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Modernising waste management: Alam Flora strengthens sustainability agenda



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Alam Flora is modernising its operations with a strong focus on sustainability, technology, and public engagement

by FAREZZA HANUM RASHID

ALAM Flora Sdn Bhd is intensifying efforts to embed sustainability across its operations, while ramping up public awareness on recycling to improve household participation in waste separation.

As part of its modernisation strategy, the company is moving towards a greener operating environment by incorporating more electric vehicles (EVs) into its fleet. This follows a fleet replacement exercise last year that introduced enhanced technologies, including mobile device video recording equipped with artificial intelligence (AI) features.

Alam Flora chief executive officer Shariman Yusuf Mohamed Zain said the company is currently undertaking proof-of-concept (PoC) trials for EV compactors and road sweepers.

"Upon success (of the PoC) then we will embark on the next phase of fleet replacement. The subsequent phases are expected to progressively introduce more EV units and advanced monitoring technologies across high-density service routes," he said.

Shariman noted that the next phase of EV deployment will include multimedia display features, which could be used to promote recycling awareness.

"This could also be a new source of revenue if we can use it for advertising," he added.

The EV units are expected to arrive by the second half of this year.

Beyond fleet upgrades, Shariman said the company's modernisation efforts would support workforce transformation, including reskilling initiatives and attracting younger, tech-savvy local talent.

"We may be able to attract the right and young talent, more locals, when we do more modernisation in our operations."

To support this transition, Alam Flora is exploring structured upskilling programmes to equip workers with technical competencies required for operating sophisticated machinery," he said.

Shariman also highlighted that waste separation at the household level remains a critical issue, with progress falling short of expectations needed to improve national recycling efficiency.

While Alam Flora manages post-collection recycling through its material recovery and integrated recycling facilities, he stressed that households must play a more active role at the pre-collection stage.

"We should take the responsibility ourselves and do more. Some of these things are easy, like separating plastic



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bottles, papers or cans. "If you do a lot more of that, then you will be helping in separation at source, as well as reducing waste and recycling. The government is looking to facilitate these habits by introducing a second bin," he said.

To support recycling efforts, Alam Flora has developed the Recyclink app, now in its second version, which provides users with information on recycling practices, locations of buyback centres and drive-through recycling facilities, as well as a recycling calculator. The updated version also integrates an e-wallet feature.

"In the 3.0 version, we are going to introduce a bit of Grab-like services. If you have bulky waste, you can schedule a pickup."

"That one is being piloted in several areas. We are working out its feasibility before we roll it out to more areas," Shariman said.

The company has also established the Fasiliti Inovasi Kitar Semula (FIKS), a one-stop centre aimed at educating the public on recycling processes and waste management. The facility itself incorporates recycled materials such as wooden pallets and shipping containers, reflecting the 3R (reduce, reuse, recycle) concept.

In parallel with operational upgrades, Alam Flora is expanding its footprint in waste management through investments in a waste-to-energy (WTE) facility and the scheduled waste segment via its subsidiary, Alam Flora Environmental



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Solutions Sdn Bhd (AFES). The WTE project is being developed through Sungai Udang WTE Sdn Bhd, a special-purpose joint venture (JV) in which Malakoff Corp Bhd holds a 60% stake, while AFES owns the remaining 40%.

The facility is designed to process up to 1,056 tonnes of municipal solid waste per day and generate about 22 megawatts (MW) of gross renewable energy under a power purchase agreement with Tenaga Nasional Bhd (TNB).

The project forms part of Malakoff's broader target to manage 10,000 tonnes of waste daily by 2031 through integrated and sustainable strategies.

On the scheduled waste segment, Shariman said the company is targeting industrial, electronic and other hazardous waste streams.

"We are investing in a plant in Terengganu and we plan to have that on board by the end of next year. That will be our first major foray into processing hazardous waste," he said.

Alam Flora has also invested in a facility in Kemaman with a processing capacity of slightly under 50 tonnes per day.

On expansion plans, Shariman said the company will prioritise strengthening its domestic footprint before venturing further abroad.

He noted that more states including

Selangor, Penang and Labuan are expected to come under Act 672 of the Solid Waste and Public Cleansing Management Act 2007, which mandates centralised waste management with standardised services provided by concessionaires such as Alam Flora.

"We have 30 years of experience, so we definitely want to offer our expertise. In fact, for Selangor, we were the ones originally doing it until 2011."

"As these states want to embark on Act 672, we also want to find a way to participate and share our experience," he added.

While regional expansion remains on the cards, Shariman said the company is taking an opportunistic approach.

"Several companies in other countries have reached out to Alam Flora because we are a market leader. Regional expansion is in the plans, but we will prioritise our domestic market first."

"We are looking at it opportunistically. Some markets, like Singapore, are more mature, so we may have less to offer. But for the rest of the region in South-East Asia, I think there is play for us," he added.

With its experience in large-scale waste management, recycling innovation and WTE development, Alam Flora is positioning itself to tap into growing regional demand for modern and sustainable waste infrastructure.



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