Delivering Net Zero

Our commitment to Net Zero Carbon Emissions (NZCE) by 2050 includes reducing greenhouse gas emissions across our operations and value chains, and strengthening resilience against impacts of climate-related physical risks.

Our Material Topic

As climate risks continue to intensify globally, a structured and forward-looking response becomes essential. We are committed to reducing greenhouse gas (GHG) emissions across our operations while strengthening our resilience towards climate-related physical risks, in an evolving regulatory and market landscape.

CGE Climate Change and GHG Emissions

Basis of Preparation

Sustainability-related Financial Disclosures

This report reflects PETRONAS' phased transition from the Task Force on Climate-related Financial Disclosures (TCFD) framework to the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards, with full alignment targeted by 2027. For the 2025 reporting year, we have adopted selected provisions of IFRS S2: Climate-related Disclosures, where these can be supported by our existing data and processes, as detailed on pages 228 and 229 of this report.

Our climate-related disclosures span governance, strategy, risk management, and metrics and targets, demonstrating the integration of climate considerations into our business planning and performance oversight. We disclose material climate risks and opportunities, outlining how these may influence our business prospects, operations and support capital allocation decisions.

Key Judgements and Sources of Estimation Uncertainty

Preparation of this report required the use of judgements, assumptions, estimates and measurement of uncertainties as permitted by IFRS S2, which expressly allows and requires such judgement in the preparation of sustainability-related disclosures. The key areas have been applied as summarised in the table below.

Section	Significant Estimates and Critical Judgements
Material Topics, pages 42 to 45.	Materiality Assessment – Significance of Impact and Financial Materiality
Climate Change and GHG Emissions, pages 97, 102-105.	GHG Emissions Calculations
Climate Change and GHG Emissions, pages 97 and 105.	GHG Emissions Reductions
Climate Change and GHG Emissions, pages 102 to 105.	GHG-related Metrics

Scan the QR code to visit Sustainability Performance Data for detailed information.

Where applicable, the proportionality mechanisms under the IFRS S1 and S2 permit the use of reasonably available information without undue cost or effort. In applying these mechanisms, we consider data availability and use approaches that are compatible with PETRONAS' skills, capabilities and resources.

Reporting Standards and Frameworks

PETRONAS' greenhouse gas (GHG) emissions are measured and reported using the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition, 2004), supplemented by the Scope 2 Guidance (2015), covering Scope 1, Scope 2 and material Scope 3 categories. PETRONAS quantifies emissions using both the operational control and equity share approaches, including emissions from material Scope 3 categories. The operational control approach reflects PETRONAS' ability, including through its subsidiaries, to introduce and implement operating policies and manage operations, enabling us to oversee performance and emissions in assets we directly control. The equity share approach reflects PETRONAS' economic interest, defined as the extent of our rights to the risks and rewards associated with an operation.

For joint ventures disclosures, GHG emissions are accounted for based on our equity share in each asset and are consolidated into our reported emissions figures.

To support comparability and sector relevance, we reference complementary frameworks and industry guidance, including the Sustainability Accounting Standards Board (SASB), CDP (formerly known as Carbon Disclosure Project), the Global Reporting Initiative (GRI) Standards, Sustainability Reporting Guidance for the Oil and Gas Industry by Ipieca, the American Petroleum Institute, and the International Association of Oil and Gas Producers (Revised 2025).

Data Verification

GHG emissions data was independently verified in accordance with ISO 14064-3:2019, providing assurance on the accuracy, reliability and transparency of disclosed emissions data. For the 2025 reporting period, the verification covered:

- Scope 1 and Scope 2 emissions under the equity share approach (inclusive of operational control).
- Scope 3 Category 1 emissions under the operational control approach.
- Scope 3 Category 11 (fuel) emissions under both the operational control and equity share approaches.

Delivering Net Zero

Why This Matters

Climate policy, carbon pricing, disclosure expectations and financing criteria increasingly influence how energy companies plan, invest and operate. Rising scrutiny of emissions performance and the pace of the global energy transition are influencing market expectations, increasingly with regional variations. Energy companies, including PETRONAS, must adapt by strengthening resilience and continuing to deliver reliable and affordable energy, while supporting energy security of the markets we serve.

Climate change presents material physical risks to infrastructure integrity, supply chain continuity and workforce safety through rising temperatures, and more frequent extreme weather events. Managing GHG emissions and strengthening climate resilience are essential to sustaining operational reliability, maintaining access to markets and capital, and enabling us to meet energy needs safely while progressing on our commitment to Net Zero Carbon Emissions (NZCE) by 2050, as outlined in PETRONAS NZCE by 2050 Pathway.

Our Focus

PETRONAS' commitment to NZCE by 2050 encompasses the management of climate-related transition and physical risks. This includes reducing GHG emissions across our operations and value chains, strengthening resilience against the impacts of climate-related physical risks, and maintaining a reliable and affordable energy supply.

Our focus reflects the need to balance decarbonisation with operational resilience and evolving market expectations, taking into account differing regional contexts, including energy security priorities, infrastructure readiness and socio-economic considerations.

Our Approach

Our NZCE by 2050 Pathway, approved by the PETRONAS Board in October 2022, is informed by science and long-term national policy ambitions, while supporting energy security and affordability. To deliver our long-term NZCE by 2050 target, the Group will pursue a phased approach, subject to technological, regulatory and economic viability, recognising differences in economic development, energy security priorities, infrastructure readiness and social considerations across regions. It is supported by short-, medium- and long-term targets for both GHG and methane emissions, including a 25 per cent GHG gross emissions reduction by 2030 and a net emissions target by 2050. The Pathway covers Scope 1 and Scope 2 GHG emissions using both the operational control and equity share approaches.

To deliver our NZCE by 2050 target, we focus on the following, subject to technical, regulatory and economic viability:

- Maximising energy efficiency opportunities.
- Eliminating routine flaring and venting.
- Electrifying oil and gas operations where economically viable green electricity, supporting infrastructure and market readiness are available.
- Developing and implementing carbon capture and storage (CCS) for new and existing operations, subject to an enabling regulatory environment and project viability.
- Investing in nature-based and technology-based climate solutions to offset the hardest-to-abate emissions.

The NZCE by 2050 Pathway will be reviewed periodically to ensure it remains current as assumptions, methodologies and data availability evolve.

Governance

Governance over Climate-related Risks and Opportunities

The PETRONAS Board oversees the Group's response to climate-related risks and opportunities, and guides strategic direction across the organisation. Climate change, including climate transition and climate-related physical risks, is treated as a material consideration that informs long-term planning, investment decisions and risk management.

Governance structures support oversight of climate-related risks and opportunities in line with the broader corporate governance framework and Enterprise Risk Management Framework.

At the management level, the President and Group Chief Executive Officer has overall accountability for overseeing sustainability-related risks and opportunities, and performance monitoring, supported by the Sustainability Executive Leadership Team (S-ELT).

The Vice President and Group Chief Sustainability Officer is responsible for developing and implementing PETRONAS' climate and broader sustainability strategy, coordinating Group-wide delivery of the NZCE by 2050 Pathway, engaging with external stakeholders on climate-related matters and aligning the company's approach with regulatory and disclosure frameworks and standards.

Sustainability governance was previously overseen by the PETRONAS Sustainability Committee that monitored progress on material sustainability matters, providing oversight and strategic guidance to the S-ELT. Following a governance review to strengthen organisational effectiveness, an embedded governance model was adopted in November 2025, integrating sustainability oversight into the regular governance cadence of management and business divisions.

Refer to Corporate Governance at PETRONAS for the role of the Board and Management in climate-related matters on pages 185 to 195.

Strategy

Climate Resilience and Investment

The PETRONAS Energy Transition Strategy focuses on strengthening our core business, expanding lower-carbon business solutions and reducing emissions in line with the NZCE by 2050 Pathway.

We conduct climate scenario analysis to assess how different climate and energy transition pathways could affect our portfolio, strategic direction and long-term business resilience. The most recent analysis drew on International Energy Agency (IEA) scenarios, including the Stated Policies Scenario (STEPS), the Announced Pledges Scenario (APS) and the Net Zero Emissions by 2050 Scenario (NZE), and considered key assumptions, such as oil and gas prices, underlying socio-economic growth and climate policy.

Insights from the scenario analysis were used to test the robustness of our emissions reduction trajectory and key strategic choices under different transition conditions.

The NZCE by 2050 Pathway outlines our growth priorities and emissions reduction targets, enabled by four key abatement levers: Zero Routine Flaring and Venting, Energy Efficiency, Electrification, and Carbon Capture and Storage (CCS).

We maintain a disciplined capital allocation approach to safeguard financial strength while supporting future growth and the ongoing energy transition. Strategic investment decisions are prioritised through annual planning and budgeting processes, ensuring resources are directed toward projects aligned with the NZCE by 2050 Pathway. During the year, 12 per cent of CAPEX was spent on New Business and NZCE-related projects.

Refer to the PETRONAS Energy Transition Strategy on page 16 and Delivering Our Strategy from pages 52 to 83.

Scan the QR code for further details on the PETRONAS Net Zero Carbon Emissions Pathway.

Risk Management

Climate-related risks are integrated into PETRONAS' broader Enterprise Risk Management Framework. This process is governed by the PETRONAS Risk Policy and the PETRONAS Resiliency Model, which together provide the framework for effective risk management, as described on pages 26 to 29. The framework provides the tools and processes to evaluate a wide range of risks, including those related to climate change.

Risk identification and assessment are conducted across assets and business activities. These cover operational, regulatory, market, technology, physical risks and market trends. The identified risks are monitored regularly to ensure timely and effective management.

Climate-related Transition Risks and Opportunities

Climate change presents both transition and physical risks that can affect PETRONAS' cost of capital, access to markets, asset value and long-term earnings' trajectory. We assess climate-related risks at both portfolio and asset levels through top-down scenario analysis, bottom-up risk assessments and regular reviews of regulatory, market and stakeholder developments.

Transition Risks

Climate-related transition risks arise from changes in policy, regulation, market dynamics, technology and stakeholder expectations as the global energy landscape evolves. These changes can influence demand patterns, commodity prices, cost structures and access to capital, with potential implications across PETRONAS' asset portfolio, earnings profile and long-term value. We assess and manage these risks, namely market, compliance and reputational risks, through a combination of enterprise and asset-level assessments and ongoing monitoring of relevant external developments. These transition risks are embedded into our sustainability risk and are considered within our broader enterprise risk management approach, informing how we respond across strategy, capital allocation and business operations.

Refer to our mitigation strategies set out under Sustainability Risk in Risks Linked to Creating Value on page 33.

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Market Risk

Our asset portfolio may be affected by commodity price volatility and changing demand patterns as the energy transition shifts toward lower-carbon sources. These movements are influenced by regulatory developments, evolving customer preferences, the availability of alternative energy options and technological progress, all of which shape market conditions, operating performance and investor sentiment.

Potential Material Impacts

Reduced revenue, cash flows and returns
The pace of the energy transition, driven by climate change and, more recently, geographically specific energy security concerns, may place pressure on oil and gas margins as demand shifts and lower-carbon energy gains a greater share in the energy mix. Changes in market sentiment toward oil and gas could also influence long-term price expectations, potentially affecting the carrying value of property, plant and equipment.

Compliance Risk

As the energy transition progresses, we may face increasing challenges and scrutiny, including the need to adapt and comply with evolving regulations and policies.

Potential Material Impacts

Impact on business, strategy and financial planning
Climate-related regulations, including carbon pricing, incentives for research and development, and the adoption of low-carbon energy technologies, have an influence on strategy formulation, investment evaluation and operational planning. These factors affect cost allocation and risk-return considerations.

Compliance complexity
Operating across multiple and evolving regulatory regimes may increase the risk of non-compliance, penalties and legal exposure.

Cost increases
Policies that restrict or impose costs on fossil fuel extraction, production, consumption and associated emissions may raise operating and CAPEX requirements. Financing conditions may also tighten due to changes in financiers' and insurers' appetite for providing funding and coverage to oil and gas activities.

Reputational Risk

Our NZCE by 2050 Pathway reflects the Group's sustainability commitment and guides the long-term transition across the organisation. The Pathway, the Group's performance against it and related disclosures, are subject to ongoing stakeholder scrutiny.

Potential Material Impacts

Reputational impact
Insufficient communication and engagement on the Group's strategy and investment plans may affect reputation and weaken stakeholder trust.

Confidence in execution
Failure to make the required investments and deliver projects in line with stated targets may undermine stakeholder confidence in our ability to execute our Energy Transition Strategy.

Resilience to Transition Risk

We continuously monitor transition risks and adapt to evolving regulatory, policy, market and technology developments to maintain resilience. Through disciplined capital allocation and portfolio optimisation, we balance emissions reduction, financial sustainability and energy security of the markets we serve.

Transition Opportunities

The transition towards a lower-carbon energy system presents opportunities for PETRONAS to create long-term value. Our tactical opportunities reflect a climate-related growth agenda, enabling the Group to scale lower-carbon solutions while strengthening value chain resilience.

We have identified several key sources of lower-carbon growth across our products, technology solutions and financing channels.

Refer to Tactical Opportunities in Sustainability Risks in Risks Linked to Creating Value on page 33.

Development of Lower-Carbon Solutions

We are developing higher-value specialty chemicals to improve efficiency, optimise material use and reduce life cycle emissions for customers. In 2025, we introduced new high-performance synthetic fluids for advanced industrial applications, and expanded the bio-based portfolio with additional variants for personal care formulations. We also progressed on the production of renewable fuels, including Sustainable Aviation Fuel using bio-based feedstocks.

During the year, our CCS initiatives progressed through the award of Malaysia's first offshore storage assessment permit and the strengthening of technical and commercial collaborations to develop integrated storage hubs and industrial carbon management solutions.

Our renewable energy portfolio expanded to 9.1 gigawatt (GW) across solar, wind and storage projects, alongside participation in cross-border renewable electricity initiatives within ASEAN.

Hydrogen development advanced through project collaborations across Asia and Europe, building the foundations for future deployment at scale. Green mobility solutions also expanded through an ASEAN regional electric vehicle charging network of more than 1,100 charging points and the introduction of cross-border charging access via a unified digital platform.

Refer to Delivering Our Strategy - New Business from pages 65 to 80.

Strengthening Financial Sector Engagement on Climate Transition

Sustainability-related opportunities, including those linked to climate change, also arise through closer engagement with financial institutions, which play a critical role in developing and supporting the economic viability of new energy and decarbonisation projects and value chains. As the financial sector increasingly emphasises credible transition strategies and transparent progress in managing net-zero portfolios, PETRONAS deepened engagement with financial institutions during the year to discuss emissions reduction progress, broader NZCE efforts and sustainability commitments.

Refer to Delivering Our Strategy - New Business from pages 65 to 80.

Climate-related Physical Risks

Changing climate conditions influence how assets are operated and maintained across PETRONAS' international portfolio. Floods, heatwaves, wildfires, rising sea levels and other climate-related events may disrupt our operations, damage infrastructure and impact workforce safety and value chain continuity across the countries in which we operate.

Experience across our operating locations has shown how weather-related events can interrupt activities and require adjustments to maintenance and site protection measures. These lessons reinforce the need for continuous monitoring and targeted adaptation to safeguard people, assets and surrounding communities.

Impact Assessments

Understanding Asset Resilience

Since 2023, we have conducted systematic assessment of the physical impacts of climate change across our international portfolio of assets under operational control. The assessment uses the Shared Socio-Economic Pathway (SSP) 2-4.5 scenario from the Intergovernmental Panel on Climate Change Sixth Assessment Report as an intermediary emissions scenario to inform our understanding of potential future physical hazards. We also include the SSP 5-8.5 scenario to broaden the assessment and stress test potential climate risks under higher emissions conditions.

We manage climate-related physical risks by assessing portfolio-level exposure, prioritising and validating vulnerable assets through site assessments, carrying out targeted adaptation, and embedding this approach into our systems, processes, tools, capability development and portfolio reviews.

Based on desktop assessments conducted using climate-hazard modelling, we have identified seven key climate hazards that may pose high, very high or extreme risk to the PETRONAS operational control assets by 2050. The identified key climate hazards are:

- Extreme precipitation
- Drought
- Storm surges
- Pluvial floods
- Lightning
- Heat waves
- Fluvial floods

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By mapping key climate hazards to the geographic locations of PETRONAS' assets, approximately 15 per cent of assets under operational control were found to be vulnerable (i.e., assets that are located in areas where the hazard risk ratings are high, very high or extreme). A subsequent prioritisation process was applied to identify assets for detailed vulnerability and adaption assessments on-site. Additionally, the identified risks are incorporated into the asset's Health, Safety and Environment (HSE) Hazards and Effects Register for systematic risk management under the HSE Management System.

From 2024 to 2025, we completed 27 site validations in Malaysia (2024: 11; and 2025: 16) at prioritised assets by assessing climate-hazard modelling data against the assets' adaptive capacity, in terms of their ability to withstand potential extreme weather events through design specifications and existing mitigation measures. This process provides more precise insights into asset-level vulnerabilities and informs the need for targeted adaptation planning, which is embedded within existing annual planning and budgeting process to ensure operational continuity and strengthened resilience against identified climate-related physical risks. These efforts have resulted in plans to enhance asset drainage systems as well as ongoing collaboration with local authorities to strengthen flood mitigation measures.

Understanding Value Chain Resilience

To understand climate impacts beyond individual assets, we have conducted desktop business-interruption analyses across our material value chains. These assessments help identify high-risk segments of our natural gas and crude oil value chains that could experience significant operational disruption, with potential financial impacts across assets, suppliers and customers.

To strengthen the robustness of this activity, we developed a materiality assessment methodology benchmarked against industry peers, insurers, consultants and regulators. This approach provides a consistent basis for prioritising areas with the most significant operational and financial implications.

For PETRONAS assets identified through this process, further reviews are being undertaken to determine the need for targeted adaptation planning. For impacts associated with third-party assets, exposure may be managed through Business Continuity Plans (BCP).

For the year under review, we also monitored climate adaptation expenditure across the portfolio through the annual planning and budgeting process.

Resilience to Physical Risk

We continue to strengthen our capability to manage climate-related physical risks by enhancing systems, processes and organisational readiness. This includes building internal expertise to support more comprehensive analysis of how climate-related physical risk may affect our operations and assets over time. We also deliver capability development programmes to raise awareness and equip employees with the knowledge and tools to identify, assess and respond to physical climate risks.

To further improve our approach to climate adaptation, we are developing comprehensive methodologies and processes to enable structured adaptation planning and implementation. These efforts will consider multiple adaptation dimensions, including asset-based, ecosystem-based and community-based adaptation.

Metrics and Targets

Overall GHG Emissions Performance against PETRONAS Net Zero Carbon Emissions by 2050 Pathway

Stakeholders increasingly expect greater transparency on GHG emissions across the economy, and organisations are under growing pressure to report comprehensively on their emissions profile, including Scope 1 (direct), Scope 2 (purchased energy) and relevant Scope 3 (value chain) emissions, in line with recognised reporting frameworks.

PETRONAS quantifies and discloses Scope 1, Scope 2 and material Scope 3 categories of GHG emissions:

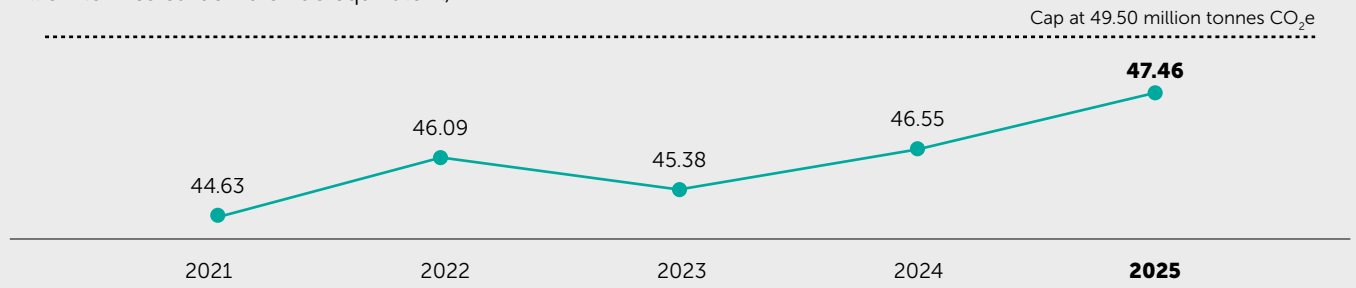
- **Scope 1:** Direct emissions from company-owned or controlled facilities and operations (example of sources include: combustion, venting, flaring and fugitive emissions).
- **Scope 2:** Indirect emissions from the energy we purchase calculated using location-based approach (example of sources include: purchased electricity from grid).
- **Scope 3:** Other indirect emissions that are a consequence of our activities but occur from sources not owned or controlled by PETRONAS (our material categories are: use of sold products and purchased goods and services).

We monitor emissions performance under both the operational control and equity share approaches to track progress against the targets set out in our NZCE by 2050 Pathway. This practice supports our Energy Transition Strategy by enabling consistent oversight of emissions performance across the portfolio and informing long-term planning, capital allocation and portfolio optimisation decisions.

PETRONAS Malaysian Core Business GHG Emissions - Operational Control

PETRONAS recorded 47.46 million tonnes of carbon dioxide equivalent (CO_2e) of operational control emissions from Malaysian operations, excluding Maritime, Corporate and Others (2024: 46.55 million tonnes CO_2e), an increase of 0.91 million tonnes (2 per cent) compared with the prior year. The increase was primarily driven by higher production following the completion of operatorship transfers of two Production Sharing Contracts (PSCs). In response, enterprise-wide actions are being undertaken to strengthen flaring and venting management and to moderate emissions intensity. Emissions-reduction efforts continue to focus on venting and flaring reduction, energy efficiency, electrification and the development of CCS, which remain the key levers in managing operational emissions over the medium- to long-term.

PETRONAS Malaysian Core Business GHG Emissions - Operational Control
(million tonnes carbon dioxide equivalent)



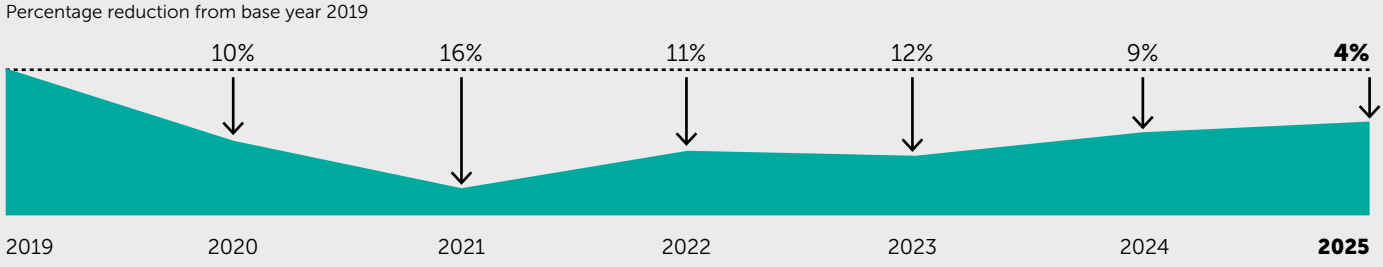
Notes:
The GHG Protocol states that a company has operational control over an operation if the company or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operations.
Boundary: GHG Emissions from PETRONAS Malaysia Core Business Operations under operational control (excluding Maritime, Corporate and Others).

In the medium term, our focus is on delivering measurable emissions reductions in line with our 2030 targets, while strengthening the foundations for long-term net zero alignment. Progress to date includes targeted abatement efforts across our portfolio, including flare reduction at offshore Peninsular Malaysia, energy efficiency improvements at gas processing plants and electrification of PETRONAS retail stations.

PETRONAS Group-wide GHG Emissions - Equity Share

PETRONAS recorded 50.57 million tonnes of carbon dioxide equivalent (CO_2e) in Group-wide equity share emissions, representing a 5 per cent increase compared with the previous year (2024: 48.16 million tonnes CO_2e), which is 4 per cent below the 2019 baseline. Higher equity-share emissions were driven by the inclusion of a non-operated joint venture in the inventory and increased production levels at an operated asset. These increases were partially offset by divestment activities and decarbonisation projects. Performance remains aligned with the trajectory towards the 2030 target of a 25 per cent reduction in equity share emissions, as set out in our NZCE by 2050 Pathway. During the year, 78 per cent of equity share emissions were attributable to operated assets, with the remaining 22 per cent from non-operated assets.

PETRONAS Group-wide GHG Emissions - Equity Share
(million tonnes carbon dioxide equivalent)



Notes:
Boundary: PETRONAS Group-wide GHG emissions based on equity share approach.
Reduction percentage is against baseline year of 2019.
2024 number has been restated post verification.

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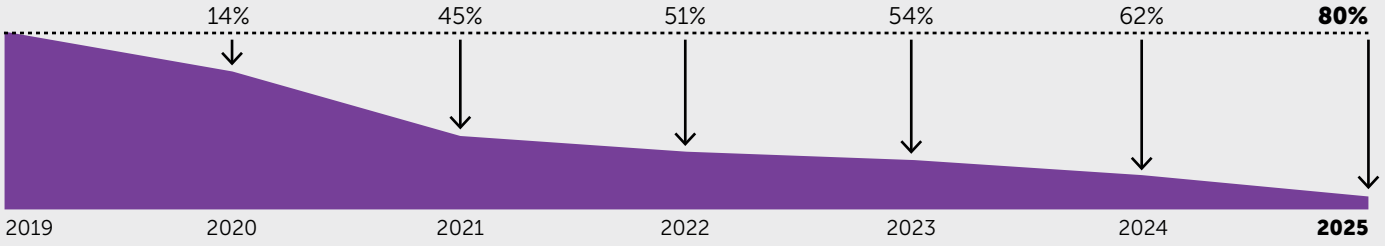
PETRONAS Group-wide Natural Gas Value Chain - Methane Emissions

Methane emissions are a major contributor to global warming, and international efforts such as the Global Methane Pledge call for at least a 30 per cent reduction in methane emissions by 2030 from 2020 levels. As hydrocarbon extraction is a significant source of methane emissions, the oil and gas sector has a critical role to play in achieving these reductions. Accordingly, PETRONAS treats methane performance as a strategic priority within the NZCE by 2050 Pathway.

PETRONAS Group-wide Natural Gas Value Chain - Methane Emissions

Percentage reduction from base year 2019



Notes:
Boundary: PETRONAS Group-wide methane emissions from the natural gas value chain, covering Upstream and Gas businesses based on operational control approach.
Reduction percentage is against baseline year 2019.
Methane emissions from assets in operation and does not include idle and decommissioned assets.

We have implemented methane emissions reduction initiatives and strengthened measurement accuracy across methane emission sources in both operated and non-operated assets along the natural gas value chain. As a result, PETRONAS achieved an 80 per cent reduction in Group-wide methane emissions from the natural gas value chain compared with the 2019 baseline, surpassing the 2025 target of a 50 per cent reduction and meeting the 2030 target of a 70 per cent reduction ahead of schedule.

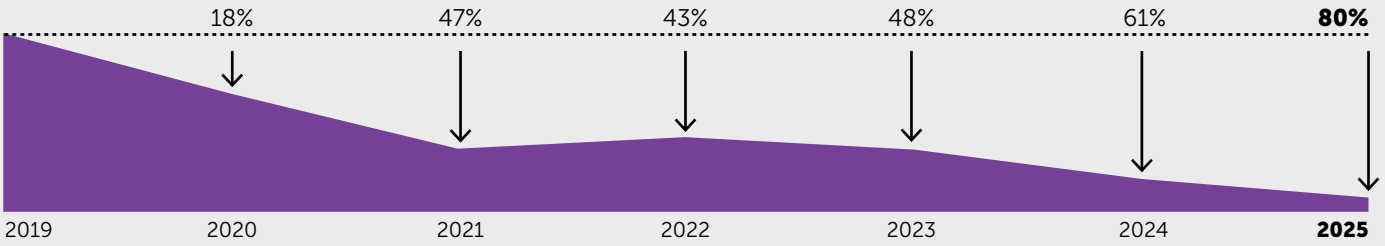
This performance was driven primarily by sustained reductions in venting and flaring, including the achievement of zero routine venting across operated Upstream assets in Malaysia in 2024. Methane emissions management continues to be strengthened through improvements in measurement accuracy, data reliability and transparency, supporting informed decision-making and building confidence among investors and stakeholders. This is the result of PETRONAS' commitments to the World Bank's Zero Routine Flaring initiative, the Oil and Gas Methane Partnership 2.0 and the Global Methane Pledge.

Malaysia Natural Gas Value Chain - Methane Emissions

We achieved an 80 per cent reduction in methane emissions for Malaysia's natural gas value chain, surpassing the 2030 target of a 50 per cent reduction from the 2019 baseline.

Malaysia Natural Gas Value Chain - Methane Emissions

Percentage reduction from base year 2019



Notes:
Boundary: Malaysia's natural gas value chain covering Upstream (includes all Upstream assets under the purview of Malaysia Petroleum Management (MPM)) and Gas businesses.
Reduction percentage is against baseline year 2019.
Methane emissions from assets in operation and does not include idle and decommissioned assets.

Key contributors to the methane emissions reductions included:

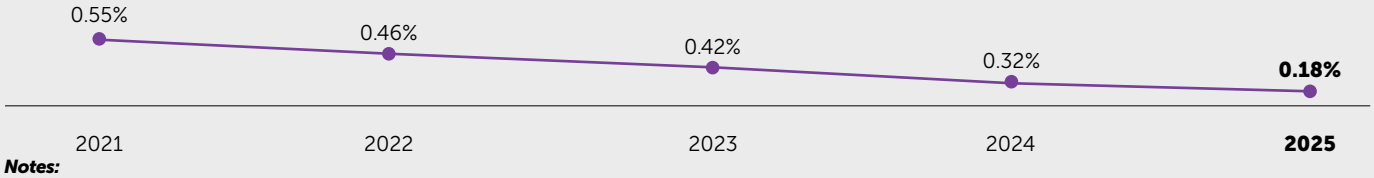
- Reduction of emissions from venting through vent-to-flare conversion projects.
- Vent reduction through membrane improvements in acid gas removal units.
- Improvement of methane measurement practices at non-operated assets.
- Engagements with joint venture partners on reporting improvements.

PETRONAS Group-wide Natural Gas Value Chain - Methane Intensity

PETRONAS is a signatory to the Oil and Gas Decarbonisation Charter (OGDC), which targets near-zero methane emissions by 2030. Near-zero methane emissions are defined as below 0.2 per cent methane emissions intensity, in line with the Oil and Gas Climate Change Initiative (OGCI) definition. In 2025, we achieved a methane emissions intensity of 0.18 per cent, a 44 per cent improvement year-on-year.

PETRONAS Group-wide Natural Gas Value Chain - Methane Intensity

methane emissions (m^3)/total gas sold (cubic metres)



Notes:

Boundary: Methane emissions intensity from PETRONAS Group-wide natural gas value chain, covering Upstream and Gas businesses based on operational control approach.

Methane emissions intensity calculation is aligned with the Oil and Gas Climate Initiative (OGCI), i.e. methane emissions (cubic metres) / total gas sold (cubic metres).

OGDC encourages collaboration and enables knowledge sharing within the oil and gas industry to advance decarbonisation efforts. During the year, we engaged in OGDC-facilitated training on methane measurement in accordance with the Oil & Gas Methane Partnership 2.0 technical frameworks.

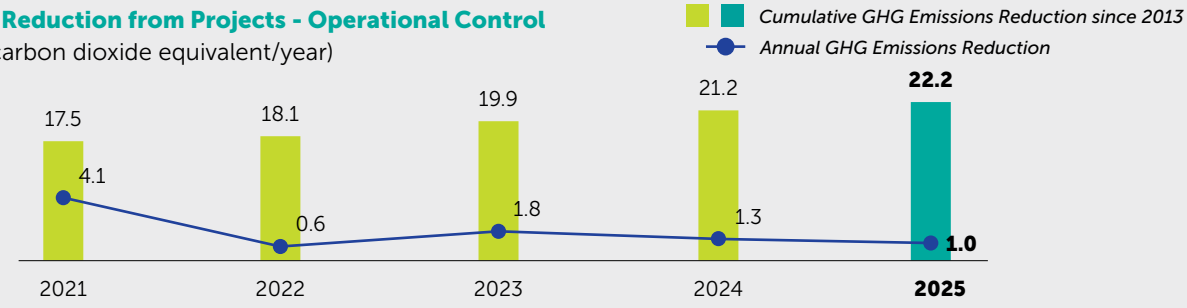
Emissions Reduction Projects

Our approach to emissions reduction is increasingly embedded in how we design, operate, maintain and invest across our portfolio. We prioritise actions that deliver sustained reductions in operational emissions, continuous performance improvement and the integration of lower-carbon solutions into both existing operations and new developments. This includes embedding emissions considerations early in project design, strengthening operational controls and systematically identifying opportunities to reduce carbon emissions across our assets.

We continued to implement emissions reduction projects across our operations, spanning operational efficiency improvements, the reduction of routine emissions sources and the integration of lower-carbon energy solutions where feasible. As we embed carbon pricing into decision-making and portfolio optimisation, the organisation is progressively shifting towards lower-emissions and higher efficiency operations.

GHG Emissions Reduction from Projects - Operational Control

(million tonnes carbon dioxide equivalent/year)



Notes:

The line graph represents annual GHG emissions reduction from emission reduction projects implemented during the respective year.

Boundary: GHG emissions reductions from projects implemented in PETRONAS Group-wide based on operational control approach.

In 2025, 24 emissions-reduction projects were completed across the Group, resulting in annual reductions of 1.0 million tonnes of CO_2e. The projects included:

i. Flare reduction at two Upstream offshore assets in Peninsular Malaysia by optimising the acid gas removal units (AGRU).
ii. Energy efficiency improvements at the gas processing plant by optimising the condensate stripper, as well as the reciprocating and overhead compressors.
iii. Electrification at PETRONAS retail stations through solar panel installation.

Since 2013, we have cumulatively reduced annual emissions by 22.2 million tonnes of CO_2e across our assets (operational control).

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Emissions Reduction by Abatement Levers in 2025

Flaring and Venting

Flaring and venting projects reduced emissions by 0.58 million tonnes CO_2e per year.

Energy Efficiency

Energy efficiency projects reduced emissions by 0.39 million tonnes CO_2e per year.

Electrification

Electrification projects reduced emissions by 0.001 million tonnes CO_2e per year.

Flaring and Venting

Eliminating routine flaring and venting is a key emission abatement lever that supports delivery of our NZCE by 2050 Pathway. We do this through targeted, project-level interventions that minimise resource losses and reduce emissions across our operations.

In line with the World Bank's Zero Routine Flaring by 2030 initiative and the Oil and Gas Decarbonisation Charter, we have made significant progress in reducing routine flaring from our Group-wide Upstream oil assets. These include avoiding routine flaring in all new oil field developments and progressively phasing out routine flaring at existing production sites by 2030. These commitments cover our Upstream operations under operational control, excluding safety-related and non-routine flaring. All new and existing oil field development projects are assessed under PETRONAS Carbon Commitments to confirm alignment with World Bank's Zero Routine Flaring by 2030 expectations.

We have disclosed our flaring data under the operational control boundary to the World Bank since 2022. In 2024, we reported a total flaring volume of 1,579 million standard cubic metres (sm^3) and routine flaring volume of 1,042 million sm^3. Total flaring volumes accounts for routine, non-routine and safety flaring.

In terms of intensity, we recorded a flaring intensity of 9.29 sm^3 per barrel of oil equivalent* in 2024, reduced by 6 per cent from 2023 (9.89 sm^3 per barrel oil equivalent). This reduction was driven by additional compressor installation to export associated gas at identified assets while increasing our production.

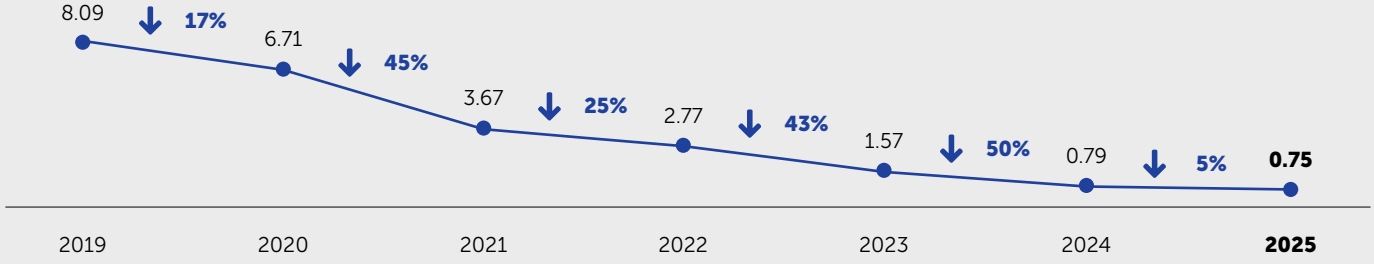
Note:

** A barrel of oil equivalent (boe) is a unit of energy measurement used to standardise and compare the energy content of different energy sources, such as oil, natural gas and coal, by equating them to the energy contained in one barrel of crude oil. The data above specifically refers to Upstream oil assets, in line with the World Bank's Zero Routine Flaring initiative boundary.*

Scan the QR code to read the PETRONAS Zero Routine Flaring Report.

PETRONAS' Upstream Business Venting - Operational Control

(million tonnes carbon dioxide equivalent)



Notes:

Boundary: Venting emission from PETRONAS' Upstream business based on operational control approach. This includes non-routine and routine venting.
Venting is defined as the direct release of gases, predominantly hydrocarbon gases into the atmosphere without combustion.
Venting reduction percentage compared to previous year.

PETRONAS' Upstream business eliminated routine venting across all Malaysia-operated assets under its operational control in 2024. The integration of PETRONAS carbon commitments into the designs and operations have helped reduced upstream venting by 5 per cent in 2025 compared to 2024 as illustrated in the graph above.

Malaysia Petroleum Management (MPM) provides upstream stewardship by setting flaring reduction expectations within the governance framework for Upstream Malaysia, supporting alignment with PETRONAS' NZCE by 2050 Pathway. Flaring and venting requirements are incorporated into our Governing Standards for Malaysia Petroleum Operations and Minimum Environmental Standards, which apply to upstream petroleum arrangements in Malaysia under MPM's purview.

MPM strengthens its accountability through systematic monitoring of flaring and venting volumes and carbon intensity, using measurement-based approaches aligned with Oil and Gas Methane Partnership 2.0 principles. This oversight enables early identification of flaring, informs operational interventions, and supports the integration of Zero Routine Flaring considerations into project sanctioning and operational reviews. Together with the implementation of targeted abatement measures, these processes contribute to sustained reductions in routine flaring.

To translate governance expectations into outcomes, MPM facilitates the implementation of practical abatement solutions, including vent-to-flare conversions, flare gas recovery and gas evacuation projects, complemented by energy efficiency and electrification measures. These coordinated efforts support sustained reductions in routine flaring and contribute to GHG emissions reduction across upstream oil and gas activities in Malaysia.

Energy Efficiency

Energy efficiency is recognised by the International Energy Agency (IEA) as a 'first fuel' of the energy transition and serves as a key emissions-abatement lever for PETRONAS. Effective energy efficiency efforts lower GHG emissions, improve operational performance and enhance cost competitiveness.

Operational efficiency initiatives are complemented by the adoption of renewable energy solutions where feasible, resulting in further reductions in energy consumed from fossil fuels and operational costs. These actions are enabling the efforts to decouple business growth from emissions, supporting our NZCE by 2050 Pathway delivery.

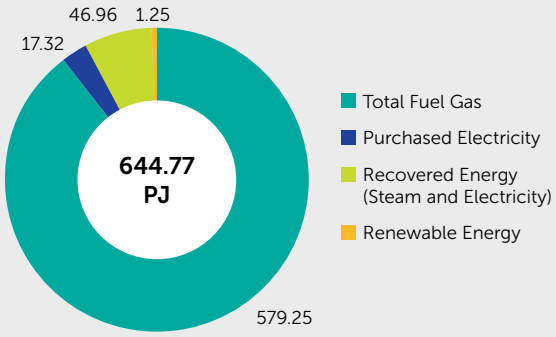
In Malaysia and across ASEAN, energy security and affordability remain essential to economic development and business continuity. Recognising this, the Malaysian Government has prioritised energy efficiency in the National Energy Transition Roadmap (NETR) and through the enactment of the Energy Efficiency and Conservation Act (EECA) 2024. PETRONAS has responded by implementing a Group-wide energy management system aligned with international standards and frameworks. To support the energy management system implementation, we are committed to enhancing staff capability through certification in Registered Energy Auditor (REA) and Registered Energy Manager (REM) training programmes as well as our in-house Decarbonisation Programme.

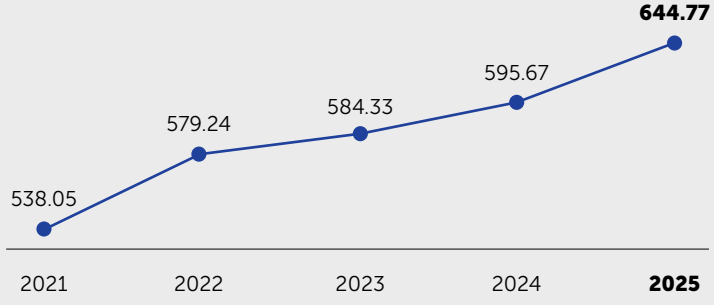
Energy Consumption of PETRONAS Group-wide, Operational Control

In 2025, our Group-wide energy consumption was 644.77 petajoules (PJ) as compared to 595.67 PJ in 2024, which is approximately 8 per cent higher than the previous year. The increase in annual energy consumption resulted from our business portfolio expansion and higher production across the value chain.

PETRONAS Group-wide Energy Consumed - Operational Control
(petajoule)

Energy Consumption Breakdown for 2025





Note:
Boundary: PETRONAS Group-wide Energy Consumption based on the Operational Control approach.
Historical numbers reconciliation reflect latest improvements in measurement, reporting and verification process of energy consumption quantification through internal and external verification exercise.

Despite the increasing trend in total energy consumption, we have managed to limit the increase in energy intensity from 2024 to 2025 across the business, except for petrochemicals, to less than 5 per cent. In addition, PETRONAS has demonstrated energy efficiency, as seen in the general decreasing trend across 2021 to 2025 in energy intensity across most businesses. Group-wide, energy efficiency has been strengthened through enhancements in operating modules, utilisation of process automation and improvements in equipment efficiency.

Delivering Net Zero

In 2025, we utilised 46.96 PJ of recovered energy, comprising steam and electricity, across our operations, as reflected in the energy consumption breakdown. This demonstrates the continued integration of operational and energy efficiency. In parallel, renewable energy adoption progressed, with 1.25 PJ introduced, including approximately 169,000 GJ of solar energy generated from PRPC Utilities and Facilities within the Pengerang Integrated Complex in Johor.

On an energy intensity basis, the Upstream business recorded a 1.7 per cent decrease in energy intensity to 190.6 GJ/kboe in 2025, compared with the previous year. This reduction was primarily driven by improved energy efficiency across operations.

Following the 2022 upgrade of our refinery in Melaka to meet EURO 5 diesel specifications under the Environmental Quality Regulations 2015, energy intensity adjusted accordingly and has since stabilised at approximately 0.3 GJ/bbL. The petrochemical business recorded an energy intensity of 16.08 GJ per million tonnes in 2025, reflecting a change in the energy consumption boundary under the PETRONAS Group-wide Energy Loss Management System methodology, aligned with the Group's GHG emissions boundary[1]. Underlying energy performance remained broadly consistent with normal operating conditions over the 2021 to 2025 period.

LNG and Gas Processing facilities recorded a 2 per cent reduction in energy intensity, to 4.49 GJ/tonne in 2025. This improvement was driven by stronger performance at PETRONAS Floating Liquefied Natural Gas (PFLNG) and PETRONAS LNG Complex (PLC) assets, supported by higher production and reduced unplanned downtime.

Overall, our Gas and Maritime business achieved a reduction of 18 PJ in energy consumption in 2025, contributed by both MISC Group (8 PJ) and PLC (10 PJ). This was due to fewer vessels operating within the gas fleet as part of ongoing fleet rejuvenation efforts, as well as lower downtime.

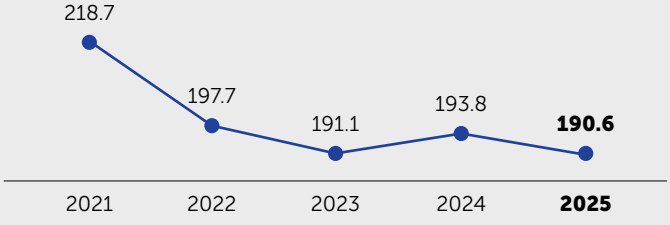
1 Petrochemicals boundary change - inclusion of internally generated energy in commodity chemicals segment as part of the Energy Loss Management System rollout, aligned with international standards and frameworks.

Energy Intensity by Business, Operational Control

(gigajoules per business-specific denominator)

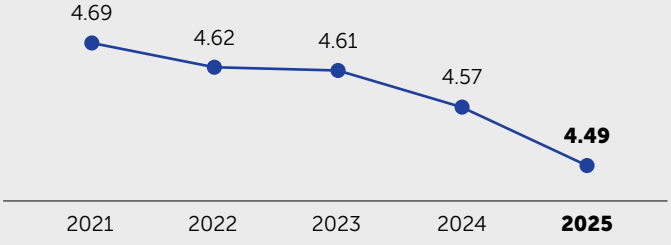
Upstream Energy Intensity

(gigajoules per kilobarrel of oil equivalent)



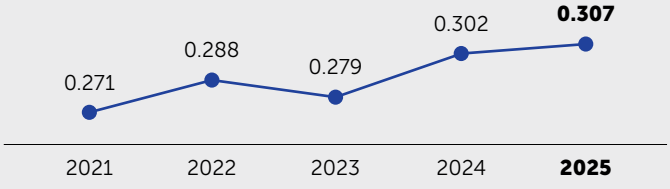
LNG and Gas Processing Energy Intensity

(gigajoules per tonne of production)



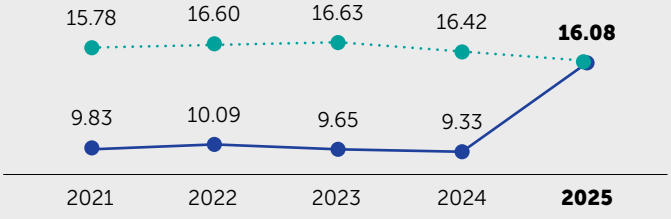
Refineries Energy Intensity

(gigajoules per barrel of oil)



Petrochemicals Energy Intensity

(gigajoules per million tonne of production)



Dotted line indicates reconciled petrochemicals energy intensity based on revised boundary (with inclusion of internally generated energy).

Notes:

Boundary: Business-specific energy intensity based on Operational Control approach.

Energy Efficiency and Energy Reduction Projects

Energy efficiency has long been embedded across our operations and remains a core element of our operational excellence efforts. We continue to enhance energy efficiency performance across the integrated value chain through targeted initiatives, including optimisation of natural gas consumption for supplementary firing in heat recovery steam generators, equipment upgrades and retrofits, and the deployment of advanced process control and steam recovery systems.

In the Upstream business, energy efficiency measures progressed further in 2025. Improvements in power generation efficiency and demand-optimisation initiatives delivered an estimated reduction of around 480,000 GJ in energy consumption, corresponding to a reduction of approximately 28,000 tonnes carbon dioxide equivalent (tCO_2e) in GHG emissions for the year.

The Downstream business implemented multiple energy efficiency initiatives across refinery and petrochemical assets, primarily targeting utility system optimisation, advanced process control enhancements and equipment insulation retrofitting. Collectively, these initiatives resulted in energy reduction of more than 200,000 GJ per year, which is around 25,000 tCO_2e in GHG emissions annually.

Within our Gas and Maritime business, energy optimisation efforts were advanced at the Gebeng utilities asset through the Gas Turbine Efficiency Upgrade Project. This effort introduced an advanced gas path to improve heat rate and increase power output. As at December 2025, it delivered an average energy reduction of approximately 74,440 GJ per year, translating into a cumulative GHG emissions reduction of around 1,630 tCO_2e for the year.

Overall, these improvements have been subject to consistent monitoring of energy efficiency performance and timely engineering interventions, supported by in-house tools, established methodologies and an enterprise-wide energy management system.

Scan the QR code on page 97 of this report for detailed information.

Electrification and Carbon Capture and Storage

Alongside energy efficiency and the elimination of routine flaring and venting, electrification and carbon capture and storage (CCS) form key pillars of PETRONAS' emissions abatement approach. Where access to low-carbon electricity, grid reliability and project economics allow, we electrify selected assets to reduce on-site fuel consumption and Scope 1 emissions. Concurrently, we are advancing CCS as a medium- to long-term solution for hard-to-abate emissions, leveraging our expertise in subsurface evaluation, reservoir management, and large-scale project delivery and execution.

The role of electrification and CCS is expected to grow over time as technology matures, enabling infrastructure and policy frameworks to improve their accessibility and cost-effectiveness. Together, these emissions-abatement levers support our response to climate-related risks by lowering operational emissions, strengthening resilience to evolving policy, regulatory and market developments, and providing a credible pathway to meeting our GHG and methane emissions reduction targets.

Strengthening Greenhouse Gas Emissions Management

To strengthen the consistency, transparency and accuracy of GHG emissions data, we revised our internal technical standards on GHG emissions management. This resulted in a more streamlined, Group-wide GHG methodologies, supporting enterprise adoption and contributing to the achievement of the Oil and Gas Methane Partnership 2.0 Gold Standard.

GHG emissions across all operations are quantified using actual measured operational data, applying industry-accepted measurement methods such as flow meter readings, gas composition sampling, clamp-on flow meters and quantitative optical gas imaging (QOGI) for fugitive emissions.

The Environment, Social Performance and Product Stewardship Integrated and Centralised System (EPICS) is an enterprise digital platform that serves as the single source of truth for Group-wide GHG data reporting, management and governance. The methane data capture module was updated in accordance with the Oil and Gas Methane Partnership 2.0 reporting requirements, supporting our methane emissions reduction efforts through strengthened Measurement, Reporting and Verification (MRV).

Targeted initiatives continue to build practitioners' capabilities across the organisation. In 2025, we held 19 GHG Community of Practice sessions focused on knowledge sharing, training and upskilling activities to strengthen capability across PETRONAS. We also organised a lead GHG verifier training to strengthen internal verification competency in line with the principles set out in ISO 14064-3: Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.

Delivering Net Zero

A three-year GHG data verification programme was initiated to confirm the accuracy and credibility of our emissions data. This strengthens confidence in our sustainability disclosures and supports informed decision-making. In 2025, independent assurance was conducted in line with ISO 14064-3:2019 which resulted in the issuance of a Limited Level Assurance Statement for Scope 1 and Scope 2 (Equity Share), and for Scope 3, Category 1 (Operational Control) and Category 11 (Operational Control and Equity Share).

Refer to Basis of This Report on page 5.

Data Verification

Our GHG emissions data were independently verified by LRQA Inspection Malaysia Sdn Bhd. This verification provides assurance over the accuracy of our emissions information. It also strengthens governance and regulatory readiness while supporting investor and stakeholder confidence, enhancing the reliability and transparency of our reporting. We have set 2019 as the baseline year for tracking progress towards achieving our NZCE by 2050 Pathway targets.

To further enhance confidence in our disclosed data, independent assurance was conducted on past data sets from 2020 to 2024 in accordance with ISO 14064-3:2019, Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements, and Limited Assurance Statements were issued for the verified emissions scopes and categories. As part of the assurance exercise, certain historical GHG data were restated to reflect updated methodologies and verification outcomes. Going forward, our GHG emissions data will be subject to annual verification.

The scope of independent assurance obtained is summarised in the table below:

GHG Accounting Approach	Level of Assurance	Data in Years	Boundary	GHG Scope
Operational Control	Limited	2019 - 2023	PETRONAS Core Business Operations (Upstream, Gas and Downstream)	Scope 1 and 2
Operational Control	Reasonable	2024	PETRONAS Core Business Operations (Upstream, Gas and Downstream)	Scope 1 and 2
Equity Share	Limited	2019 - 2024	PETRONAS Group-wide Operations	Scope 1 and 2
Operational Control and Equity Share	Limited	2019 - 2024	PETRONAS Core Business and Group-wide Operations	Scope 3 (Category 11: Use of Sold Products - Fuel)

Strengthening Scope 3 Emissions Disclosure

In 2025, PETRONAS Group-wide quantified material Scope 3 emissions from Category 11 (Use of Sold Products - Fuel) amounted to 300.03 million tonnes CO_2e (Operational Control approach) and 285.39 million tonnes CO_2e (Equity Share). Meanwhile, Category 1 (Purchased goods and services) recorded 18.73 million tonnes CO_2e (Operational Control).

In preparation for the Malaysian National Sustainability Reporting Framework and the EU Corporate Sustainability Reporting Directive, PETRONAS and the Group's public listed companies are strengthening readiness to improve the quantification and disclosure of material Scope 3 emissions. An internal guidance document has been developed to support our public listed companies in preparing their Scope 3 emissions quantification and disclosures.

As part of capability development, Scope 3 is included in our sustainability training programmes to build employee awareness.

Methane Emissions Management

PETRONAS remains proactive in methane emissions management to demonstrate measurable progress towards the delivery of our NZCE by 2050 Pathway targets.

We continue to enhance transparency in our methane emissions management and performance to reinforce stakeholder trust in our efforts. To help drive performance improvements in our methane emissions management, we are signatory to the following initiatives:

- **Methane Guiding Principles (2020-2025)**. The Methane Guiding Principles initiative was officially retired in 2025 after successfully achieving its original objectives of elevating industry-wide focus on methane emissions reduction within the oil and gas sector.
- **World Bank's Zero Routine Flaring** by 2030 Initiative (since 2021).
- **Oil and Gas Methane Partnership 2.0** (since 2022).
- **Oil and Gas Decarbonisation Charter** (since 2023).
- **Joint Statement on Decarbonisation and Methane Emissions Reduction from Organisations in the Southeast Asian Energy Sector** (announced in 2024).

Oil and Gas Methane Partnership 2.0

We became a signatory member of the Oil and Gas Methane Partnership 2.0 in 2022, with the objective to improve our methane emissions accuracy and transparency and build stakeholder trust through the adoption of a credible industry framework.

Scan the QR code to read the PETRONAS Oil and Gas Methane Partnership (OGMP) 2.0 Report.

Understanding the Oil and Gas Methane Partnership 2.0 Reporting Levels

The Oil and Gas Methane Partnership 2.0 framework for methane emissions reporting consists of five levels, each offering increasing detail and accuracy. This tiered approach helps companies progressively improve their methane emissions monitoring and reporting practices.

Level 1	Asset level reporting (single consolidated) emissions.
Level 2 and 3	Source type based on generic emission factors.
Level 4	Source level direct measurement or methodologies.
Level 5	Level 4 and site level measurement reconciliation.

In 2025, we improved our measurement practices from Level 3 to Level 4 across all material operated assets. We also continue to perform site-level measurement and reconciliation for selected assets, supporting our commitment to achieve Level 5 under the Oil and Gas Methane Partnership 2.0 reporting framework. The efforts contributed to PETRONAS achieving the Oil and Gas Methane Partnership 2.0 Gold Standard in Reporting.

Our Performance for Methane Emissions Reporting under Oil and Gas Methane Partnership 2.0

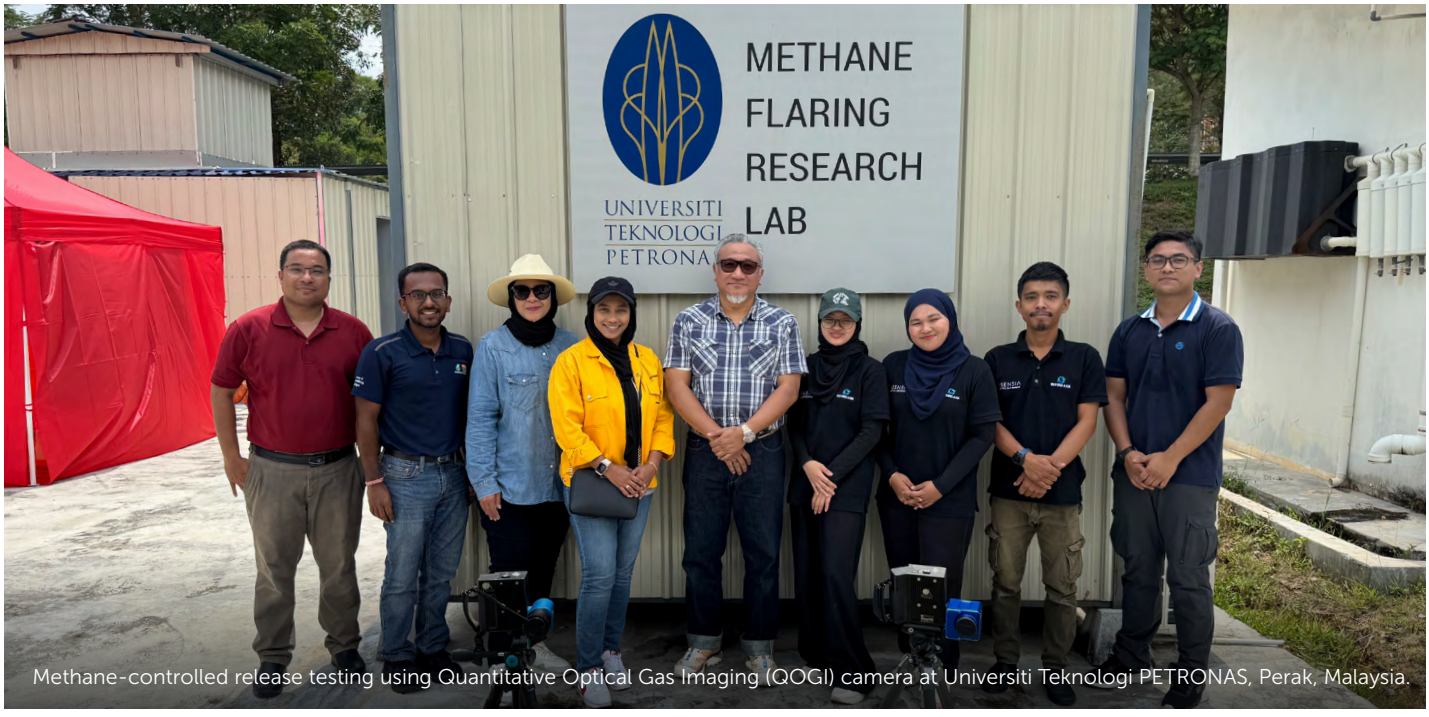
Year 3 31 May 2025	Recognised with **Gold Standard in Reporting status**.
Year 2 31 May 2024	Recognised with **Gold Standard Pathway status**.
Year 1 31 May 2023	Awarded **Gold Standard** for the implementation plan. Recognised with **Gold Standard Pathway**.

We achieved Gold Standard Reporting under the Oil and Gas Methane Partnership 2.0, reflecting the highest level of methane emissions data quality and transparent disclosure across our operated assets. This recognition validates the discipline we apply in measurement, verification and reporting.

Delivering Net Zero

Strengthening Methane Measurement and Quantification Accuracy

Fit-for-purpose technologies aligned with the Oil and Gas Methane Partnership 2.0 technical requirements, including ultrasonic flow meters and ultrasonic clamp-on flow meters, were deployed to support our source-level methane emission practices. To further strengthen our approach and enhance the reliability of our reporting, we conducted methane controlled-release testing using several models of Quantitative Optical Gas Imaging (QOGI) cameras. The lessons learnt and identified best practices have informed refinements to our operational procedures and supported improved measurement accuracy.



Methane-controlled release testing using Quantitative Optical Gas Imaging (QOGI) camera at Universiti Teknologi PETRONAS, Perak, Malaysia.

Working with Partners to Abate Methane Emissions

MPM, the regulatory arm and the host authority for Malaysia's upstream activities, continues to enforce methane emissions measurement, quantification and reporting by partners in Malaysia's upstream operations. These requirements have improved the accuracy of operators' reported methane emissions and support ongoing reduction efforts.

In collaboration with a joint venture partner to mitigate methane emissions from a shared asset, we investigated and validated emissions sources following satellite observations by the United Nations Environment Programme's Methane Alert and Response System (MARS). Drone surveys were subsequently deployed to support this process, with findings informing a targeted set of mitigation actions, including permeate flare tip rectification, flare system operational adjustments, measurement improvements and process membrane optimisation. This case demonstrates that rigorous methane measurement is fundamental to precise root-cause identification and effective emissions mitigation.

Advancing Regional Methane Management Capability

PETRONAS, in collaboration with ASEAN energy operators, government agencies and international organisations, launched the ASEAN Energy Sector Methane Leadership Program (MLP) in June 2023 and has continued advancing regional efforts on methane emissions management. In 2025, as Chair of the MLP, PETRONAS delivered key methane management programmes at Energy Asia 2025, including the 8th ASEAN Energy Sector Methane Roundtable, the Methane Leadership Program 2.0 Technical Workshop and the Southeast Asia Methane Technology Evaluation Centre (SEA METEC) Workshop.

Through MLP, we support regional capacity building and advocacy through technical workshops and masterclasses for ASEAN energy sector companies, focused on Oil and Gas Methane Partnership 2.0 delivery and methane emission abatement technologies. Collectively, with our regional and international partners, we are strengthening methane emissions management across ASEAN, aligned with the Global Methane Pledge.

Sustainability Impact

Through our commitment to NZCE by 2050, we are translating climate commitments into tangible, enterprise-wide impact. Our efforts, highlighted in this section, strengthen emissions governance, embed climate considerations into operational and investment decisions, and improve the integrity and transparency of our emissions data. Together, they enhance our ability to manage climate-related risks, capture decarbonisation opportunities and support a resilient transition pathway for the Group.

By advancing emissions management across Scope 1, Scope 2 and material Scope 3 categories, scaling methane emission mitigation, and integrating transition and physical climate-related risk insights into business planning, we are reinforcing accountability and enabling informed decision-making across the organisation.

These efforts contribute to emissions reductions over time and build the foundations for consistent disclosure, stakeholder confidence and long-term value creation in a lower-carbon energy system.