8. IMR REPORT

PROVIDENCE STRATEGIC PARTNERS SDN BHD
(1238910-A)
67-1, Block D, Jaya One, Jalan Prof Diraja Ungku Aziz,
46200 Petaling Jaya, Selangor, Malaysia.
T: +603 7625 1769

22 August 2023

The Board of Directors
UUE HOLDINGS BERHAD
No 55 & 57, Jalan Teratai 7
Taman Johor Jaya
81100 Johor Bahru
Johor
Malaysia.

Dear Sirs,

Outlook of the Power Infrastructure Utilities Market in Malaysia in conjunction with the Listing of UUE HOLDINGS BERHAD on the ACE Market of Bursa Malaysia Securities Berhad

PROVIDENCE STRATEGIC PARTNERS SDN BHD ("**PROVIDENCE**") has prepared this Outlook of the Power Infrastructure Utilities Market in Malaysia strictly for inclusion in the Prospectus of UUE HOLDINGS BERHAD.

PROVIDENCE has taken prudent measures to ensure reporting accuracy and completeness by adopting an independent and objective view of these industries within the confines of secondary statistics, primary research and evolving industry dynamics.

For and on behalf of PROVIDENCE:

ELIZABETH DHOSS
EXECUTIVE DIRECTOR

About PROVIDENCE STRATEGIC PARTNERS SDN BHD:

PROVIDENCE is an independent research and consulting firm based in Petaling Jaya, Selangor, Malaysia. Since our inception in 2017, PROVIDENCE has been involved in the preparation of independent market research reports for capital market exercises. Our reports aim to provide an independent assessment of industry dynamics, encompassing aspects such as industry performance, demand and supply conditions, competitive landscape and government regulations.

About ELIZABETH DHOSS:

Elizabeth Dhoss is the Executive Director of PROVIDENCE. She has more than 10 years of experience in market research for capital market exercises. Elizabeth Dhoss holds a Bachelor of Business Administration from the University of Malaya, Malaysia.

PROVIDENCE STRATEGIC PARTNERS

1 POWER INFRASTRUCTURE UTILITIES MARKET IN MALAYSIA

Utilities are infrastructure services provided to consumers, and include electricity, piped gas, water and sewerage as well as communications services. Utility projects refer to construction projects where design, construction, installation, repair and maintenance of utility infrastructure are included. Thus, the power infrastructure utilities market relates to the construction of subsurface and above surface pipelines, communication and power lines, water mains and line construction, reservoirs, irrigation systems, sewer systems and sewage disposal plants, electricity substations and power plants.

Overhead utilities (also known as overhead power lines) are overhead wires and supporting infrastructure used in electric power transmission and distribution to transmit electricity. Overhead power lines consist of one or more conductors suspended by towers or poles.

Underground utilities, also known as subsurface utilities, are infrastructures installed beneath the ground surface. Underground utilities include lines used for electricity distribution, traffic lights, street lights, natural gas transportation, telecommunications, water and sewerage pipelines, and broadband internet services. These infrastructures are typically installed and maintained by public utility companies or contractors engaged by public utility companies. Underground utilities construction activities are undertaken for the installation, repair, maintenance and upgrading of such subsurface utilities.

Underground utilities construction can be performed by way of:

- Open trench excavation method - a method of pipeline installation, repair and replacement that requires opening up the surface of the ground to the required depth for installing a pipeline. Upon installation, the excavated route is then backfilled, and the surface is restored. This can be an affordable method for non-pavement covered surfaces.
- Trenchless method - a method for the installation of new, replacement or rehabilitation of existing underground infrastructure with minimal disruption to surface traffic, businesses and other activities. Trenchless methods include:
  - horizontal directional drilling ("**HDD**") involves the use of a directional drilling machine that can be precisely steered to avoid any obstructions for any pipeline crossing to be completed. Through HDD, pipelines can be laid in the underground space without breaking the surface or with minimal excavation works. The HDD technique does not involve a large working space and does not disrupt other works as well as urban traffic systems. HDD can be done at any time of the day, subject to approval from the relevant authorities, and thus requires a shorter duration for completion. Hence, HDD can be cost effective when compared to the conventional open-trench excavation methods;
  - pipe jacking allows for the installation of prefabricated pipelines through the ground from a drive shaft to a reception shaft. The benefits of pipe jacking include minimal traffic disruption and disturbance to public with regards of noise, dirt and vibration. Pipe jacking techniques include microtunneling and manshield; and
  - cable tunnelling refers to the installation of high-voltage electricity cables along tunnel sections that can go as deep as 60 metres beneath the ground level.

The open trench excavation method and trenchless method can be used for the installation of pipelines such as electricity cables, sewerage pipes and water mains.

The electricity supply industry comprises electricity generation, transmission and distribution / retail. Utility companies and independent power producers (IPPs) generate electricity from energy sources to be sold to consumers. Utility companies are companies typically involved in all three phases of electricity supply chain from generation to transmission to distribution. The three main utility companies, namely Tenaga Nasional Berhad, Sabah Electricity Sdn Bhd and Sarawak Energy Berhad, typically engage third party engineering companies to design, construct, install, repair and maintain underground and overhead utility infrastructure. Large industrial customers such as mining operators, steel mills, cement plants, oil refineries, airports and seaports require high volumes of electricity and therefore may erect electricity substations within their premises which draw electricity supply from the National Grid.

Utility companies typically engage third party engineering companies to undertake the design and development of transmission and distribution infrastructure, connecting residential, commercial and industrial consumers to the National Grid. These third-party engineering companies are typically main contractors who subsequently engage subcontractors such as UUE Holdings Berhad to perform the required works. Property developers and large industrial users also engage these third-party engineering companies to erect electricity substations within their premises and/or lay pipelines and cables to draw power from the National Grid to their premises. Thus, these third-party engineering companies play a critical

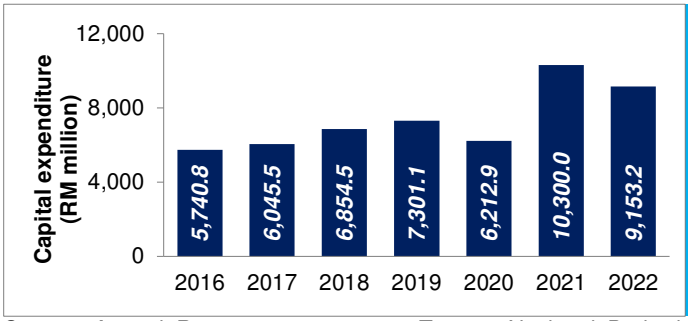
role in developing transmission and distribution infrastructure to ensure the accessibility and connectivity of utilities such as electricity, telecommunications, piped gas, water and sewerage.

UUE Holdings Berhad is principally involved in the provision of underground utilities engineering solutions where we specialise in the HDD method of laying pipes, and the manufacturing of high-density polyethylene ("**HDPE**") pipes.

1.1 INDUSTRY SIZE AND GROWTH POTENTIAL

The power infrastructure utilities market in Malaysia, based on the capital expenditure incurred for recurring electricity generation, transmission and distribution, rose from RM5.7 billion in 2016 to RM9.2 billion in 2022 at a compound annual growth rate ("**CAGR**") of 8.3%.

Capital expenditure for recurring power generation, transmission and distribution in Malaysia



Source: Annual Reports 2016 - 2022, Tenaga Nasional Berhad; Sarawak Energy Berhad; PROVIDENCE analysis

In 2020, the capital expenditure incurred for electricity transmission and distribution was affected by the COVID-19 pandemic and the subsequent phases of the movement control order ("**MCO**") that stifled economic activity. In 2023, Tenaga Nasional Berhad announced a capital expenditure allocation of RM12.8 billion, from which RM7.0 billion will be for regulated capital expenditure (including energy transition related capital expenditure of RM1.0 billion) while the remaining RM5.8 billion will be allocated for other major projects.[2]

The power infrastructure utilities market comprises the capital expenditure of utility companies for utility systems and related services in relation to the construction of generation facilities, transmission and distribution lines, as well as related structures for power utilities by industry players. All structures that are integral parts of utility systems are included in this market. The work performed by these industry players includes new installations, additions, alterations, maintenance, and repairs.

1.2 DEMAND CONDITIONS: KEY GROWTH DRIVERS

Long term economic growth supports investments in utility infrastructure

Malaysia continued to face economic challenges in 2022 ranging from a volatile external environment, surges in Omicron cases at the start of the year, labour shortages, supply chain disruptions, and rising inflation. Despite this, the nation's economy expanded by 8.7% in 2022. Domestically, the full upliftment of containment measures and the revival of tourism activity amid continued policy support led to an improvement in economic growth. Externally, the impact of lower global growth and trade activity arising from the geopolitical conflicts, and tightening monetary policy was contained.[3]

According to Malaysia's Ministry of Finance, Malaysia's economy is expected to grow moderately between 4.0% to 5.0% in 2023, backed by strong fundamentals and diversified economic structure, coupled with ongoing policy support to cushion the impact of the rising cost of living and mitigate the downside risk stemming from the prolonged geopolitical uncertainties and tightening global financial conditions. Bank Negara Malaysia also anticipates that domestic demand will continue to drive growth, supported by the continued recovery in the labour market and the realisation of multi-year investment projects.

Economic growth is a key driver for investments in utilities, as a robust utility infrastructure supports economic activities and attracts foreign and domestic investments. PROVIDENCE anticipates that the private and public sector will still incur capital investments for power infrastructure, as infrastructure and utilities are important drivers for the growth of economy of any region. Electricity, roads, water systems,

[2] TNB records strong FY2022 EBITDA, intensifies progress in energy transition plan, Tenaga Nasional Berhad press release, 28 February 2023

[3] Economic and Monetary Review 2022, Central Bank of Malaysia

public utilities, airports, railways, and telecommunications are essential services that drive economic activity by channelling trade and mobility.

Population growth and urbanisation promotes investments in utility infrastructure

Based on a projection by the United Nations Department of Economic and Social Affairs ("**DESA**"), it is estimated that Malaysia's population, similar to the rest of the world, will increase exponentially within three decades. According to the World Population Prospects: The 2017 Revision, the nation's population is expected to reach almost 33 million people in 2020, with numbers projected to rise to more than 40 million in 2050. The same trend has been projected for the nation's urbanisation rate, which stands at 75.0%. DESA, in its World Urbanisation Prospect: The 2014 Revision, projected that Malaysia was expected to register an urbanisation rate of 80.0% in 2020, and between 85.0% to 90.0% by 2050. In 2022, Malaysia's population stood at 32.7 million. According to the Key Findings of Population and Housing Census of Malaysia 2020 published by the Department of Statistics Malaysia in December 2022, Malaysia's urbanisation rate increased to 75.1% in 2020 from the 70.9% in 2010.[4]

The increase in urbanisation will bring changes and challenges unless it can be supported by robust utility infrastructure for electricity, piped gas, water and sewerage as well as communications services. This will ensure that Kuala Lumpur and other cities will continue to experience growth and remain competitive. Thus, investments in utility infrastructure to support population growth and urbanisation will benefit industry players that offer underground utilities engineering solutions.

Growing demand for electricity stimulates investments in new and replacement utility infrastructure

Electricity energy is a crucial element in the development process as well as economic growth of a country. Shortage of electricity supply may negatively affect the development progress of the country, and possibly limit its potential growth.

Malaysia's consumption of electricity increased from 132,199.0 gigawatt hours ("**GWh**") in 2015 to 172,819.8 GWh in 2022. Regionally, Peninsular Malaysia remains as the primary consumer of electricity in Malaysia, consuming close to 80.0% of the electricity sold.

Peninsular Malaysia and Sabah's transmission systems were 25,838.0 kilometres ("**km**") and 3,153.9 km in length respectively comprising 500.0 kilovolt ("**kV**") lines, 275.0 kV lines, 132.0 kV lines and 66.0 kV lines. Separately, Peninsular Malaysia and Sabah's distribution systems, comprising overhead lines and underground cables, were 741,764.2 km and 27,871.0 km in length respectively. Peninsular Malaysia had 480 transmission substations and 87,947 distribution substations, while Sabah had 49 transmission substations and 8,945 distribution substations in 2021.[6] Comparatively, Sarawak transmission system was 2,391 km comprising 500.0 kV lines, 275.0 kV lines and 132.0 kV lines, and its distribution system was 37,174 km comprising overhead lines and underground cables in 2019. In 2020, Sarawak had 43 transmission substations and 14,395 distribution substations.[7]

The consumption of electricity is a key driver for the electricity supply industry, and spurs investments in generation, transmission and distribution infrastructure. Over the longer term, the demand for electricity is expected to recover and exhibit growth at a healthy pace as a result of future economic growth, supporting Government policies, as well as population growth. Thus, this is expected to benefit industry players that are involved in the design, construction, installation, repair and maintenance of utility infrastructure. Further, Tenaga Nasional Berhad has embarked on a Grid of the Future initiative which will enable the grid system to accommodate innovative energy solutions as these emerge while having inbuilt cybersecurity as well as resilience against the impact of climate change.[8] This too presents opportunities for industry players that are involved in the design, construction, installation, repair and maintenance of utility infrastructure.

Foreign investment and domestic investment growth support investments in utility infrastructure

Malaysia recorded a total of RM264.6 billion worth of approved investments in the manufacturing, services and primary sectors in 2022 across 4,454 projects. From the total investments approved, foreign

[4] Department of Statistics Malaysia. Latest available statistics as at 27 October 2023
[6] Annual Report 2022, Tenaga Nasional Berhad
[7] Sourced from Malaysia Energy Statistics Handbook 2021, Energy Commission Malaysia. Latest available statistics as at 27 October 2023
[8] TNB invests RM21b in Grid of the Future programme, The Edge Markets, 21 September 2022

investments accounted for RM163.3 billion or 61.7%, with domestic investments accounting for RM101.3 billion or 38.3%.[9]

The services sector accounted for the largest share of the total investments in 2022, amounting to RM154.0 billion (58.2%), followed by the manufacturing sector with RM84.3 billion (31.9%) and the primary sector with RM26.3 billion (9.9%). While foreign investments lead the approved investments in the services and manufacturing sector, investments from local companies dominated in the primary sectors. Malaysia's services sector experienced promising and strong growth, with an increase of 63.7% in investments from 2021. The information and communications (RM84.7 billion), real estate (RM28.9 billion), financial services (RM11.2 billion), utilities (RM10.8 billion), and distributive trade (RM6.2 billion) made up 92.1% of total approved investments for the services sector in 2022.[10]

Malaysia aims to attract quality investments, as this will be key in driving a more sustainable economic recovery for Malaysia and to achieve its aspirations of becoming a high-income nation. Foreign investment and domestic investment are important contributors to the country's economic growth and the Government has been proactive in encouraging growth based on productivity, innovation and shared prosperity in order for wages to continue rising. Foreign investment also plays an important role in supporting Malaysia's move to become a high-income technology-based economy. As such, investments in properties and infrastructure also crucial to support the investment prospects of Malaysia for foreign investors. Such investments are expected to be benefit industry players offering underground utilities engineering solutions.

Growing demand for other utilities stimulates investments in new and replacement utility infrastructure

a) Piped gas

The marketing, sales and distribution of natural gas, as well as development, operations and maintenance of Malaysia's natural gas distribution system within Peninsular Malaysia is under the purview of Gas Malaysia Berhad. Gas Malaysia Berhad further undertakes the supply and sales of liquefied petroleum gas (LPG) in Peninsular Malaysia.

As at 31 December 2021, Gas Malaysia Berhad operated and maintained 2,786 km of gas pipeline across Peninsular Malaysia, supplying natural gas to 1,037 industrial customers, 1,845 commercial customers and 21,430 residential customers. The natural gas distribution system within Peninsular Malaysia was previously 2,139 km in length in 2015, with 795 industrial customers, 862 commercial customers and 12,571 residential customers. Industrial customers accounted for approximately 99.5% of total gas volume sales in 2022. They represent a diverse range of industries that include rubber products, consumer products, oleo-chemicals, glass products, pulp and paper, steel / aluminium / copper, and other industries.[11]

Gas Malaysia Berhad incurred capital expenditure of approximately RM152.0 million in 2022, mainly due to construction projects awarded in relation to the natural gas distribution system network as well as non-natural gas distribution system projects. Projects under the natural gas distribution system network development are specific towards construction of gas pipelines and metering stations while non-natural gas distribution system projects include, among others, the purchase of gas and office equipment, digitalisation efforts as well as motor vehicles. A future financial commitment of approximately RM278.0 million will be spent during the Incentive Based Regulation's second regulatory period (RP2), spanning across 2023. The sum will be utilised for the development of natural gas distribution system network and non-natural gas distribution system activities.[12]

Capital investments aimed at further developing and expanding the natural gas distribution system network in Peninsular Malaysia will support investments in underground utilities engineering services and solutions for the laying of gas pipelines. Such capital investments will improve the accessibility of industrial customers to natural gas and improve the investment prospects of Malaysia for foreign investors.

b) Water and sewerage

The demand for clean treated water is growing ever bigger but climate changes are putting pressure on Malaysia's water resources while its catchment areas are facing a rising incidence of pollution and development activities. The production of water increased from 14.4 billion litres per day in 2018 to 15.5 billion litres per day in 2022 at a CAGR of 1.9% in Peninsular Malaysia and Labuan. During this period, metered water consumption rose from 9.6 billion litres per day to 10.3 billion litres per day at a CAGR of

[9] Malaysia Performance Investment Report 2022, Malaysian Investment Development Authority ("**MIDA**")

[10] Malaysia Performance Investment Report 2022, MIDA

[11] Annual Report 2022, Gas Malaysia Berhad

[12] Annual Report 2022, Gas Malaysia Berhad

1.8%. Among the states in Malaysia, Selangor is the largest consumer of metered water with its consumption comprising 35.9% of total metered water consumption in 2022.[13]

In Selangor, Air Selangor Sdn Bhd operates 34 water treatment plants located in various parts of the state and seven dams. Air Selangor Sdn Bhd also manages and maintains a total of 29,270 km of pipe network to supply water to areas in the state. Air Selangor Sdn Bhd has committed a capital expenditure of an estimated RM35.4 billion over the next 30 years. From this, an estimated RM13.4 billion is intended to be utilised to improve asset reliability and resilience and several water treatment plants are slated to be built at a cost of RM13.0 billion. These new water treatment plants include the 700 million litres a day ("**MLD**") Rasau Stage 1 which will deliver water to the Klang region and is targeted to be operational by 2024; the 769 MLD Langat 2 Phase 2 catering for the Gombak, Kuala Lumpur, Hulu Langat and Sepang regions which is expected to be completed in 2030; and the Rasau Stage 2 meant for the Petaling region that will treat 700 MLD. With the construction of these water treatment plants, Air Selangor Sdn Bhd is looking to increase its treated water reserve margins to more than 15.0% by 2030.[14]

Malaysia's sewerage system is an underground network of pipes that transport wastewater from domestic, residential, industrial and commercial consumers to wastewater treatment plants. Sewerage system play a critical role in supporting public health and environmental protection. Sewers are further classified based on the type of wastewater that it carries. For example, storm sewers are designed to carry stormwater from roofs, paved areas, pavements and roads; industrial sewers are designed to carry wastewater generate from the industry; sanitary sewers are designed to carry waste water from cooking, washing and toilet waste; and combined sewers are designed to carry stormwater, industrial wastes, as well as domestic sewage.

Water and sewerage are basic utilities that need to be installed for all new development projects. Further, old water and sewerage pipes also need to be maintained and replace when necessary. Thus, industry players offering underground utilities engineering services and solutions will benefit from capital expenditure for the design, construction, installation, repair and maintenance of water and sewerage infrastructure.

c) Communication services

Connectivity services have been a driver for service provider revenue growth and investments in communication utility infrastructure. Connectivity services have evolved from fixed voice to mobile and recently, mobile broadband.

Malaysia's mobile cellular market had a penetration rate per 100 inhabitants of 145.3% in 2022 (2016: 99.8%). Many users have more than one subscription, taking advantage of competitive voice or data plans offered by the various service providers, or to make best use of network coverage and call quality in different locations. Additionally, subscribers use multiple phones or dual-SIM phones to differentiate between professional and personal use.

Broadband subscriptions grew from 31.0 million in 2016 to reach 47.5 million in 2022. In 2022, mobile broadband subscriptions constituted 131.0% of national broadband penetration rate per 100 inhabitants while fixed broadband was at 47.6%. Fixed broadband subscriptions increased from 2.5 million in 2016 to 4.2 million in 2022. In places where fixed broadband is not available, mobile broadband is an alternative for Internet access. Mobile broadband subscriptions increased to 43.2 million in 2022 from 28.5 million in 2016, supported by 3G and 4G LTE population coverage. The factors driving mobile broadband subscriptions growth include improved network coverage, more attractive pricing plans, and consumer uptake of more connected devices.

The capital expenditure of fixed service providers increased from RM1.8 billion in 2014 to RM4.6 billion in 2019 before dipping to RM1.8 billion in 2020. In 2021, the capital expenditure of fixed service providers increased to RM2.0 billion (2020: RM1.8 billion). Comparatively, the capital expenditure of mobile service providers increased from RM4.9 billion in 2014 to RM5.2 billion in 2018 before dipping to RM3.0 billion in 2019. In 2020 and 2021, the capital expenditure of mobile service providers remained at a constant RM3.0 billion respectively. Investments by mobile services providers are driven by several factors, including improving network coverage; increasing network capacity to accommodate both ongoing growth in subscriber base and data usage; and funding higher speed mobile broadband networks deployments (for both 3G and 4G LTE). Capital expenditure investments in the near term would be used to support the increase in data consumption, the National Digital Network (Jalinan Digital Negara, "**JENDELA**") network requirements as well as the need to maintain service quality

[13] Water and Sewerage Factbook 2022, Peninsular Malaysia and Federal Territory Labuan, National Water Services Commission

[14] SPAN approves Air Selangor's RM35.4 bil capex, The Edge Markets, 14 December 2020

Demand for bandwidth surged in 2020 as a result of the COVID-19 pandemic that resulted in the imposition of the MCO. Adherence to the MCO by remaining indoors at all times saw 23.5% higher internet traffic nationwide during the first week of the MCO, while the second week of the MCO saw a further increase of 8.6% in internet traffic. During this period, Malaysia saw an increase in internet use during the stay-at-home period primarily for streaming, online games and video conferencing calls. The increase in internet demand stemmed from both fixed and mobile broadband. The surge in bandwidth demand was inevitable as more Malaysians turned to video conferencing, online classes and e-commerce while working and studying at home.[15]

In February 2021, the Government of Malaysia launched the Malaysia Digital Economy Blueprint (2021 – 2030) which aims to transform Malaysia into a digitally-enabled and technology-driven high income nation, and a regional lead in digital economy. Phase 1 (2021 – 2022) aims to accelerate adoption towards strengthening the digital foundation needed for the rollout of Phases 2 and 3. In Phase 2 (2023 – 2025), the focus shifts to driving digital transformation and inclusion among the *rakyat* and all levels of businesses across the digital economy. Phase 3 (2026 – 2030) aims to chart the pathway for strong, sustainable growth in the decades to come, positioning Malaysia to become a regional market producer for digital products and digital solutions provider.

Digital Nasional Berhad was established in 2021 to deliver several key outcomes in line with the goals of the Malaysia Digital Economy Blueprint, among which include to accelerate deployment of 5G infrastructure and network in Malaysia and realise the potential of 5G in Malaysia to spur economic activity. According to Digital Nasional Berhad, Malaysia will kick off the launch 5G at its national and administrative capitals of Kuala Lumpur, Putrajaya and Cyberjaya by the end of 2021, before eventually expanding nationwide between 2022 and 2024.

On 29 August 2020, the then Prime Minister of Malaysia, Tan Sri Muhyiddin Yassin, announced the JENDELA action plan which forms part of the 12th Malaysia Plan (2021 – 2025). The JENDELA plan, valued at RM21.0 billion, was formulated to steer Malaysia towards achieving better digital connectivity by boosting the efficiency of national infrastructure and optimising spectrum usage. From the RM21.0 billion allocated for JENDELA, 40% is to be funded by the Malaysian Communications and Multimedia Commission's Universal Service Provision (USP) fund while the remaining 60% is to be funded by industry players. The implementation of JENDELA will be carried out in two phases, namely Phase 1 (2020 – 2022) and Phase 2 (2022 – 2025).

The JENDELA initiative has improved the country's broadband infrastructure towards providing ubiquitous availability of services. Hence, fixed broadband has seen more demand, with subscriptions growing 23.5% to 4.2 million in 2022 (2020: 3.4 million). The higher uptake of both mobile and fixed broadband has in turn contributed to the increase in total broadband subscriptions nationwide by 12.6% to 47.5 million in 2022 (2020: 42.2 million).

Greater demand for connectivity services will contribute positively towards spurring investments in utility infrastructure, thereby benefitting industry players that offer underground utilities engineering solutions.

Malaysia's renewable energy generation targets create opportunities for investments in power infrastructure

At the 21st Conference of Parties (COP21) in 2015, Malaysia pledged to reduce its carbon emission intensity per GDP by 35.0% in 2030 relative to the 2005 levels, or 45.0% with support from developed countries. This nationally determined contribution was ratified at the 2015 Paris Agreement, and adopted by United Nations member states to counter the damaging impacts of climate change. To support the nationally determined contribution, the Eleventh Malaysia Plan (2016 – 2020) established more pathways for green growth in the country. In 2017, the Green Technology Master Plan (2017 – 2030) created the framework for mainstreaming green technologies into planned developments. It called for green technologies to be embedded in six carbon-intensive sectors, and by doing so, change the trajectory of the nation's growth. One of these sectors is energy.[16]

Meanwhile, in 2018, the ambit of the Ministry of Energy, Green Technology and Water was expanded to include environment and climate change. With clean energy becoming a priority, the Government targets a capacity mix of 31.0% renewable energy by 2025 and 40.0% by 2035. As at the end of 2020, renewable

[15] Media statement: Changing Usage Patterns Influence Internet Speed In Malaysia, MCMC, 9 April 2020

[16] Peninsular Malaysia Electricity Supply Industry Outlook 2019, Energy Commission Malaysia

energy accounted for 23.0% of the national power installed capacity, with the remaining 77.0% dominated by fossil fuels.[17]

Renewable energy generation in Peninsular Malaysia covers solid waste, small hydro, biomass, biogas, geothermal and solar. Large hydro plants with the capacity of more than 100.0 megawatts ("**MW**") are not considered as renewable energy. The 31.0% renewable energy target by 2025 focuses on increasing solar energy generation capacity, and along the way creating new business opportunities for big companies, small and medium enterprises (SMEs), microbusinesses and households.

As of 2020, renewable energy installed capacity stood at 8.5GW, generated by large scale solar farms, net energy metering (NEM) and feed-in-tariff (FiT) developers. There was also a 589.0MW off-grid capacity from co-generation plants and self-generation. Renewable energy capacity must be ramped up to 4.5GW to deliver the 31.0% target by 2025. This plan is being reviewed periodically, subject to changes in demand forecast, generation requirement, completion of committed projects and government policies.[18]

In November 2020, Ministers in the Association of Southeast Asian Nations ("**ASEAN**") region agreed to set a new target of 35.0% renewable energy in installed power capacity by 2025 which will contribute to achieving ASEAN's target of 23.0% of renewable energy in total primary energy supply by 2025.[19]

In May 2023, Malaysia's Cabinet agreed for the renewable energy capacity mix target to be raised to 70% of the nation's total capacity by 2050 under the Renewable Energy Strategic Development Roadmap, from the initial 40% target under the Malaysia Renewable Energy Roadmap. The robustness of grid infrastructure is a key prerequisite for accommodating the anticipated growth in renewable energy. Efforts to increase the renewable energy capacity would require new investments estimated at RM637.0 billion up to year 2050, where this would include investments in renewable energy generation resources as well as the strengthening of the transmission and distribution grid infrastructure. The Government of Malaysia aims to introduce two new roadmaps by the second half of 2023 to ensure Malaysia achieves long-term energy security that is environmentally sustainable.

In order to achieve these renewable energy targets, corresponding utility infrastructure such as underground cabling will also be required to support this effort. As such, Malaysia's aspirations to boost the adoption of renewable energy in Malaysia will benefit industry players offering underground utilities engineering solutions.

Government initiatives to strengthen utility infrastructure in Malaysia

The Government of Malaysia has proposed several initiatives under Budget 2023 to strengthen accessibility to utilities in Malaysia. Among others, these include:

- **Rural infrastructure**

  To ensure the well-being of rural Malaysians, infrastructure facilities will continue to be improved and enhanced. A total of RM2.55 billion is allocated with a focus on Sabah and Sarawak to implement the following projects:
  - Rural Electricity Supply project with an allocation of RM472 million to benefit residents of 2,100 houses;
  - The Rural and Alternative Water Supply Project amounting to RM381 million for the benefit of the residents of 4,800 houses, including at RISDA Palong Farm in Jempol, Negeri Sembilan; and
  - Kampung Street Lights Project involving the installation of 6,800 units of new lamps and the maintenance of more than 525,000 lamp units with an allocation of RM123.0 million.
- **Inter-regional development**
  - Sabah and Sarawak will continue to benefit immensely, with development expenditure allocations of RM6.3 billion and RM5.4 billion respectively. The allocations, among others, are for the development of water, electricity, roads, health, and educational facilities infrastructure projects; and
  - Malaysia's five main Corridor Regions will receive a total allocation of RM1.4 billion. In 2023, the main programs to be implemented include the Samalaju Water Supply Infrastructure Project Phase 3 with an allocation of RM100.0 million.
- **Digital connectivity**

[17] Malaysia Renewable Energy Roadmap, Sustainable Energy Development Authority (SEDA) Malaysia
[18] Malaysia Energy Information Hub database, Energy Commission Malaysia
[19] Asean ministers set 35% target on renewable energy, The Malaysian Reserve, 20 November 2020

- Under JENDELA Phase 2 project, the Government will provide 100% internet coverage in populated areas and provide fibre optic coverage to 9.0 million premises nationwide by 2025;
- For 2023, the JENDELA initiative will be provided RM700.0 million to implement digital connectivity for 47 industrial areas and nearly 3,700 schools;
- Tenaga Nasional Berhad will also pilot the implementation of the rural internet by optimising its electrical cable network to provide high-speed broadband facilities. This project will potentially benefit over 60,000 rural residents and is supported through a matching grant of RM25.0 million; and
- For 2023, Digital Nasional Berhad will expand the 5G network throughout the country and achieve coverage of 70% of highly populated areas. Digital Nasional Berhad plans to implement infrastructure expenditure worth RM1.3 billion in 2023.

The abovementioned initiatives that aim to reduce the urban and rural development gap, improve digital connectivity and bridge the economic gap will require investments in underground cabling and substations, thereby benefitting industry players offering underground utilities engineering solutions.

1.3 COMPETITIVE LANDSCAPE

UUE Holdings Berhad's customers in Malaysia are primarily main contractors involved in electricity supply and telecommunications projects, that require its services to enable the supply of power to specific locations and/or premises. There are distinct barriers to entry, with industry players possessing the relevant licenses and registrations, experienced technical employees who can carry out large scale and complex projects as well as project track record.

Contractors will need to meet certain criteria when submitting their proposals for underground and overhead utilities engineering services and solutions with utility companies. As an illustration, based on tender notices posted on Tenaga Nasional Berhad's website, Tenaga Nasional Berhad requires tenderers to be registered as a Tenaga Nasional Berhad vendor and possess the requisite Construction Industry Development Board (CIDB) license registrations (for which the grade and specialisation will be stipulated in the tender notice), demonstrate experience / project track record and financial strength. In instances where participation in tenders is restricted to Bumiputera registered contractors, such requirement will be indicated in Tenaga Nasional Berhad's tender notices.[20]

The power infrastructure utilities market comprises the capital expenditure for utility systems and related services by industry players that construct generation facilities, transmission and distribution lines, as well as related structures for power utilities. All structures that are integral parts of utility systems are included in this market. The work performed by these industry players includes new installations, additions, alterations, maintenance, and repairs. Thus, the revenue of industry players that are involved in the delivery of underground and overhead utilities engineering services and solutions; and substation engineering services and solutions for power utilities are a subset of the capital expenditure incurred for utility systems and related services.

In 2022, the power infrastructure utilities market in Malaysia, based on the capital expenditure incurred for recurring electricity generation, transmission and distribution, was RM9.2 billion. In the financial year ended ("**FYE**") 28 February 2023, UUE Holdings Berhad recorded a revenue of RM88.7 million, from which revenue from its underground utilities engineering solutions in Malaysia comprised RM60.7 million. UUE Holdings Berhad garnered a market share of 0.7% based on its revenue of RM60.7 million from underground utilities engineering solutions in Malaysia in comparison to the capital expenditure incurred for recurring electricity generation, transmission and distribution in Malaysia of RM9.2 billion.

[The rest of this page is intentionally left blank]

[20] Source: https://www.tnb.com.my/doing-business-with-tnb/suppliers

8. IMR REPORT *(Cont'd)*

PROVIDENCE STRATEGIC PARTNERS

Financial performance of selected industry players

Industry player	Business activities *	Type of electricity supply projects primarily undertaken @	Latest available FYE	Revenue (RM)	Gross profit (RM)	Gross profit margin (%)	Profit before tax (RM)	Profit after tax (RM)	Profit after tax margin (%)
Eiscon Construction Sdn Bhd	(a)	Distribution	31 July 2021	189,481,928	- 8,561,594	- 4.5	- 18,541,838	- 19,392,777	- 10.2
Komasi Engineering Sdn Bhd	(a)	Distribution	31 December 2022	57,142,413	9,954,283	17.4	4,673,802	3,570,916	6.2
UUE Holdings Berhad	(a)	Distribution	28 February 2023	88,662,000	26,609,000	30.0	17,174,000	14,117,000	15.9
Jati Tinggi Holding Sdn Bhd	(a), (b) and (c)	Transmission and distribution	30 November 2022	234,611,763	17,584,610	7.5	12,302,017	10,221,149	4.4
MN Holdings Berhad ^	(a), (b) and (c)	Transmission and distribution	30 June 2022	104,003,063	22,928,043	22.0	8,219,260	5,527,868	5.3
Pembinaan Tajri Sdn Bhd	(a) and (b)	Transmission and distribution	31 December 2021	83,336,506	1,387,995	1.7	219,622	144,655	0.2
Pestech Sdn Bhd #	(a), (b) and (c)	Transmission and distribution	30 June 2022	298,476,635	Not available	Not available	13,026,170	12,109,105	4.1
Swis Resources Sdn Bhd	(a), (b) and (c)	Transmission and distribution	31 December 2021	86,122,057	17,386,203	20.2	5,609,598	4,766,942	5.5

Notes:

[a] The selected industry players were identified from publicly available sources, such as the internet, published documents and industry directories based on the following criteria:

i) are involved in the provision of underground and overhead infrastructure utilities engineering solutions;
ii) serve the electricity supply and telecommunications sectors;
iii) operate in Malaysia; and
iv) have achieved a minimum revenue of RM50.0 million in the latest available audited financial statement.

The list of selected industry players identified above is non-exhaustive, as it does not include industry players that do not have public presence, are not listed in industry directories and do not have corporate websites.

* Categories of business activities: (a) provision of underground and overhead infrastructure utilities engineering solutions; (b) provision of substation EPCC services; and (c) trading of equipment for substations

@ Categories of type of electricity supply projects primarily undertaken comprise transmission segment underground and overhead infrastructure utilities engineering solutions and distribution segment underground and overhead infrastructure utilities engineering solutions

^ Listed on the ACE Market of Bursa Malaysia Securities Berhad

Subsidiary of Pestech International Berhad, which is listed on the Main Market of Bursa Malaysia Securities Berhad

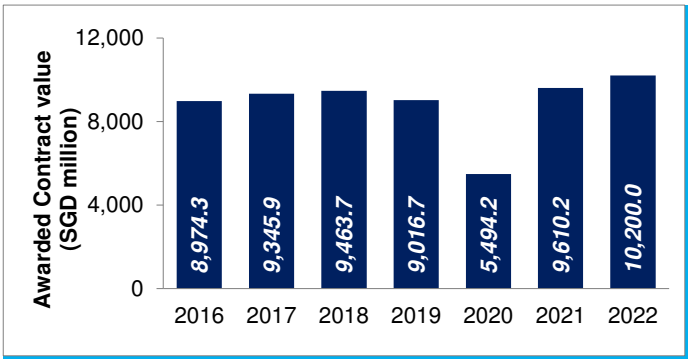
Latest available as at 15 August 2023

Source: Various annual reports, Companies Commission of Malaysia, PROVIDENCE analysis

2 POWER INFRASTRUCTURE UTILITIES MARKET IN SINGAPORE

The civil engineering utilities works segment of the civil engineering construction industry (where the scope of work activities include cables installation and pipelines construction) mainly includes power and telecommunication; water and sewerage; gas; and others.

Value of awarded civil engineering work in Singapore



Source: Building and Construction Authority Singapore; PROVIDENCE analysis

Civil engineering utilities works segment in Singapore, based on awarded civil engineering work contracts for the public and private sector, rose from SGD9.0 billion in 2016 to SGD10.2 billion in 2022 at a CAGR of 2.2%. In 2019 and 2020, the value of awarded civil engineering work contracts contracted by 4.7% and 39.1% respectively due to the COVID-19 pandemic which led to various movement control orders being imposed to curb the spread of the COVID-19 virus. In 2021, the value of awarded civil engineering work contracts rebounded and demonstrated a growth rate of 74.9% in line with the reopening of various sectors and economic recovery.

To ensure that there will be sufficient space for the growing population and infrastructures, the Government of Singapore has put into motion various projects involving underground works in order to clear up the spaces above ground that is occupied by infrastructures such as cables and pipes. The second phase of the Deep Tunnel Sewerage System (DTSS phase 2) and the Underground Transmission Cable Tunnel Project are some of the major underground work projects. Several upcoming underground developments have been planned up till 2030 to further the objective of optimisation of land use, including Thomson-East Coast Line, Deep Tunnel Sewerage System Phase 2, Four-in-One Depot at Changi, North-South Corridor, and Cross Island Line. These underground works projects are expected to progress in line with the expected overall developments of the construction works industry, notably with the development of private, public, commercial and industrial buildings which would require proper infrastructures such as electricity, telecommunication and water to meet the needs of society.

Moving forward, it is anticipated that the civil engineering utilities works will experience a stronger growth, in line with the anticipated growth of the civil engineering segment following the Government of Singapore's plan to increase the overall population to a range of 6.5 million to 6.9 million persons by 2030 and to optimise land use. Furthermore, the announcements of new township and development of infrastructure projects are anticipated to drive demand for civil engineering works further.

UUE Holdings Berhad's customers in Singapore are main contractors involved in electricity supply projects that require its services to enable the supply of power to specific locations and/or premises. The civil engineering utilities works segment in Singapore, based on awarded civil engineering work contracts for the public and private sector, was SGD10.2 billion in 2022. In the FYE 28 February 2023, UUE Holdings Berhad recorded a revenue of SGD5.9 million from the provision of underground utilities engineering solutions in Singapore. UUE Holdings Berhad garnered a market share of 0.1% based on its revenue of SGD5.9 million from underground utilities engineering solutions in Singapore in comparison to the awarded civil engineering work contracts for the public and private sector in Singapore of SGD10.2 billion. Industry players that are involved in the provision of underground utilities engineering solutions in Singapore include:

- Dipcie Contractors Pte Ltd
- FG Engineering & Construction Pte Ltd
- Hynergy Corporation Pte Ltd
- K.G.M. Brothers Contractors Pte Ltd
- Konnection Engineering Pte Ltd (a subsidiary of UUE Holdings Berhad)
- Power Works Pte Ltd
- Powercom Engineering Works Pte Ltd
- Thaitan International Pte Ltd
- U Guan Construction Pte Ltd

The abovementioned industry players were identified from publicly available sources, such as the internet, published documents and industry directories based on the criteria that they are involved in the provision of underground infrastructure utilities engineering solutions; and serve the electricity supply sector; and operate in Singapore.