

Artist impression of multi-fuel refuelling station.



Artist impression of multi-fuel refuelling station retail shop.

Path to zero-emission

Sarawak's drive for a carbon-free future



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• Robert Hardin

BY RITA JONG

IT IS Sarawak's vision for the public commercial transportation systems in the State to be zero-emission or carbon-free.

SEDC Energy's chief executive officer (CEO), Robert Hardin, said the development of six hydrogen refueling stations in major towns had already kickstarted the Hydrogen Economy for Sarawak.

SEDC Energy is a wholly-owned subsidiary of Sarawak Economic Development Corporation.

"The construction of the first station is already underway. Along the course of construction of the first station, reviews will be conducted for continuous improvement before works on the remaining five stations commence," said Hardin.

This is an effort to boost the usage of clean fuel for hydrogen-powered vehicles in efforts to green the transportation sector.

However, to truly achieve zero-emission, there must be a network of stations established to ensure a convenient and seamless travel throughout Sarawak, including the last mile transport system.

The expansion plan, Hardin said, was an ongoing exercise aligned with the transport masterplan and new growth areas in Sarawak.

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"Moving forward, when there are more hydrogen fuel cell vehicles on the road, we will cover more areas and build more stations to ensure accessibility and convenience for all commuters," he said.



Hydrogen is very safe when it is being used and stored with the right equipment designed for it. As such we commit to ensure all equipment used are correct and uphold the correct level of maintenance standards. Nevertheless, we need to educate and create awareness in society on the need for cleaner and renewable energy for a sustainable future. This can be done through schools, universities and public engagements via social media."

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Last year, Sarawak launched Southeast Asia's first integrated hydrogen production plant and refuelling station in Kuching. The station was built to compliment Sarawak's first hydrogen fuel cell electric buses under the ownership management of SEDC.

Hardin also acknowledged there had been some challenges, particularly the cost and perception about the safety of hydrogen.

"The cost of equipment is currently relatively high. However, with the abundance of hydropower and water source in Sarawak, the overall cost of producing the carbon-free green hydrogen is on par or lower than countries who are in the race to establish a hydrogen economy.

"As the usage of hydrogen becomes more mainstream globally, the cost of such equipment will eventually decrease, and by then, we will already be among the leaders of the hydrogen economy," he said.

But, just how safe is hydrogen fuel?

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"Nevertheless, we need to educate and create awareness in society on the need for cleaner and renewable energy for a sustainable future. This can be done through schools, universities and public engagements via social media," Hardin explained.

It was vital, he said, to prepare society to gear towards the hydrogen economy with the aim to leave behind a less-polluted environment for our future generations.

Sarawak has various advantages in producing green hydrogen. The low cost of hydropower as well as the abundant supply of water, high-skilled manpower and the geographical location of Sarawak being near to developed countries who are aggressively pursuing carbon free energy use and thus will need a steady supply of green hydrogen, all contributes to a bright prospect for green hydrogen to be commercialised in Sarawak.

These attributes give Sarawak the edge and spurred the decision to quickly kickstart the hydrogen economy to be among the first movers in the region.

Hardin added commercialisation and exportation are in the pipeline.

"We are in the midst of a techno-commercial study for the development of a commercial hydrogen plant specifically for the export market. We are not alone in developing this but in partnership with partners from countries to whom we will be exporting to," he said. – *@green*