



Global Compact
Network Malaysia,
Brunei & Cambodia

Delivering on Decarbonisation: Pos Malaysia's Electric Fleet Transformation

A Case Study of



Knowledge Partner:



Sunway
**BUSINESS
SCHOOL**

Pos Malaysia

How Malaysia's national postal operator is turning its delivery fleet into a proof point for sustainable logistics.



Pos Malaysia Berhad is Malaysia's national postal and logistics operator, running one of the country's most extensive delivery networks across the Peninsula, Sabah and Sarawak. With 16,173 employees and a mission to build trust, connect lives and businesses for a better tomorrow, the Group serves communities and businesses nationwide.

This case study examines how Pos Malaysia is transitioning its delivery fleet to electric vehicles, a programme that has moved from emissions baselining to nationwide rollout and made transportation decarbonisation a central part of its Sustainability Roadmap.

Through the progressive scaling of this initiative, Pos Malaysia is now Malaysia's largest EV logistics fleet operator, leading the

transformation on how shipments move across the country, supported by charging infrastructure planning, telematics, governance oversight and cross-functional implementation. The programme has strengthened Pos Malaysia's pathway towards 100% green deliveries by 2030 and Net Zero by 2050.

Company At A Glance

- Industry: Postal, courier and logistics services
- Headquarters: Kompleks Dayabumi, Kuala Lumpur, Malaysia
- Operations: Nationwide, including Sabah and Sarawak
- Workforce: 16,173 employees

The Challenge

Transportation makes up a significant part of Pos Malaysia's operational carbon footprint. As regulators, customers and business partners placed greater emphasis on lower-carbon operations, energy efficiency and credible emissions disclosure, the Group recognised that sustainability had to move beyond reporting and become part of how it delivers every day.

Fleet electrification became a core component of Pos Malaysia's Sustainability Roadmap and Net Zero 2050 ambition: progressively reduce reliance on fossil-fuelled first- and last-mile vehicles, while maintaining the reliability, accessibility and efficiency expected of a national postal and logistics provider.

The harder question was how to scale the transition. Procuring electric vehicles was only one part of the answer. Charging infrastructure, electrical capacity at operating sites, driver capability, data systems and total-cost-of-ownership all had to be addressed in parallel. From the outset, Pos Malaysia approached fleet electrification as an operational transformation in which vehicles, infrastructure, people, data, operating model and economics had to move together.

The Action

1. Setting the foundation: baseline and strategy

Pos Malaysia established its 2021 emissions baseline and formally incorporated fleet electrification into its Sustainability Roadmap and Net Zero 2050 pathway. This connected vehicle deployment to measurable emissions

reduction targets from the start, ensuring the programme was treated as a strategic commitment rather than a standalone initiative.

2. Testing before scaling

Rather than attempting a single large-scale conversion, vehicles and operating models were progressively tested and deployed based on operational requirements. This allowed Pos Malaysia to learn from actual delivery conditions before expanding the programme further.

3. Rolling out nationwide

The programme was progressively scaled nationwide.

Pos Malaysia operates Malaysia's largest EV logistics fleet, currently comprising of 1,253 electric motorcycles and 332 electric vans, which travelled 28.8 million kilometres since its inception in 2023. This is equivalent to approximately 719 rounds around the world and has materially reduced emissions from first- and last-mile delivery.



4. Building infrastructure and financial planning in tandem

Fleet deployment was integrated with charging infrastructure planning, site electrical capacity assessments and capital expenditure modelling.

Charging requirements, site readiness and longer-term operating costs were assessed as part of the same planning process as vehicle decisions, not after them.

5. Adding a digital layer

More than 2,200 e-bikes, trucks and vans were equipped with telematics systems to monitor vehicle movement and driving behaviour, improving operational visibility, and supporting efficiency and safety improvements.

6. Measuring and adjusting as the programme matures

Pos Malaysia continues to track fleet deployment, mileage, fuel and electricity consumption and GHG emissions to assess progress and shape subsequent phases. The long-term objective is the full transition of first- and last-mile delivery vehicles to electric by 2030.

Enablers for Sustainability Performance and Impact



Leadership & Culture

Senior leadership established sustainability as part of Pos Malaysia's business transformation rather than a standalone ESG activity. The Board provides strategic direction and oversight, while the Sustainability Steering Committee, chaired by the Group CEO, oversees implementation at management level. This structure enabled fleet electrification to be integrated into operational and investment decisions across the organisation. The governance structure is explicitly disclosed in the Annual Report.



Strategy

Fleet electrification is embedded within Pos Malaysia's Sustainability Roadmap and decarbonisation strategy, supporting the Group's Net Zero 2050 ambition and its interim target of reducing Scope 1 and Scope 2 emissions by 50% by 2030. The long-term objective is to transition first- and last-mile delivery vehicles to 100% electric by 2030.



Process

Implementation is managed through cross-functional project teams involving the Sustainability Department and relevant operational and support functions. The Sustainability Department provides technical guidance, data governance and reporting, while project teams are responsible for planning and execution. A phased deployment approach allows operational and financial considerations to be evaluated before subsequent expansion.



Governance

Sustainability governance extends from the Board of Directors through the Board Risk, Sustainability and Compliance Committee, the Risk, Sustainability and Compliance Committee, and the Sustainability Steering Committee. This structure provides oversight, management accountability and a mechanism for monitoring progress, risks and implementation.



Resources

Fleet electrification is incorporated into Pos Malaysia's broader capital and operating planning rather than treated as standalone CSR expenditure. The transition requires higher near-term investment, assessed against longer-term reductions in fuel consumption, maintenance costs and emissions. Pos Malaysia applies a phased investment approach and incorporates climate considerations into capital allocation and financial planning.



People

Employees are central to implementation because the transition changes the vehicles, technology and operating practices used in daily delivery. Pos Malaysia combines operational engagement with sustainability capability-building and safety initiatives. Telematics is also used to provide greater visibility of driving behaviour and support continuous improvement in fleet safety and efficiency.



ESG Data

Data is used to measure whether fleet electrification is delivering its intended environmental impact. Pos Malaysia tracks Scope 1 and Scope 2 emissions, emissions intensity, EV deployment, mileage, electricity and fuel consumption, using 2021 as the baseline year for climate targets. Actual billing and fuel-purchase data are used to support energy and emissions calculations.



Digital Transformation

Telematics has become an important digital layer supporting fleet transformation. More than 2,200 e-bikes, trucks and vans are equipped with telematics technology to monitor vehicle movement and driving behaviour. This provides operational data that can support route efficiency, reduced idling, improved safety and more informed fleet management.



Partnerships & Stakeholder Engagement

The transition requires collaboration beyond Pos Malaysia. Government agencies, regulators, technology providers and other strategic partners contribute technical knowledge, regulatory guidance and operational support. Pos Malaysia engages customers, employees and regulators to ensure that its sustainability priorities remain relevant to stakeholder expectations and operational realities.



Supply Chain & Procurement

Sustainability considerations are increasingly integrated into Pos Malaysia's procurement processes. Goods, works and services are evaluated with the objective of providing long-term value while minimising environmental and health impacts. For major capital expenditure, climate impact assessment is used to identify carbon-intensive assets and prioritise lower-carbon alternatives where appropriate.

Overcoming Barriers

1. Balancing the pace of decarbonisation with operational and commercial realities

Electric fleet deployment can require higher near-term investment, while charging infrastructure, electrical capacity at operating sites and vehicle suitability must be considered alongside the vehicles themselves. Pos Malaysia addressed this through phased deployment rather than pursuing electrification based purely on fleet numbers. Vehicles and supporting infrastructure are assessed against actual operating requirements, financial viability and the ability to scale. Investment decisions are progressively informed by operating data, cost performance and emissions outcomes.

2. Managing change across a nationwide workforce

Introducing new vehicles and digital tools changes established operating practices, making employee engagement, safety, training and clear communication critical components of implementation. The key lesson Pos Malaysia drew from this is that fleet electrification is not simply a vehicle procurement exercise.

Successful implementation requires the vehicle, infrastructure, people, data, operating model and economics to move together.

3. Getting infrastructure sequencing right

Charging infrastructure and site electrical capacity needed to be integrated into fleet planning from the very beginning, rather than treated as decisions that follow vehicle deployment. Viewing vehicle deployment and infrastructure as sequential decisions is something Pos Malaysia would approach differently from the outset if starting again.

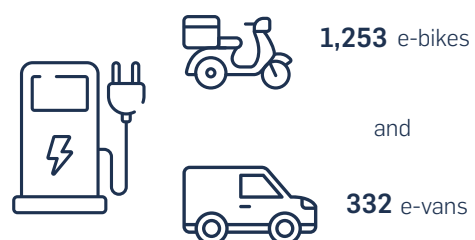
4. Building data depth from day one

More granular operational and total-cost-of-ownership data from the earliest stages of deployment would have helped accelerate decisions as the programme scaled. Better integration of vehicle, energy, maintenance and telematics data from day one would have shortened the time between deployment and learning. The ambition itself would not change; what would improve is the sequencing, integration and quality of information supporting each phase.

Impacts & Results

1. Malaysia's largest EV logistics fleet, built and operational

Up to August this year, POS Malaysia is operating the largest EV logistics fleet which consists of



2. One in three parcels now delivered electrically, nationwide

One in three parcels is now delivered using electric vehicles, across a network spanning the Peninsula, Sabah and Sarawak. Lower-carbon delivery has moved beyond pilot scale and become part of Pos Malaysia's everyday operations.



3. Transition of first- and last-mile fleet to EVs contributed to an avoidance of 3,881 tonnes of CO₂e emissions since the inception in FY2023

Since its inception in FY2023, Pos Malaysia's electric fleet continued to demonstrate the measurable impact of fleet electrification on the Group's decarbonisation progress:



28.8 million km covered by electric fleet since FY2023.



3,881 tCO₂e in emissions avoided since FY2023 from conventional last-mile delivery vehicles.

4. Value created across the supply chain and beyond

For customers, the growing electric fleet enables a greater proportion of shipments to be delivered through lower-carbon transportation, supporting customers focused on reducing emissions across their supply chains. For employees, the transition introduces new vehicles, technologies and operating practices, while creating opportunities to build capability in electric mobility, data-driven fleet management and sustainable operations. For regulators and government stakeholders, the programme demonstrates how an established national logistics network can progressively transition towards lower-carbon delivery while continuing to fulfil operational and service responsibilities. For technology, vehicle and infrastructure partners, it creates opportunities to develop and scale solutions within a large and operationally diverse delivery network.

5. Stakeholder demand for lower-carbon logistics continues to grow

Pos Malaysia's engagement and materiality processes continue to show increasing expectations from customers, regulators and business partners for lower-carbon operations, stronger energy efficiency and credible emissions reporting. These expectations reinforce the direction of the fleet transition.

For Pos Malaysia, the most important outcome is not the number of electric vehicles deployed. It is demonstrating that sustainability can be embedded into the core activity of delivering to Malaysians every day, while building the operational, digital and organisational capability required for further decarbonisation.

Key Lessons Learned

1. Embed sustainability into the core business, not alongside it

Fleet electrification became meaningful when it was connected directly to daily delivery operations, financial planning, safety and service requirements, rather than managed as a parallel programme. For other organisations considering a similar transition, the starting question is not which vehicles to buy but where sustainability connects to what the business already has to do every day.

2. Phase the work and let evidence set the pace

Testing technologies and operating models in real-world conditions before scaling allows assumptions about cost, infrastructure, vehicle suitability and performance to be validated. Scale what works, improve what does not, and allow evidence rather than ambition alone to determine the pace of deployment.

3. The vehicle is one part of a larger system

Technology alone does not deliver transformation. Successful electrification requires the supporting ecosystem of infrastructure, people, governance, data and partnerships to develop alongside the vehicles themselves.

4. Infrastructure and vehicles are one decision, not two

Charging requirements, electrical capacity and site readiness need to be planned alongside vehicle selection, not after it. Building the infrastructure plan and the business case together from the beginning gives the programme a more stable foundation.

5. Data quality early pays off later

More granular operational and total-cost-of-ownership data from the earliest stages of deployment allows decisions to be made more quickly as the programme scales. Integrating vehicle, energy, maintenance and telematics data from day one, rather than once the programme is established, shortens the time between deployment and learning.

6. Start with the operation, not the vehicle

Understanding routes, payload, utilisation, charging windows and service requirements before deciding which technology to deploy leads to better outcomes. The operation defines the requirement; the technology answers it.

Pos Malaysia Berhad became a participant of the United Nations Global Compact on 6 September 2022 and remains an active participant. The company has:

- committed to the UN Global Compact's Forward Faster initiative, including the ambition to achieve equal pay for work of equal value and a living wage by 2030.
- endorsed the Women's Empowerment Principles (WEPs) and uses the WEPs Gender Gap Analysis Tool to identify opportunities to strengthen gender equality within the organisation.

The UN Global Compact has primarily contributed by providing a broader principles-based framework for responsible and sustainable business. Pos Malaysia uses the UN Global Compact Principles alongside other international and national frameworks to inform its sustainability approach. Participation

also provides access to knowledge-sharing, peer learning and a wider sustainability community, helping the company benchmark its progress and continually strengthen the governance and ambition supporting initiatives such as fleet decarbonisation.

Through its fleet electrification programme, Pos Malaysia contributes to SDG 13 (Climate Action) by reducing emissions from daily delivery operations and building the organisational capability needed for longer-term decarbonisation. The programme also supports SDG 11 (Sustainable Cities and Communities) by advancing lower-carbon last-mile logistics across a nationwide network, and SDG 9 (Industry, Innovation and Infrastructure) through the progressive integration of electric vehicles, charging infrastructure and telematics into core operations.



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At Pos Malaysia, fleet electrification is a key part of our sustainability and decarbonisation journey. Today, we operate Malaysia's largest electric fleet, delivering mail and parcels across the country.

The significance goes beyond the vehicles themselves. Fleet electrification directly supports our ambition to achieve 100% green deliveries by 2030 and forms an important part of our broader pathway towards reducing our operational carbon footprint and achieving Net Zero by 2050. Our priority now is to keep scaling what works — integrating the vehicles, its associated infrastructure, data and people, to make lower-carbon delivery the core of how we operate.

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Charles Brewer,
Group Chief Executive Officer, Pos Malaysia Berhad



THE TEN PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT



HUMAN RIGHTS

- 1 Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2 make sure that they are not complicit in human rights abuses.



LABOUR

- 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4 the elimination of all forms of forced and compulsory labour;
- 5 the effective abolition of child labour; and
- 6 the elimination of discrimination in respect of employment and occupation.



ENVIRONMENT

- 7 Businesses should support a precautionary approach to environmental challenges;
- 8 undertake initiatives to promote greater environmental responsibility; and
- 9 encourage the development and diffusion of environmentally friendly technologies.



ANTI-CORRUPTION

- 10 Businesses should work against corruption in all its forms, including extortion and bribery.

The Ten Principles of the United Nations Global Compact are derived from: the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.

ABOUT UN GLOBAL COMPACT NETWORK MALAYSIA, BRUNEI & CAMBODIA

UN Global Compact Network Malaysia, Brunei & Cambodia (UNGCMBC) is the official country network of the UN Global Compact, a special initiative of the United Nations Secretary-General. It represents a movement, a collective awakening of businesses across the three countries to align their strategies and operations with the Ten Principles in the areas of human rights, labour, environment and anti-corruption.

With over 25,000 participating companies globally and 70 country networks spanning 100 countries, including more than 300 companies across our network, we are the leading advocate for action in shaping the business sustainability space across the region. We empower both corporates and SMEs with the learning, connections, and enablers needed to Forward Faster toward a collective sustainable future.

Talk to us about joining us or visit our website at www.ungcmbc.org



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