

## NANOMALAYSIA BERHAD AND ECLIMO SDN BHD LAUNCH E-MOTORBIKE WITH A MONITORING SYSTEM

- An easy 3-pin plug socket charging system that solves the EV infrastructure issue
  - A full battery charge enables a travel distance of 100 kilometres
- For every 100 km travelled, it saves up to seven kilogrammes of carbon dioxide emissions

**KUALA LUMPUR, 9th OF DECEMBER 2021 -** NanoMalaysia Berhad (NMB) and Eclimo Sdn Bhd today launched an electric motorbike with a Nano-Structured Battery Monitoring System (BMS), known as the ES-11. The BMS can monitor battery health; send out alerts when the battery voltage drops; and comes with a tracking and geo – fencing system that can be controlled via a mobile app. The launch was officiated by the Minister of Science, Technology and Innovation (MOSTI), Yang Berhormat Dato' Sri Dr Adham bin Baba.

The ES-11 has a convenient 3-pin plug socket charging system. This solves the problems that frequently accompany electric vehicles (EV): the lack of infrastructure and charging stations. Its Nano-Based Lithium-Ion Battery Cell has a life cycle of 1,000 charges and each charge will enable a travel distance of 100 kilometres (km). In addition, for every 100 km travelled, it saves up to seven kilogrammes of carbon dioxide emissions.

It has undergone rigorous commercial scale testing to ensure it is equipped to handle delivery of food; frozen food; groceries; medicinal and pharmaceutical products; and eCommerce parcels on top of being used as a mode of transport.

YB Dato' Sri Dr Adham bin Baba said: "The launch of the ES-11 today is a demonstration of MOSTI's commitment to fulfilling Malaysia's Carbon Neutrality 2050, High-Tech Nation and High-Income Nation aspirations whilst aligning to our Low Carbon Mobility Blueprint 2021 – 2030. It also intensifies the country's efforts in participating in the multi-billion-dollar EV industry, where there are vast opportunities to help our economy recover post-pandemic.

"The tabling of Budget 2022 is pivotal in the advancement of the EV industry and is timely for our launch today. The Government is committed in supporting the EV industry with the proposal that EVs be completely exempt from import duty, excise duty and sales tax. EVs will also benefit from a road tax exemption of up to 100% under the proposal, while an income tax relief of up to RM2,500 will be provided on the cost of purchasing and installing, renting or taking up hire purchase facilities, as well as subscription payments of EV charging facilities.



"These support policies are critical for greater adoption of EVs by consumers, further progress the green and low-carbon technologies infrastructure as well as generate high-skilled green jobs in Malaysia. The Government sees the potential of EVs as an effort to mitigate vehicle smoke pollution to support the implementation of the Low Carbon Mobility Blueprint and intensify Malaysia's role in addressing climate goals."

In 2020, the global electric vehicle market size was USD246.7 billion and it is expected to increase up to USD1,318.22 billion by 2028. Meanwhile, the Asia-Pacific (APAC) low-speed electric vehicle market size is forecasted to reach 71.8 million units by 2025.

The International Energy Agency (IEA) 's Sustainable Development Scenario expects to put 230 million EVs on the world's roads by 2030.

NMB Chief Executive Officer, Dr Rezal Khairi Ahmad added: "The application of nanotechnology in the transportation sector has become a reality with the development of the ES-11 as a use case and a promising first in Malaysia."

The two-wheeler market has enormous potential as it offers greater electric mobility inclusivity amongst the citizen demographics via significant affordability. It was crucial that we developed a use case successfully in Malaysia first as a platform for regional and global expansion. This would allow us to showcase the benefits that come with using nanotechnology, in this case, the Internet of Nano Things and Nano Structured Battery to develop the electric transport and mobility industry to investors – giving us opportunities to expand in the future. It is interesting to note that the energy storage system here is transferrable to other vehicular modes thus providing new lateral commercial deployments potential."

NMB is Malaysia's leading agency in nanotechnology commercialisation and industrialisation via a venture builder model while Eclimo Sdn Bhd is a Malaysian-owned EV company that focuses on the productisation of sustainable energy solutions. The ES-11 was jointly produced by both companies – with NMB owning the intellectual property rights (IPR) of the BMS. Currently, NMB is assisting Eclimo in scaling up the deployment of the e-bike.

Eclimo Sdn Bhd Executive Director, Dato' Dennis Chuah said: "The e-Motorbike market is witnessing a growth trend globally and we want to ride on that wave. This has revitalised our focus and commitment to green technology innovation and reducing carbon footprint.



As policymakers here are encouraging the adoption of e- vehicles, we believe that the ES-11 with its appealing features such as the ease of charging and energy saving performance will hit a sweet spot and lead to a shift in mindset among consumers and businesses alike to transition to e-mobility vehicles.

To date, the ES-11 has generated sales value of more than RM18 million. In addition, every unit of an electric 2-wheeler creates an average of three new jobs. Our company also has footprints in Thailand, and we are leveraging on that to expand the ES-11's market regionally."

The price for the ES-11 is RM14,000 and it is currently operating on a leasing business model as well as subscription basis in the Klang Valley, Penang and Johor. Having leased to KFC Holdings Malaysia Bhd and the Royal Malaysian Police prior to this, there are also ongoing negotiations with e-hailing services and plans to expand into the city e-mobility space, allowing people to rent the e-Motorbike as a means of transport around the city.

## **About NanoMalaysia Berhad**

NanoMalaysia Berhad was incorporated in 2011 as a company limited by guarantee (CLBG) under the Ministry of Science, Technology and Innovation (MOSTI) to act as a business entity entrusted with nanotechnology commercialisation and industrialisation activities through a venture builder model. Nanotechnology continues to provide efficient and enhanced solutions to various applications in smart living, smart manufacturing, agriculture, electronic devices, and energy and environment. NanoMalaysia believes that the "Internet of Nano-Things" or IoNT, will be the core driver of the 4th Industrial Revolution, catalysing revolutionary changes in the industry, business and society.

## **About Eclimo Sdn Bhd**

Eclimo Sdn Bhd is a Malaysian-owned EV company that was founded in June 2008 to champion the nation's contributions towards sustainable energy. Eclimo focuses its efforts on the productisation of sustainable energy by way of manufacturing electric motorcycles (the ES-11 and EB25) and Lithium-Ion battery packs and modules. Eclimo also owns patents for Eclimo battery pack patented non-spot welding technology and its direct-drive motor, both of which have been successfully commercialised.

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