

Navigating Energy Transition

The world is transitioning to a low-carbon future, making decarbonisation a strategic imperative for Malaysia's OGSE sector. The industry must ensure it is prepared for this transition so that it may not only participate, but also be able to compete on a global scale. By doing this, the sector can remain an important driver of Malaysia's economic growth and contribute to national sustainable development priorities. However, this will require the OGSE sector to adapt, innovate and collaborate so that it can grow sustainably.

In 2023, the International Renewable Energy Agency forecasted ASEAN's Gross Domestic Product (GDP) growth to be 3.4 per cent higher per year from 2021 to 2050 if the world can curb man-made emissions and achieve the goals of the Paris Agreement. Cumulatively, this would add around USD 13.1 trillion to the region's economies. Curbing emissions can partly be achieved by developing and deploying new technologies and value chains which present exciting business opportunities for partnerships, collaboration and co-creation. In 2022, global investments in clean energy reached USD 1.1 trillion, matching the amount spent on fossil fuel production. By the end of 2023, clean energy investments are expected to reach USD 1.7 trillion, surpassing those in fossil fuels¹. PETRONAS itself has pledged to spend up to 20 per cent of its total capital expenditure (2022-2026) to intensify its decarbonisation efforts and pursuits in cleaner energy solutions.

To further facilitate the needed energy transition, other regions are responding with policy and regulatory measures such as the European Union (EU)'s Carbon Border Adjustment Mechanism (CBAM) and the United States' Inflation Reduction Act (IRA) that are shaping the future global energy system. These measures, along with others that may follow from other regions, present both risks and opportunities for Malaysia's OGSE sector, which employs one in four workers². PETRONAS is responding to this call for accelerated change and is committed to leading the transition as it looks to produce energy in a more responsible manner, contributing to the socio-economic growth of Malaysia.

In response to the energy transition and increasing customer demand for cleaner energy sources, PETRONAS will need to manage the emissions throughout its entire value chain. This includes introducing bold and proactive actions to ensure sustainable practices within the Malaysian OGSE sector. PETRONAS will continue to work with its suppliers to help build their capabilities to effectively serve and create opportunities in the energy transition.



Malaysia's Net Zero Aspiration

The Malaysian Government sees significant opportunities in the energy transition, as a whole-of-nation approach that is result-oriented and ensures employment creation, economic growth and sustainable development.

The government conducted a mid-term review of the 12th Malaysia Plan (2021-2025) to assess the progress made as part of broader development efforts. It also outlines actions for the final two years to reduce emissions by 45 per cent against GDP by 2030 and achieve net zero greenhouse gas (GHG) emissions by 2050, based on the Nationally Determined Contribution (NDC). These actions include:

- Implementation of a national carbon policy and a carbon pricing mechanism.
- Development of a regulatory framework for carbon capture, utilisation and storage.
- Creation of a long-term low emissions development strategy (LT-LEDS)
- Publication of a national OGSE sustainability roadmap to promote sustainability practices and develop simplified reporting standards.

The above will supplement the government's NETR, the New Industrial Master Plan and the National Energy Policy 2022-2040. All these plans provide clear signposts, near, medium and long-term for the Malaysian OGSE sector's journey towards sustainability. In doing so, the sector can be at the forefront of change, enabling it to remain globally competitive as world economies transition to low-carbon energy systems.



PETRONAS' Pathway to Net Zero

As Malaysia's oil and gas resources custodian, PETRONAS will support efforts to decarbonise economic development and deliver reliable energy that enables progressive growth.

It is committed to reduce emissions from its operations and diversify into new energy transition businesses that are cleaner, less carbon intensive and aligned with changing consumer and market preferences. These commitments are prescribed in the PETRONAS NZCE 2050 Pathway which stipulates emissions reduction from operations and growth ambitions for cleaner energy solutions, both of which present opportunities for investors and suppliers.

Emissions reduction will be achieved through four main levers:

- Zero Routine Flaring and Venting
- Energy Efficiency
- Electrification
- Carbon Capture and Storage (CCS)

In support of its NZCE 2050 Pathway, PETRONAS is working towards capping operational emissions in Malaysia at 49.5 million tonnes of carbon dioxide equivalent by 2024.

The target covers Scope 1 (direct emissions directly from its own operations) and Scope 2 (indirect emissions from energy purchased for its operations). PETRONAS has set a target to reduce 25 per cent of absolute carbon emissions groupwide by 2030, including Scope 1 and Scope 2 emissions.

In addition, PETRONAS has set a target to achieve a 50 per cent reduction in methane emissions from its groupwide natural gas value chain by 2025. This supports Malaysia's ambition to reduce methane emissions by 30 per cent by 2030, in line with the Global Methane Pledge. The groupwide target for 2030 is 70 per cent and 50 per cent for Malaysia's natural gas value chain respectively.

Source

¹ National Energy Transition Roadmap

² World Energy Investment 2023 – Analysis - IEA

Energy Value Chain

To achieve its NCZE 2050 Pathway quickly and widely, PETRONAS needs to reduce emissions significantly and rapidly across the value chain. New low-carbon energy value chains will need to be created and existing ones redesigned.

Moving forward, PETRONAS will continue to improve its Scope 3 (indirect emissions across the value chain) reporting efforts to identify opportunities for impactful climate action across its value chain. PETRONAS' Scope 3 emissions represent the majority of its GHG emissions, therefore close collaboration will be required with both of its industrial customers and vendors, as well as small and medium enterprises (SMEs) to minimise the risks and maximise the benefits from emissions reduction efforts.

However, according to the PETRONAS OGSE Survey 3.0 2023, its vendors and suppliers are not well prepared for decarbonisation efforts, as only 25 percent of respondents have adopted environmental, social and governance (ESG) initiatives, while 82 per cent are unaware or barely aware of ESG incentives, programmes or support mechanisms that they can access. Accessing resources such as Bursa Malaysia's Sustainability Reporting Guide and Toolkits and the Human Resource Development Corporation's ESG training courses is vital in building the capacity of Malaysian OGSE SMEs and will improve transparency across the energy value chain.

The energy transition goes beyond investment in decarbonisation technology. The associated large-scale investments are also a unique opportunity to reverse nature loss and strengthen social progress.

Nature and Biodiversity

PETRONAS' position on nature and biodiversity aims to take a proactive approach to support the well-being of natural ecosystems through five key action areas:

1. Establishing voluntary exclusion zones.
2. Managing nature and biodiversity risk.
3. Promoting nature and biodiversity through partnerships and collaborations.
4. Supporting public policy that aims to protect nature and biodiversity.
5. Promoting high-quality nature-based climate solutions.

All this support the Malaysian and other host governments' commitments to biological conservation, as outlined in the Kunming-Montreal Global Biodiversity Framework (CBD COP15).

Our efforts are integral in supporting nature-based carbon offsets which are part of our aspiration to achieve NZCE by 2050. To this aim, in 2023 PETRONAS signed a Memorandum of Understanding with the Malaysia Forest Fund to explore, develop and invest in high-quality nature-based solutions projects in Malaysia.

Just Transition and Human Rights

A just transition incorporates the social dimensions of climate action, taking into account that the expected prosperity brought on by the transition will be enjoyed by all. During 2023, PETRONAS convened a series of roundtables to foster conversation and engagement on what the energy transition could mean for the Malaysian energy sector, including workers, suppliers and communities. Some key takeaways include uplifting overall awareness on sustainability, providing clarity on expectations, having targeted solutions and actively engaging stakeholders to identify and respond to their needs. Further information on this activity is available on PETRONAS Global website.

PETRONAS also remains committed to upholding human rights within its operations and throughout its value chain. This includes strengthened due diligence on human rights management using surveys, assessments and monitoring of adherence to PETRONAS' human rights policies and guidelines as well as ensuring that there is an effective grievance mechanism in place as part of its Whistleblowing Policy.

Workforce

The energy transition is rapidly changing the energy landscape – continuous adaptation and transformation will be necessary, especially for the workforce. Upskilling and reskilling the workforce will be vital for the Malaysian OGSE sector to reap the benefits from the broader global trend towards a low-carbon economy which is expected to create millions of new jobs in ASEAN¹. Interdisciplinary and multidisciplinary skills that are necessary for driving decarbonisation and growth in new energy chains will be in high demand as innovative thinking and approaches will be vital in addressing the scale of the challenges that lie ahead.

In conclusion, the energy transition presents both challenges and opportunities for Malaysia's OGSE sector, which must adapt, innovate and collaborate to grow sustainably and remain globally competitive. PETRONAS remains committed to working collaboratively with its suppliers to build their awareness, capacity and skills to ensure that they too, can benefit from the opportunities that the energy transition can provide.



Source

¹ Renewable Energy Statistics 2023