Sarawak Thematic Report

Still the Cheapest Electron in the Room

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We returned from our three-day, two-night visit to Sarawak with a positive view of the state's long-term development prospects, particularly in the power sector. Sarawak Energy aims to increase generation capacity from c. 6GW to 10GW. While the Baleh hydropower project is expected to commence operations by 2030, near-term capacity growth will be driven by two combined-cycle gas turbine plants in Samalaju and Miri, with aggregate capacity of up to 2GW and PETROS responsible for securing gas supply. Sarawak also retains a structural energy-cost advantage over Peninsular Malaysia, underpinned by its hydro baseload capacity. This provides scope for continued tariff competitiveness to support new industrial development versus Peninsular Malaysia and regional peers. Tariffs could trend higher as more gas-fired capacity comes online, although we expect the bulk of any increase to be borne by incoming industrial users investing in the state. Against this backdrop, solar power has become increasingly attractive. We therefore expect further IPP awards over the coming years as Sarawak works towards its 1.5GW solar target by 2030, with additional capacity likely beyond 2030 to support its renewable-energy ambitions.

Another key takeaway is the state's increasing openness to private capital participation in infrastructure assets—including solar IPPs, water-treatment plants and CPS hydropower projects—to help fund Sarawak's infrastructure buildout over the coming years. We view this as a medium- to long-term opportunity for local firms. Sarawak is also seeking to deepen its semiconductor ecosystem by nurturing higher-value chip-design capabilities, with SMD focusing on renewable-energy and digital-infrastructure applications. KGB offers exposure to buildout expansion. Data-centre investment interest remains strong, although the state is taking a selective approach to major projects, prioritizing investments that deliver meaningful economic spillovers. We will monitor closely developments on SoftBank's USD50b of investments potential into Peninsular and Kuching. Sarawak's power and land advantages provide significant long-term growth potential. We expect hyperscalers may also have to explore investing in subsea cables to strengthen connectivity for data-centre operations. Overall, we see two avenues for exposure to Sarawak's infrastructure buildout: (i) asset ownership, through companies such as IBRACO (N-R), PANSAR (N-R) and SLVEST that could jointly bid with partners for solar IPPs, CPS projects and water-treatment plants; and (ii) EPCC exposure, through HKB (N-R) and KEEMING, as the buildout should generate sizeable contracts across solar EPCC, substations and civil works.

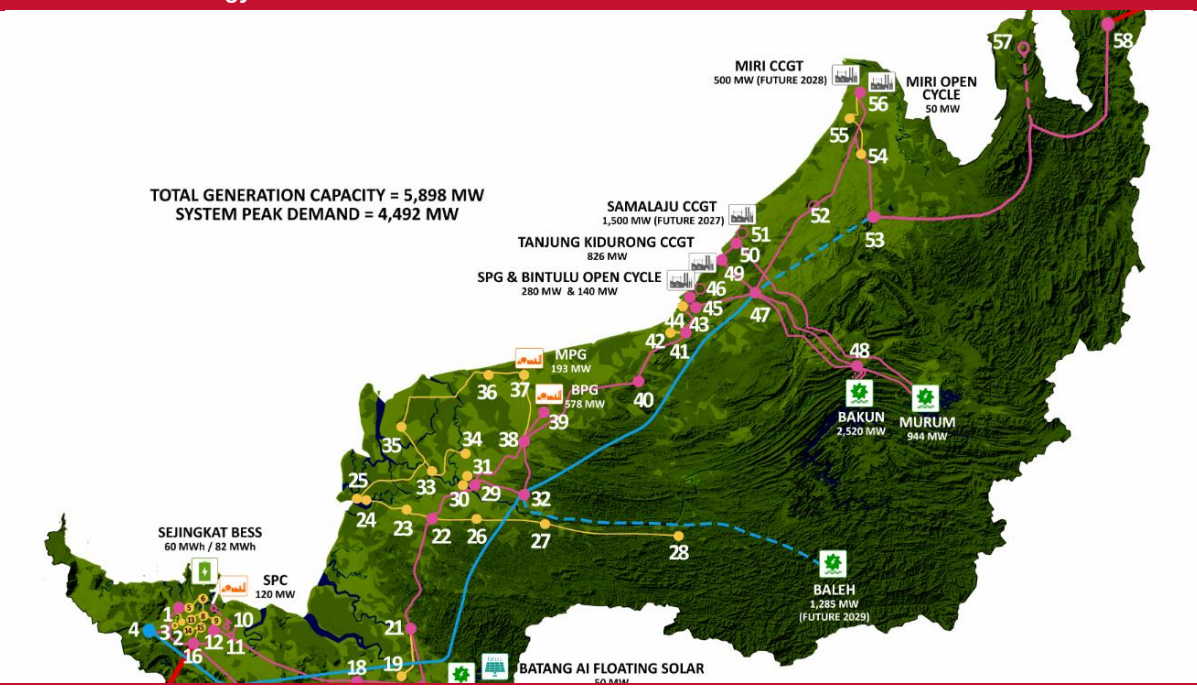
We visited Sarawak in August 2026 covering Miri and Kuching and came away with more insights on the state's latest on the ground key takeaways. For our thematic report, we have subdivided it into a few key themes: -

1) **Comparing Peninsular and Sarawak Energy Market Dynamics**
2) **Inviting Private Capital into Major State Projects**
3) **Private capital drawn also into the semiconductor and DC space**
4) **Sustainability as an Investment Driver**

Comparing Peninsular and Sarawak Energy Market Dynamics

Energy self-sufficient, but more power is needed to grow its industrial base. To recap, Sarawak Energy aims to expand its total generation capacity to 10 GW by 2030 and 15 GW by 2035 with the main buyer being potentially Singapore of which Sembcorp Utilities, in partnership with Sarawak Energy, has received conditional approval to buy and import 1GW of power from Sarawak. This is followed by West Kalimantan, Indonesia, currently purchasing 100MW to 150 MW with projections to expand in the future. Currently, Sarawak's total power generation capacity stands at 5.9GW while peak domestic demand sits at c. 4.6 GW, implying a 28% reserve margin. Hence, given the modest population residing in the state, the current power generation capacity is more than sufficient to meet the demand, but the bulk of the new installed capacity would be utilized for export and growing the local industrial and semiconductor base.

Exhibit 1: Sarawak Energy Generation and Transmission Overview



Source: Sarawak Energy

Baleh Hydropower commencement possible in 2030. Based on news report, the Baleh hydropower dam (1,285MW) will be able to commence operations in 2030,. However, in the meantime, to grow the state's industrial base, it would have to depend on other power sources first between 2026 and 2030.

Multiple gas plant plans together with PETROS. Managed under the Sarawak Gas Roadmap, Sarawak Energy is working with Petroleum Sarawak Berhad (PETROS) on three major gas projects: -

(i) **Miri CCGT power plant (500MW)** – 45% complete (based on The Star Article) as of mid-2026 with commercial operations expected to be achieved by December 2027. This project is mainly owned and operated by PETROS and Sarawak Energy is the key energy offtaker.

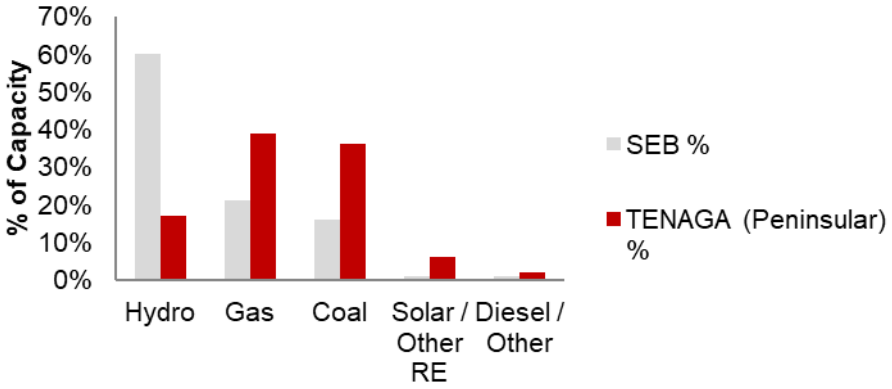
(ii) **Samalaju CCGT Power Plant (up to 1.5GW)** – under construction with commercial operations in stages in 2027 and reaching 1.5 GW by 2029. PETROS is in charge of laying down the major gas pipeline networks (almost completed) and Sarawak Energy is tasked with building and operating the power generated.

(iii) **Kuching Low Carbon Hub CCGT (up to 5GW)** – in the planning and conceptual stage with the aim to anchor southern Sarawak grid.

Gas supply to power up industries.. For the Miri plant, it's mainly in our view to potentially cater for the Northern Sarawak Grid resiliency (Miri, Limbang and Lawas) and a part of it is to strengthen the grid link feeding the 30 MW deal with Sabah Electricity. On the other hand, the Samalaju CCGT plant will largely cater for existing industrial tenants at Samalaju Industrial Park (Press Metal and OM Materials, CMS Phosphate) as well as polysilicon & tech manufacturing such as OCIM. OCI TerraSus new 8,000 MT polysilicon plant (semiconductor grade), JV of Japan's Tokuyama is completing construction in 1Q27 with gradual ramp up in production until 2029. Simultaneously, OCI is also expanding its existing solar-grade manufacturing capacity from 35,000 MT to 56,660MT.

The economics of the upcoming gas plants. By assuming 1.5GW capacity (Samalaju gas plant) and capex of RM4.5m per MW, the breakeven cost for capex and fuel generation is estimated to be at 30.31sen/kwh assuming piped gas cost of RM30/mmbtu (no LNG importation involved just piped gas from Sarawak field). With the current blended tariff of 28sen/kwh for Sarawak Energy, we believe that the plant would be able to still stay profitable even if the tariff for it is priced above 30.31sen as it would not move the group's blended tariff significantly higher. It even retains a competitive tariff edge (for industrial players especially) compared to base tariff in Peninsular Malaysia of 45.4sen on average. Nevertheless, we are cognizant of the fact that this economics hinges on the upcoming plants being able to secure gas at assumed prices. To note, Miri's gas tariff sits at RM7.93/mmbtu but in Bintulu, Petronas sells natural gas at RM32.26/mmbtu hence our gas cost assumption is in our opinion very conservative.

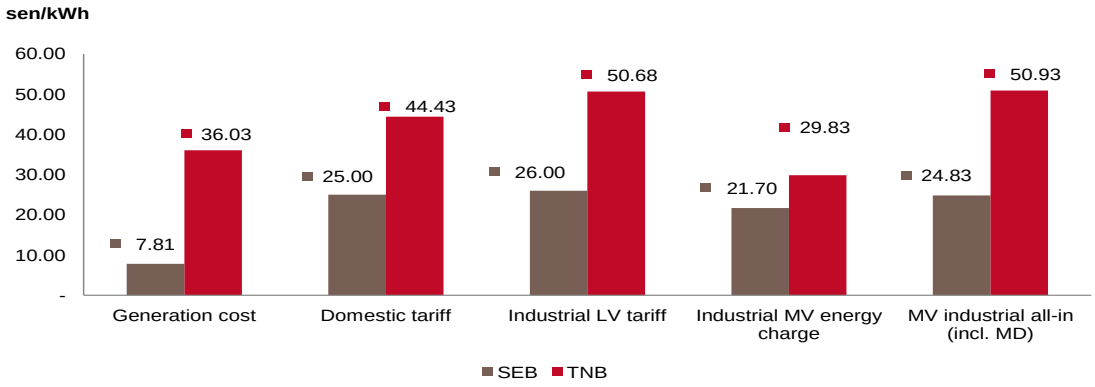
Exhibit 2: Power Generation Mix Comparison



Source: Sarawak Energy, TENAGA

Peninsular gas and coal heavy by default and is transitioning to green; Sarawak's base capacity is already green by default, now using cleaner carbon gas fuel as a bridge to wait for the next hydro. The Sarawak state already has inherent advantage over Peninsular Malaysia for its power generation as the majority of its power generated is already from hydro which is considered a green source at an affordable cost (on a per KWH basis). This contrasts against TENAGA's presently coal-heavy mix in power generation. Equipped with vast land and river resources and access to vast natural gas reserves, we believe that Sarawak structurally possesses a cost advantage over Peninsular Malaysia as the latter will become increasingly reliant on imported LNG for its upcoming gas power plants while its cheaper cost coal plants are slated to be retired eventually, which will logically push overall power generation costs higher in general in the longer run.

Exhibit 3: Sarawak Energy Cost vs TENAGA



Source: Sarawak Energy, TENAGA, multiple sources

Longer-term PPAs as another consideration. Sarawak is not immune to cost pressures stemming from cost of construction for its new hydro power plants as well as more gas plant ups in the near term but still seen to be able to maintain its cost advantage over TENAGA as the latter will also see hike in costs from an already higher base. To note, Sarawak's highest tier domestic tariff is only at 31.5sen/kwh compared to 57.1sen/kwh in Peninsular Malaysia. Thus, Sarawak state has ample headroom to remain competitive for potential foreign investors in data centres, semiconductor or other industrial plants relative to Peninsular Malaysia. That aside, Sarawak also has longer term PPAs (compared to Peninsular's 3-uear RP cycles) spanning 15 to 20 years with escalation mechanisms which could also be an attractive to potential DC consumers.

Sarawak's power advantage to sustain in the foreseeable future. For instance, assuming Baleh hydro power plant costs RM11b capex, at 45% capacity factor the breakeven tariff for the plant would be 13sen/kwh assuming it runs for 25 years. A 1.5GW gas plant, on the other hand, assuming piped gas cost of RM30/mmbtu, would need 28sen/kwh to breakeven assuming 60% capacity factor. Gas plants will still likely be 25% of total generation capacity when Samalaju and Miri plant commences operations hence Sarawak Energy's overall cost of electricity would largely still remain contained. Therefore, Sarawak's electrical generation cost advantage over Peninsular Malaysia can be still maintained into the foreseeable future. We are also cognizant of the fact that the gas aggregator role in Sarawak is still being contested and reviewed on the Federal Court, That aside, its natural gas supply is also self-sufficient at least at the area near Bintulu due to its huge gas reserves. As for the Western Sarawak area (near Kuching), LNG import might be necessary in the near term but if FID is secured for its sour gas field, natural gas self-sufficiency could be achieved. On the other hand, the state also has its own limitations in terms of land ownerships (native land and non-Sarawakian restrictions unless special approval is given) as well as challenges of a small talent pool locally.

Exhibit 4: Comparison Between Sarawak and Peninsular Power Market

Metric	SEB (Sarawak)	TENAGA (Peninsular)
Available / Installed Capacity (current)	**5.9 GW**	**26.3GW**
Peak Demand (most recent record)	**4.6 GW**	**21.0GW**
Reserve Margin (most recent)	**28%**	**25%**
2030 Capacity Target	**10 GW**	**30.5 GW**
2035 Capacity Target	**15 GW**	**32.8 GW**
Population served (approx)	**~2.9m**	**~30m**

Source: Sarawak Energy (some consist of 2024 data), TENAGA, MyEnergyStats, MUTS Sarawak
**TENAGA capacity does not solar capacities (from LSS) and other RE like wind due to their intermittency nature of power generation. We also exclude coal price retirements for 2029 and 2033.*

Exhibit 5: Upcoming Pipelines and Targets

Utility	Project	Capacity/Scale	Status / Timeline
SEB	**Baleh HEP**	1,285 MW hydro	*Under construction; COD targeted 2029-2030*
SEB	**Samalaju CCGT**	1,500 MW gas (3 blocks)	*Phase 1 (1,000MW) under construction; full ops by 2029*
SEB	**Miri CCGT**	500 MW gas	*~30% progress (late 2025); COD targeted Q4 2027*
SEB	**Kidurong-Samalaju Gas Pipeline**	300 mmscfd	*Offshore complete Oct 2025; onshore targeted Q3 2026*
SEB	**Sejingkat BESS**	60 MW / 82 MWh	*Commissioned Dec 2024*
SEB	**Northern Grid Extension (Sabah export)**	30 MW initial	*Started ~Q2 2025, stages to follow*
TENAGA	**RP4 Grid Capex Programme**	RM42.8-42.9bn total (2025-2027)	-
TENAGA	**New gas-based generation capacity**	Paka Repowering and Kapar CCGT	-
TENAGA	**Coal plant retirements**	~6.4 GW to be retired	*Phased retirement by 2033 (per 2021 Generation Development Plan); no new coal to be built*
TENAGA	**Large-Scale Solar (LSS5, LSS6)**	2GW each for LSS6 and LSS5+	*Ongoing rounds; NETR targets 7GW (2030) -> 20GW (2040) solar for Peninsular*
TENAGA	**Corporate Renewable Energy Supply Scheme (CRESS)**	Framework, not fixed MW	*Guidelines introduced Sep 2024; allows direct RE producer-to-corporate tariff negotiation*

Source: Sarawak Energy, TENAGA MyEnergyStats

Solar, a chief beneficiary of Sarawak Energy's green targets. While waiting for Baleh hydropower to come online, Sarawak Energy targets 1.5GW of solar capacity by 2030 (based on the Sarawak 2030 Sustainability Blueprint). With the state targeting 60 to 70% to be derived from renewable sources by 2035 and the target capacity expected to be at 15,000MW, this implies that Sarawak would have 9,000-10,500MW derived from renewables. With 4.8GW from Baleh and c. 2.0GW from CPS from hydro, the potential for solar capacity would be at 2,200MW to 3,700MW by 2035, assuming no new hydro dam announcements. With an EPCC value of RM3.3m per MW for solar (based on ZECON's recent win), the potential EPCC value for solar projects could go up to RM7.3-12.2b in total if Sarawak Energy decides to ramp up its solar up to 2.2-3.7GW by 2035 .

Based on 2.2-3.7GW in total including the announced ones (1.5GW target from Sarawak Energy in 2030) would be at RM7.3-12.1b up to 2030, opening up opportunities for solar EPPC players like **SLVEST** win a greater share of the state's solar market. We acknowledge the fact that solar power economics in Sarawak is different from Peninsular as its base tariff is already quite low (due to its existing low cost of hydropower) which renders solar tariffs needing to be attractive enough to make sense (i.e. cannot be too expensive relative to its existing hydro power cost). Cost notwithstanding, solar acting as a diversification of energy source for the state, is seen as no less important.

Exhibit 6: List of Sarawak solar awards cumulatively

	Developer / Listed parent	Project SPV	Ownership / partners	Location	Capacity (MW)
1	Malakoff Corp	Malakoff Evergreen Sdn Bhd	Tuah Utama (Malakoff) 70% / EE Solar 30%	Sungai Likau, Bintulu	100
2	SLVEST / Press Metal	Mukah Solar Powerplant Sdn Bhd	SLVEST 60% / Press Metal 40%	Mukah	100
3	Leader Energy	Leader Energy (Sarawak) Sdn Bhd	With Pusaka Capital (STIDC unit) & Smartgen Energy	Tanjung Manis	100
4	Zecon	Zecon Renewables (Sarawak) Sdn Bhd	Zecon 100%	Kota Petra Green Technology Park, Kuching	100
5	Ibraco	Equinox Power Sdn Bhd	Ibraco 24.5% (associate)	Similajau, Bintulu	100
6	Reservoir Link Energy	RL Kenyalang Solar Sdn Bhd	Reservoir Link 100% (via RL Power)	Tinjar	200
7	reNIKOLA Holdings (unlisted)	reNIKOLA Gedong Solar Sdn Bhd	JV: reNIKOLA (Sarawak), Punggor Wibawa, Gedong Solar Park Industry	Gedong, Simunjan	250
	Total awarded				**950**

Source: Sarawak Energy, TENAGA, MyEnergyStats

How to gain exposure to solar in Sarawak? HKB (NOT RATED), in which SLVEST owns a strategic stake, will be the main bidder for solar projects in Sarawak. In the event of a job win, we foresee that HKB will be handle to civil work part of the contract and SLVEST will handle to solar and M&E part of the project. That aside, HKB is also targeting substation jobs in Sarawak which could also see ramp up in demand from Sarawak Energy due to plant ups and expansion in Samalaju Industrial Park and Sama Jaya, hence, the group's potential of job wins may ramp up in the coming years.

Sarawak is still at its early stage of energy or grid capex cycle. With multiple power plants and solar already running at full swing and high demand for data centres, TENAGA is already in the midst of its RP4 grid capex programme which is worth RM43b in total. Sarawak, on the other hand, also has a couple of gas plants coming up and a major Baleh hydro power plant coming online. To our knowledge, there is no mention of quantum for grid capex or plant upgrade publicly. According to RAM report, it is indicated that Sarawak Energy is expected to double its capex to RM4.5b per annum in the coming years to meet its power generation targets including the grid investments. Thus, we reckon that the spending of grid might also grow in tandem compared to the past years.

More substations needed up to 2030. Just to fulfil the demand for the announced solar, gas and hydro plants, we believe that Sarawak could require the construction of c. 22-28 substations (including the floating solar projects and Baleh), which could result in the construction value of RM3.3-4.2b based on a conservative substation cost of RM150m up to 2030. This is based on Kenanga's estimation. This does not include the potential for high voltage DC cables for subsea connection to Singapore and Kuching Network Reinforcement project (KNR) (which is to support development in Tanjung Embang area and the Kuching Low Carbon Hub. Our number has also not included the potential cost of power cables needed up until 2030. Hence, this presents opportunities for contractors to bid for more substation works in the coming years.

Replacement capex is also needed for the aging grid. Do note that this is just a conservative estimation and it does not include maintenance of the grid as well as the rejuvenation of the ageing existing grid. Assuming that Sarawak Energy's total PPE value stands at c. RM35b as of FY25, the capex expected to be spent in replacing its grid gradually would be at RM80-260m per annum at 1.5-3.0% per year of total asset base based on TENAGA's experience. Therefore, we believe that M&E spending will ramp up in the coming years relatively to its historical levels, which could benefit local contractors (through JV with technology provider or partner) as well as qualified M&E players (KEEMING) which could benefit through its connection with HKB.

Inviting Private Capital into Major State Projects

More private capital to participate into more development projects. During the visit, we have noticed that the Sarawak state government is looking to increase the private capital participation in the state development projects including water treatment plants and cascading water dam proposals. That aside, the government is also encouraging some of the state-owned entities like PETROS and SEDC to be eventually self-sufficient in terms of fund raising (meaning no more capital injection needed from the state directly) albeit there is no mandatory deadline for these government-linked entities to be financially self-sufficient. Sarawak is in the process of formulating a more structured and strategic framework though the Sarawak Public-Private Partnership (PPP) Masterplan 2026-2035. Hence, we believe that there is a balance to be maintained when dealing with different project types or economic initiatives in the state.

Cascading dams: the growth anchor in hydro after Baleh. Sarawak Energy has announced the request for proposal on 17th January 2026 with a closing stage for the request for proposal (RFP) on 31st August 2026. This is targeting five priority river basins located across central and northern regions near the Kalimantan border.

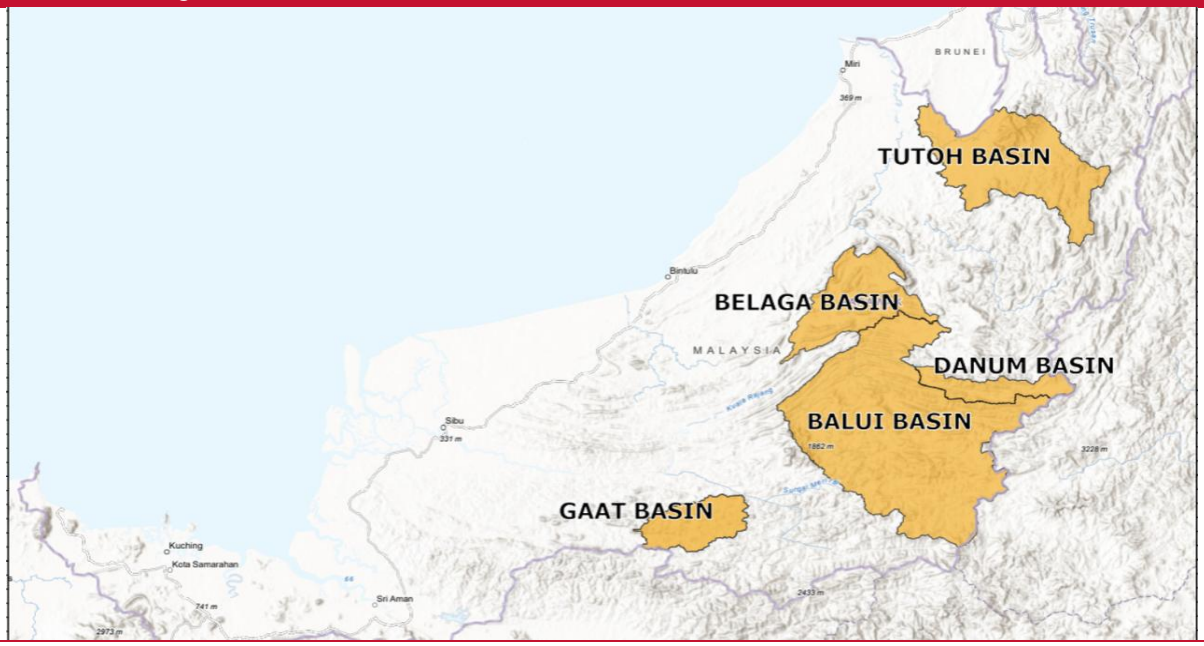
Exhibit 7: Designated River Basins

No	Basin	Potential Capacity (MW)	Potential Site(s)
1	Balui CPS	700-800	10-13
2	Belaga CPS	300-400	2-3
3	Danum CPS	200-300	3-4
4	Gaat CPS	50-70	3-5
5	Tutoh CPS	300-400	3-4

Source: The Edge (link)

The construction of these dams could start in 2H27 earliest. According to the Sarawak Energy's website, the shortlisted candidate will be required to execute a joint development agreement with Sarawak Energy and structure a pre-investment framework (after signing joint study agreement and power purchase agreement (PPA). The PPA will be undertaken by Syarikat Sesco Bhd (a subsidiary under Sarawak Energy). While the joint development agreement does not constitute a formal joint venture between Sarawak Energy and the shortlisted participant, it generally provides a binding framework to guide the two parties towards a final investment decision of the selected project. Hence, assuming that this will happen after the closing stage of RFP (31st August 2026), the earliest for an FID for any of the five designated basins will be achieved realistically in 2027 in our view, which sets the stage for EPCC players to start their work in 2H27 or 2028. Therefore, it will also only contribute to the baseload of Sarawak's power generation in 2034-35 onwards. The five basins are dubbed the Cascading Power Sources (CPS).

Exhibit 8: Cascading Power Sources Generation



Source: Sarawak Energy

CPS Hydro potential construction value.. There is no official figure on the potential capex or CPS, referencing Vietnam CPS, we expect the capex per MW for the CPS projects would land at RM8.6/mw, and thus we estimate that the total construction cost of the 5 dams could be up to RM16.7b. On per MW basis its capex roughly compares to the Baleh dam hence the payback period could similar. However, aside from economics, we believe that CPS is also being favoured by the state as it is expected to cause lesser ecological impact to the state compared to a large-scale hydro dam, which allows more the projects to be expedited quicker.

Still early days to play the exposure to CPS capex boom. That aside, we are also still early on the CPS with feasibility study started on March 2026 with FID and construction starting in 1Q28. Therefore, full operations of the CPS projects would only start coming in 2034-2035. So for investors, it is still early days to get a play on this even from the construction perspective. However, we think that the EPCC contract flows could only come much later in 2028.

Solar IPP boom: parallel to the early days of LSS. Like TENAGA, Sarawak Energy is employing an independent power producer (IPP) model for its solar generation capacity deployment where each developer signs a long-term power purchase agreement (PPA) with Sarawak Energy's subsidiary (Syarikat Sesco Berhad) under a design, build, own, operate and maintain model. One of the key structural features is 30-year tenure, which is longer than Peninsular Malaysia's average tenure (21 years on average), and this potentially favourable for IPPs as the tenure is long enough to earn a return on capex while possibly allowing for competitive tariff rates. This reminds us of the early days of LSS in TENAGA in Peninsular Malaysia where solar power was still in the early days of ramping up.

IPP terms could be more attractive compared to Peninsular. The negotiations in Sarawak with Sarawak Energy for IPP are mostly through direct negotiation instead of a formal bidding process managed by the Energy Commission in Peninsular Malaysia. Hence, we believe that this would attract some Peninsular solar players to bid for a slice of the 1.5GW solar to be awarded by Sarawak Energy either as EPCC contractor or IPP. Nevertheless, we believe that they have to JV with Sarawakian players hence for a pure Sarawakian exposure in solar it would be **IBRACO, PANSAR and HKB** as they possess contractor technical expertise and are on strong momentum of job wins in the past two years to execute on the civil part of the solar jobs while the MEP part could be executed by their potential JV partners with the right expertise.

Solar total addressable market – another 550MW to be awarded until 2030. In the period of 2026-2030, we believe that the award of solar IPPs will ramp up as private capital would be incentivized to bid in Sarawak solar due to its favourable IPP structure or terms and solar capacity ramp will accelerate relative to the past years (950MW being deployed or under development in total for Sarawak to date). This implies that the state has 550MW of solar capacity to be awarded to the private sector and is likely to be expedited in the next 1 or 2 years to hit the solar 1.5GW deployment target in 2030.

Private capital in infra-assets will be a net good to Sarawak economy. Overall, Sarawak is seeking to mobilize more private capital for its power-sector buildout and selected water-treatment projects, marking a shift from its previous reliance on state and federal funding. The government is supporting this transition by offering incentives designed to make private-sector participation commercially viable. In our view, this represents a win-win outcome for both the state and participating companies. Private-sector ownership could improve operating discipline and asset efficiency by imposing return-on-capital requirements, while broader private participation should reduce the state government's long-term financial burden associated with funding and maintaining infrastructure assets.

Private capital drawn also into the semiconductor and DC space

A long-house approach in moving up the supply chain. Dubbed Silicon Longhouse to encapsulate its semiconductor vision, Sarawak's approach seeks to bring together the government, industry, academia and partners globally under the same roof, or more simply put to establish a holistic ecosystem, with a green energy advantage. We understand that Sarawak's intention is not being in competition with existing hubs like Penang, where an OSAT ecosystem and industry has mushroomed. Rather, Sarawak sees that it can train its focus more towards higher value chain areas such as IC design. Companies within the 4.1 hectares Sama Jaya tech park are already expanding. Sarawak is home to X-Fab Sarawak Sdn Bhd, a subsidiary of X-FAB Silicon Foundries SE (and in which Sarawak government owns a partial stake), which is expanding to set up new clean room space with an investment sum of RM3b. Belgium's Melexis, which counts X-Fab as a key supplier, naturally set up its largest wafer testing site in Kuching. Meanwhile, having been 30 years in Sarawak, Western Digital said July this year embarking on a RM1.8b expansion based on glass substrate technology, its second location in the world. Using glass as foundational material which will enable hard-disk produced to record data at a higher density is evidence of Sarawak's eco system moving up the value chain. Proxies for expansion include **KGB**, which is also bidding for general contracting job from a multinational company.

IPO ambitions for SMD at a later stage. Sarawak Microelectronics Design (SMD), which started in 2023 and is wholly owned by Sarawak government incorporated via Sarawak Research and Development Council, has targeted 2027 for integration of Sarawak-designed chips (news). SMD has its focus of target applications particularly in renewable energy and digital infrastructure, and has recently entered into an agreement with Linyang Energy Group, a global provider of battery energy storage and smart meter systems. This is seen as part of securing and growing long-term commercial partnerships with anchor clients, before accelerating growth in its next phase of plan. The roadmap charted for SMD has also identified setup of new advanced AI Chip Integration Centre and 2.5D/3D packaging facility by 2028. The full commercialization phase and IPO ambitions are slated for later from 2030 (link).

Comprehensive planning is key if data centres were to scale up, and additional opportunities would be a bonus in our view. Demand to set up data centres from hyperscalers to take advantage of the available resources, such as available land, water and green energy, remain strong, from our channel checks. For example, Sarawak's starting electricity tariff for data centres are 40 sen/KwH. We observe that this value is lower than the prices paid by Peninsular Malaysia data centre operators but exceeds the 31 sen/KwH paid by non-data centre users in the state. Even so, we estimate that Sarawak will continue to take a selective approach, predicated on whether the investments generate sufficient spillover effect. Thus, Kenanga views additional potential EPCC opportunities in this space to be a bonus for now.

Softbank, Grab and Petros ink pact. SoftBank Group has chosen Malaysia for USD50b for technology investments, where the tech investor had picked regions in ASEAN for projects including data centres (link). Kuching, Sarawak and Peninsular Malaysia had been chosen. In October, Softbank had entered into a framework agreement to develop artificial intelligence and digital infrastructure platform in Sarawak. Under this agreement, the three parties will work towards developing a road map for a phased development of the platform. More specifically, Petros will provide the energy and support infrastructure via the Sarawak Gas Roadmap and master developer of the Kuching Low Carbon Hub, whereas Grab will contribute its Southeast Asian digital platforms. However, there is no known timeline yet on these potential investments.

Building up infrastructure. There remains ambition for private firms to venture more aggressively into this area. The Kotra Petra Green Technology Park (KPTGP) is one such example of green park set up in mind to woo data centres among other sectors. The KPGTP has been designated as an economic zone where full foreign ownership of land is permitted, and green tax incentives are made available. The land owner is ZECON (N-R), who is also master planner, with the Tech Park co-developed with Sarawak Digital Economy Corporation (SDEC) and others over 20 years.

Connectivity would be a key consideration. For now, we anticipate that hyperscalers may also have to consider investments into subsea cables, which given their larger appetite, could provide the commercial justification. This we will have to wait and see. For now, Sarawak is connected to the 700 KM Batam-Sarawak Internet Cable System, which connects to Singapore (via Batam, Indonesia). At present, **TM** is also known to be evaluating options for the SALAM submarine cable project, which will strengthen connectivity between Peninsula Malaysia and Sarawak, after the Malaysian Communications and Multimedia Commission invited telecommunications licensees to submit their draft proposals recently.

Sustainability as an Investment Driver

Beyond the capex mechanics and structural growth drivers addressed across the preceding themes, sustainability-related factors can affect the investment case through three principal channels: **financial and operating resilience, physical climate exposure, and transition and governance risk.**

Macro & Policy Landscape

Sarawak's hydro-led generation mix provides a **relative decarbonization advantage** versus more thermal-intensive power systems, potentially reducing exposure to thermal replacement and decarbonization costs as the electricity system evolves. However, this advantage does not eliminate transition capex: continued investment in transmission, system flexibility, gas balancing capacity and new renewable generation remains necessary as electricity demand expands.

Sarawak's policy stack, including the **Sarawak Energy Transition Policy (SET-P), Post COVID-19 Development Strategy 2030 (PCDS 2030) and Sarawak Sustainability Blueprint 2030**, provides greater visibility on the direction of the state's energy transition and sustainability agenda. This may reduce policy uncertainty for investors, although financing costs ultimately depend on project bankability, regulatory implementation, offtake structures and the terms of any sustainability-linked financing.

From an **IFRS S1/S2 financial-materiality perspective**, the relevant question is therefore not simply whether a company has a strong sustainability profile, but whether policy, physical climate and transition dynamics are reasonably expected to affect its **cash flows, access to finance or cost of capital**.

Financial Transmission: Beyond Capex Sizing

Our thematic pillars size the **grid capex cycle, renewable generation pipeline and industrial demand growth**. The incremental sustainability angle lies in how these investments affect **operating resilience, project development risk, industrial competitiveness and access to finance**.

Grid Modernisation. Renewable evacuation, grid reinforcement and system-resilience capex may strengthen the sustainability rationale of infrastructure investment and improve eligibility for green or sustainability-linked financing. However, any reduction in financing costs remains dependent on the achievement of defined sustainability KPIs, lender frameworks and underlying credit quality.

Cascading Hydropower / Power Sources. Sarawak's emerging Cascading Power Sources (CPS) model offers a **potentially lower-impact pathway for expanding hydro generation relative to conventional large-reservoir projects**. By developing a series of smaller generation facilities along a river system and reusing water flows downstream, CPS can reduce the need for extensive reservoir inundation and associated land acquisition while making greater use of existing river gradients. This may reduce certain environmental and social impacts associated with large-scale reservoirs and improve the sustainability profile of incremental hydro capacity.

However, CPS should not be treated as impact-free. The cumulative effects of multiple installations on **river flows, sediment transport, aquatic biodiversity and communities** remain material and should be assessed at a basin level. For investors, the sustainability advantage therefore depends on project design, cumulative-impact assessment and adherence to recognized hydropower sustainability standards.

Where CPS projects can be delivered with lower land acquisition, resettlement and civil-infrastructure requirements, the model **could also improve development risk and project bankability relative to larger reservoir-based projects**, although this remains project-specific.

Floating Solar on Hydro Reservoirs. Floating solar can reduce certain terrestrial land-use and land-acquisition constraints by utilizing existing water surfaces. However, aquatic ecosystem impacts, reservoir-use conflicts, permitting and grid-connection requirements remain relevant considerations.

Green Industrial / Data Centre Demand. Sarawak's low-carbon hydro resource can strengthen its proposition to electricity-intensive manufacturers and data centres seeking to reduce market-based Scope 2 emissions. Credible contractual arrangements and renewable-energy attribute mechanisms such as RECs/EACs may enhance tenant attraction, capacity utilization and longer-term electricity demand growth.

Sustainability-Related Risks

Biodiversity & Land Use. Large hydro and other infrastructure projects can create financial exposure through permitting requirements, biodiversity mitigation, Indigenous Peoples and community engagement, resettlement, construction delays and reputational risk. TNFD and biodiversity disclosure frameworks provide useful lenses for identifying nature-related dependencies and impacts, while Hydropower Sustainability Standard alignment can serve as a useful project-level due-diligence indicator.

Hydrological / Physical Climate Risk. Hydropower economics remain exposed to both prolonged dry spells and extreme rainfall, with implications for catchment yields, sedimentation, generation availability and asset resilience. As hydrological variability increases, the value of **dispatchable and flexible capacity** increases as a hedge against generation volatility. Potential solutions include gas balancing capacity, storage, pumped storage, flexible generation and stronger interconnection.

Cross-Border Power & Industrial Carbon Exposure. Planned interconnections with neighbouring markets increase the importance of renewable-attribute tracking, contractual traceability and emissions accounting. EU CBAM does not directly apply to electricity exported to Singapore, Sabah or West Kalimantan, but may indirectly affect Sarawak through its export-oriented industrial base, particularly electricity-intensive products such as aluminium and iron/steel. Key investor variables therefore include power-source traceability, emissions intensity, REC/EAC integrity and the carbon exposure of electricity-intensive customers.

Investor Materiality by Theme

Theme	Material ESG Issue	Financial Transmission	Investor Lens
O&G / Gas	Methane, Scope 1 emissions, transition exposure	Carbon costs, methane-abatement capex, transition capex, long-term gas demand	CCUS, methane management, transition capex
Power / IPP	Hydrological variability, generation mix	Capacity factor, dispatch, balancing capex, earnings volatility	Hydro resilience, **CPS development**, generation diversification, storage/flexibility
MEP / M&E	Project execution, safety, supply chain	Orderbook conversion, margins, working capital	Renewable/grid orderbook quality
Solar EPCC / IPP	Supply chain, land/water, recycling	Project cost, PPA returns, financing eligibility	Module provenance, PPA quality, lifecycle management
Hydro / Civil EPCC	Biodiversity, Indigenous Peoples, resettlement	Delays, cost overruns, provisions, reputational risk	HSS/ESIA, resettlement, stakeholder governance
Industrial / Data Centres	Scope 2, water, physical climate risk	Tenant attraction, operating costs, utilisation	Renewable-power access, REC integrity, resilience

Collectively, these sustainability dynamics **reinforce the structural investment case for Sarawak-exposed power, grid and engineering subsectors**, but the opportunity is not uniformly positive.

The upside comes from the combination of **renewable-energy and grid investment, electricity-intensive industrial growth and the potential competitiveness of low-carbon power**. At the same time, investors should monitor hydrological variability, biodiversity and Indigenous Peoples considerations, project execution, supply-chain resilience and the integrity of renewable-energy attribute tracking.

The key valuation question is not whether Sarawak power is "green", but whether its low-carbon advantage can translate into durable demand growth and higher-quality cash flows without proportionate physical, nature or execution risks.

Conclusion: Sarawak's Infrastructure Opportunity Is Large, but Timing Matters

Power buildout thesis remains the main focus. Overall, we still see a lot of opportunities in the Sarawak state especially in the power infrastructure sector with Sarawak Energy trying to use the IPP structure (just like TENAGA in the late 1980s) to develop its green energy power generation capacity to hit its 10GW and 15GW capacity target by 2030 and 2035. That aside, another state entity, PETROS, is also investing in the state's power generation capacity albeit with focus towards gas-fired power plants due to its role in securing natural gas feedstock from Petronas. We believe that the main thesis to invest in Sarawak remains its advantageous cost structure (hydro) and high green power mix due to its geography advantage over Peninsular Malaysia and that would continue to attract investments from companies globally to build their industrial base in the state due to this advantage. At this juncture, the state remains selective on accepting investments from abroad with a focus on industries or businesses that will add more value to the local economy.

Asset ownership is the play in the coming years. With Sarawak Energy trying to ramp up its hydro and solar capacity though cascading power sources and solar IPPs, we believe that the play in the state's energy sector would be asset ownership play as local players with balance sheet and strong JV partners would be preferred in the race to bid for the upcoming IPPs which providers long term recurring earnings. Hence, we believe players with track record in major construction works could potentially be in strong positions to win the upcoming IPPs like IBRACO albeit we have no confirmation the company that states that it is actively participating in the bids

EPCC play- solar and M&E. Aside from the asset ownership side play for the power build up story in Sarawak, we believe that the EPCC play is still intact (with a potential for Sarawak Energy to go beyond 1.5sGW by 2035 given its 15GW target) for a proxy to the capex from Sarawak Energy and eventually solar IPPs and CPS project owners. For the solar part of the market, **SLVEST** remains as a good proxy due to its scale as well as its ownership of stake in **HKB**, which has construction track record in Sarawak. On the grid upgrade capex side, we believe that **KEEMING** could be the beneficiary as **HKB** could also rope them in as its M&E partner to bid for substation works.

Big potential, but job flow timing uncertain. Overall, Sarawak continues to offer substantial long-term opportunities across asset ownership—including solar IPPs, CPS projects and water-treatment plants—potentially extending to 2035. However, the award cycle could be prolonged, as about two-thirds of the state's targeted solar capacity has already been awarded (950MW versus the 1,500MW target). Beyond 2030, the potential for additional solar capacity could be considerably larger. Substation opportunities could also be sizeable if major projects, including CPS and the Baleh dam, proceed and the remaining solar capacity is awarded. Further industrial development in Kuching or Samalaju would create additional demand for substations to connect new sites to the existing grid.

Peer Table Comparison

Name	Rating	Last Price (RM)	Target Price (RM)	Upside	Market Cap (RM m)	Shariah Compliant	Current FYE	Core EPS (sen)		Core EPS Growth		PER (x) - Core Earnings		PBV (x)	ROE	Net. Div. (sen)	Net Div Yld
								1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.
Stocks Under Coverage																	
BUMI ARMADA BHD	MP	0.340	0.350	2.9%	2,015.5	Y	12/2026	3.5	3.6	-35.4%	1.4%	9.6	9.5	0.4	4.7%	2.0	5.9%
DAYANG ENTERPRISE HLDGS BHD	OP	1.34	2.35	75.4%	1,551.4	Y	12/2026	9.9	18.1	-33.5%	82.1%	13.5	7.4	0.8	6.1%	9.0	6.7%
DIALOG GROUP BHD	OP	2.07	2.63	27.1%	11,681.4	Y	06/2027	10.4	11.8	31.4%	12.8%	19.9	17.6	1.9	9.9%	5.0	2.4%
LIANSON FLEET GROUP BHG	MP	1.51	1.54	2.0%	1,714.5	Y	12/2026	11.3	19.1	33.3%	68.2%	13.3	7.9	1.0	7.5%	4.0	2.6%
KEYFIELD INTERNATIONAL	OP	1.39	1.88	35.3%	1,123.6	Y	12/2026	8.6	17.1	-37.0%	97.9%	16.1	8.1	1.4	9.0%	5.0	3.6%
MISC BHD	OP	8.35	9.20	10.2%	37,272.3	Y	12/2026	59.4	57.0	25.1%	-4.1%	14.1	14.7	1.1	7.7%	41.0	4.9%
PETRONAS CHEMICALS GROUP	MP	4.66	4.24	-9.0%	37,280.0	Y	12/2026	29.5	13.2	275.0%	-55.4%	15.8	35.4	1.0	6.5%	15.0	3.2%
PETRONAS DAGANGAN BHD	OP	19.28	21.60	12.0%	19,153.8	Y	12/2026	123.5	123.1	11.6%	-0.3%	15.6	15.7	3.1	20.1%	99.0	5.1%
UZMA BHD	OP	0.335	0.700	109.0%	203.5	Y	06/2027	14.8	15.9	6.9%	7.5%	2.3	2.1	0.2	8.5%	0.0	0.0%
VELESTO ENERGY BHD	OP	0.180	0.320	77.8%	1,487.7	Y	12/2026	1.7	2.1	-18.7%	19.3%	10.4	8.8	0.6	6.0%	3.0	16.7%
WASCO BHD	OP	0.695	1.02	46.8%	538.1	Y	12/2026	1.0	1.3	-52.2%	24.3%	66.6	53.6	4.2	6.5%	7.0	10.1%
YINSON HOLDINGS BHD	OP	2.22	2.76	24.3%	6,487.7	N	01/2027	20.9	22.3	17.1%	6.6%	10.6	10.0	1.3	12.7%	6.0	2.7%
SECTOR AGGREGATE					**120,509.4**					**75.2%**	**-12.6%**	**14.5**	**16.6**	**1.4**	**8.8%**		**5.3%**

Source: Kenanga Research

Peer Table Comparison (Utilities & MEP)

Name	Rating	Last Price (RM)	Target Price (RM)	Upside	Market Cap (RM m)	Shariah Compliant	Current FYE	Core EPS (sen)		Core EPS Growth		PER (x) - Core Earnings		PBV (x)	ROE	Net. Div. (sen)	Net Div Yld
								1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.
Stocks Under Coverage																	
CHEEDING HOLDINGS BHD	OP	0.560	0.780	39.3%	446.5	Y	03/2027	5.0	5.3	0.0%	5.0%	11.2	10.6	2.5	25.5%	1.0	1.8%
GAS MALAYSIA BHD	MP	5.30	4.90	-7.5%	6,805.2	Y	12/2026	29.3	30.9	-2.4%	5.6%	18.1	17.1	4.2	23.6%	23.4	4.4%
KEEMING GROUP BHD	OP	2.80	2.84	1.4%	910.0	Y	03/2027	9.8	12.9	39.1%	31.3%	28.4	21.7	8.3	37.6%	0.0	0.0%
KAWAN RENERGY BHD	OP	0.330	0.380	15.2%	181.5	Y	10/2026	2.2	4.3	-45.7%	94.2%	15.0	7.7	1.4	10.1%	0.6	1.8%
KJTS GROUP BHD	OP	0.970	1.60	64.9%	670.0	Y	12/2026	4.3	5.6	65.4%	29.6%	22.6	17.4	2.6	14.3%	0.0	0.0%
MALAKOFF CORP BHD	OP	0.815	0.990	21.5%	3,982.9	Y	12/2026	2.9	4.8	28.8%	63.1%	27.9	17.1	0.9	3.4%	2.3	2.9%
PEKAT GROUP BHD	OP	2.87	2.10	-26.8%	2,038.4	Y	12/2026	9.0	11.3	28.9%	25.9%	31.9	25.4	4.9	19.2%	1.3	0.5%
PETRONAS GAS BHD	MP	17.30	18.80	8.7%	34,232.1	Y	12/2026	95.9	97.2	12.1%	1.4%	18.0	17.8	2.3	13.1%	72.0	4.2%
SAMAIDEN GROUP BHD	OP	2.98	3.20	7.4%	1,671.1	Y	06/2027	9.8	12.0	41.0%	22.9%	30.4	24.7	4.8	17.4%	3.0	1.0%
SLVEST HOLDINGS BHD	OP	4.10	3.76	-8.3%	4,017.6	Y	03/2027	15.5	19.2	45.1%	23.5%	26.4	21.4	8.0	34.1%	0.0	0.0%
SWIFT ENERGY TECHNOLOGY BHD	OP	0.240	0.470	95.8%	240.2	Y	09/2026	1.3	2.0	-29.3%	53.8%	18.5	12.0	3.0	19.1%	0.0	0.0%
TENAGA NASIONAL BHD	OP	13.16	16.30	23.9%	76,711.5	Y	12/2026	83.6	88.1	0.5%	5.3%	15.7	14.9	1.4	9.1%	49.7	3.8%
YTL POWER INTERNATIONAL BHD	OP	5.15	6.40	24.3%	45,255.0	N	06/2027	25.1	28.8	4.1%	14.8%	20.5	17.9	1.9	9.6%	8.0	1.6%
SECTOR AGGREGATE					**177,161.8**					**4.4%**	**8.3%**	**18.2**	**16.8**	**3.6**	**18.2%**		**1.7%**

Source: Kenanga Research

Stock Ratings are defined as follows:

Stock Recommendations

OUTPERFORM	: A particular stock's Expected Total Return is MORE than 10%
MARKET PERFORM	: A particular stock's Expected Total Return is WITHIN the range of -5% to 10%
UNDERPERFORM	: A particular stock's Expected Total Return is LESS than -5%

Sector Recommendations***

OVERWEIGHT	: A particular sector's Expected Total Return is MORE than 10%
NEUTRAL	: A particular sector's Expected Total Return is WITHIN the range of -5% to 10%
UNDERWEIGHT	: A particular sector's Expected Total Return is LESS than -5%

******Sector recommendations are defined based on market capitalisation weighted average expected total return for stocks under our coverage.***

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