaza, Senai-Desaru Expressway (E22)
5	Supply Of Equipment For Equalization Tank, Sequencing Batch Reactors (SBR) And Chemical Dosing For Upgrading Works For Amata City Rayong Wastewater Treatment Plant Phase 4 (WWTP-04)

MANAGEMENT DISCUSSION & ANALYSIS

The financial year saw RWT secure the retender for the 2 MLD desalination WTP in Forest City, Johor. This is Malaysia's first large scale desalination plant operated by water supply operator. The retendering is due to the project initially being called off by the project owner in FY2021. RWT's scope of works for the RM9.55 million desalination plant comprises design, construction, testing & commissioning works.

Of note, RWT has expanded into niche, high-growth sectors – tapping the potentials arising from non-traditional clients. These projects include upgrading works for the Industrial Effluent Treatment for MSM Sugar Refinery (Johor) Sdn Bhd, Kerja-Kerja Pembinaan Sistem Rawatan Tangki Air (Tangki Enapan) serta Kerja- Kerja Berkaitan dengannya di Loji Rawatan Jeneri, Kedah Darul Aman for HHF Trading /SADA and STP Maintenance work along Senai-Desaru Expressway for ABNT Global.

Project Description	Client	Contract Value (RM'Million)	Timeline
Contract to Supply, Deliver, Install Including Testing and Commissioning for Upgrading of Industrial Effluent Treatment Plant at MSM Sugar Refinery (Johor) Sdn Bhd, Tanjung Langsat, Johor	MSM Sugar Refinery (Johor) Sdn Bhd	6.1	**Start**: 8 Jun 2022 **End**: 30 Jun 2023
Kerja-Kerja Pembinaan Sistem Rawatan Tangki Air (Tangki Enapan) serta Kerja-Kerja Berkaitan dengannya di Loji Rawatan Jeneri, Kedah Darul Aman	HHF Trading/ Syarikat Air Darul Aman (SADA)	2.9	**Start**: 21 Jun 2022 **End**: 30 Jun 2023

RWT was also engaged by national sewerage company, Indah Water Konsortium ("IWK"), to undertake pilot plant studies for the Integrated Biological Fixed Film Clarification ("BFFC") System at the Bukit Raja sewage treatment plant ("STP") in Klang, Selangor. Another pilot study was also initiated with Ranhill SAJ for Excel Filter, Revocell and RevoPlus at the Endau and Sembrong WTPs.

Technology	Description	Moving Forward
Biological Fixed Film Clarification (BFFC) Pilot Project	Integrated Biological Fixed-Film Clarification (BFFC) System is an idea of packaged plant which combines fixed-film attached growth biological treatment and lamella clarifier into one system Will be the pioneer of fixed-film attached growth biological treatment and lamella clarifier listed as SPAN-registered supplier in Municipal/Sewerage industry.	SPAN approval has been obtained to start on pilot plant study at the Bukit Raja STP in Klang. Target start date: March 2023 with 6-month timeline.

These pilot studies are essential in developing baselines that will facilitate the design and implementation of larger scale efficacy for WTPs and to obtain SPAN's product registration under Category B. The pilot studies also position RWT as a pioneer and innovative solutions provider to the industry regulator and within the industry, capable of developing new and improved solutions that benefit the domestic water sector.

From an operational perspective, RWT operations was completed 2nd Surveillance Audit to the ISO 9001:2015 Quality Management System while its Thai operations continued to maintain its ISO 9001:2015 status. As for other standards, namely the ISO 45001 Occupational Health and Safety Management and the ISO 14001 Environmental Management System, RWT's Malaysia operations have completed Stage 1 of the certification process with the final stage expected to be completed by FY2023.

RWT's installed pollutant removal system ("PRS") at Simpang Renggam WTP continues to ensure that ammonia levels in river water remain below the 10 parts per million ("ppm") threshold. This has been instrumental in reducing the number of unplanned WTP shutdowns due to pollution.

RANHILL BERSEKUTU SDN BHD ("RBSB")

Multi-disciplinary engineering firm with a proven **50-year** track record

Projects in more than **21 countries created** throughout Asia, the Middle East and Africa

ISO 9001:2015
(Quality Management System)

ISO 14001:2015
(Environment Management System)

ISO 45001:2018
(Occupational Health and Safety Management System)

ISO 37001:2016
(Anti-Bribery Management System)

As a result of its aggressive bidding efforts, RBSB replenished its order book to RM367 million as at end FY2022. The order book will provide revenue and earnings visibility for 2-5 years.

The securing of projects were achieved against a tumultuous backdrop of general elections and a recovering domestic economy, where both private and public spending on infrastructure projects were still far below pre-pandemic levels. General Elections 15 ("GE15") had led to many projects being deferred to FY2023.

RBSB continued to register steady progress in completing all projects in hand in FY2022. These included Ranhill's LSS4 landmark project and various water supply related and flood mitigation infrastructure projects nationwide.

The financial close of the 50 MW LSS4 solar PV project in Bidor, Perak was protracted and this subsequently, delayed the progress of physical works and resulted in lower revenue recognition (derived from the project). The project has received an extension of time of five months with a new SCOD date of 30 November 2023.

RBSB is expediting work towards achieving completion. As at 31 December 2022, physical progress achieved is on track with where land clearing is completed. Procurement of major components and equipment has commenced and works are scheduled to start by Q1 2023.

Other project highlights include the infrastructure engineering works and related services for the KLIA Baggage Handling System Replacement contract. RBSB was also awarded the design and construction of two specialist hospitals. These are the new, 155-bed, 10-storey Avisena Specialist hospital in Shah Alam and the second, the construction and refurbishment of the 250-bed, 8-storey Puteri Hospital Johor Bahru. RBSB's scope of works for both hospitals comprises design and consultancy as well as project management. In Q1 2023, RBSB secured another hospital project from Avisena Group located in Cyberjaya.

The hospital contract awards are significant as it marks our entry into a niche field of construction that requires specialised technical expertise and capabilities. There is also a growing demand for more hospitals to be built nationwide to cater to population expansion and to provide high-quality, accessible healthcare. The experience gained in designing and building both hospitals will enable RBSB to bid for future contracts, both in Malaysia and the region.

Another notable highlight was RBSB's involvement in several flood mitigation projects. Among these was the RM2.93 million contract for JPS in Kota Belud, Sabah. Other projects secured included project tenders by NRECC for Study of Development of New Water Resources in Kelantan (contract value RM1.0 Million) as well as Development of Hilltop Water Resources at Genting Highlands for Genting Berhad at RM1.70 million.

The Kota Belud flood mitigation project it is also significant as with the onset of climate change, there will likely be more requirements for flood mitigation projects nationwide. Many geographical locations in Malaysia are susceptible to flood risks and will require solutions. Having proven our capabilities with the Kota Belud flood mitigation project, Ranhill stands in good stead to bid for similar projects going forward.

In FY2022, RBSB established its Building Information Modelling ("BIM") unit towards improving the efficiency and constructability of its design proposals. BIM enables closer collaboration between all stakeholders by facilitating seamless sharing of information and the ability to eliminate design conflicts and errors. BIM can also be utilised to calculate resource and manpower requirements.

With the establishment of its BIM unit, from the contract that was secured in 2021 for BIM management for the Sarawak Metro KUTS Line (RM 1.97 million), RBSB has secured a new BIM management contract for the baggage handling system upgrade in KLIA.

RBSB's progress and completion of several projects in FY2022 such as:

No.	Project Name	Client / Project Owner	RBSBs Work Scope	Contract / Value	Project Stage	Percentage (%)	Status
1	National Sewerage Master Plan based on the Integrated River Basin Management Catchment	Suruhanjaya Perkhidmatan Air Negara (SPAN)	To develop a masterplan and management strategy including information technology for SPAN to implement	RM1.4 million	On-going	65	Draft Final Report-2
2	Elmina West Phase 3	Sime Darby Property (City of Elmina) Sdn Bhd	Detail Design for Main Civil, Structural, Mechanical, Electrical and Communication Infrastructure for 641 Acres	RM4.7 million	On-going	25	Authority Submission, Tender & Construction
3	Principal Consultant to Carry Out Detailed Design and Supervision for Tok Bali Industrial Park	East Coast Economic Region Development Council (ECERDC)	Master Plan and Detail Design and Construction Supervision for the development of infrastructure for the industrial park	RM8.1 million	On-going	40	Detail Design Stage

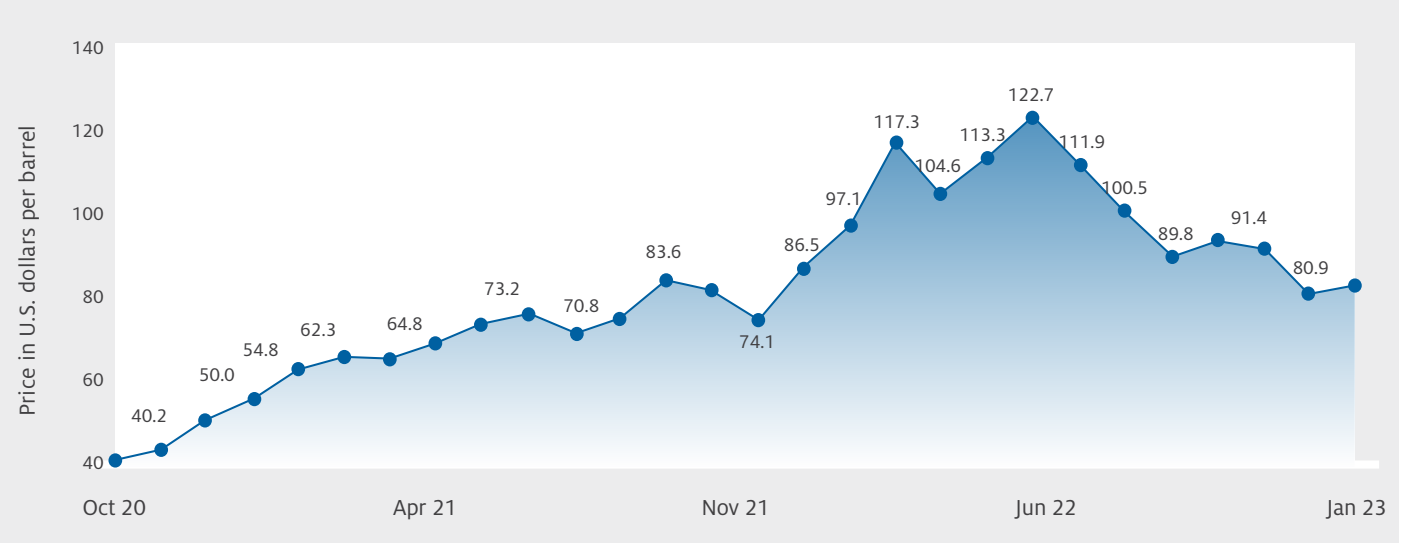
RANHILL WORLEY ("RW")

World class organisational culture, global operating standards and global operations hub for offshore related oil and gas works for the Worley Group

Over **27 years** track record for engineering, design, management and consultancy services to the energy, chemicals, and resource sectors

International project portfolio including projects in **Malaysia** and globally in the **Middle East, North Sea UK, Myanmar, Vietnam, Africa, China, India** and **Brazil**

In FY2022, crude oil prices had averaged USD100.9 per barrel (Brent), 42.4% higher year-on-year and Malaysia's construction sector posted a significant 8.8% rebound after a two-year declining trend. The Q3 (Third Quarter) and Q4 (Fourth Quarter) of FY2022 saw double digit growth of 23.2% and 15.70% respectively as the construction sector shrugged off a slow start to FY2022.



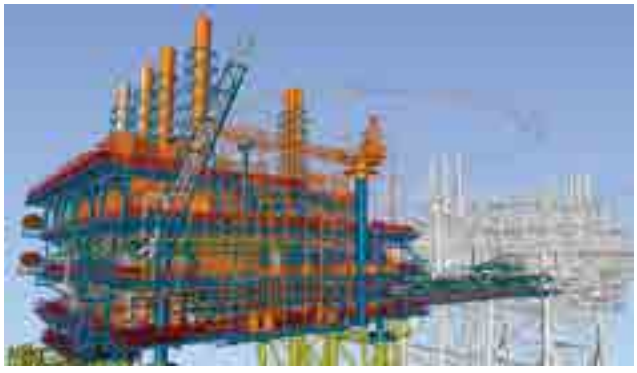
With the growing emphasis on sustainability, RW has increasingly looked to embed sustainability requirements within its design and consultancy approach.

Among the key focus areas were cost and operational efficiencies, energy reduction and efficiency, decarbonisation through utilisation of renewable energy, incorporation of circular economy concepts for better waste management and recycling, methodologies for greater accuracy in carbon emissions calculation across all scopes One, Two and Three.

In FY2022, in tandem with the shift towards more sustainable operations which is resonating industry wide, RW's unique capabilities for carbon capture and storage ("CCS") has enabled Ranhill to secure several notable contracts.

Among the projects secured in FY2022 were from Malaysia Marine and Heavy Engineering Sdn Berhad to perform Front End Engineering Design ("FEED") and, subsequently, Detailed Engineering Design ("DED") with contract value of RM18 million and RM50 million respectively for Petronas Kasawari Carbon Capture & Storage Project ("CCS"), the world's largest offshore CCS project.

The Kasawari project once completed will capture up to 3 million tonnes of carbon dioxide ("CO_2") per annum. The platform will be placed next to the Kasawari Central Processing Facility with carbon transported by a 138 KM pipeline and injected into a depleted offshore gas reservoir. RW's scope of works includes the CO_2 technology specification, evaluation and selection, along with design and engineering development of the platform, jacket, bridge and pipeline.



Ranhill Worley's scope on the Kasawari project includes the carbon dioxide ("CO_2") technology specification, evaluation, and selection, along with design and engineering development for the platform, jacket, bridge, and pipeline

Ranhill said the vessel to be built, P-82, would be one of the largest vessels to be deployed in the Buzios field, an ultra-deep-water O&G field covering an area of 853 square kilometres in the pre-salt Santos Basin, about 180 kilometres off the coast of Rio de Janeiro in Brazil

RW also secured the USD27.0 million Brazil P-82 Floating Production Storage and Offloading ("FPSO"). The FPSO will incorporate carbon capture and closed flare technology features. The contract was awarded by Sembcorp Marine Integrated Yard Pte Ltd.

The P-82 FPSO vessel is for Brazilian state-owned oil and gas producer, Petroleo Brasileiro S.A ("Petrobras"). P-82 when completed, will be one of the largest offshore vessels deployed in the ultra-deepwater Buzios oil and gas field spanning more than 853 KM^2. It is located about 180 KM off the coast of Rio de Janeiro, Brazil.

The project features new generation of production facilities, which enable high production capacity and the technologies to reduce CO_2 emissions. The unit will also be equipped with water injection capacity of 255,000 barrels per day and a storage capacity of two million barrels per day. It will also feature closed flare technology, methane gas detection systems and "digital twins" capabilities, enabling virtual reproduction of the platform to test multiple simulations and remote tests prior to commencing operations. This improves safety and operational reliability. P-82 will also be equipped with Carbon Capture Usage Storage ("CCUS") and geological storage of CO_2.

RW also secured the SK410B field, where the Lang Lebah project is located, is one of PTTEP's global key projects. RW brings its unique integrated capabilities and synergistic capabilities – leveraging on the Worley Group's proven expertise and technical know-how to successfully meet the challenging FEED requirements for the project.

RW's expertise and value include in-house multi-disciplinary engineering specialties specialising in niche services and an experienced local team of personnel, augmented by global subject matter experts.

These projects are noteworthy as it involves the introduction of new technologies such as CCS and CCUS and other "green" based solutions. Ranhill is developing its capacity and track record in a field where there are relatively still few players within Malaysia and Southeast Asia. This positions us in a competitive position for the future.

A key highlight was the achievement of 18 million safe work hours without a loss time incident ("LTI") on 30 June 2022. As at 31 December 2022, the number LTI clock stands at 18.7 million safe work hours.

OUTLOOK AND PROSPECTS - RWS

Having successfully delivered on several projects nationwide under Approach One, RWS is exploring opportunities to propose and undertake NRW reduction programmes under Approach 2 for Johor, Melaka, Selangor, Perak, Penang, Terengganu and states which has completed Approach 1 Programme. Approach 2 has a budget of RM1.37 billion under its Matching Grant Programme and is aimed at encouraging state governments to undertake much needed NRW loss management works and leverage on the matching grants. Aside from state water operators, RWS will also engage other stakeholders such as government ministries and agencies, as well as private sector to undertake NRW related projects.

As it focuses on business development, RWS will continue to expand its supply chain – increasing its pool of OEM product manufacturers. This will alleviate present bottlenecks faced in the supply of parts by providing RWS with a wider range of suppliers. It also enables more choice in terms of suppliers for RWS based on cost and quality propositions. This flexibility will enable RWS to submit more competitive bids for NRW projects going forward.

Other strategic priorities for RWS in FY2023, include diversification into facilities management (focusing on the water supply system of facilities) and adoption of IR4.0 technologies and methodologies.

OUTLOOK AND PROSPECTS – RWT

Interest in wastewater reclamation continues to increase with industrial parks, municipal authorities including water treatment and sewage treatment players as well as from medium to large scale manufacturers expressing aspirations to incorporate such approaches into their waste management approaches.

The ongoing shift in perceptions towards the value of reclaimed water is being driven by several factors. Among these include increased scrutiny by industry regulators, the potential medium to long term cost savings yielded by using reclaimed over potable water and a growing consciousness among businesses on the need to adopt more sustainable business practices.

The requirement from buyers as well as financiers (i.e. banks and investors for companies to adopt circular economy approaches in the business model) has also stirred greater interest in reclaiming wastewater, particularly for non-potable industrial and commercial applications.

The focus is to commercialise growing interests amid concerns of upfront capital expenditure costs that for many businesses, perhaps can be invested in more directly beneficial areas of the business to ramp up growth and to make up for the slowdown during the COVID-19 pandemic.

All the same, as businesses continue to recover and reach their full operational momentum, the volume of wastewater should also increase, thus providing both reclaimed water opportunities along with increased conventional wastewater treatment solutions.

With demand growth, RWT is in a strategic position to tap on the emerging potentials, given its proven track record in successfully delivering projects of varying magnitude and scale. The company's growing reputation as an industry leader with strong technical capabilities in design and build as well as project management holds RWT in good stead when bidding for projects locally and abroad.

OUTLOOK AND PROSPECTS – RBSB

The Malaysia construction sector rebounded strongly in FY2022 by 8.8% and the momentum of growth is expected to continue going into FY2023. However, rising inflationary pressure, supply chain issues, lack of foreign labour and other external developments may impact the level of recovery.

In addition, the new government post GE15 has expressed its intention to control the nation's high debt position by reducing large scale infrastructure projects. The exception being the HSR which has been revived since, though with some changes than the originally proposed plans.

One area that offers bright prospects is the focus on sustainable building and construction. With greater focus on ESG criteria, there emerges opportunities in niche projects as well as niche sectors. These include sustainable energy infrastructure and developments. Other potentials are district cooling systems, thermal energy storage solutions, solar and hydro energy generation, green building design and building opportunities and various others. In addition, infrastructure and advanced technology application projects to support the aforementioned and other projects are likely to be on an uptrend in FY2023 and onwards.

RBSB aim to bring forth its engineering capability adopting software solutions driven by technology such as Building Information Modelling ("BIM") towards providing more ESG compliant solutions for both public and private sector clients.

For FY2023, the strategic priorities are the completion of the LSS4 Bidor PV plant and to achieve SCOD by 30 November 2023. Upon attainment of SCOD, the focus shifts to operational and maintenance ("O&M") which should commence by December 2023. RBSB has already commenced hiring qualified personnel to ensure sufficient skilled manpower to facilitate smooth plant operations.

With regard to the CGPP, RBSB will proceed with its plan to design, build, commission and operate two 29.9 MWh power plants that will supply Ranhill SAJ's clean energy to another corporate user. The project will further strengthen Ranhill's reputation as a credible solar player while decarbonising the Group's footprint. Both projects are consistent with Ranhill's aspiration to be a leader in clean energy infrastructure and solutions.

OUTLOOK AND PROSPECTS – RW

FY2023 saw crude oil prices stabilise at a sustainable level, hovering above the USD80 mark. The current price range is at levels that would encourage continued upstream activity.

As oil and gas companies face intense and increasing demand to decarbonise operations, the emphasis on more "green" solutions are becoming a mainstay to ensure environmental sustainability. Therefore, Ranhill Worley is of the view that FY2023 will see a growing trend centred on decarbonisation and carbon capture storage projects.

The company is ready to bid for similar projects given its proven capabilities in managing the Kasawari and Brazil P-82 projects. It will continue to automate work processes and adopt a data centric, digital based approach, tapping technology as an enabler to deliver cost-effective, innovative and future focused solutions.

Upskilling current staff with new ways of working will be a challenging journey and one of the top priorities of this company. The next challenge is to retain company upskilled staff with competitive benefits and flexible work environments that are attractive to the younger generations.

RW can leverage on its unique position as the global offshore oil and gas hub for the Worley Group -- bringing proven world class expertise and experience to the Malaysian market when bidding for contracts. The global repository of competence, experience and skills, coupled with local market knowledge and a sound understanding of domestic requirements will deliver a unique competitive edge when bidding for contracts.

RISKS AND MATERIAL CONCERNS

ENVIRONMENT SECTOR

RESPONDING TO CLIMATE CHANGE AND OTHER CHALLENGES

Climate change remains a material topic to Ranhill's operations, especially to our water operations in Johor. In essence, climate change presents both risks and opportunities. Management is cognisant of the physical, transitional, legal and reputational risks associated with climate change, and at the same time, the emerging potentials for financial and non-financial value creation. Disrupted weather and rainfall patterns were evident throughout FY2022, which affected the water levels at many rivers and dams across Johor. This affected the total quantity and quality of water available for abstraction. It also exacerbates pollution issues as with less water volume in rivers, the concentration of pollutants is more potent.

Besides drought, there is growing frequency of sudden deluges of rain, which causes flash floods and disrupted WTP operations. Inclement weather also affects pipe rehabilitation and replacement works, the pace of construction on existing projects, increases the risks of Occupational Health and Safety ("OHS") incidents and poses various other complications.

We continue to proactively implement measures to ensure sufficient water volume across Johor state and to manage the effects of climate change. These include interim as well as long term measures. Among these measures are developing more WTPs and expanding the capacity of existing WTPs, proposing raw water transfer projects such as the Sg Gembut project, and also by actively addressing NRW challenges and water theft.

RIVER WATER POLLUTION AND WATER THEFT

The number of river water pollution incidents have decreased significantly in FY2022 due to the effectiveness of joint enforcement by Ranhill SAJ and Badan Kawalselia Air Johor ("BAKAJ"). The installation of the Pollution Removal System ("PRS") in Simpang Renggam WTP has also been effective in removing pollutants from river water and preventing the need to shutdown WTPs.

Given the significant impacts is caused by pollution incidents on the water system, society and businesses, not forgetting commercial losses and other hardships and difficulties, the full weight of the law should be imposed on offenders. This would serve as a deterrent that prevents more incidents in the future.

In FY2022, the number of complaints received on water theft incidents as defined in Section 89 and Section 123 of the Water Services Industry Act 2006 (Act 655) has decreased by 16.7% year-on-year to 2,895 reported cases (FY2021:3,642). In FY2022, Ranhill SAJ received favourable judgments on 904 cases with a total of RM1.2 million imposed on offenders. After more than four years, Ranhill SAJ's Enforcement Team is well experienced and sufficiently trained to carry out enforcement activities.

RISKS / THREATS	MITIGATION PLANS / MEASURES
Raw water contamination and pollution	Legal action on polluters: Apart from reporting to regulators on pollution activities. Ranhill SAJ has filed lawsuits against polluters with several being brought to court and imposed fines and other punitive measures, including compensating Ranhill SAJ for losses incurred.
Shortage of raw water quantity	Construction of Layang 2 (Phase I) Raw Water Supply Scheme from Sungai Sedili Besar to Seluyut Dam and development of alternative water sources such as River Bank filtration projects at Lok Heng, Kota Tinggi.
Discontinuation of water operator license renewal from SPAN and Raw Water Abstraction License from BAKAJ	Adherence to Water Service Industry Act, 2006, SPAN KPI and Special Licence Conditions.

ENERGY SECTOR

RISKS / THREATS	MITIGATION PLANS / MEASURES
Lack of New Power Plant Construction	There were no major operational issues such as reduced performance or total shutdown of the two plants. RPI maintained the availability above 87% and RPII above 94% as per the requirement in the Power Purchase Agreement (PPA) with Sabah Electricity Sdn Bhd (SESB).
Operational Risks	In mitigating operational risks, the Group conducts regular inspection to detect operational irregularities through 24-hour online monitoring of operations via the plant Distribution Control System. Furthermore, sufficient spare parts are stored for any eventuality while our power operations can also leverage on the support services of original equipment manufacturer companies. Emphasis is also placed on continuous training for maintenance staff, towards improving troubleshooting skills and capabilities, especially in addressing critical breakdown of power plant equipment. In the event of pandemic, Emergency Response Plan (ERP) will be executed to ensure continuous operations of both plants.

ENGINEERING SERVICES SECTOR

RWS

RISKS / THREATS	MITIGATION PLANS / MEASURES
Stiff market competition	Collaborate with potential partners during tendering.
Competition from small players	Collaborate with small players to provide solutions for related scope of work.
Differing interpretation on contract terms & conditions and stringent target from client	Perform continuous operational improvements and provide innovative solutions. Understanding scope of work and requirements. Frequent and close communication with clients.
Political instability	Flexibility in carrying out related SOP or policies by the Government.
Material price escalation	Implement provision for contingency in pricing.

RWT

RISKS / THREATS	MITIGATION PLANS / MEASURES
Price fluctuations	Continued expansion of local supply chains for goods and services. Rigorous assessment activities of all external suppliers, including supply chain audits i.e. desktop, physical audits, including assessing quality and capability of suppliers.
Talent scarcity	End-to-end talent management focus involving acquisition, retention and development strategies. Continued focus on organisational culture development, inspirational workspace and high-performance culture. Emphasising employee engagement and gauging satisfaction. Close monitoring of attrition rates. Development of talent pipeline via engagements with colleges, institutes and universities.
Market awareness, innovations and new developments	Regular engagement with third parties such as academia, technical resources, acquisition of technology, spearheading internal research and development and proactive sourcing for joint venture technology partners.
Natural and manmade disasters	Implementation of Business Continuity Plan, constant updating of said plan in tandem with emerging risks, i.e. climate change scenario planning and more. Emergency preparedness drills.
Non-compliance of applicable acts and regulations	Adherence to the Ranhill Compliance Checklist, execution of regular internal and external audits.

ENGINEERING SERVICES SECTOR

RBSB

RISKS / THREATS	MITIGATION PLANS / MEASURES
Loss of high-performing, technically competent talent	Competitive remuneration packages, benchmarked against industry standards, provision of training opportunities, development of the talent pipeline to secure replacements and emphasis on succession planning for critical positions.
Significant outlay for software and technological acquisition	Development of internal ROI models over the short, medium and long-term horizons, leverage on JV partnerships to attain access to technology, knowledge and capabilities.
Expansion into new sectors and job scopes	External recruitment of experienced and capable talent, adopting outsourcing strategies or JV partnerships to shorten learning curve.

RW

RISKS / THREATS	MITIGATION PLANS / MEASURES
Project risks	RW runs comprehensive risk-based models on all projects to ascertain risks and risk levels. These include identifying special risks and addressing risks of non-favourable contract terms, negative cash flow, client's reputation, country risk profiles, etc.
Delays in collections	Budget is estimated at early of the year for development, capex and OPEX. Development is identify using appraisal assessment and job requirements identified by each departmental head.