

**PETRONAS GAS BERHAD**  
198301006447 (101671-H)



**PETRONAS**



**CATALYSING GROWTH**  
*SHAPING TOMORROW*

SUSTAINABILITY REPORT 2024

## BASIS OF THIS REPORT

### CATALYSING GROWTH SHAPING TOMORROW

The cover design encapsulates "Catalysing Growth" through dynamic layers of vibrant green converging at the centre, symbolising PETRONAS Gas Berhad (PGB)'s interconnected operations working in harmony to drive impactful energy solutions.

At the heart of the design, a central droplet signifies PGB's catalytic role in transforming resources into energy, fueling industries and economic progress. The bold green hues reinforce sustainability, reflecting PGB's commitment to responsible growth and operational excellence.

This visual concept highlights PGB's ability to integrate seamlessly, innovate continuously, and deliver efficient energy solutions, positioning it as a key enabler in Malaysia's evolving energy landscape.



**Scan Me**  
To learn more about PGB, including our business activities, processes and presence, please refer to pages 4-24 of our Integrated Report 2024. Scan the QR code to download.



In keeping our stakeholders apprised of our progress, we are proud to present our 2024 Sustainability Report ("Report"). This Report provides a comprehensive overview of our concerted efforts to align economic ambitions with industry-leading ESG practices across our operations. The Report forms part of a broader reporting suite that also includes our Integrated Report 2024, as outlined below.

#### INTEGRATED REPORT (IR)

Serving as our flagship publication for all stakeholders, the Integrated Report provides a comprehensive view of both our financial and non-financial performance, illustrating how we generate and distribute value.

#### SUSTAINABILITY REPORT (SR)

Focusing on our ESG-driven initiatives, the Sustainability Report highlights our commitment to responsible governance, delivering sustainable growth, safeguarding the environment, and ensuring positive social impacts, underscoring how these efforts position our business for long-term success.

**As Malaysia's leading gas infrastructure and centralised utilities company, we are dedicated in striking a careful balance between upholding operational excellence, driving long-term value creation, and managing our business sustainably.**

Our operations significantly impact a wide range of stakeholders—employees, suppliers, business partners, local communities, and the nation at large. Simultaneously, our ability to thrive hinges on adapting to a rapidly evolving landscape of rigorous sustainability regulations and rising expectations from both investors and consumers.

Amidst a transformative landscape, it is imperative for us to integrate robust environmental, social, and governance (ESG) practices into every aspect of our operations and strategy. By doing so, we reinforce our commitment to responsible participation in the global energy transition and ensure we continue to foster sustainable progress across the value chain.

#### SCOPE AND BOUNDARY OF REPORTING

Unless otherwise stated, this Report covers the period from 1 January 2024 to 31 December 2024 (FY2024). The disclosures provided cover our principal business activities, encompassing our business segments, subsidiaries and joint venture operations, and is tailored to meet the information needs of our investors. Additionally, this Report showcases our efforts to generate value for a range of key stakeholders, such as employees, customers, government agencies and authorities, suppliers, and local communities.

#### NAVIGATION ICONS

##### Key Stakeholder Group

- |                                    |                                     |             |
|------------------------------------|-------------------------------------|-------------|
| Investors and Funding Institutions | Suppliers and Vendors               | Communities |
| Non-Governmental Organisation      | Employees and Unions                | Media       |
| Business Partners                  | Government Agencies and Authorities | Customers   |

#### RESTATEMENTS OF INFORMATION

Certain performance data for 2022 and 2023 have been restated in this Report to ensure consistency in calculation methodologies or due to a revised interpretation of relevant data requirements.

#### REPORTING FRAMEWORKS

This Report is prepared in alignment with both national and international sustainability reporting standards, ensuring transparency, comprehensiveness, and relevance for our stakeholders.

- Global Reporting Initiative (GRI) Universal Standards 2021
- Sustainability Accounting Standards Board (SASB)
- Bursa Malaysia Securities Berhad (Bursa Malaysia)
- Sustainability Reporting Guide (3rd Edition)
- FTSE4Good Bursa Malaysia Index's ESG Indicators
- International Petroleum Industry Environmental Conservation Association (IPIECA) Sustainability Reporting
- Guidance for the Oil and Gas Industry (4th Edition, 2020)
- United Nations Sustainable Development Goals (UNSDGs)
- Task Force on Climate-related Financial Disclosures (TCFD) Recommendations
- International Sustainability Standards Board's (ISSB) International Financial Reporting Standards (IFRS) S1 and S2

Having fully addressed TCFD recommendations, we have further adopted the disclosure requirements of IFRS S2 Climate-Related Disclosures where feasible. We remain committed to continuously enhancing the quality of our climate-related disclosures as we progress in our sustainability journey.

#### BOARD APPROVAL

The Board of Directors acknowledges its responsibility to ensure the accuracy and integrity of this Report. In their judgment, this Report provides a true reflection of our sustainability performance and addresses the material issues affecting both our operations and the wider industries in which we operate.

#### OUR REPORTING PRINCIPLES

This Report captures our sustainability performance for 2024 across our operational footprint. To ensure that our reported material topics remain aligned with emerging sustainability trends, risks, and the industry landscape, we undertake a comprehensive review of multiple information sources—ranging from governmental acts, regulations, and guidelines to media reports, PETRONAS policies and guidelines, peer benchmarking analyses, internal audit findings, surveys, and enterprise risk documents. We also integrate insights and feedback from our stakeholders, enabling us to clearly identify, prioritise, and address material sustainability matters in line with our broader business strategies.

As part of our commitment to continual improvement, we closely monitor our sustainability initiatives and regularly refine both the scope and depth of our disclosures to enhance transparency and accountability year after year. In 2024, we expanded our GHG Emissions reporting to include Scope 3 emissions from Business Travel (Category 6) and Employee Commuting (Category 7).

#### INDEPENDENT ASSURANCE

We have continued to engage SIRIM QAS International Sdn. Bhd. to provide independent assurance for the contents of this Report. The full assurance statement can be found on pages 152-153.

#### FEEDBACK

We greatly appreciate and welcome your thoughts and feedback on this Report, which may be directed to:

PETRONAS Gas Berhad  
Level 50, Tower 1  
PETRONAS Twin Towers  
Kuala Lumpur City Centre  
50088 Kuala Lumpur, Malaysia

Attention to Sustainability Reporting Team  
or email to [pgbstratcomms@petronas.com](mailto:pgbstratcomms@petronas.com)



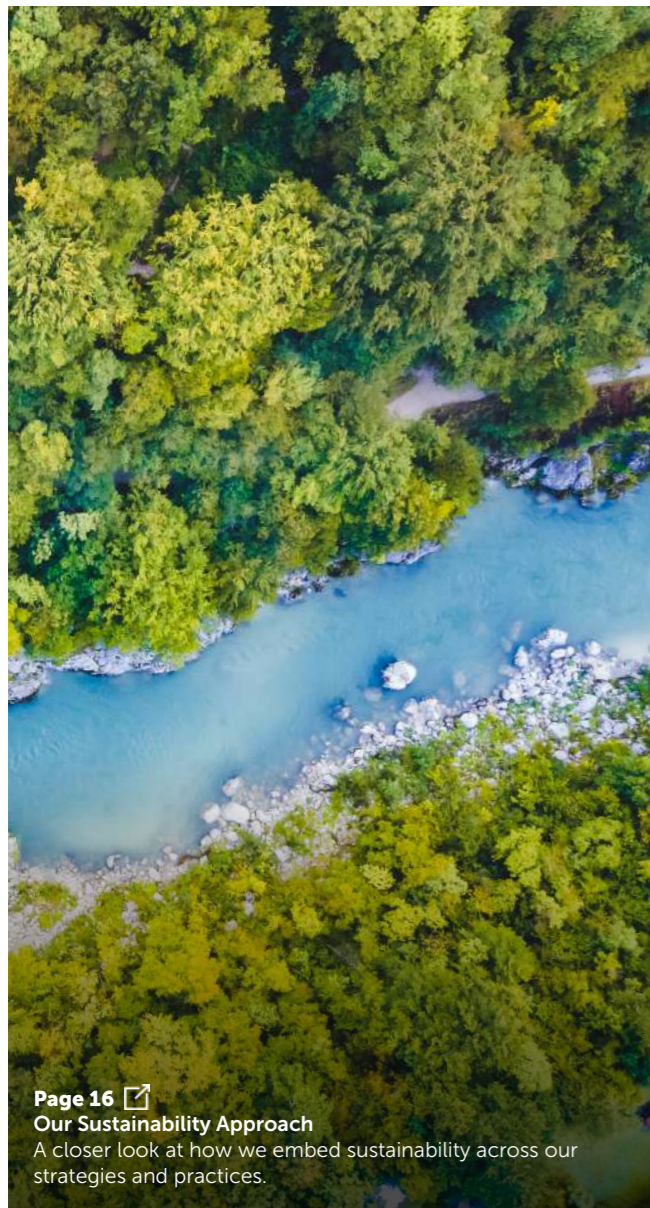
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Insights on our sustainability vision, strategic direction, and commitment to delivering long-term value.



**Page 16** [Our Sustainability Approach](#)  
A closer look at how we embed sustainability across our strategies and practices.

Guided by our vision of catalysing sustainable growth and shaping a better tomorrow, each section provides insights into how we are enhancing value for stakeholders, advancing our sustainability efforts, and strengthening our position in the industry.

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Insights into how we ensure stability and growth within an evolving energy landscape.



**Page 34** [Safeguard the Environment](#)  
Our commitment to environmental protection and climate change mitigation.



**Page 90** [Positive Social Impact](#)  
An overview of our initiatives to benefit our employees, suppliers and communities.



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Our efforts to uphold high standards of business ethics, transparency and accountability.



## FOREWORD BY THE CHAIRMAN OF THE BOARD SUSTAINABILITY AND RISK COMMITTEE

# EMBRACING OUR ROLE IN A SHIFTING ENERGY LANDSCAPE

**DATUK YEOW KIAN CHAI**

Chairman, Board Sustainability and Risk Committee

### DEAR VALUED STAKEHOLDERS,



As sustainability concerns place the energy sector in the global spotlight, PGB is committed to facilitate Malaysia's transition to a sustainable energy future.

It is my privilege, as Chairman of the Board Sustainability and Risk Committee (BSRC), to present this foreword for PGB's Sustainability Report 2024. Through this report, we share updates on the evolving energy landscape and PGB's strategic responses to mitigate risks, seize opportunities and ensure enduring value creation for all stakeholders.

## BOARD SUSTAINABILITY UPSKILLING SESSIONS DURING 2024

### EMBRACING OUR ROLE IN A SHIFTING ENERGY LANDSCAPE

Malaysia's demand for gas is expected to rise as the nation transitions away from coal and addresses the energy trilemma of affordability, sustainability, and security. This positions PGB as a key player with the vital duty of providing cleaner and more reliable energy across the country.

This transition requires a careful balance, as we identify and mitigate sustainability and climate-related risks while strategically pursuing growth opportunities that diversify our operations and fortify the long-term resilience of our business. At the same time, we acknowledge the growing expectations of our stakeholders and the nation, who look to us to drive sustainability and climate action across the energy sector.

Fulfilling this role requires us to remain closely aligned with the evolving energy landscape, adapting with agility while proactively addressing the rising expectations of regulators, customers, investors, and the broader public. By actively embracing our position in this changing business and operational environment, we are positioning ourselves as the catalyst in Malaysia's energy transition.



Gas Processing Kertih

**1**

### Global and National Sustainability Insights

Our growth is aligned with carbon reduction and energy security agendas

Refer to page 6

**2**

### GHG Emissions and Carbon Regulations

New assessments have been introduced to gauge our carbon tax exposure

Refer to page 46

**3**

### Scope 3 Emissions and Disclosures

Our emissions data now includes Scope 3 emissions for Category 6 and Category 7

Refer to page 56

## FOREWORD BY THE CHAIRMAN OF THE BOARD SUSTAINABILITY AND RISK COMMITTEE



We embrace our integral role to provide clean and reliable energy amidst Malaysia's energy transition.

### RESPONDING WITH AGILITY TO REGULATORY AND INDUSTRY TRENDS

PGB operates at the forefront of a rapidly changing regulatory environment, where each year brings stricter requirements and an increasing focus on transparency in sustainability disclosures. Recent developments include the National Sustainability Reporting Framework (NSRF), mandated greenhouse gas (GHG) assurance statements, and unfolding Bursa Malaysia reporting requirements, such as Scope 3 Category 6 and 7 disclosures and the forthcoming International Financial Reporting Standards (IFRS) S1 and S2 standards.

We remain cognizant of new regulations and frameworks emerging in the near future, including the Taskforce on Nature-related Financial Disclosures (TNFD) framework and Bursa Malaysia's impending requirements for additional Scope 3 category disclosures. Simultaneously, the Malaysian government is advancing its climate action agenda, highlighted by the Ministry of Finance's announcement during Budget 2025 of plans to introduce a carbon tax for the iron, steel, and energy industries by 2026. The introduction of the National Climate Change Policy (NCCP) 2.0 is also expected to play a pivotal role in establishing formalised governance structures and allocating resources to drive meaningful climate action in Malaysia.

These regulatory and policy developments are facilitating industry-wide progress by intertwining sustainability with competitive advantage. Customers and investors are increasingly prioritising businesses with robust ESG practices and sustainable products, while financial institutions adopt stringent sustainability investment frameworks that link funding decisions to clear ESG progress and commitments.



## FOREWORD BY THE CHAIRMAN OF THE BOARD SUSTAINABILITY AND RISK COMMITTEE

As a publicly listed company, PGB places the highest priority on addressing stakeholder expectations regarding sustainability. Our proactive approach to staying ahead of regulatory changes continues to ensure our relevance and strengthen our position as a sustainability leader. As a testament to this commitment, we successfully completed addressing Bursa Malaysia's mandated TCFD Recommendations ahead of schedule, positioning us to seamlessly comply with upcoming IFRS S1 and S2 standards. Additionally, we have initiated strategic preparations for the impending carbon tax, with Carbon Footprint Assessment (CFA) procedures commencing in July 2024 to evaluate carbon risk exposure across all capital growth projects.

Concurrently, we are aligning our approach to growth projects with national policies on carbon reduction and energy security to bolster our long-term value creation prospects. Our focus is on expanding our core gas and utilities business, including infrastructure investments, to support future demand, while diversifying into green revenue streams through innovative step-out projects.

In this vein, we are actively collaborating with industry stakeholders and local authorities to advance green initiatives. For instance, we conducted a feasibility study for a mini-hydro plant in collaboration with Terengganu's Menteri Besar Incorporated (MBI), exploring renewable energy solutions to address electricity supply challenges, particularly in remote areas. Meanwhile, our collaboration with PETRONAS and other key stakeholders on carbon abatement strategies will also support our long-term viability and growth ambitions, enabling us to make our gas energy greener while unlocking potential cost-saving or revenue generating opportunities from captured carbon.

### ELEVATING GOVERNANCE TO PROGRESS OUR SUSTAINABILITY AGENDA

To foster an agile, robust and collaborative sustainability governance ecosystem, we are continuously refining and maturing our governance framework and structure. Past milestones include the introduction of a new Sustainability Blueprint and the establishment of a Sustainability Working Committee (SWC) in 2023, alongside integrating sustainability parameters into our management systems.

In 2024, we further sharpened our focus on sustainability governance to enable more precise and impactful decision-making at the leadership level. This led to the renaming of the Risk and Compliance Committee (RCC) to the Sustainability and Risk Committee (SRC) and the Board Risk Committee to the Board Sustainability and Risk Committee (BSRC), with revisions made to the Terms of Reference (TOR) for the BSRC and the SWC.

The updated TORs place greater emphasis on sustainability management and ensure Board members remain well-informed on internal and external developments through quarterly engagements with sustainability teams.

Additionally, three (3) dedicated sustainability upskilling sessions were conducted for the Board and Leadership Team (LT) over the past year, which served to equip them with relevant vital knowledge and the confidence to integrate sustainability into every facet of our governance and strategy.

### BOARD SUSTAINABILITY UPSKILLING SESSIONS IN 2024

#### ► Global and National Sustainability Insights

External stakeholders, including Permodalan Nasional Berhad (PNB), ERM, KPMG, and PwC, provided insights into the global and national sustainability landscape and stakeholder expectations. This session helped the Board identify key focus areas for PGB's priorities.

#### ► GHG Emissions and Carbon Regulations

Representatives from PETRONAS Group educated the Board on GHG emissions, followed by a session with the Ministry of Natural Resources and Environmental Sustainability (NRES) on Malaysia's future carbon regulations. This equipped the Board to steer business decisions with a clear understanding of carbon risk exposure and potential opportunities.

#### ► Scope 3 Emissions and Disclosures

Experts from PETRONAS Group's Corporate Sustainability Office conducted a deep dive on Scope 3 emissions as PGB commenced its Scope 3 disclosures, starting with the two (2) mandated categories by Bursa Malaysia (Categories 6 and 7).



Segamat Operation Centre

## FOREWORD BY THE CHAIRMAN OF THE BOARD SUSTAINABILITY AND RISK COMMITTEE

### RECOGNISING AND ADDRESSING RISKS

Our key sustainability risks lie in ensuring conformance to evolving sustainability requirements and stakeholder expectations while understanding and addressing our exposure to both physical and transitional climate risks over various time horizons.

Physical risk assessments evaluate key assets on exposure to seven (7) major climate hazards, with six (6) assets having been assessed to date. As a continuation of our previous assessment in 2021, a validation exercise was completed for one (1) asset in 2024 to ensure accuracy and relevancy. Meanwhile, transition risk assessments are conducted in alignment with TCFD recommendations and focus on critical areas such as policy changes, legal obligations, and technological shifts, helping us adapt to the changing regulatory and operational landscape.

These risk assessment processes have been enhanced to ensure effective integration into our broader Enterprise Risk Management (ERM) Framework. Our approach includes context setting, risk assessment, and risk treatment, with a strong emphasis on governance and continuous monitoring. Moreover, risks are assessed across short (1-5 years), medium (5-15 years), and long-term (beyond 15 years) horizons, with a particular focus on understanding their potential financial implications.

As we identify and deepen our understanding of sustainability and climate-risk exposure, key risks are prioritised and integrated into PGB's Enterprise Risk Profile. This process ensures that risks are thoroughly deliberated and addressed by relevant management committees, with regular updates reported quarterly to the Board, thereby fostering focused accountability and ensuring the effective implementation of mitigation plans.

### DRIVING OUR SUSTAINABILITY AGENDA FORWARD

Guided by our Sustainability Blueprint, we have progressively advanced planned initiatives supporting our long-term sustainability agenda, including key ambitions such as achieving Net Zero by 2050. Over the past two (2) years, we have completed a total of 28 blueprint initiatives, with 13 accomplished in the last 12 months alone.

Recognising the dynamic nature of the sustainability landscape, we are continuously working to ensure the ongoing validity of our Sustainability Blueprint. This will ensure our efforts remain aligned with evolving priorities and inform the development of new initiatives that effectively address emerging stakeholder requirements and expectations.



Regasification Terminal Pengerang, Johor

### 2024 Highlights Across Our Four (4) Sustainability Lenses

Under our **Sustainable Value Creation** lens, we have significantly grown our pipeline of new projects aligned with key focus areas, such as expanding along the gas value chain. A notable highlight was receiving a Letter of Notification from the government for the development of an additional 100MW gas power plant in Kimanis, Sabah, increasing PGB's current power generation capacity in the state.

Under the **Safeguard the Environment** lens, we embarked on the disclosure of material Scope 3 emissions, Categories 6 and 7 (Business Travel and Employee Commuting). We also developed the PGB Water Reduction and Management Roadmap and completed a baseline assessment for waste management, setting the stage for enhanced implementation of 4R (Reduce, Reuse, Recycle and Recover) activities.

Within the **Positive Social Impact** lens, we launched a comprehensive labour management programme and formalised our commitment to ethical practices and continuous improvement of our human rights management through a new Human Rights Policy. In collaboration with Yayasan Hijau Malaysia (YHM), we launched a new flagship program to develop solar-powered community centres.

Under the **Responsible Governance** lens, we successfully executed our TCFD Roadmap to address all TCFD recommendations ahead of regulatory deadlines, bolstering our understanding of climate-related risks and positioning PGB favourably to drive compliance with emerging IFRS S1 and S2 reporting standards.

## FOREWORD BY THE CHAIRMAN OF THE BOARD SUSTAINABILITY AND RISK COMMITTEE

### PROGRESSING OUR SUSTAINABILITY REPORTING

Advancing our sustainability reporting remains a central focus to ensure regulatory compliance, keep stakeholders informed of our progress, and maintain strong performance on sustainability indices. As previously highlighted, we have completed addressing all TCFD Recommendations as per mandated by Bursa Malaysia and are now prioritising closing the gaps for IFRS standards set to take effect next year. We will conduct a comprehensive reassessment of our sustainability material matters in 2025, ensuring our reporting reflects the latest regulatory developments and stakeholder expectations.

Through these concerted efforts to enhance our sustainability performance and reporting, we have driven significant improvements to our sustainability index ratings. Our FTSE4Good rating, which rose from 3.5 in 2022 to 4.1 in 2023, has now reached 4.7 in 2024. This remarkable progress reflects the collective dedication of our leadership, sustainability team and working committee, who have worked tirelessly to elevate our ESG performance and expand our disclosures to meet the highest industry standards.

### ACHIEVING MILESTONE SUSTAINABILITY AWARDS

In 2024, our steadfast commitment towards sustainability goals and comprehensive reporting practices were recognised by the broader industry through notable first-time wins in prestigious awards:

- Gold Award at the 2024 Edge Malaysia ESG Awards for PLCs**  
 PGB earned the Gold Award in utilities category, underscoring the significant investments and efforts we have made to implement sustainable strategies across our operations. This award celebrates Malaysia's top performers in ESG excellence, reaffirming our position as a leader in this space.
- Notable wins in illustrious reporting awards**  
 Achieved the Gold Award in the Integrated Annual Report & ESG Category at the Annual Reporting Awards 2024 and the Silver Award at the Australasian Reporting Awards 2024. These awards validate our dedication to completeness and transparency in keeping stakeholders informed about our strategies and performance.



### NAVIGATING CHALLENGES TO SHAPE A SUSTAINABLE TOMORROW

Moving forward, PGB remains steadfast in its commitment to evolving alongside global and national standards, reporting frameworks, and stakeholder expectations. However, as Malaysia's sustainability regulations and ecosystems continue to develop, we acknowledge the complexities of navigating this evolving landscape. Aligning internal strategies with external expectations, while ensuring a positive business outlook and healthy shareholder returns remain a central focus of our organisation.

To achieve this alignment, clear business directions and mandates from our Board of Directors are essential in guiding the adaptation of our business activities. Equally important is ensuring that our internal capabilities are equipped to implement these mandates and achieve our sustainability objectives effectively.

We are deeply invested in enhancing our team's ESG expertise through targeted upskilling programmes such as Sustainability Board Trainings, PGB Sustainability Roadshows, and specialised sessions on Carbon Footprint Assessment and Social Risk Assessment. As sustainability becomes increasingly institutionalised in our business operations, the continual enhancement of our leadership and management competencies will empower us to drive the implementation and execution of our sustainability agenda with greater focus and efficiency.

## FOREWORD BY THE CHAIRMAN OF THE BOARD SUSTAINABILITY AND RISK COMMITTEE

In parallel, our inclusion of Carbon Footprint Assessment to our suite of sustainability assessments for all new projects will enable us to thoroughly evaluate our risks and carbon tax exposure across our diverse growth and expansion initiatives. This will ensure our strategies effectively address sustainability risks while delivering sustainable value for our business and stakeholders.

Ultimately, our aspiration is to remain as Malaysia's leading gas infrastructure and centralised utilities company, standing out for our commitment to our sustainability practices and targets.

As we foster collaboration with and harness efforts of all stakeholders, proactively address risks, strengthen internal capabilities, and align our business with the global energy transition, I am confident that PGB will continue to lead responsibly in shaping a sustainable future for all.

### ACKNOWLEDGEMENTS

In closing, I would like to extend my deepest gratitude to everyone whose dedication and expertise have been instrumental in advancing PGB's sustainability journey. Our Board members have provided invaluable oversight and strategic direction, ensuring our sustainability initiatives align with our long-term vision. The PGB Leadership Team has offered decisive management steer and critical decision-making to drive the execution of our objectives.

At the forefront, our Sustainability Team, led by the Head of Sustainability, has demonstrated exceptional commitment in spearheading sustainability strategies and performance. The Sustainability Working Committee (SWC) members have been steadfast in overseeing the implementation of the PGB Sustainability Blueprint and related initiatives, while our front-liners and asset focal points have ensured the seamless execution of these efforts at the site level. We also deeply appreciate the contributions of our investors and key stakeholders, including PETRONAS, NRES, Kumpulan Wang Simpanan Pekerja (KWSP), Kumpulan Wang Persaraan (Diperbadankan) (KWAP), PNB and Bank Negara Malaysia (BNM), whose insights and collaboration have enriched our sustainability agenda.

As we address the challenges of the energy trilemma and evolving stakeholder expectations, PGB remains committed to staying relevant, agile, and resilient, adapting swiftly and effectively to the shifting global energy landscape.

### DATUK YEOW KIAN CHAI

Chairman, Board Sustainability and Risk Committee





## MANAGING DIRECTOR/CHIEF EXECUTIVE OFFICER'S STATEMENT

# A PURPOSE-DRIVEN APPROACH TO ADVANCING OUR SUSTAINABILITY LEADERSHIP

**ABDUL AZIZ OTHMAN**

Managing Director/Chief Executive Officer

DEAR VALUED  
STAKEHOLDERS,



As a leader in Malaysia's energy industry, we operate in a rapidly evolving landscape shaped by rising stakeholder expectations, increasing regulatory requirements, and the ongoing energy transition. To navigate these shifts effectively, we adopt a strategic and informed approach to sustainability, ensuring that every aspect of our business aligns with long-term value creation.



## MANAGING DIRECTOR/CHIEF EXECUTIVE OFFICER'S STATEMENT



Our strategic growth remains focused on expanding our infrastructure and strengthening our position across the natural gas value chain, ensuring our operations remain resilient, relevant, and aligned with evolving national and regional priorities for energy security and stability.

### SUSTAINABLE VALUE CREATION: GROWTH ALIGNED WITH THE FUTURE OF ENERGY

Malaysia and ASEAN region have established key policies and roadmaps to accelerate climate action, enhance energy security, and support an equitable transition. These collective efforts are reshaping the industry, reinforcing the role of gas as a vital transition fuel.

In response, we have placed strategic focus on expanding our infrastructure and strengthening our position across the natural gas value chain, ensuring our operations remain resilient, relevant, and aligned with evolving national and regional priorities. As Malaysia transitions towards a low-carbon economy, PGB will play a critical role in ensuring energy security, maintaining the stability and reliability of supply while supporting the gradual shift to cleaner energy sources.

Beyond sustaining our existing contracts through operational excellence and reliability, we are actively identifying new low-carbon and green opportunities that will reinforce our business sustainability.

Concurrently, Carbon Footprint Assessments (CFA) and exposure analyses are being embedded into our decision-making process, equipping us with the data and insights needed to make business decisions that take climate related financial risks, such as carbon taxation, into account.

### SAFEGUARD THE ENVIRONMENT: PROTECTING NATURE, SECURING OUR FUTURE

Environmental responsibility is a core pillar of our sustainability blueprint, ensuring that we not only comply with regulations but also enhance business resilience in the face of climate change. By optimising resource use, managing emissions, and minimising operational waste, we safeguard ecosystems while reinforcing our long-term competitiveness in a transitioning energy landscape.

Beyond protecting the environment, strong climate action enhances our position as a preferred energy provider, increasing our attractiveness to investors and key stakeholders who prioritise sustainability. To drive this agenda forward, we continue to integrate sustainability governance and risk management at the highest levels, with dedicated leadership committees ensuring that climate-related considerations are fully integrated into corporate strategy.

To future-proof our business, we have strengthened our climate risk assessment capabilities, leveraging globally recognised frameworks to evaluate both physical and transitional risks. This proactive approach supports our preparedness for new sustainability reporting requirements, including ISSB's IFRS S1 and S2, the TNFD Framework, and expanded Scope 3 disclosures. Additionally, we are investing in AI, digital tools, and smart monitoring systems to manage environmental performance with greater precision, enabling us to drive greater energy and resource efficiencies while supporting greater transparency within our disclosures.





## MANAGING DIRECTOR/CHIEF EXECUTIVE OFFICER'S STATEMENT

### POSITIVE SOCIAL IMPACT: EMPOWERING PEOPLE AND SUPPLY CHAINS TO DRIVE PROGRESS

Our long-term success is directly linked to the well-being of our employees, suppliers, and the communities in which we operate. By investing in their growth and development, we create a shared value ecosystem that supports our business while driving broader societal progress.

This strategic focus goes beyond nurturing our own people to empowering those across our value chain. While we place emphasis on developing talents and cultivating a strong leadership pipeline within PGB, we are also strengthening support for suppliers through targeted partnerships, spurring their adoption of sustainability principles to drive collective progress and long-term resilience.

The PETRONAS Supplier Support Programme (PSSP) exemplifies this commitment, consolidating engagement efforts with vendors to embed ESG best practices across procurement. Through capacity-building initiatives undertaken with United Nations Global Compact Network Malaysia & Brunei (UNGCMYB), a dedicated ESG disclosure platform developed with Bursa Malaysia, and enhanced access to sustainable financing via bank collaborations, we are helping suppliers advance their own decarbonisation efforts. This approach not only strengthens the sustainability of our supply chain but also contributes to our nation's NZCE 2050 ambition.

By supporting people and communities, we also create opportunities to drive progress across other sustainability lenses. Our collaboration with Yayasan Hijau Malaysia to develop solar-powered community centres underscores this synergy—enhancing social well-being while simultaneously promoting renewable energy adoption and reducing environmental impact.



Gas Processing and Utilities - GP

### RESPONSIBLE GOVERNANCE: DOING THINGS THE RIGHT WAY

Achieving the ambitions of our sustainability blueprint and making meaningful progress toward our long-term goals relies on a strong, ethical, and informed leadership team that upholds the highest standards of integrity.

Key priorities remain on ensuring full compliance with legal and regulatory expectations, enhancing transparency and accountability, and staying ahead of the evolving sustainability landscape. A testament to this commitment is our swift addressing of all TCFD recommendations a year ahead of Bursa Malaysia's mandated timeline, demonstrating our preparedness to swiftly adapt to new standards and frameworks.

We continuously measure our progress through key sustainability indices and industry recognition. It is a matter of great pride that we attained a FTSE4Good ESG Score of 4.7 out of 5 in our FY2024 assessment, placing PGB in the 98th percentile (top three (3)) within the Utilities ICB Supersector. This significant improvement from our FY2023 assessment score of 4.1 reflects our strong commitment to sustainability, responsibility and transparency in meeting stakeholder expectations. Further reinforcing our leadership in sustainable business practices, we were honoured with a Gold Award in the Utilities Sector at the EDGE Malaysia ESG Awards 2024, a milestone that underscores our commitment to driving ESG excellence within our industry.



Our improved FTSE4Good score and our first Gold Award at the EDGE Malaysia ESG Awards 2024 reflect our agility in meeting evolving expectations and strengthening our sustainability disclosures.

## MANAGING DIRECTOR/CHIEF EXECUTIVE OFFICER'S STATEMENT

### ACKNOWLEDGEMENTS

By adopting robust and well-informed strategies to advance our efforts across all four (4) sustainability lenses, we remain committed to delivering long-term value while navigating the challenges and opportunities of the energy transition.

The industry recognition we receive reinforces our progress, affirming that we are moving in the right direction. I am confident that the initiatives we have implemented to drive sustainability and climate action will continue to yield positive and lasting outcomes in the years ahead.

Through responsible governance, environmental stewardship, and social empowerment, we continue to strengthen our capacity to build a sustainable and resilient future for our business and stakeholders.

### ABDUL AZIZ OTHMAN

Managing Director/Chief Executive Officer

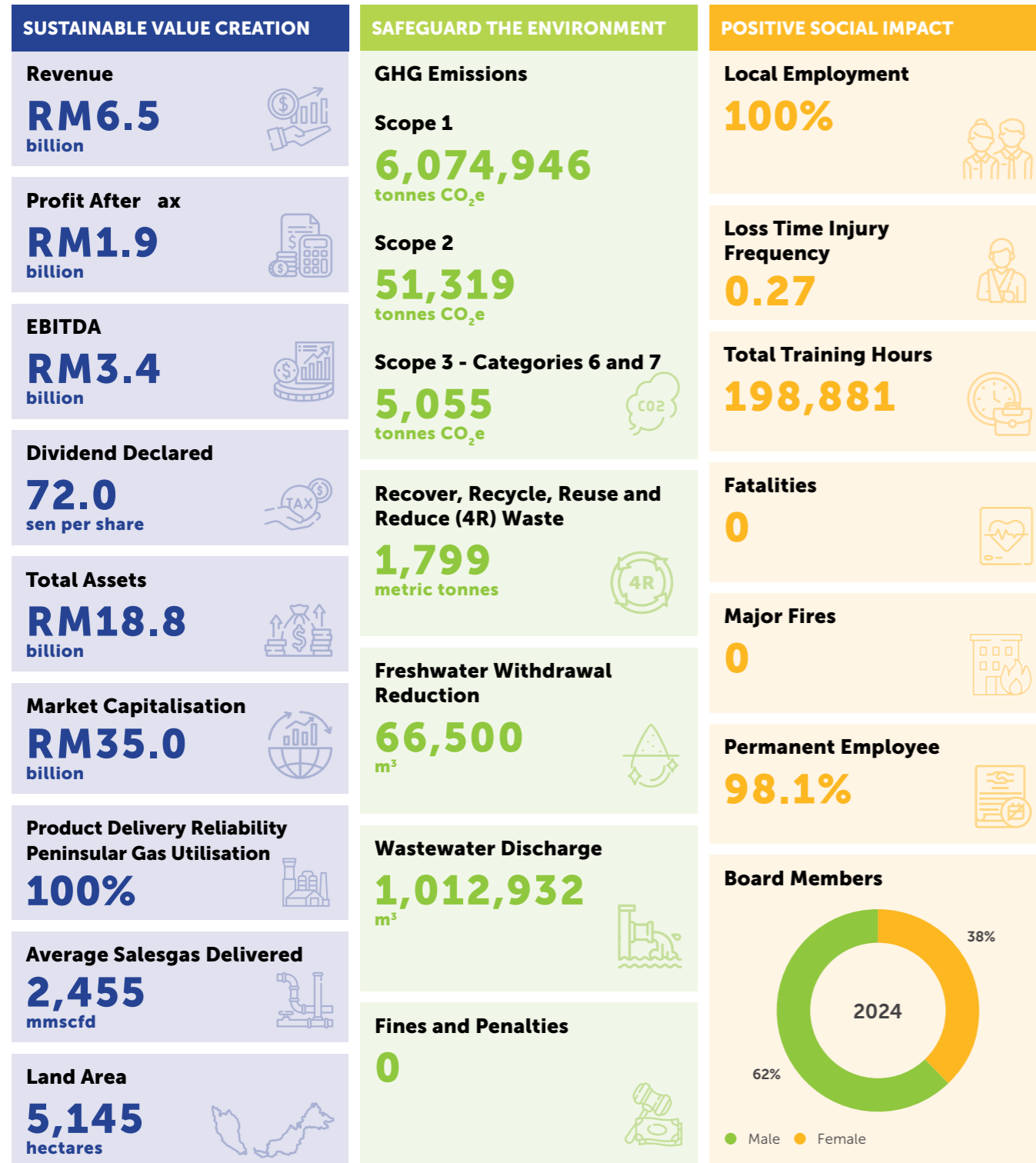


Gas Processing and Utilities - GP



## SUSTAINABILITY SCORECARD

We have made firm progress across our sustainability agenda in 2024, underscoring our continued pursuit of excellence in delivering holistic, sustainable value for our business, stakeholders, society and the environment.



PG Please refer to the Sustainable Value Creation section on pages 28-33 of this report.

PG Please refer to the Safeguard The Environment section on pages 34-89 of this report.

PG Please refer to the Positive Social Impact section on pages 90-143 of this report.

## RECOGNISED FOR EXCELLENCE

### RESPONSIBLE GOVERNANCE

#### The EDGE Malaysia ESG Awards 2024



GOLD

Proudly received the **Gold Award** in the Utilities Sector category in 2024. This milestone reflects our commitment to adapting ESG requirements and meeting stakeholders' disclosure expectations.

#### Task Force on Climate-Related Financial Disclosure (TCFD) Compliance

**Addressed all TCFD recommendations** a year ahead of Bursa Malaysia's timeline, preparing for International Sustainability Standards Board (ISSB) adoption.

#### FTSE4Good Rating



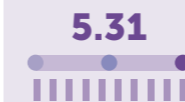
Environmental, Social, and Governance (ESG) disclosures contributed to an **increase in FTSE4Good** rating from 4.1 in 2023 to **4.7** in 2024.

#### Reporting Awards



Achieved the **Gold Award** in the Integrated Annual Report and ESG Category at the Annual Reporting Awards 2024 and the **Silver Award** at the Australasian Reporting Awards 2024.

#### Bloomberg ESG Score



**Improved ESG score** from 4.37 in 2023 to **5.31** in 2024, surpassing the industry media.

### AWARDS AND RECOGNITION

The comprehensive list of external awards earned by each of our business segments and our corporate team in 2024 is detailed below.

#### Gas Processing

##### National Council for Occupational Safety and Health Award 2024

- Warehouse Management Category - Tanjung Sulong Export Terminal (TSET)

#### Regasification

##### MSOSH Awards 2024

- Third consecutive Grand Award - Regasification Terminal Sungai Udang (RGTSU) and Regasification Terminal Pengerang (RGTP)

##### British Safety Council Award 2024

- Health and Safety Transformation Award - RGTP

##### RoSPA Health and Safety Award 2024

- Silver Award - RGTP

#### Gas Transportation

##### MSOSH Awards 2024

- Grand Award - Shah Alam Regional Office and Gurun Regional Office
- Gold Merit Award - Segamat Operation Centre
- High Achiever Award - Gurun Regional Office

##### British Safety Council Award 2024

- Finalist Team of The Year Award - Pasir Gudang Regional Office

##### RoSPA Health and Safety Award 2024

- Gold Award - Kuantan Regional Office

##### Asian Experience Awards 2024

- Malaysia Product Experience of The Year in the Oil & Gas category





## SUSTAINABILITY GOVERNANCE

# RESPONSIBLY SHAPING A SUSTAINABLE TOMORROW

As a national energy industry leader operating within a rapidly evolving landscape where sustainability concerns are increasingly prioritised by stakeholders, we have continually strengthened and expanded our sustainability approach to maintain our position at the forefront of this critical transition.

This section outlines the governance structure that drives our sustainability commitments and ambitions, our overarching sustainability strategies and management systems, the sustainability blueprint guiding our efforts, the material matters shaping our focus, and the expectations and concerns of key stakeholders influencing our sustainability approach.

### STRENGTHENING GOVERNANCE FOR CLIMATE RESILIENCE

Our evolving sustainability governance framework ensures that sustainability considerations are seamlessly integrated into our strategies, decision-making processes, and daily operations. This integration supports the Group's pursuit of excellence and drives progress towards the ambitions and objectives within our G5dot5 Strategic Agenda and Sustainability Blueprint.

To effectively manage climate-related risks, we have established a comprehensive governance framework that systematically identifies, assesses, and manages these risks. The results of climate change risk assessments are mapped and escalated into PGB's Enterprise Risk Profile (ERP), where relevant, and reported quarterly to the Sustainability Risk Committee (SRC) and the Board Sustainability Risk Committee (BSRC).



The **BSRC**, previously known as the Board Risk Committee, was renamed in February 2024 to focus on climate-related risk issues, ensuring these are integrated into the broader business strategy. Its responsibilities were updated in the Terms of Reference (TOR) to provide greater clarity on sustainability-related responsibilities, including monitoring progress against climate-related targets and incorporating climate risks and opportunities into reviews of policies, business strategies, risk management, and expenditure.

The **SRC**, formerly known as the Risk and Compliance Committee (RCC), was renamed in January 2024. It plays a critical role in providing oversight and assurance on risk management to the Board. Its key responsibilities include reviewing all aspects of the climate risk management framework, evaluating the adequacy of PGB's climate risk management strategies and policies, and offering guidance on the implementation and institutionalisation of climate risk management practices.

The dual oversight provided by the SRC and BSRC ensures that the management of climate-related risks is guided by top leadership and effectively incorporated into overarching, multi-disciplinary company-wide business strategies.

Guided by the Head of HSSE and Sustainability Department, the **SWC** comprises leaders and members from all four (4) sustainability lenses. This committee plays a pivotal role in embedding sustainability across PGB's value creation, growth ambitions, and operations through its quarterly meetings. Recent revisions to the SWC's TOR have introduced enhancements that empower lens leaders, roles held by working-level personnel, with accountability for the performance of their respective lenses. The updated TOR includes details on the SWC's fixed agenda and quorum requirements, as well as provisions for the periodic review and reassessment of material matters.

### SUSTAINABILITY GOVERNANCE STRUCTURE

The Board's leadership and oversight of all sustainability matters are reinforced by

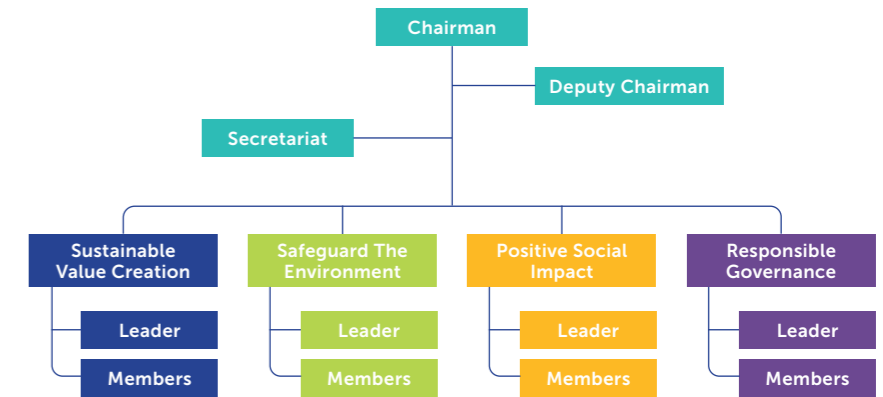
Board Sustainability Risk Committee (BSRC)

Sustainability and Risk Committee (SRC)

Sustainability Working Committee (SWC)

## SUSTAINABILITY GOVERNANCE

### PGB Sustainability Working Committee Structure



<b>Chairman</b>	<ul style="list-style-type: none"> <li>Develop and determine the most effective approach for integrating sustainability into PGB's business strategy, including resource allocation, stakeholder communication, and setting timelines and schedules</li> <li>Plan and oversee the implementation of all sustainability commitments</li> <li>Chair committee meetings and provide strategic direction for PGB's sustainable development initiatives</li> <li>Fulfil PGB's sustainability milestones and objectives</li> </ul>
<b>Deputy Chairman</b>	<ul style="list-style-type: none"> <li>Assume the Chairman's responsibilities in their absence or when the position is vacant</li> <li>Collaborate with the Chairman and other members to guide PGB's sustainable development initiatives</li> <li>Support the achievement of PGB's sustainability milestones and objectives</li> </ul>
<b>Secretariat</b>	<ul style="list-style-type: none"> <li>Coordinate SWC activities based on discussions and decisions made during SWC meetings</li> <li>Arrange logistical requirements for SWC activities</li> <li>Document all agreed action items and next steps to share with SWC members</li> <li>Track the implementation of agreed actions assigned to designated parties</li> </ul>
<b>Lens Leader</b>	<ul style="list-style-type: none"> <li>Integrate sustainability practices into business operations</li> <li>Perform gap analyses and implement measures to address identified gaps</li> <li>Coordinate with relevant stakeholders as needed</li> <li>Ensure the availability of adequate resources to support team responsibilities</li> <li>Achieve and uphold metrics and objectives within their respective sustainability lens</li> </ul>
<b>Lens Member</b>	<ul style="list-style-type: none"> <li>Assist the Lens Leader in integrating specific sustainability practices within the assets</li> <li>Act as a change agent within the asset or department</li> <li>Identify gaps and recommend appropriate measures to address them at the asset or department level</li> <li>Support the Lens Leader in engaging with relevant stakeholders when necessary</li> </ul>

This platform facilitates cohesive deliberation and oversight of our Sustainability Blueprint and annual development and performance. The SWC drives our frameworks and strategies, oversees the effective implementation of blueprint initiatives, and ensures adherence and alignment with key regulatory and national policies and roadmaps, such as the National Energy Transition Roadmap (NETR) and National Climate Change Policy 2.0 (NCCP 2.0).



## SUSTAINABILITY GOVERNANCE

### INTEGRATION INTO DECISION-MAKING PROCESSES

By strengthening our governance practices for climate resilience, we ensure that climate-related risks are effectively managed and integrated into our overall business strategy, supporting our commitment to sustainability and long-term value creation. Climate risk considerations have been incorporated into the Risk Assessment Decision Making (RADM) process, ensuring these risks are evaluated in all major business decisions.

Please refer to our Climate Risk Management Framework on page 48 of this report.

### LINKING LEADERSHIP COMPENSATION TO CLIMATE ACTION

To drive the effective execution of PGB's Sustainability Agenda, sustainability Key Performance Indicators (KPIs) and targets have been integrated into the remuneration of the MD/CEO, Leadership Team, and senior executives. These KPIs are aligned with key annual objectives and goals and are cascaded throughout the organisation, including through common or team KPIs.

- **MD/CEO and Leadership Team:** Scorecards now incorporate targets for greenhouse gas (GHG) reduction and the Sustainability Blueprint, ensuring a unified commitment across the organisation. Progress on GHG reduction is monitored monthly at PGB Leadership Team meetings and quarterly at Board Meetings, reinforcing accountability at every level.
- **Senior Executives:** Climate performance is integrated into their annual KPIs, with achieving the Group's GHG reduction targets as a key focus area.

By linking leadership compensation to climate objectives, we foster collective accountability, strengthen efforts to mitigate climate risks, and enhance our ability to achieve sustainability goals.

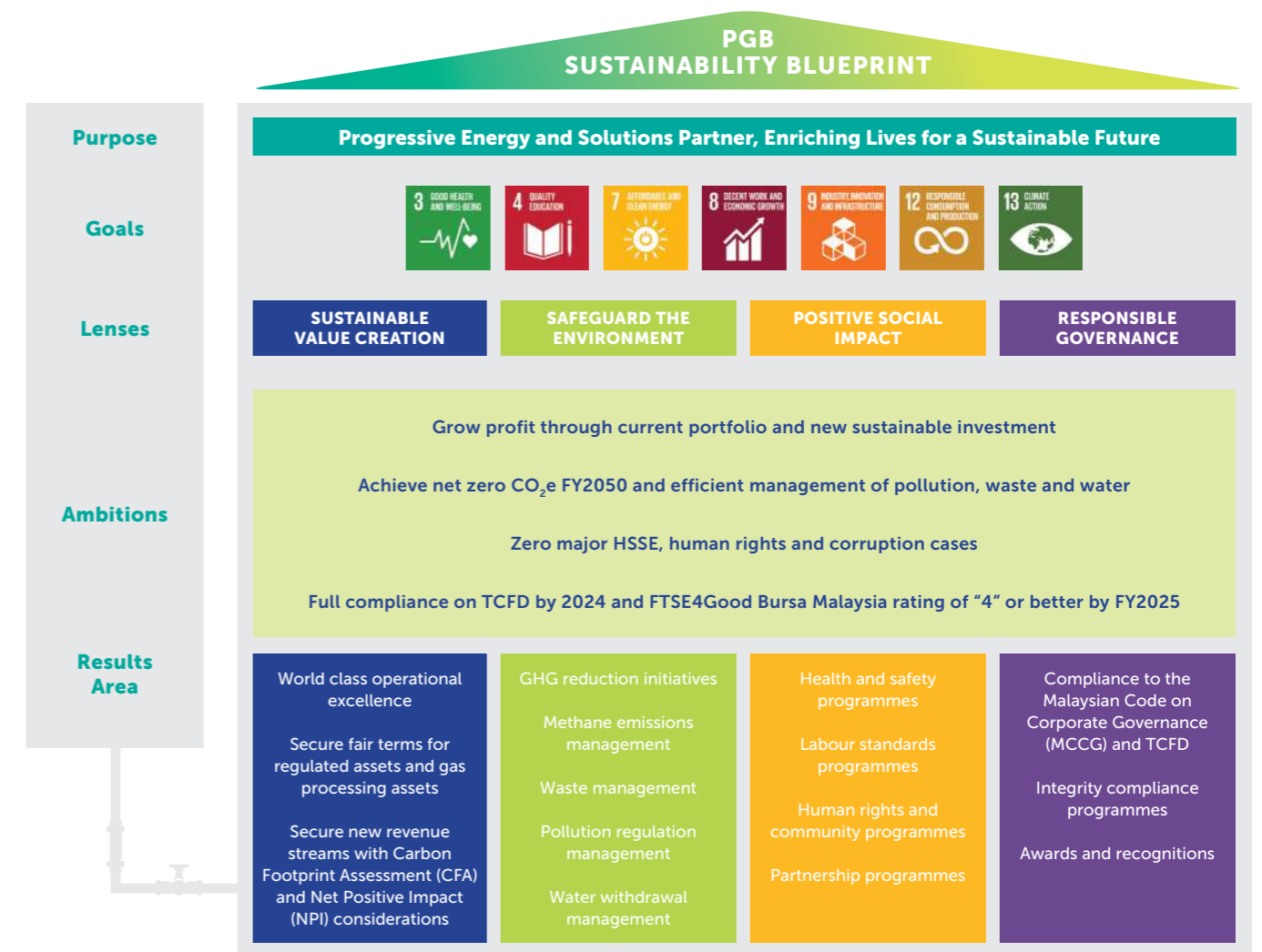
### INTEGRATING SUSTAINABILITY INTO OUR MANAGEMENT SYSTEMS

Our commitment to operational and project excellence, being integral in our sustainability approach, is driven by safe, reliable, and sustainable practices underpinned by our Operational Excellence Management System (OEMS), which adheres to global standards such as ISO 45001:2018 Occupational Health and Safety Management System (OHSMS) and ISO 14001:2015 Environmental Management System (EMS).

Since introducing Sustainability as the 15th element (S15) of the OEMS in 2022, it has been incorporated into the annual Management System Review (MSR) from 2023 onwards. Insights from the MSR contribute to the continuous improvement of this element, reinforcing the integration of sustainability across all facets of our business.

In its second year of MSR, we have refined performance measurements for 2024 and proposed additional metrics for 2025, including a new indicator of carbon footprint assessment. We have activated the S15 element at the departmental level, expanding beyond its current application at the business and division levels, to ensure sufficient resources are available for implementation across the organisation.

## SUSTAINABILITY BLUEPRINT



Our Sustainability Blueprint ensures that sustainable practices are embedded in all areas of the organisation, driving forward economic, environmental, social, and governance objectives, while tracking progress through specific initiatives and results areas in each lens.

Since its approval in March 2023, we have successfully completed our approved blueprint initiatives over the past two (2) years, contributing to a significant improvement in our FTSE4Good score and earning PGB industry recognition at The EDGE ESG Awards 2024.

### OUR BLUEPRINT AND ITS INITIATIVES ARE GUIDED BY THE FOLLOWING STANDARDS AND FRAMEWORKS

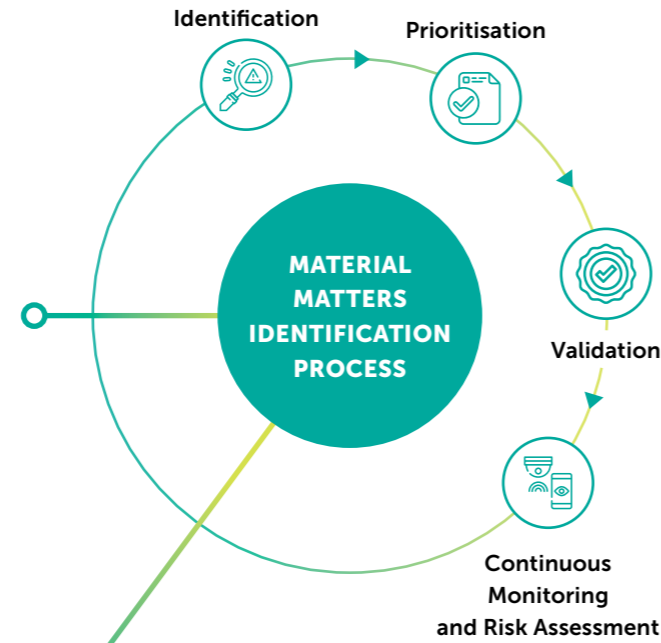
- UNSDGs with a focus on SDG 3, SDG 4, SDG 7, SDG 8, SDG 9, SDG 12 and SDG 13
- PETRONAS' Statement of Purpose: "A Progressive Energy and Solutions Partner, Enriching Lives for a Sustainable Future"
- GHG Protocol and OGMP 2.0 Framework
- PETRONAS' NZCE 2050 Pathway
- PETRONAS' Sustainability Agenda
- Standards of Global ESG Rating Agencies



## DETERMINING OUR MATERIAL MATTERS

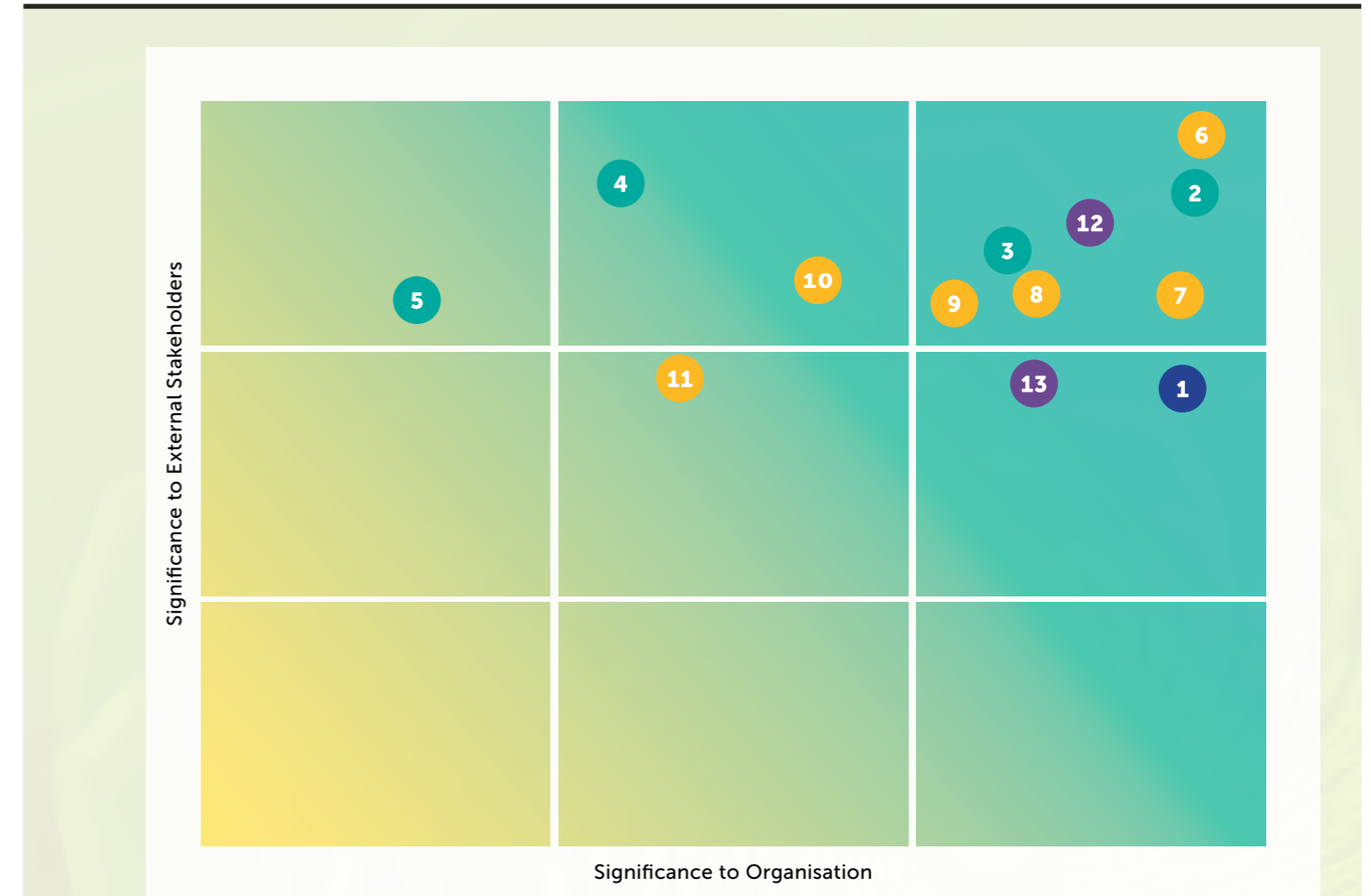
Our key sustainability matters significantly influence our ability to uphold operational and managerial excellence, drive impactful growth, and advance our ESG performance. These priorities are identified through regular materiality assessments conducted every two (2) years. The findings are presented across sustainability governance platforms and submitted for approval by the Board. Once endorsed, these matters receive strategic direction from the Board and Leadership Team, forming the foundation for Group-wide strategies, initiatives, and action plans.

In 2024, we conducted a validation exercise to reaffirm the relevance of our material matters, confirming that all identified issues remain pertinent with no changes required. A full assessment will be undertaken in 2025, demonstrating our commitment to continuously monitor evolving stakeholder expectations and industry trends while ensuring proactive responses to the most critical issues impacting our stakeholders and businesses.



IDENTIFICATION	PRIORITISATION	VALIDATION	CONTINUOUS MONITORING AND RISK ASSESSMENT
Material matters are identified through a combination of in-house desktop analysis, comprehensive research and gathering of feedback. This involves assessing the business environment, operational factors, and resource dependencies, while considering financial, reputational, operational, environmental, social, strategic and legislative factors. Based on the matters identified, we deliberate potential risks and opportunities across the scope of each of these factors.	Material matters are ranked according to their importance to business operations and stakeholder interests. These rankings are used to create the Material Matters Matrix.	The prioritised list of material matters is reviewed and validated by the management team.	Once integrated into our strategy, the performance and risk elements related to each material matter are continuously monitored and benchmarked through key performance indicators and focus areas cascaded from the leadership team.

## DETERMINING OUR MATERIAL MATTERS



### ECONOMIC

1 Sustainable Value Creation

### ENVIRONMENT

- 2 Mitigating Climate Change
- 3 Environmental Management
- 4 Ensuring Water Security
- 5 Biodiversity Impacts

### SOCIAL

- 6 Occupational Safety and Health
- 7 Talent Management
- 8 Human Rights
- 9 Supplier Social Impacts
- 10 Equal Opportunity, Diversity and Inclusion
- 11 Community Engagement

### GOVERNANCE

- 12 Business Ethics and Transparency
- 13 Cybersecurity and Data Privacy



## DETERMINING OUR MATERIAL MATTERS

### RISKS AND OPPORTUNITIES RELATED TO OUR MATERIAL MATTERS

As part of our approach to managing material matters, we actively monitor the risks and opportunities associated with each topic, enabling us to implement targeted strategies and drive progress in identified actionable areas.

MATERIAL MATTERS	RISK DESCRIPTION	MITIGATION OPPORTUNITIES
<b>SUSTAINABLE VALUE CREATION</b> 	<ul style="list-style-type: none"> <li>Difficulty in securing and delivering growth projects effectively</li> <li>Unsustainable profitability from non-regulated businesses like utilities</li> <li>Challenges in achieving fair tariffs for regulated businesses</li> </ul>	<ul style="list-style-type: none"> <li>Explore growth opportunities in core and adjacent domains</li> <li>Expand into non-regulated businesses such as utilities, power, and ancillary services to enhance value</li> <li>Explore low-carbon and green opportunities outside of our traditional gas and utilities businesses</li> </ul>
<b>MITIGATING CLIMATE CHANGE</b> 	<ul style="list-style-type: none"> <li>Continuous emissions from activities like combustion, flaring, and venting</li> <li>Inefficient energy use</li> <li>Failure to adapt to climate change</li> </ul>	<ul style="list-style-type: none"> <li>Enhance operational energy efficiency</li> <li>Implement renewable energy solutions</li> <li>Utilise carbon abatement technologies and energy optimisation strategies such as harnessing cold energy or converting waste to resources/energy</li> </ul>
<b>ENVIRONMENTAL MANAGEMENT</b> 	<ul style="list-style-type: none"> <li>Reputational and operational risks from breaches of environmental laws, regulations, or licensing conditions</li> </ul>	<ul style="list-style-type: none"> <li>Improve facility performance while ensuring strict compliance with environmental regulations</li> </ul>
<b>ENSURING WATER SECURITY</b> 	<ul style="list-style-type: none"> <li>Fines and penalties for failing to meet regulatory requirements</li> <li>Overuse of water leading to negative impacts on waterways</li> </ul>	<ul style="list-style-type: none"> <li>Implement water conservation initiatives</li> <li>Uphold effective wastewater management practices</li> </ul>
<b>BIODIVERSITY IMPACTS</b> 	<ul style="list-style-type: none"> <li>Irreversible damage to natural habitats</li> <li>Legal and reputational impacts from incidents</li> </ul>	<ul style="list-style-type: none"> <li>Conduct biodiversity and ecological risk assessments for all new projects and operations</li> </ul>
<b>OCCUPATIONAL SAFETY AND HEALTH</b> 	<ul style="list-style-type: none"> <li>Unsustainable Health, Safety, Security and Environment (HSSE) performance affecting business, operations, and reputation</li> </ul>	<ul style="list-style-type: none"> <li>Foster a safety-oriented culture by enforcing behaviour commitment from employees</li> <li>Implement strict health and safety standards across all operations</li> </ul>

## DETERMINING OUR MATERIAL MATTERS

MATERIAL MATTERS	RISK DESCRIPTION	MITIGATION OPPORTUNITIES
<b>TALENT MANAGEMENT</b> 	<ul style="list-style-type: none"> <li>Lack of sufficient skilled talent to drive sustainable value creation and growth</li> </ul>	<ul style="list-style-type: none"> <li>Develop structured capability-building programmes for core and growth-related skill requirements</li> </ul>
<b>HUMAN RIGHTS</b> 	<ul style="list-style-type: none"> <li>Unethical hiring practices, such as forced labour within the supply chain, damaging our reputation</li> </ul>	<ul style="list-style-type: none"> <li>Ensure compliance with ethical hiring procedures across all involved parties</li> </ul>
<b>SUPPLIER SOCIAL IMPACTS</b> 	<ul style="list-style-type: none"> <li>Inefficient manpower management affecting business and operations</li> <li>Reputational damage due to environmental, human rights, or regulatory violations by suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Create opportunities within the supply chain to support surrounding communities</li> <li>Enhance suppliers' capabilities in enhancing sustainability performance</li> </ul>
<b>EQUAL OPPORTUNITY, DIVERSITY AND INCLUSION</b> 	<ul style="list-style-type: none"> <li>Suboptimal or non-progressive workplace practices affecting business operations</li> </ul>	<ul style="list-style-type: none"> <li>Promote progressive workplace practices and encourage diversity of thought</li> </ul>
<b>COMMUNITY ENGAGEMENT</b> 	<ul style="list-style-type: none"> <li>Negative impacts arising from community engagements</li> <li>Failure to create desired impact or meet public expectations</li> </ul>	<ul style="list-style-type: none"> <li>Invest consistently in long-term education, community well-being, development, and environmental initiatives</li> </ul>
<b>BUSINESS ETHICS AND TRANSPARENCY</b> 	<ul style="list-style-type: none"> <li>Misconduct, corruption, unethical business practices and failure to uphold integrity in operations damaging our reputation</li> </ul>	<ul style="list-style-type: none"> <li>Conduct employee training on core corporate values and expected business conduct</li> </ul>
<b>CYBERSECURITY AND DATA PRIVACY</b> 	<ul style="list-style-type: none"> <li>Challenges in keeping up with evolving cybersecurity and data privacy risks</li> <li>System failures and data breaches caused by inadequate cybersecurity disrupting business operations and eroding customer trust</li> </ul>	<ul style="list-style-type: none"> <li>Adopt advanced threat protection measures across all business units</li> <li>Conduct 24/7 network monitoring through PETRONAS' Centralised Security Operation Centre</li> </ul>



# ENGAGING OUR STAKEHOLDERS

# ENGAGING OUR STAKEHOLDERS

Acknowledging that our stakeholders have diverse interests and expectations shaped by the ways our business activities impact them, we are dedicated to fostering regular and meaningful dialogues to understand and address their needs. We ensure our stakeholders remain informed about our sustainability initiatives, goals, and achievements by maintaining open communication channels. This engagement allows us to gain valuable insights into their perspectives, needs, and concerns, which in turn help refine our sustainability strategy and enhance our overall efforts. This section provides an overview of why and how we engage with our key stakeholders, along with our responses to their concerns and areas of interest.

Our engagement approach is tailored to each stakeholder group, ensuring the use of appropriate channels and methods. These interactions allow us to share updates on our activities, outcomes, and strategic direction while seeking feedback on their concerns, priorities, and evolving expectations.

The table below outlines our key stakeholders and the customised engagement frameworks we employ to foster meaningful dialogue and collaboration.

	WHY WE ENGAGE	WHAT WE OFFER	KEY CONCERNS	OUR RESPONSE
<b>INVESTORS AND FUNDING INSTITUTIONS</b> 	<ul style="list-style-type: none"> <li>Enhance financing opportunities</li> <li>Liquidity of our shares</li> <li>Foster open communication with investors for better business understanding</li> <li>Maintain transparency with stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Stable investment with steady share prices and low volatility</li> <li>Alignment of business activities with strategic goals</li> <li>Integration of sustainability and governance into practices</li> <li>Ability to sustain attractive shareholder returns</li> </ul>	<ul style="list-style-type: none"> <li>Progress on growth initiatives</li> <li>Sustainability practices and disclosures</li> <li>Consistency of shareholder returns</li> <li>Shift in focus from oil and gas sectors due to environmental concerns</li> </ul>	<ul style="list-style-type: none"> <li>Clear disclosures on strategies and growth initiatives</li> <li>Quarterly results announcements and analyst briefings</li> <li>Consistent stakeholder engagement</li> <li>Prompt response to shareholder queries</li> <li>Highlighting efforts in reports, presentations, and website</li> </ul>
	<p><b>A</b> One-on-one meetings   <b>A</b> Emails/Letters/Surveys   <b>Q</b> Analyst briefings</p>		<p><b>Q</b> Website (for analyst briefings only)   <b>Y</b> Site visits   <b>Y</b> Investor conferences and roadshows   <b>Y</b> Annual General Meeting</p>	
<b>CUSTOMERS</b> 	<ul style="list-style-type: none"> <li>Present a superior offering that reflects operational and commercial excellence</li> <li>Extend contracts</li> <li>Secure new contracts</li> <li>Foster and maintain good business relationships</li> </ul>	<ul style="list-style-type: none"> <li>Reliable product delivery at a competitive cost</li> <li>Quality product offerings</li> <li>Commitment to product delivery reliability and conformance to specifications</li> </ul>	<ul style="list-style-type: none"> <li>Delivery of high-quality products and services in a timely manner</li> <li>Competitive product offerings</li> </ul>	<ul style="list-style-type: none"> <li>Strengthened integration across the value chain to enhance reliability and ensure Product Delivery Reliability (PDR)</li> <li>Expanded customer-focused solutions for both product offerings and pricing</li> <li>Boosted customer interactions through increased engagements and visits</li> <li>Enhanced marketing efforts and outreach initiatives</li> </ul>
	<p><b>W</b> One-on-one meetings   <b>Q</b> Customer visits   <b>Y</b> Industry conferences, forums and events</p>		<p><b>Y</b> Annual customer experience survey</p>	
<b>BUSINESS PARTNERS, SUPPLIERS AND VENDORS</b> 	<ul style="list-style-type: none"> <li>Foster resilient relationships through communication and collaboration</li> <li>Preserve delivery of goods and services aligned with PETRONAS and PGB values</li> </ul>	<ul style="list-style-type: none"> <li>Collaborating on joint initiatives for mutual benefit</li> <li>Opportunities and partnerships to support the growth of suppliers' businesses</li> </ul>	<ul style="list-style-type: none"> <li>ESG regulations and requirements from potential partners</li> <li>Vice versa, wherein we may require certain ESG compliance thresholds from potential partners</li> <li>Ensuring fair and seamless business transactions</li> </ul>	<ul style="list-style-type: none"> <li>Established partner selection criteria to ensure strategic fit</li> <li>Utilising PETRONAS Group Procurement and Financial Services' policies and procedures for efficiency and transparency</li> <li>Strengthening engagements to maintain a reliable supply chain</li> </ul>
	<p><b>W</b> One-on-one meetings   <b>Q</b> Board meetings   <b>M</b> Management committee meetings</p> <p><b>W</b> Toolbox sessions   <b>W</b> HSSE contractor improvement programme   <b>Q</b> Project sponsor meetings</p>		<p><b>Y</b> Strategic dialogues, conferences, forums and events   <b>Y</b> Contractor engagements and clinics</p>	

**Channels and Frequency**

**A** As required   **W** Weekly   **M** Monthly   **Q** Quarterly   **Y** Yearly



## ENGAGING OUR STAKEHOLDERS

## ENGAGING OUR STAKEHOLDERS

	WHY WE ENGAGE	WHAT WE OFFER	KEY CONCERNS	OUR RESPONSE
<b>EMPLOYEES AND UNIONS</b> 	<ul style="list-style-type: none"> <li>Foster a positive ecosystem and encourage employees to contribute to business strategies and goals</li> <li>Identify skill gaps to nurture future talent</li> <li>Inspire collaboration among employees and management</li> <li>Maintain strong relationships with union representatives to ensure industrial harmony</li> </ul>	<ul style="list-style-type: none"> <li>A supportive environment promoting sustainability and psychological safety</li> <li>Opportunities for learning, development, and growth</li> <li>Opportunities for meaningful contributions towards personal fulfilment and strategic business goals</li> </ul>	<ul style="list-style-type: none"> <li>Employee physical and mental well-being</li> <li>Inclusive and conducive working environment</li> <li>Skill development and capability building</li> <li>Maintaining industrial harmony</li> </ul>	<ul style="list-style-type: none"> <li>Structured programmes to address physical, mental and financial well-being</li> <li>Communication programmes to encourage diversity and inclusion</li> <li>Structured development programmes focusing on technical, functional, and leadership skills</li> <li>Collaboration with union representatives for seamless Human Resources policy to understand and conclude negotiation on collective agreement</li> <li>Employee engagement remains a priority, with 51 activities and programmes in 2024 to foster a conducive work environment and culture</li> </ul>
	<p><b>M</b> Engagement with employees   <b>M</b> Intranet and internet newsletters</p>		<p><b>Q</b> Union engagements and activities</p>	
<b>GOVERNMENT AGENCIES AND AUTHORITIES</b> 	<ul style="list-style-type: none"> <li>Promote our support for government initiatives such as the NETR, NCCP 2.0 etc.</li> <li>Serve as a partner in shaping the gas and power industry's direction in Malaysia</li> </ul>	<ul style="list-style-type: none"> <li>Extensive gas delivery network in Peninsular Malaysia</li> <li>Lower-carbon natural gas power plant</li> <li>Safe, efficient and reliable operations across all facilities</li> <li>Upholding licenses in core regulated businesses such as pipeline and regasification terminals</li> <li>Understanding of the latest requirements and regulations</li> </ul>	<ul style="list-style-type: none"> <li>Gas supply security and reliability</li> <li>Economic impacts on consumers</li> <li>Compliance with regulations and commitment to ESG standards</li> <li>Health and safety of operations and their surrounding impact</li> <li>Business practices that uphold integrity and ethics</li> <li>Timely public disclosures on sustainability such as TCFD, IFRS and TNFD</li> </ul>	<ul style="list-style-type: none"> <li>Formal and informal engagements</li> <li>Joint emergency response exercises</li> <li>Familiarisation visits to PGB facilities</li> <li>Regular reporting to government agencies</li> </ul>
	<p><b>Q</b> Engagement programmes   <b>Y</b> Consultative sessions</p>			
<b>COMMUNITIES AND NON-GOVERNMENTAL ORGANISATION (NGO)</b> 	<ul style="list-style-type: none"> <li>Enhance community understanding of PGB's business and operations</li> <li>Maintain a positive corporate image</li> </ul>	<ul style="list-style-type: none"> <li>Education and social support</li> <li>Environmental protection and biodiversity preservation</li> </ul>	<ul style="list-style-type: none"> <li>Health and safety of PGB operations and their impact on surrounding areas</li> <li>Need for education and social support</li> <li>Protection of the environment and biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of social impact initiatives in education, community well-being, and environmental areas</li> <li>Programmes such as Powering Knowledge (education), Uplifting Lives (well-being), and Planting Tomorrow (environment)</li> <li>Sponsorships and donations</li> <li>Outreach activities to build favourable relationships with communities</li> </ul>
	<p><b>M</b> Regular employee engagements   <b>M</b> Intranet and internet newsletters   <b>M</b> Progress meetings</p>		<p><b>A</b> Email correspondence and texts   <b>Q</b> Union engagements and activities</p>	
<b>MEDIA</b> 	<ul style="list-style-type: none"> <li>Support their role as a key communication link between the business and stakeholders</li> <li>Collaborate with Media to distribute vital information affecting corporate reputation and branding</li> </ul>	<ul style="list-style-type: none"> <li>Transparent sharing of information</li> <li>Regular interaction with PGB spokespersons</li> </ul>	<ul style="list-style-type: none"> <li>Business performance</li> <li>Environmental management and sustainability efforts</li> <li>New innovation and technology advancements</li> </ul>	<ul style="list-style-type: none"> <li>Foster open and transparent communication with Media</li> <li>Provide timely responses to Media inquiries on business developments</li> <li>Organise activities to share updates and maintain positive rapport</li> </ul>
	<p><b>Q</b> Press releases on quarterly performance   <b>Y</b> Press releases on key business updates</p>			

Channels and Frequency

**A** As required   **W** Weekly   **M** Monthly   **Q** Quarterly   **Y** Yearly

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# SUSTAINABLE VALUE CREATION

Our focus on sustainable value creation ensures that our operations and growth initiatives continue to generate strong financial returns for our business and shareholders. In an evolving energy landscape, unlocking growth in alignment with national and regional energy security and sustainability goals is essential. By incorporating Carbon Footprint Assessments (CFA) and carbon cost exposure into our decision-making, we are driving responsible expansion and building a greener, low-carbon portfolio that secures the long-term relevance of our business.



Gas Processing and Utilities - GP

SUSTAINABLE VALUE CREATION

## SUSTAINABLE VALUE CREATION

### WHY IT MATTERS

Our transition to the Sustainable Value Creation (SVC) model in 2023 has ushered in a new growth phase for PGB. This enhanced approach embeds sustainability as a core element of our strategic direction to drive sustainable growth and navigate emerging risks and leverage opportunities amidst an evolving energy landscape.

By aligning our strategic agenda with national energy and decarbonisation policies and roadmaps, we strengthen our growth potential in the national market and secure our position as the nation's preferred energy provider.

### OUR APPROACH

#### Robust Governance to Ensure Progress and Accountability

To ensure the effective progression of our sustainable value creation strategies we are guided by sound governance practices and maintain robust-top level oversight through Board meetings, PGB Leadership Team meetings and Investment Steering Committee meetings.

Simultaneously, we uphold accountability through transparent disclosures to our stakeholders through various stakeholder engagement events and our financial reporting. Our reporting adheres to regulatory frameworks such as:

#### Financial Reporting Standards

- Malaysian Financial Reporting Standards (MFRS)
- International Financial Reporting Standards (IFRS)

#### Regulatory Frameworks

- Gas Supply Act (Amended) 2016
- Incentive Based Regulations (IBR)
- Third-Party Access Framework







Gas Processing and Utilities - GP



## SUSTAINABLE VALUE CREATION

### Preserving Essential Long-Term Agreements

Our long-term agreements form the backbone of our business, safeguarding our value creation efforts from the uncertainties of volatile market dynamics. By maintaining operational excellence, ensuring reliable service delivery and fulfilling contractual obligations, we can sustain our financial performance and retain the capacity to invest in business growth.

<p><b>Gas Processing Agreement</b></p> <p>Parties: PETRONAS and PGB Expiry: 31 December 2033</p> 	<p><b>Gas Transportation Agreement</b></p> <p>Parties: PEGT and PGB Expiry: 31 December 2033</p> 
<p><b>Terminal Use Agreement (RGTP)</b></p> <p>Parties: PEGT and PLNG2 Expiry: 1 November 2042</p> 	<p><b>Terminal Use Agreement (RGTSU)</b></p> <p>Parties: PEGT and RGTSU Expiry: 21 June 2033</p> 

### Managing a Diverse Growth Portfolio

Building on the foundation of our long-term contracts, we have adopted a multi-faceted approach to managing our growth portfolio. This includes expanding our existing infrastructure and capacity, such as the upcoming developments of new gas power plants, while pursuing step out projects in green and low-carbon ventures such as our installation of a new air separation unit to harness cold energy.

<b>PROJECT COMPLETED IN 2024</b>	<ul style="list-style-type: none"> <li>Our new 42 km lateral gas pipeline to Pulau Indah, Selangor commenced gas supply to the Pulau Indah Power Plant in July 2024</li> </ul>
<b>ONGOING PROJECTS</b>	<ul style="list-style-type: none"> <li>The new gas compressor in Kluang, Johor is scheduled to commence operations in 2025</li> <li>A new Floating Storage Unit (FSU) of Liquefied Natural Gas (LNG) at Pengerang, Johor is scheduled to commence operations in the second half of 2025</li> <li>The installation of a new Air Separation Unit (ASU) to harness cold energy at Pengerang, Johor is expected to be commissioned by end of 2026</li> <li>A 52 MW power plant in Sipitang, Sabah is expected to be commissioned in November 2026</li> </ul>
<b>PROJECTS ACHIEVED FID IN 2024</b>	<ul style="list-style-type: none"> <li>Development of a new compressor station in Jeram, Selangor</li> <li>Development of a 100MW gas power plant in Kimanis, Sabah</li> <li>Development of a 120MW gas power plant in the Federal Territory of Labuan<sup>1</sup></li> </ul>

Note:  
<sup>1</sup> Received Initial Letter of Notification (LON) from Ministry of Energy Transition and Water Transformation

## SUSTAINABLE VALUE CREATION

### The Impact of Our New Projects

The three (3) new projects that achieved Final Investment Decision (FID) in 2024 were carefully selected to deliver meaningful impacts both to our bottom line as well as to the broader society. By expanding our infrastructure and diversifying along the gas value chain, we are supporting energy security while positioning gas as a key transitional fuel in alignment with national policies such as the 12th Malaysia Plan, National Energy Policy (NEP) and National Energy Transition Roadmap (NETR).

- New Jeram Compressor Station**

The addition of the New Jeram Compressor Station will serve to enhance our gas transmission capabilities. This addition will enable PGB to reliably service the rising demand for energy in Peninsular Malaysia, while strengthening our position as a key player in Malaysia's energy infrastructure and supporting long-term revenue growth. The FID of the project was achieved in March 2024, with commissioning targeted for September 2026.
- New 100MW Power Plant in Kimanis, Sabah**

In August 2024, PGB received the Letter of Notification to construct, own and operate a new 100MW power plant in Kimanis, Sabah. The power plant, with operations expected to commence in 2026, will expand PGB's existing portfolio in power generation and the Sabah energy market. In addition to strengthening our future revenue base, it is also part of a larger 700MW capacity project approved by the Sabah government under the Sabah Energy Roadmap and Master Plan 2040, aligning our growth with national development goals.
- New 120MW Power Plant in Labuan**

We have also received an Initial Letter of Notification for the development of a 120MW gas power plant in Labuan which will also support Sabah and Labuan's long-term energy ambitions.



Gas Processing and Utilities - GP

### Carbon Footprint Assessment (CFA)

CFA are a key initiative that strengthens the integration of environmental and social considerations within our value generation processes, enabling us to prioritise sustainable investments through a data-driven approach. In 2023, we began implementing CFAs across projects based while equipping employees with the necessary skills to conduct the assessments. With enhanced competencies from the PGB CFA Leader Certification Pathway introduced in 2024, we can now calculate carbon exposure across projects with greater accuracy, allowing for more informed decision-making.

Our assessment framework is further strengthened by the introduction of an internal carbon price of USD 5 per tonne of carbon dioxide equivalent, which helps evaluate carbon cost exposure, factoring in potential carbon taxes and abatement initiatives. The results of CFAs and carbon cost exposure assessments are integrated into financial investment decisions, guiding PGB towards building a greener, low-carbon portfolio.

Additionally, the CFA framework provides guidelines for adopting best available technology to minimise emissions and ensures that project designs align with our carbon commitments, such as zero routine venting and flaring. This structured approach keeps us on track to achieving our Net Zero Carbon Emissions (NZCE) 2050 aspirations.

Building on our progress, we conducted CFAs for two (2) new power plant projects in 2024, in addition to the two (2) assessments completed in 2023. The findings from these studies will ensure that these developments are approached in the most responsible and financially viable manner, reinforcing our commitment to sustainable value creation.

### Low-Carbon Projects

As a leading player in Malaysia's energy industry, PGB remains committed to supporting the country's decarbonisation efforts. Our ongoing initiatives focus on further exploring carbon capture, utilisation, and storage (CCUS) solutions, as well as energy storage systems. These efforts support our commitment to reducing emissions as we work towards achieving our NZCE 2050 target.

Simultaneously, we are actively engaging with key stakeholders and national policymakers to cultivate a more enabling industry ecosystem that will enhance the viability and financial feasibility of future green energy projects.

## SUSTAINABLE VALUE CREATION

### Aligning Future Plans with National Objectives

As Malaysia advances sustainability through policies driving a low-carbon economy and environmental resilience, we see opportunities to grow our value creation while meeting the nation's energy needs and ensuring energy security. To this end, we have aligned our growth strategies with key national policies and roadmaps that recognise natural gas as the optimal transition fuel, ensuring energy security as the nation advances its energy transition journey.

#### ▶ 12th Malaysia Plan and National Budget 2024

In line with decarbonisation and energy transition priorities under these frameworks, we are supporting natural gas infrastructure expansion while managing our carbon emissions in accordance with PGB NZCE 2050 pathway.

#### ▶ National Energy Policy (NEP) 2022-2040

With this policy highlighting natural gas as a cleaner, reliable energy source amid coal phase-out efforts, we foresee opportunities to expand our gas processing, transportation, and regasification assets to meet growing demand.

#### ▶ Malaysian National Energy Transition Roadmap (NETR)

We are actively diversifying our portfolio with initiatives in CCS, CCU, cold energy harnessing, solar and energy storage systems to align with this roadmap.

By collaborating with the government to drive a fair energy transition and decarbonise our operations, we reinforce our role as a dependable contributor to national energy security and seek to establish strategic partnerships for mutual growth.

### Engaging Stakeholders to Drive Collaboration

Fostering collaborative relationships with stakeholders is essential to sustaining positive outcomes from our value creation initiatives. This involves proactive and strategic engagement with ministries, authorities and policymakers to ensure alignment with our long-term objectives. Our engagement involves our active participation in government-led sustainability initiatives and local council engagements, in addition to collaborating with NGOs to leverage on their established platforms to maximise the impact of our sustainability programs.

### 2024 STAKEHOLDER MANAGEMENT EVENTS SUPPORTING SVC



#### Energy Commission Sabah (ECoS) Visit to RGTP and RGTSU

In August, ECoS visited RGTP and RGTSU to learn about the terminals' operations and capacity. The visit included tours highlighting key technological systems and safety controls, giving ECoS insights into the critical infrastructure that supports Sabah's energy needs.

#### Engagement with Transport Ministry on Low-Carbon Fuel

Also in August, PGB's MD/CEO presented a feasibility study to Malaysia's Minister of Transport, YB Loke Siew Fook on developing eMethanol as an alternative marine fuel. We will further collaborate with the Ministry to secure backing from the International Maritime Organisation for this low-carbon energy initiative towards decarbonizing the shipping industry.



#### Kimanis Power Plant (Dua) Groundbreaking

In November, Sabah Chief Minister YAB Datuk Seri Hajiji Noor officiated the groundbreaking of the 100MW Kimanis Power Plant (Dua). The project seeks to boost participation from Sabah-based vendors and suppliers, and will create 400 jobs during construction, with 60 to 70 permanent roles upon completion.

#### Engagement with Institutional Shareholders

In 2024, PGB's leadership strengthened relationships with key institutional investors, including Employees Provident Fund (EPF) and Kumpulan Wang Persaraan (Diperbadankan) (KWAP), through effective communication of business development and sustainability initiatives. The PGB Board also participated in PNB's Sustainability Engagement, supporting their efforts to integrate sustainability into strategic decision-makings.

## SUSTAINABLE VALUE CREATION

### OUR PERFORMANCE

Our efforts to increase the economic value we generate and distribute each year underscores our commitment to sustainable value creation.

#### Direct Economic Value Generated and Distributed (RM million)

	2022	2023	2024
<b>Direct Economic Value Generated</b>			
Revenue	6,160.2	6,445.4	<b>6,538.2</b>
Other Income <sup>1</sup>	35.2	230.1	<b>228.9</b>
<b>Economic Value Distributed</b>			
Operating Costs (including materials, products and facilities purchased)	2,457.0	2,639.6	<b>2,659.6</b>
Employee Wages and Benefits	416.8	493.4	<b>552.7</b>
Payments to Providers of Capital	1,735.6	1,506.1	<b>1,512.0</b>
Payments to Government by Country	511.4	441.3	<b>352.8</b>
Community Investments	-	5.2	<b>5.7</b>
Economic Value Retained	1,074.6	1,589.9	<b>1,684.3</b>

#### Local Recruitment Efforts and Minimum Wage Compliance

We also strive to create sustainable value by uplifting the nation's socio-economic fabric. Through inclusive recruitment practices that support local communities, we are proud to report that 100% of our Senior Management<sup>2</sup> employees were hired locally<sup>3</sup>. Additionally, we maintain full compliance with government-mandated minimum wage requirements.

Notes:

<sup>1</sup> Comprises net other income, financing costs and contribution from joint ventures and associate

<sup>2</sup> Senior Management encompasses our Senior Managers, General Managers, Senior General Managers and MD/CEO

<sup>3</sup> Local is defined as Malaysia



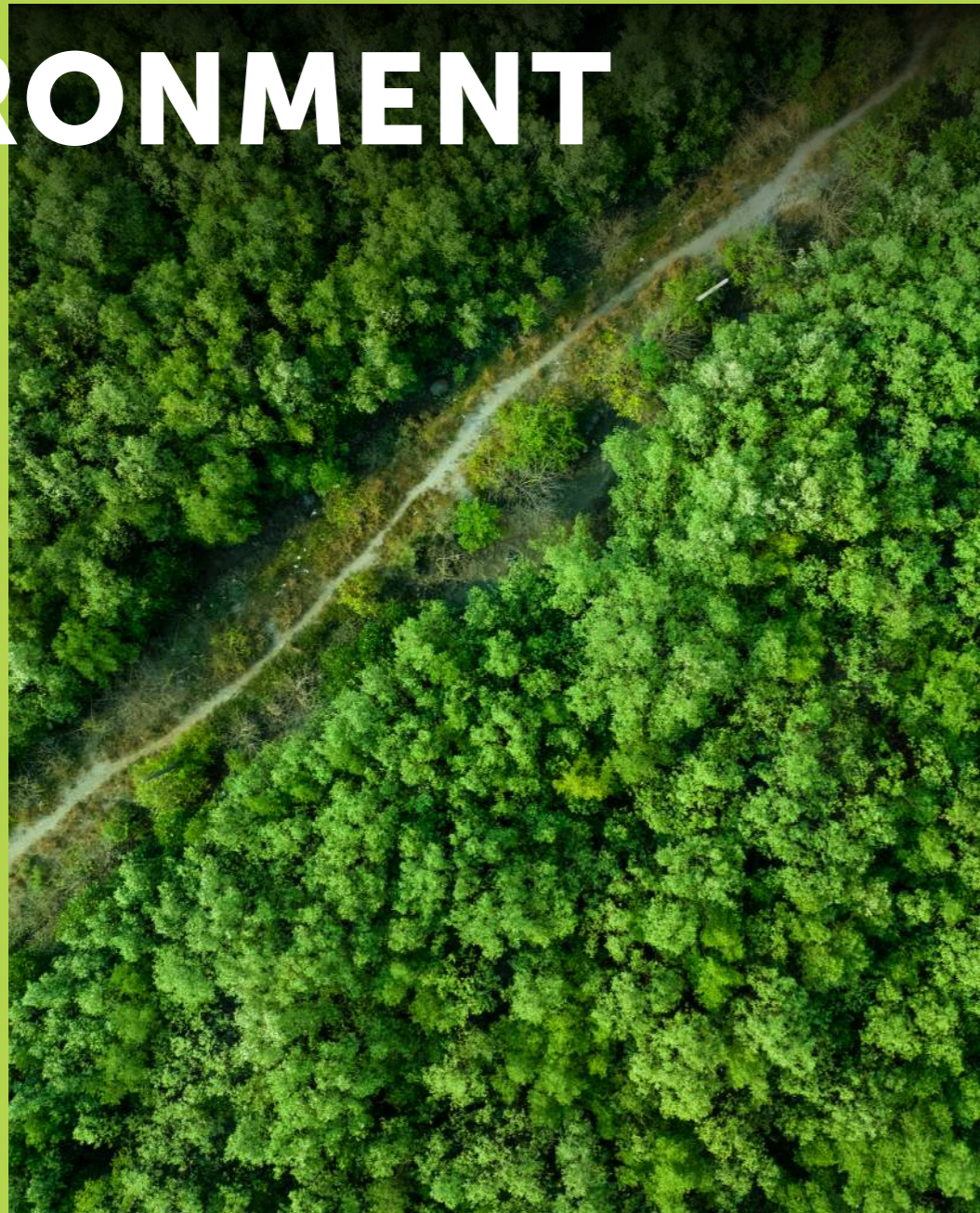
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Relevant UNSDGs



# SAFEGUARD THE ENVIRONMENT

Guided by our Net Zero Emissions by 2050 pathway, we are continuously enhancing our GHG disclosures while driving carbon abatement and energy management solutions to accelerate progress towards carbon neutrality. At the same time, we prioritise circularity through strong recycling practices, safeguard the protection of biodiversity and natural ecosystems, and responsibly manage our pollutants, waste, and water to ensure our operations coexist sustainably with the natural environment.



## SAFEGUARD THE ENVIRONMENT

# ENERGY MANAGEMENT

### WHY IT MATTERS

As a growing player in the energy industry, we recognise the importance of responsible energy management in addressing climate change and advancing towards a sustainable future. Within the context of our business operations, responsible energy use also plays a significant role in our drive for operational excellence, cost optimisation and minimising our carbon footprint.

By implementing comprehensive governance frameworks, leveraging advanced technologies, and maintaining rigorous oversight throughout the energy lifecycle, we strive to optimise energy consumption. While the world continues its pursuit of sustainable renewable energy security, careful stewardship of potentially finite energy resources remains a key priority.



### OUR APPROACH

#### Driving an Energy-conscious Culture Through Robust Energy Management

We are dedicated to fostering an energy-conscious corporate culture, placing energy conservation and GHG emissions reduction at the core of our operational and sustainability strategies. By embracing cutting-edge technologies and refined processes, we continuously strive to achieve greater efficiency and material energy savings.

Our efforts are anchored by the implementation of a robust Energy and Loss Management System (ELMS), which provides a structured framework for systematically enhancing energy efficiency. This is in line with Malaysian regulatory requirements (Energy Efficiency and Conservation Act), which highlight the importance of developing and implementing an Energy Management System, including detailed monitoring of energy consumption. Through diligent energy management and oversight, we identify opportunities to optimise energy utilisation.



## SAFEGUARD THE ENVIRONMENT Energy Management

### Adopting Scenario Modelling for Enhanced Energy Efficiency

To elevate our energy efficiency, we have adopted scenario modelling approach to foresee and analyse energy loads across different operational modes. This approach provides valuable insights that enable us to optimise processes and enhance overall energy efficiency. By simulating various operating conditions, our teams can make informed decisions to implement variable operating modes for optimisation.

In the Gas Processing segment, scenario modelling allows us to switch between sales gas maximisation and liquid hydrocarbon maximisation based on the prevailing operating environment. Similarly, in Utilities, we optimise power exports via the New Electricity Dispatch Arrangements (NEDA) by leveraging a real-time optimiser system to analyse grid conditions and cost parameters. During periods of minimal energy demand, we can adjust the number of cogeneration units in operation to further enhance efficiency.

Scenario modelling has proven instrumental in identifying inefficiencies, minimising waste, streamlining operations, and highlighting areas for improvement. Most notably, it supports our efforts to reduce internal gas consumption, contributing to lowering our operating costs and GHG emissions in alignment with our sustainability objectives.

### An Established Energy Roadmap

We have developed an Energy Commitment and Roadmap to guide energy management and meet energy-related responsibilities and performance targets within our Gas Processing and Utilities (GPU) and Gas Transportation and Regasification (GTR) divisions.

This roadmap outlines a five-year Energy Index (EI) target, a detailed list of initiatives, and the projected energy savings for each initiative. To ensure effective implementation, each division has established an Energy Working Committee tasked with providing strategic guidance, monitoring progress, and ensuring milestones are achieved within the set timeframes.



Gas Processing and Utilities - GP

## SAFEGUARD THE ENVIRONMENT Energy Management

### OUR PERFORMANCE

#### ENERGY MANAGEMENT AT PGB

##### Energy Index Performance

A primary objective for energy management at PGB is to consistently achieve a top performance Energy Index (EI)<sup>1</sup> with this target cemented in our Strategic Agenda blueprint to drive operational excellence. To do so, we adhere to three (3) core practices: optimising maintenance processes to minimise energy use, implementing efficient energy consumption controls, and identifying designs that maximise efficiency. In 2024, our targeted initiatives to optimise energy consumption led to an improvement in our EI performance, surpassing both our set limit and our 2024 achievements. This was notably driven by the successful implementation of additional operational controls.



Notes:

- <sup>1</sup> EI is defined as the ratio of the actual energy performance of the plant to the energy performance that the plant was designed for. It is a comparison of the Actual Specific Energy Consumption (Actual SEC) of the plant with the Specific Energy Consumption calculated during the original design of the plant (Design SEC).
- <sup>2</sup> Based on the Design SEC, we have established upper EI limits to monitor energy utilisation efficiency. A lower EI score compared to the limit indicates better energy efficiency.

##### Power Production Capacity by Energy Type

Energy Type	Total Electricity Generation Capacity (MW) <sup>1</sup>	Total Steam Generation Capacity <sup>2</sup> (MT/hour) <sup>3</sup>
Natural Gas	400	1,312
Solar	0.254	Not Available

Notes:

- <sup>1</sup> Megawatt
- <sup>2</sup> Total steam generation capacity from COGEN
- <sup>3</sup> Metric tonne per hour



## SAFEGUARD THE ENVIRONMENT Energy Management

### Power Production by Energy Type (MWh)

Energy Type (MWh) <sup>1</sup>	2022	2023	2024
Fuel Gas	2,293,163	2,123,530	<b>2,265,000</b>
Solar	235	250	<b>294</b>
Imported Electricity	98,750	97,872	<b>111,052</b>
Green Electricity Tariff	0	3,200	<b>7,496</b>
Nuclear	0	0	<b>0</b>
Coal	0	0	<b>0</b>
Oil	0	0	<b>0</b>
CCGT	0	0	<b>0</b>
Biomass	0	0	<b>0</b>
Hydro	0	0	<b>0</b>
Geothermal	0	0	<b>0</b>
Wind	0	0	<b>0</b>
Other Renewables	0	0	<b>0</b>
Overall Renewables <sup>1</sup>	0	0	<b>0</b>
<b>Total</b>	<b>2,392,148</b>	<b>2,224,852</b>	<b>2,383,842</b>

Note:  
<sup>1</sup> PGB's only renewable energy source is solar, as outlined in the table

### Energy Consumption (GJ/year) (million)

	2022	2023	2024
GPU (GJ/year) (million)	61.30	57.71	<b>59.18</b>
GTR (GJ/year) (million)	4.13	4.36	<b>4.28</b>
<b>Total (GJ/year) (million)</b>	<b>65.43</b>	<b>62.07</b>	<b>63.46</b>
<b>Total (MW)<sup>1</sup></b>	<b>18,175,000<sup>2</sup></b>	<b>17,127,778<sup>2</sup></b>	<b>17,630,556</b>

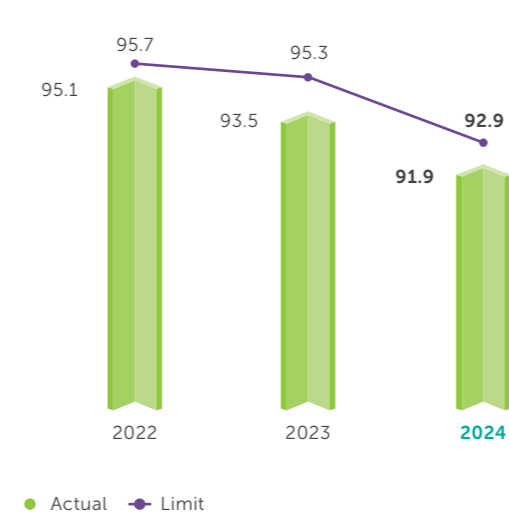
In 2024, GTR achieved lower energy consumption as compared to 2023, attributed to operating at a higher send-out capacity, which enabled more efficient operations.

Notes:  
<sup>1</sup> Megawatt-hour  
<sup>2</sup> Data for 2022 and 2023 have been revised due to a standardisation of our data calculation approach

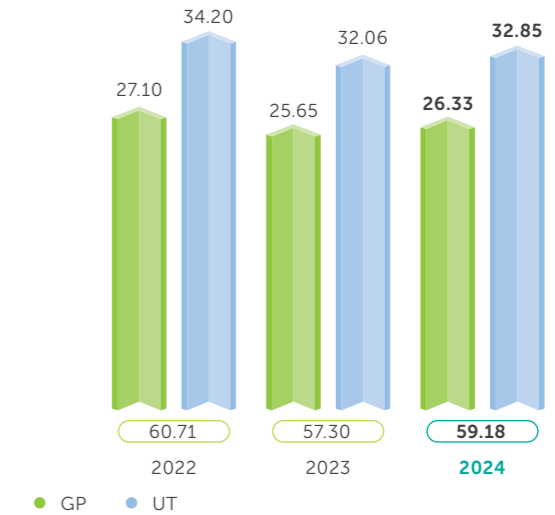
## SAFEGUARD THE ENVIRONMENT Energy Management

### ENERGY MANAGEMENT AT GPU

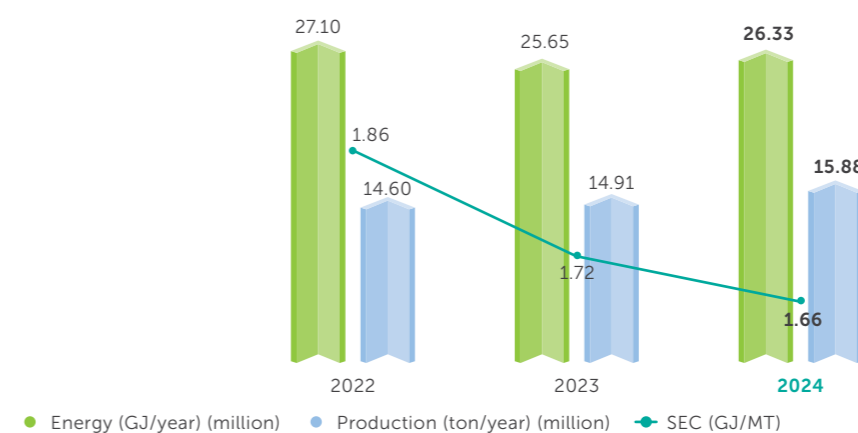
#### GPU Energy Index Performance



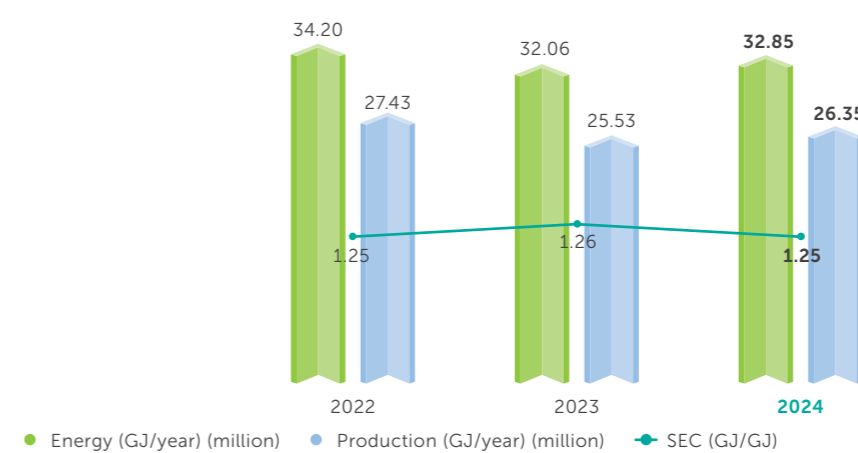
#### GPU Energy Consumption



#### GP Specific Energy Consumption



#### UT Specific Energy Consumption



## SAFEGUARD THE ENVIRONMENT

### Energy Management

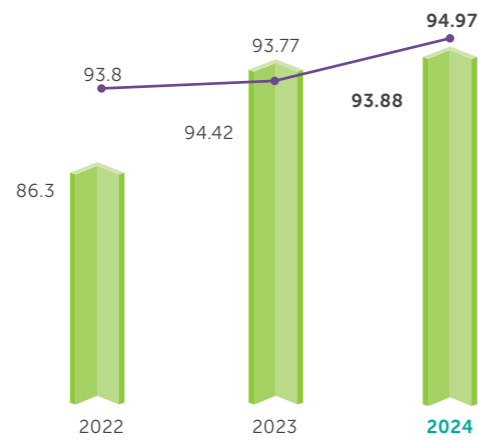
#### GPU Energy Consumption Initiative

##### ► Commissioning of UG Utility Optimiser

Utilities Gebeng successfully commissioned the Utility Optimiser, an automated model that utilises first-principle mass and energy balance to optimise energy consumption during normal plant operations. It also helps regulate power exports to the national grid based on System Marginal Price (SMP) movements, resulting in an energy reduction of 51,608 GJ, equivalent to 2.6 ktCO<sub>2</sub>e in 2024, with the potential to achieve up to 3.8 ktCO<sub>2</sub>e per year. This project was also recognised at the PETRONAS Making Impossible Possible Awards and Convention (MIPAC 2024), winning the 'Best Efficiency' award.

#### ENERGY MANAGEMENT AT GTR

##### GTR Energy Index Performance



● Actual ● Limit

In 2024, GTR's Energy Index (EI) increased compared to 2023, driven by heightened production activities. Nevertheless, we successfully achieved a result within our target as negative offsets caused by flaring and venting events were counterbalanced by a positive offset from operating efficiently at high production levels close to nameplate capacity.

## SAFEGUARD THE ENVIRONMENT

### Energy Management

#### GTR Energy Consumption

Energy Consumption (GJ/year)	2022	2023	2024
RGTSU	392,999.50	382,803.04	<b>408,365.02</b>
RGTP	154,014.99	170,227.02	<b>178,933.99</b>
GT	3,582,218.45	3,810,882.21	<b>3,688,198.13</b>
<b>Total</b>	<b>4,129,232.94</b>	<b>4,363,912.27</b>	<b>4,275,497.14</b>

Our 2024 energy consumption was lower compared to 2023 due to our ability to operate efficiently at higher production levels close to nameplate capacity.

#### GT Specific Energy Consumption

	2022	2023	2024
Energy (GJ/year) (million)	3.58	3.81	<b>3.69</b>
Production (MT/year) (million)	11.21	12.03	<b>12.50</b>
SEC (GJ/MT)	0.32	0.32	<b>0.30</b>

#### RGT Specific Energy Consumption

	2022	2023	2024
Energy (GJ/year) (million)	0.55	0.55	<b>0.59</b>
Production (MT/year) (million)	2.58	2.49	<b>3.04</b>
SEC (GJ/MT)	0.21	0.22	<b>0.19</b>

#### GTR Energy Consumption Initiative

##### ► Adoption of Gas Transmission Optimisation (GTOP)

The GTOP system optimises compressor setpoints to enhance operational efficiency while maintaining product quality in terms of volume and pressure. This enables us to improve Internal Gas Consumption (IGC) across Peninsular Gas Utilisation (PGU) and the Segamat Operations Center. The initiative led to an Energy saving of 61,836 GJ equivalent to GHG reduction of 3,250 tCO<sub>2</sub>e per year in 2024.



## SAFEGUARD THE ENVIRONMENT

# CLIMATE CHANGE MANAGEMENT

### WHY IT MATTERS

As a business reliant on natural resources like air and water, minimising harm to these vital ecosystems has long been an intrinsic part of our responsible business practices to ensure long-term business resilience. Managing greenhouse gas (GHG) emissions is a critical priority for PGB, as it strengthens our competitiveness by demonstrating our ability to govern responsibly and operate our facilities optimally, while unlocking opportunities to expand into lower-carbon-intensive ventures.

By embedding these practices into our operations, we ensure our alignment with evolving expectations and rising ESG standards from regulators, investors, and other key stakeholders, further reinforcing our position as a preferred industry player.



### OUR APPROACH

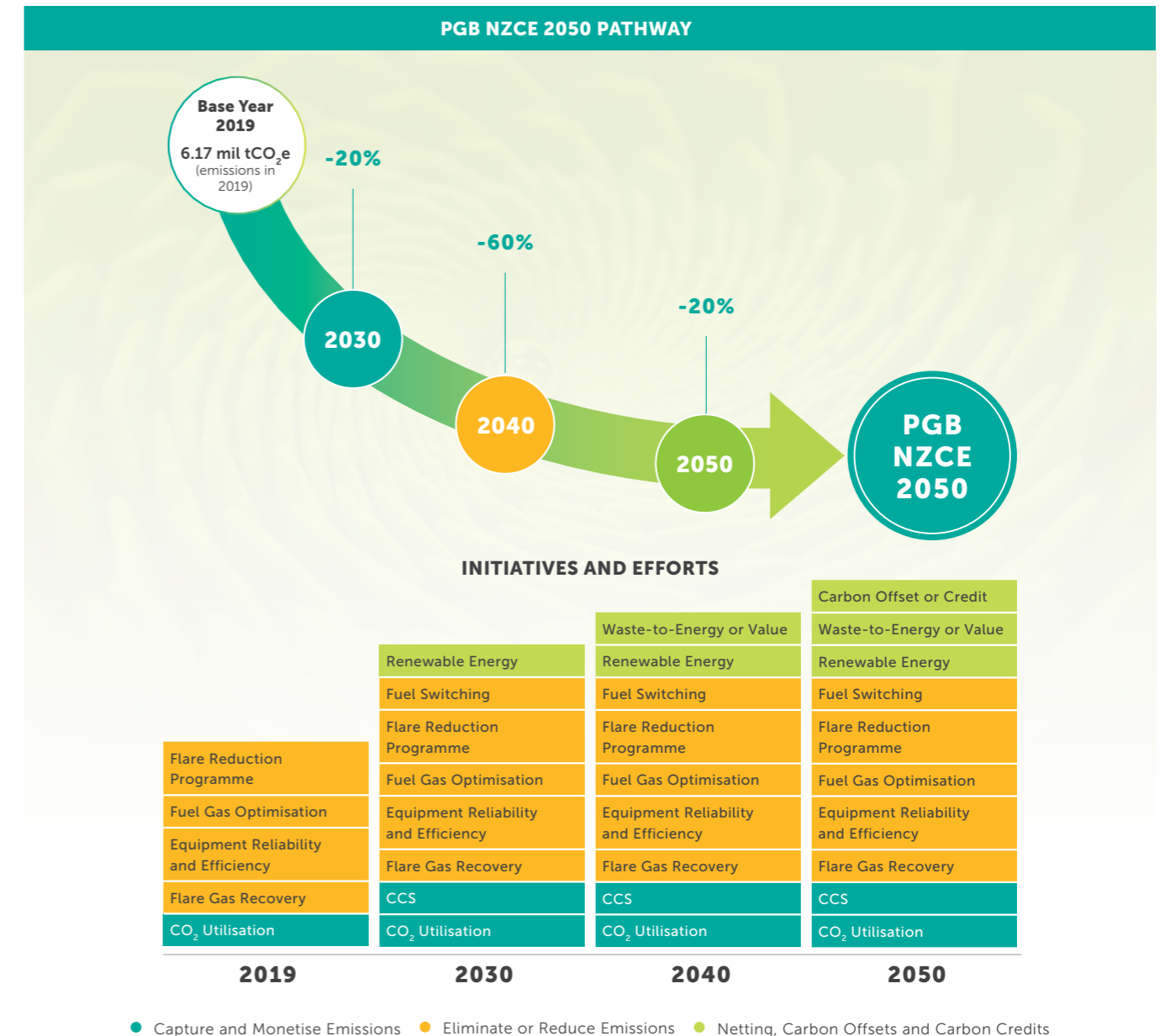
#### Driven by our Group-wide Net Zero Journey

Our pledge to reduce GHG emissions is anchored in our Net Zero Carbon Emissions by 2050 (NZCE 2050) pathway, which aims to establish us as a carbon-neutral organisation by 2050. We have outlined targets and strategies across the following various time horizons, and established the PGB NZCE 2050 pathway towards attaining this goal.

SHORT-TERM 1-5 YEARS (BY 2030)	MEDIUM-TERM 5-15 YEARS (BY 2040)	LONG-TERM BEYOND 15 YEARS (BY 2050)
Short-term goals are essential for sustaining strategies to drive GHG emissions reductions across our operations, while enabling swift adaptation to increasing gas demand, evolving regulations, market dynamics and stakeholder expectations.	Medium-term objectives ensure we grow in alignment with industry trends, national policies, and global targets, ensuring our gas infrastructure and operations support energy security and reliability while being as green as possible.	Long-term aspirations support our transformation towards achieving NZCE by 2050, driving the implementation of comprehensive risk mitigation and abatement measures as our business transitions to lower-carbon business opportunities.

## SAFEGUARD THE ENVIRONMENT Climate Change Management

These strategies include reducing or eliminating emissions, capturing and monetising emissions, and potentially leveraging carbon offsets or credits. Our roadmap to achieving this critical goal is detailed in the PGB NZCE 2050 pathway illustrated below.



### ESTABLISHING BASELINE EMISSIONS

Our journey to Net Zero commenced with establishing the baseline year for our Scope 1 and Scope 2 emissions in 2019. 2019 was selected due to the introduction of a new organisational boundary for NZCE 2050 and serves as a representative year preceding the COVID-19 pandemic, which significantly impacted business-as-usual operations.

**In 2019, our Scope 1 and 2 baseline GHG emissions were recorded at 6.17 million tCO<sub>2</sub>e. Our baseline Methane emissions were recorded at 157,937 tCO<sub>2</sub>e.**

## SAFEGUARD THE ENVIRONMENT

### Climate Change Management

#### SETTING TARGETS



To achieve our net zero carbon emissions target for 100% of operationally controlled Scope 1 and 2 emissions, we have established short- and medium-term interim targets to track our progress:

##### SHORT-TERM



Achieve a **20% reduction** in emissions by 2030 compared to the 2019 baseline.

##### MEDIUM-TERM



Achieve an **80% reduction** in emissions by 2040 compared to the 2019 baseline.

This pathway is based on anticipated GHG emissions reductions through carbon reduction, utilisation, and offset initiatives within our portfolio. Both short-term and medium-term targets are expressed as percentage reductions from the baseline year rather than absolute figures, allowing for clear visualisation and assessment of progress against the base year.

#### SELECTING BOUNDARIES AND APPROACH

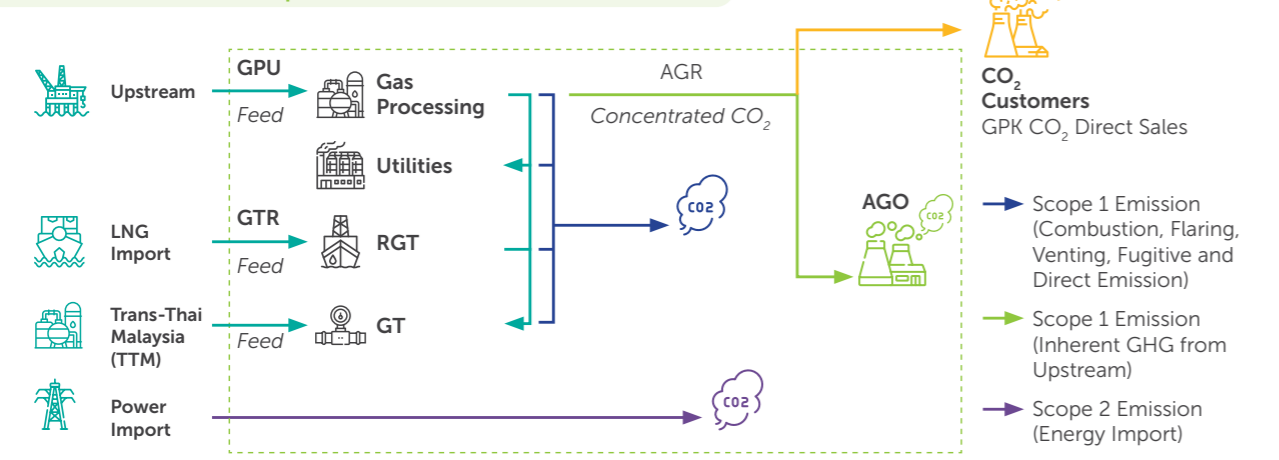


We employ a systematic approach to quantifying our carbon footprint by defining clear boundaries, identifying sources, and verifying GHG emissions measurements. Adopting the operational control method for GHG emissions consolidation, we account for 100% of emissions from facilities under our operational control, namely our LPG terminal and gas processing facilities, Tanjung Sulong Export Terminal (TSET), Gas Processing Kerteh (GPK), Gas Processing Santong (GPS) and our utilities facilities, Utilities Kerteh (UK) and Utilities Gebeng (UG), our regasification terminals, Regas Terminal Sungai Udang (RGTSU) and Regas Terminal Pengerang (RGTP), our gas transportation facilities.

- Gas Processing Plant
- Compressor Station
- Utilities Plant
- Tanjung Sulong Export Terminal
- Offshore LNG Regasification Terminal
- Onshore LNG Regasification Terminal



#### PGB GHG Emissions - Operational Boundaries



## SAFEGUARD THE ENVIRONMENT

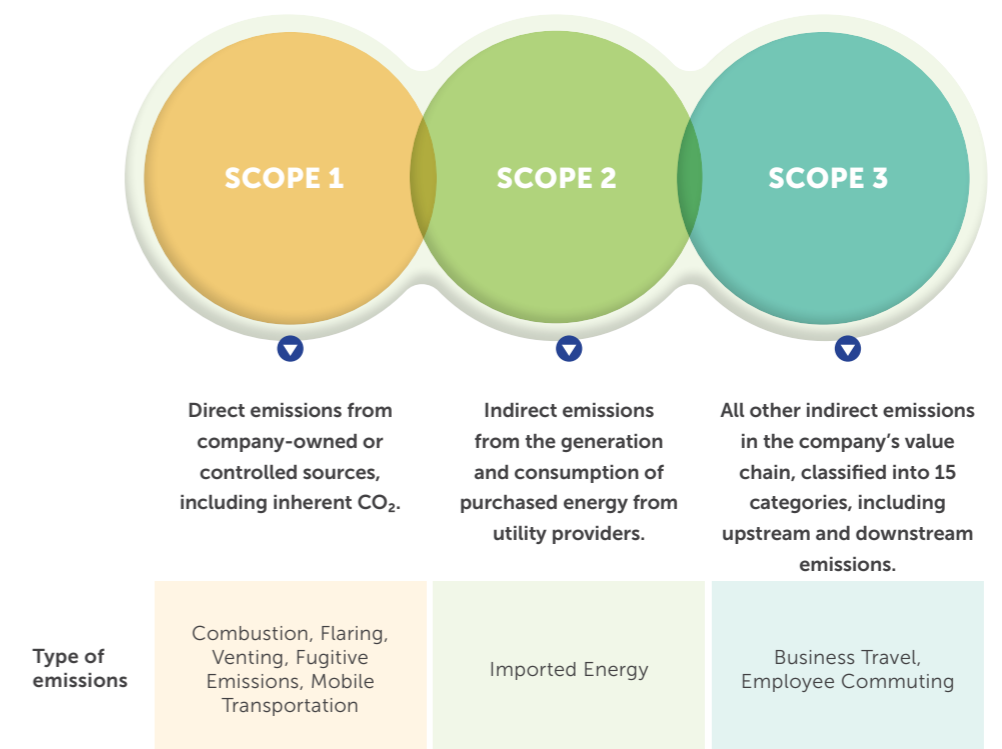
### Climate Change Management

#### MONITORING AND DISCLOSING OUR EMISSIONS



Across these facilities, we have conducted essential measurements and developed a comprehensive emissions inventory encompassing inherent CO<sub>2</sub> emissions in feedgas, combustion, venting, flaring, fugitive emissions, and purchased energy.

To quantify and report emissions, we adhere to the GHG Protocol Corporate Standard<sup>1</sup> methodologies, covering the following scopes:



Currently, we monitor and disclose emissions for Scope 1 and Scope 2, along with Scope 3 emissions for Category 6 (business travel) and Category 7 (employee commuting). In 2025, we will conduct a materiality assessment for all Scope 3 categories to provide more focus in our strategy of addressing Scope 3 emissions.

We continue to prioritise the improvement of our emissions monitoring and management to support systematic reductions and advance towards NZCE 2050. To enable this, we have adopted iCON, a GHG accounting and simulation application that facilitates enhanced data collection automation and real-time emissions monitoring. Our alignment with UNEP's Oil & Gas Methane Partnership 2.0 (OGMP 2.0) Level 4 Methane reporting has led to more accurate measurements of methane emissions. As a result, methane emissions have been observed at relatively lower levels, reflecting the results of our various GHG reduction efforts. Armed with a comprehensive view of our emissions inventory, we are empowered to strengthen our abatement efforts and ensure greater reliability, accuracy, and transparency in our disclosures.

To validate our efforts, we engaged Lloyd's Register Quality Assurance (LRQA) to conduct a third-party GHG accounting verification for a sample of our assets, specifically Gas Processing Kertih and Regas Terminal Sungai Udang, in 2024. This verification further enhances the credibility of our emissions data and strengthens regulatory compliance.

Source:

<sup>1</sup> Developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD)



## SAFEGUARD THE ENVIRONMENT Climate Change Management

### Alignment with National and Global Climate Change Public Policies, Regulations and Frameworks

In ensuring the success of GHG reduction efforts towards materialising our PGB NZCE Pathway, PGB is committed to align with climate change public policies, regulations, global frameworks, and other relevant mandates. This reflects our awareness that climate action and emissions reduction are collective global responsibilities, requiring active contributions from all stakeholders to achieve meaningful progress. Given the dynamic nature of the regulatory environment surrounding, PGB adopts a vigilant and agile approach to public policies. We firmly believe that robust climate change regulations are essential for PLCs, as they set clear expectations and guidelines while holding all parties accountable, thereby driving collective climate action to achieve national targets.

Our approach emphasises close collaboration with the government and relevant bodies to stay updated on developments and contribute our expertise to policy formulation.

#### ▶ World Bank's Zero Routine Flaring (ZRF) by 2030 Initiative

We support PETRONAS Group's commitment to the ZRF Initiative, where governments, companies, associations, and development institutions pledge to eliminate routine flaring by 2030.

#### ▶ Methane Guiding Principles (MGP)

We remain aligned with PETRONAS's commitment to the MGP, which supports the Global Methane Pledge launched at COP26. This pledge aims to reduce global methane emissions by at least 30% from 2020 levels.

#### ▶ United Nations Environment Programme (UNEP) Oil and Gas Methane Partnership 2.0 (OGMP 2.0)

We support PETRONAS's commitment to OGMP 2.0 in delivering the Global Methane Pledge.

#### ▶ Oil and Gas Decarbonisation Charter

We are aligned with PETRONAS's commitment to the Oil and Gas Decarbonisation Charter, a joint industry commitment launched at COP28 in December 2023.

#### ▶ GHG Protocol: A Corporate Accounting and Reporting Standard (2013)

We adhere to the GHG Protocol for emissions accounting and reporting, ensuring transparency and consistency.

#### ▶ Transition from Task Force on Climate-related Financial Disclosures (TCFD) to International Financial Reporting Standards (IFRS) S1 and S2

Having fully addressed all TCFD recommendations, we are further aligning with upcoming IFRS S2 requirements to enhance the quality of our climate-related disclosures as we advance our sustainability journey. We are committed to fully comply with the disclosure requirements of IFRS S1 and S2 by 2027 as per mandated by Bursa Malaysia.

#### ▶ World Business Council for Sustainable Development (WBCSD)

Through PETRONAS Group's membership in WBCSD, PGB leverages sustainability best practices shared by member organisations.

#### ▶ Energy Efficiency and Conservation Act (EECA) 2024

With the Malaysian government set to enforce the EECA 2024 from Jan 2025 onwards, we are committed to supporting the Act's objectives to promote energy efficiency and sustainable energy practices amongst top energy consumers.

#### ▶ National Climate Change Policy 2.0 (NCCP 2.0)

We attended the launch of NCCP2.0 on 30th Sept 2024 and are working to establish open communications with government organisations to stay updated on the latest developments and promote collaboration in driving climate action.

#### ▶ Malaysian National Energy Transition Roadmap (NETR)

We are progressively diversifying our portfolio with lower carbon and renewable energy initiatives to drive alignment with this roadmap.

#### ▶ National Sustainability Reporting Framework (NSRF)

We acknowledge this regulatory initiative to enhance transparency and accountability in managing sustainability risks and opportunities, and commit to align with these guidelines from 2025 onwards.

## SAFEGUARD THE ENVIRONMENT Climate Change Management

### Our Integrated Climate Strategy

Guided by globally recognised climate action frameworks and our PGB NZCE 2050 pathway, we have established a comprehensive, Group-wide focus on driving impactful climate action. Our efforts include aligning with national and global climate policies and regulations, closely monitoring emissions, and implementing diverse strategies to reduce or eliminate emissions, capture and monetise emissions, as well as potentially leveraging carbon offsets or credits in the long-run.

### OUR ABATEMENT STRATEGIES



Mitigation and adaptation approaches are essential to realising our NZCE 2050 aspirations, and we are dedicated to leveraging all available tools and solutions to progressively reduce our carbon footprint in the years ahead. Our efforts centre around the following three (3) key areas:

#### ▶ Elimination and Reduction of Emissions

To progressively lower GHG emissions, we continue to enhance our operational excellence (OE) initiatives, aiming to reduce or eliminate flaring as well as combustion, venting and fugitive emissions. We leverage technology and innovation to implement science-based resource optimisation and decarbonisation solutions, including:

- Optimisation and upgrading of gas turbines
- Improvements in boiler heat recovery
- Implementation of an equipment reliability system
- Optimisation of furnace operations
- Utilisation of zero-carbon methane
- Installation of flare recovery systems
- Replacement of sweep gas with inert gas
- Installation of leak prevention and rectification systems

In 2024, our efforts revolved around optimising equipment efficiency to minimise fuel gas combustion, while reducing flaring and venting through various recovery methods. such as utilising overhead compressors and automating BOG suction drums. Additionally, we also leverage renewable energy to supplement power needs at our non-process buildings, contributing to our ongoing GHG reduction efforts.

#### ▶ Capture and Monetise Emissions

As part of our roadmap to net zero, we collaborate with PETRONAS to capture inherent CO<sub>2</sub> emissions, which account for approximately 2 million tCO<sub>2</sub>e per annum. By leveraging this captured CO<sub>2</sub> as a feedstock for downstream customers, we are able to generate value while simultaneously reducing emissions. Since the early 2000s, monetising CO<sub>2</sub> sales has been a key activity, and in 2024, this contributed to an additional 51 ktCO<sub>2</sub>e reduction in GHG emissions.

#### ▶ Netting, Carbon Offsetting and Carbon Credits for Remaining Emissions

To address hard-to-abate and unavoidable residual emissions, we are exploring netting as a viable option in our journey toward net zero based on the available initiatives in the market, including reforestation projects. To ensure these projects are recognised by governing bodies, we are also assessing the best methods for obtaining carbon credits certificates to validate these initiatives.

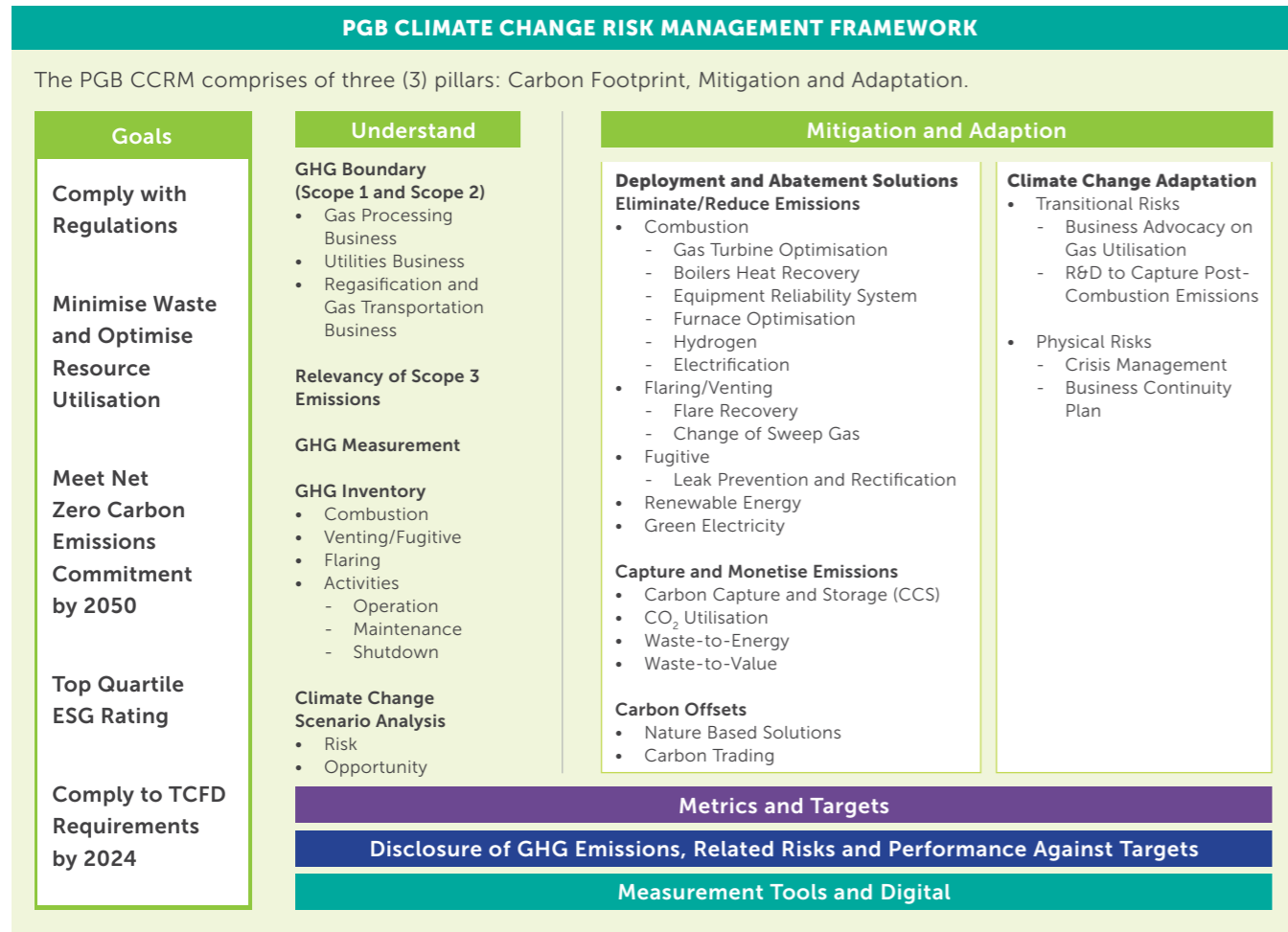


# SAFEGUARD THE ENVIRONMENT

## Climate Change Management

### A Robust Framework to Manage Climate Risks

Through the PGB Climate Change Risk Management (CCRM) Framework, we have established a robust approach to managing, mitigating and adapting climate-related risks pertinent to our business. While currently aligned with TCFD recommendations, we are on track to address gaps in IFRS 2 requirements by 2025, ensuring compliance with the latest standards.



### Our Climate Risk Management Goals

The CCRM Framework sets clear goals and provides a thorough understanding of emissions across our operations—critical for achieving our net zero journey. It enables the identification and analysis of all relevant climate-related risks and opportunities, while guiding the implementation of effective mitigation and adaptation measures. Additionally, the framework underscores our commitment to transparent disclosures of our performance against established targets, facilitating effective progress tracking and benchmarking.

#### Ensure Compliance

Strive to ensure full compliance with all relevant laws and regulations, maintaining our record of zero non-compliance incidents or penalties through timely adherence and proactive governance.

#### Enhance Operational Efficiencies

Adopt key strategies that minimise emissions while enhancing the efficiency of our operations, namely by minimising waste, optimising energy consumption and maximising the use of low-carbon energy.

#### Mitigate Emissions

Address inherent and post-combustion emissions through carbon abatement strategies, while managing other emissions through carbon trading, netting and carbon offsetting.

#### Regulatory Alignment

Having successfully addressed TCFD recommendations by 2024, we aim to meet IFRS S2 requirements while sustaining top-quartile ESG performance in key sustainability indices.

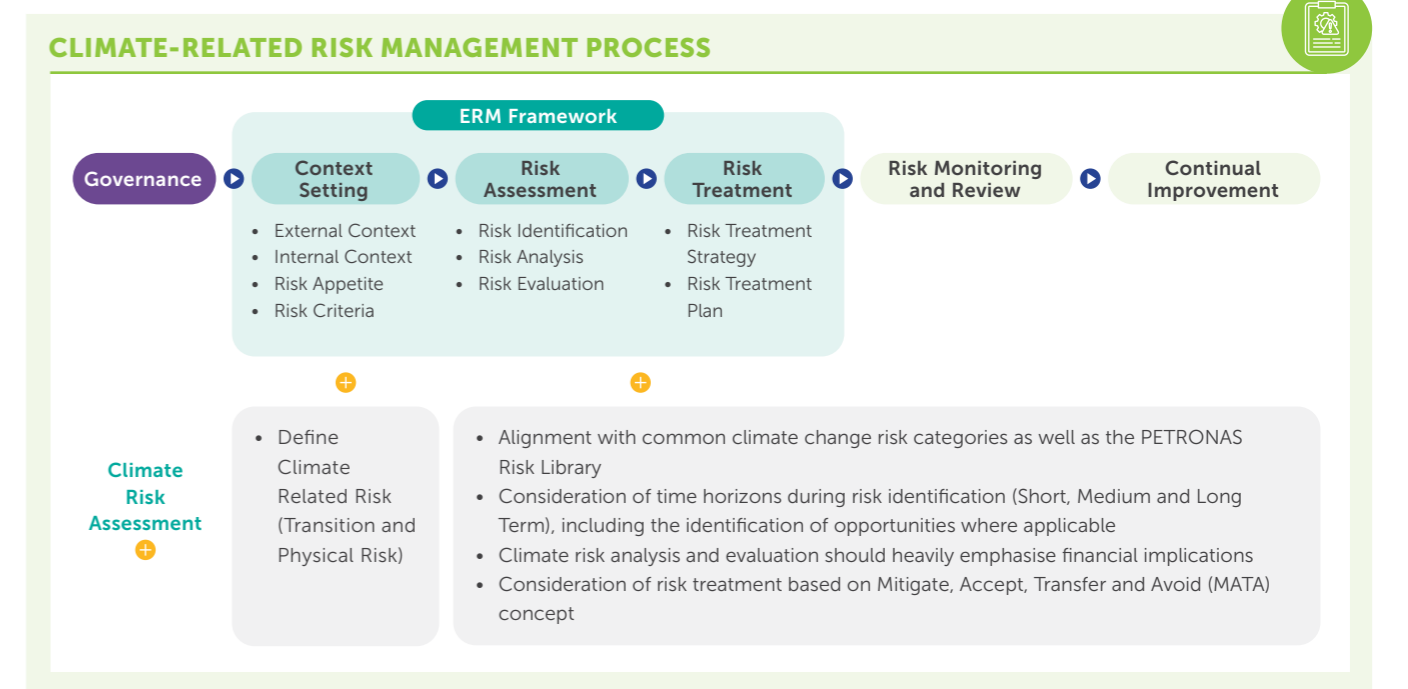
# SAFEGUARD THE ENVIRONMENT

## Climate Change Management

### Our Risk Assessment Approach

To effectively assess the impact of climate change on our business, PGB adopts a structured risk assessment approach for climate-related risks, aligning with the PETRONAS Enterprise Risk Management Framework (ERMF). This approach integrates both external and internal contexts, including regulatory requirements and asset-level risks, to ensure a comprehensive evaluation. Once key risks and opportunities are identified, their implications are thoroughly analysed, enabling us to anticipate, mitigate, and adapt to emerging environmental challenges.

The process is illustrated in the diagram below:



### Integration into Enterprise Risk Profile

The climate risk events identified through the above assessment are analysed to determine their impact on the value chain and potential financial implications. Climate-related risks are integrated into PGB's multi-disciplinary company-wide risk management framework through the Enterprise Risk Profile (ERP), which further includes other key risk areas such as Project Delivery, HSSE, Cybersecurity, Legal and Regulatory, and Financial risks. By incorporating climate-related risks into the PGB Enterprise Risk Profile, we ensure leadership oversight and strategic resource allocation for mitigation efforts. Periodic reviews are conducted to maintain a proactive approach in addressing emerging risks and refining mitigation strategies.

As part of our commitment to strengthening climate resilience, we actively participate in PETRONAS' ongoing climate vulnerability assessments across various business locations in Malaysia, covering the following:

- Climate transition risks and physical risks**
- Potential scenarios for legislation, technological development and market conditions**
- Our own operations, suppliers and customer activities**
- The expected useful life of the assets and activities**

# SAFEGUARD THE ENVIRONMENT

## Climate Change Management

### Summary of Our Transition Risks, Opportunities and Associated Impacts

PGB is committed to understanding and addressing the diverse impacts of climate change on our operations. Through comprehensive internal assessments, we have identified key risks, including increased operational costs due to rising compliance expenses and regulatory changes, alongside opportunities such as innovations in sustainable practices. Financial implications have also been carefully evaluated, considering both immediate and long-term effects.

To mitigate these risks, we have developed targeted action plans that strengthen resilience while enabling us to capitalise on growth opportunities, ensuring sustainable development and long-term value creation for our stakeholders.

By assessing all aspects of risk, including the effectiveness of existing mitigation measures, we assign each risk a Nett Rating, which reflects the potential level of risk that remains after mitigation efforts are considered.

Risk Category	Potential Impact on PGB Operations	Financial Implication	Mitigation	Opportunities
<b>Policy and Legal</b>				
Introduction of climate-related policies and regulations leading to increased operating costs	Potential negative impact on profit margins due to non-recovery of compliance costs	Increased OPEX due to higher compliance costs	To execute Carbon Tax assessments, including proposing recommendations and way forward to the Board  Upskill personnel to develop robust mitigation through Carbon Footprint Assessments (CFA), with training included in the Training Matrix	Secure incentives and cost recovery for low-carbon projects from the molecule owner and stakeholder  Explore cost optimisation strategies and leverage CFAs to prioritise investments aligned with our Sustainability Lenses
<b>Nett Rating</b> HIGH				
Non-compliance with regulatory disclosure requirements leading to reputation impact and loss of stakeholder trust	Potential exclusion from Bursa Malaysia Sustainability Index (such as FTSE4Good) and loss of investor trust in sustainability efforts	Increased OPEX for adopting specific tools and hiring consultants	Execute an engagement plan with Bursa and/or FTSE4GOOD to stay updated on the latest changes  Establish a process for data extraction and disclosure of Scope 3 emissions with third parties	Leverage high-tech measurement tools and digital platforms for improved quantification, monitoring, tracking, and projection, enhancing transparency
<b>Nett Rating</b> MEDIUM				

# SAFEGUARD THE ENVIRONMENT

## Climate Change Management

Risk Category	Potential Impact on PGB Operations	Financial Implication	Mitigation	Opportunities
<b>Market</b>				
Limited access to financing and insurance due to extensive ESG requirements from financiers and insurers, leading to higher borrowing and premium costs	High borrowing costs and insurance premiums	Increased cost of capital	Engage continuously with ESG rating agencies, bankers, and insurers (via Group Insurance) to demonstrate PGB's commitment to the sustainability blueprint	Wider financing options from financial institutions, coupled with the implementation of proactive resolution to achieve a strong sustainability index score, contributing to smooth fundraising and facilitating PGB's growth agenda
<b>Nett Rating</b> LOW				
Shifting demand towards green electricity resulting in lower demand for gas-generated electricity	Potential reduction in utilities revenue	Decreased revenue as shifting customer preferences impact PGB's sales	Execute Solar PV projects for Utilities Kerteh (UK) and Utilities Gebeng (UG)	Promote green electricity as a cleaner, more sustainable energy source
<b>Nett Rating</b> MEDIUM				
<b>Technology</b>				
Unable to adopt low-carbon and energy-intensive technology to reduce emissions, leading to regulatory non-compliance and increased financial impact	Potential penalties from regulators (such as fines, imprisonment, stop work notices)	Increased costs in terms of CAPEX for technology adoption and potentially higher OPEX due to penalties or business disruptions	Collaborate closely with PD&T to stay updated on the latest technological developments	Work proactively with the parent company and stakeholders to expedite the deployment of low-carbon technologies and innovations
<b>Nett Rating</b> HIGH				
<b>Reputation</b>				
Increased stakeholder concerns, negative feedback, and perception in view of increasing expectations on climate change	Potential reputational damage (such as social media accusations or allegations of greenwashing)	Increased OPEX for managing stakeholder perceptions	Establish a timeline and execute Scope 3 emissions disclosure assessments	Implement a proactive resolution to achieve a strong sustainability index score, contributing to smooth fundraising and facilitating PGB's growth agenda
<b>Nett Rating</b> MEDIUM				



# SAFEGUARD THE ENVIRONMENT

## Climate Change Management

### Assessing Transition Risks Through Scenario Analysis

To assess our future climate-related risks and opportunities from a transition perspective, we have adopted two (2) scenarios from the International Energy Agency's (IEA) World Energy Outlook (WEO) 2023: the IEA Announced Pledges Scenario (APS) and the IEA Stated Policies Scenario (STEPS). Below is a summary of the potential overall implications of these contrasting scenarios for our business:

#### Low Emission Scenario (IEA Announced Pledges Scenario - APS)

**Alignment:** Aligned with the below 2°C Paris Agreement Goal.

**Assumptions:** Full implementation of all global commitments, including Nationally Determined Contributions (NDCs) and net zero targets, by their intended deadlines.

**Implications:** Higher regulatory risks as Malaysia would need to accelerate its transition to green energy sources, requiring a significant shift towards low-carbon technologies like carbon capture and storage (CCS). Natural gas demand may decline due to the emphasis on renewable energy, increasing the urgency for PGB to decarbonise its operations.

#### High Emission Scenario (IEA Stated Policies Scenario - STEPS)

**Alignment:** Current policy environment, focusing on measures already in place or in development, and takes into account the current capacity for clean energy technologies.

**Assumptions:** Business-as-usual without additional mitigation beyond what has been planned.

**Implications:** More favourable for PGB, as natural gas is positioned as a greener energy alternative during Malaysia's gradual transition away from coal. There are opportunities to maintain or expand natural gas infrastructure, particularly in applications where it replaces higher-emission fuels like coal or oil. Regulatory risks are minor under this scenario, with less urgency for decarbonisation compared to APS.

The table below outlines the six (6) key transition risks identified by PGB, categorised according to the TCFD focus areas. Each risk has been assessed for our level of exposure under the APS and STEPS, covering medium to long-term projections from 2030 - 2050.

Risk Category	Impact Description	Risk Level	
		IEA APS 2030 - 2050	IEA STEPS 2030 - 2050
Policy and Legal	Introduction of climate-related policies and regulations leading to increased operating costs	High to Very High	Medium to Medium
	Non-compliance with regulatory disclosure requirements leading to reputation impact and loss of stakeholder trust	High to Very High	Medium to Low
Market	Limited access to financing and insurance due to extensive ESG requirements from financiers and insurers, leading to higher borrowing and premium costs	High to Very High	Medium to Medium
	Shifting demand towards green electricity resulting in lower demand for gas-generated electricity	Low to High	Low to Medium
Technology	Unable to adopt low-carbon and energy-intensive technology to reduce emissions, leading to regulatory non-compliance and increased financial impact	High to High	Low to Low
Reputation	Increased stakeholder concerns, negative feedback, and perception in view of increasing expectations on climate change	High to Very High	Medium to High

Low Medium High Very High

# SAFEGUARD THE ENVIRONMENT

## Climate Change Management

### Assessing our Physical Risks

#### CLIMATE CHANGE VULNERABILITY ASSESSMENT

A joint climate change vulnerability assessment, conducted in collaboration with PETRONAS' Group Health, Safety, and Environment (GHSE) division, has allowed us to quantify risk ratings for physical climate change. The table below presents the outcomes of this assessment, with medium-term defined as 2030 and long-term as 2050.

The risk scores provided are based on initial assessments and do not factor in existing or future mitigation measures. These findings highlight the importance of climate adaptation strategies, particularly in addressing potential risks from extreme weather events such as floods and storms, as well as the broader implications of failing to act on climate change.

Hazard	Surface Water Flooding		River Flooding		Coastal Flooding		Storminess		Lightning		Marine Sedimentation, Coastal Erosion		Corrosion		Seawater Temperature		Heat		Droughts		Wildfires		Landslides		River Morphology	
	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050
East Coast	20	25	15	15	15	15	25	25	0	0	15	15	20	20	0	0	4	4	4	4	20	20	16	16	4	4
West Coast	8	8	2	2	2	2	5	16	16	2	2	3	3	1	1	1	2	16	25	8	8	4	4	3	3	
Southern	12	12	3	3	3	3	6	6	0	0	6	6	3	3	0	0	1	2	3	3	6	6	1	1	1	1
Northern	3	3	3	3	0	0	3	3	0	0	0	0	2	2	0	0	2	4	9	12	1	1	1	1	1	1

Risk Level	Exposure	Score	Basis
Very Low		1	<ul style="list-style-type: none"> <li>Adopt PETRONAS risk scoring based on regional risk exposure</li> <li>Offshore facility (RGTSU) is considered as an onshore facility in the assessment</li> <li>The risk level is an initial risk rating which excludes existing or future mitigation</li> </ul>
Low		2 to 3	
Medium		4 to 9	
High		10 to 14	
Very High		15 to 25	

In collaboration with PETRONAS Group, we initiated risk assessments to evaluate the physical impacts of climate change on our six (6) key assets: GPK, UK, GPS, UG, RGTP, and RGTSU. The Shared Socio-economic Pathway 2-4.5 climate model, which underpinned the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report, was selected as the most plausible scenario, representing an intermediary greenhouse gas pathway.

These six (6) assets were assessed against seven (7) critical climate hazards—extreme precipitation, lightning, drought, heatwaves, storm surges, fluvial floods, and pluvial floods. By 2050, these hazards may pose high, very high, or extreme risks to our operations.

To ensure comprehensive outcomes, a prioritisation approach was adopted to validate the results of the risk assessments, followed by site-specific evaluations to confirm identified hazards and conduct detailed vulnerability assessments of critical assets. This process is intended to inform and shape robust adaptation plans. In 2024, site validation was completed for RGTP, with plans to validate the remaining assets in the future.

## SAFEGUARD THE ENVIRONMENT

### Climate Change Management

#### Adapting to and Mitigating Physical Risks

We employ the following climate risk mitigation and adaptation strategies to safeguard our operations from extreme weather events:

##### Flood Preparation and Mitigation

Since completing a drainage system improvement project in 2014, Flood Committees have been established across our locations. These committees are mobilised during the monsoon season (October to December) to implement flood prevention measures and coordinate emergency responses during flood events. Working closely with local authorities such as the Fire and Rescue Department of Malaysia (BOMBA) and the Public Services Department (JPA), these committees assist in evacuating affected areas and provide essential support to impacted families, including flood clean-up efforts.

##### Protection from Storms

We conduct periodic studies and implement enhancements to strengthen our roofing systems, ensuring their ability to withstand predetermined wind speeds of up to 28 m/s. One (1) key initiative involved replacing the conventional nailing system at the Air Separation Unit (ASU) 2 compressor shelter with an enhanced clipping system, improving the structural integrity of the metal roofing deck and its components.

Additionally, the ASU 2 shelter has been enrolled in the Structure Integrity Management System (SIMS) preventive maintenance programme. This programme includes annual monitoring to preserve the shelter's superstructure integrity. Following an integrity exercise on wind loading, the ASU 2 shelter was confirmed to withstand 40% higher wind loads, affirming its long-term durability.

##### Corrosion Prevention

We utilise innovative graphene-based technology to protect steel structures from corrosion. This initiative, conducted in collaboration with PETRONAS Research Sdn. Bhd., aims to extend asset lifespans by 5 to 15 years.

##### Mitigating Coastal Erosion

Breakwaters are deployed as a critical component of our coastal management system, protecting operational sites from tides, currents, waves, and storm surges. Additionally, breakwaters create sheltered spaces for vessel berthing and help mitigate sediment transport within the littoral and basin zones.

## SAFEGUARD THE ENVIRONMENT

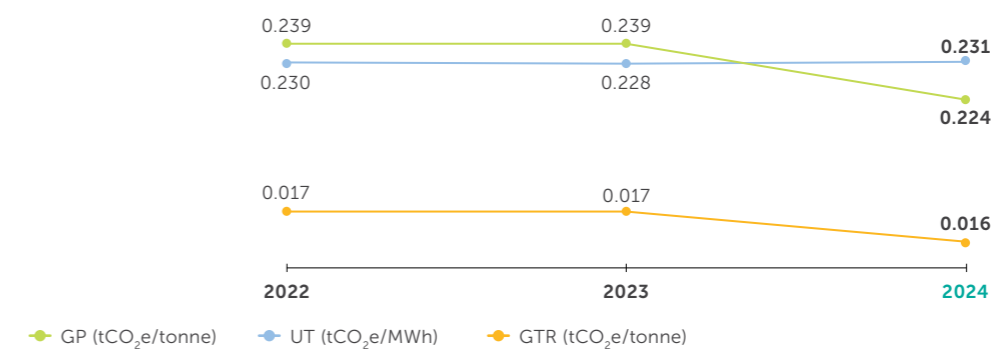
### Climate Change Management

#### OUR PERFORMANCE

All methodologies used to quantify our GHG emissions align with internationally recognised standards, including the American Petroleum Institute (API) Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industries, the GHG Protocol, and the PETRONAS Technical Standard.

For GHG emissions consolidation, we adopt the operational control method rather than the equity share approach, accounting for 100% of emissions from operations under our operational control. As PGB is a non-REITs organisation, emissions data for real estate holdings are not included in our calculations.

#### GHG INTENSITY



Our strong performances in Gas Processing (GP) and Gas Transportation & Regasification (GTR) can be attributed to various reduction initiatives implemented in 2024, along with the continued impact of previous projects. However, despite similar efforts in Utilities (UT), we observed an increase in GHG intensity due to the interruption of hydrogen-rich gas supply to our operations. PGB must take preventive measures to combat the uncertainty of a steady supply of low-carbon fuel for our operations in the future.



## SAFEGUARD THE ENVIRONMENT Climate Change Management

### GHG EMISSIONS

GHG Emissions (tCO <sub>2</sub> e)	2022	2023	2024
<b>Scope 1</b>	5,754,544	5,859,402	<b>6,074,946</b>
<b>Scope 2</b>	49,762	49,165	<b>51,319</b>
<b>Scope 3 - Business Travel</b>	1,499	2,249	<b>2,216</b>
<i>Distance-based</i>			
Air Travel	111	169	<b>44</b>
Car Travel	1,166	1,718	<b>1,708</b>
<i>Spend-based</i>			
Accommodations	204	308	<b>355</b>
Airfare	16	48	<b>35</b>
Car Rental	0	1	<b>67</b>
E-Hailing	2	5	<b>7</b>
<b>Scope 3 - Employee Commuting</b>	-	-	<b>2,839</b>
<b>Total (Scope 1 and 2)</b>	5,804,306	5,908,567	<b>6,126,265</b>
<b>Total (Scope 1, 2 and 3)</b>	5,805,805	5,910,816	<b>6,131,320</b>

Despite our reduction efforts in 2024, an unavoidable increase in upstream CO<sub>2</sub> composition led to a significant spike in inherent emissions. Additionally, higher production levels required us to increase energy consumption to meet customer commitments. However, we remain committed to adapting our operations to sustain value creation at a similar or lower rate of emissions, as reflected in our GHG intensity performance.

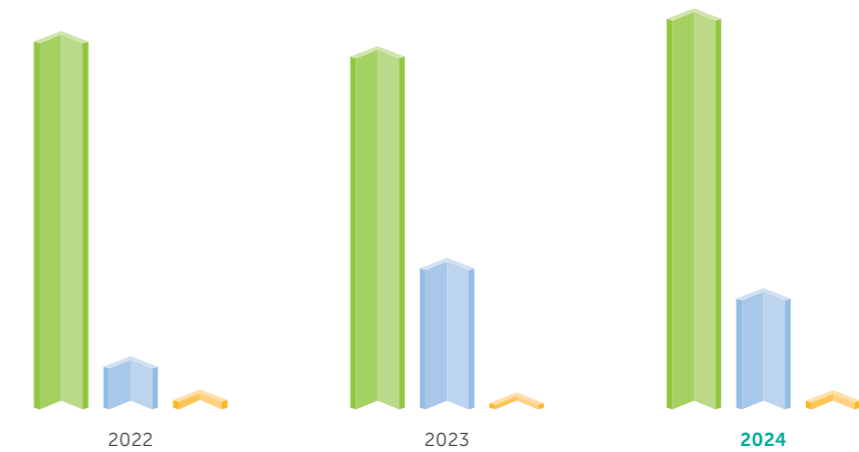
Our commitment extends across our value chain as we initiated Scope 3 reporting in 2024, starting with Category 6 and 7 emissions. These emissions are calculated using distance and expenditure data obtained from our Employee Commuting Survey and travel claim system.

Embarking on this disclosure will allow PGB to evaluate the adequacy and effectiveness of our current efforts as we strategise the management of GHG emissions throughout our value chain. Our current initiatives targeted towards employee commuting and business travel include offering flexible work schedules through work-from-home (WFH) and Compressed Work Week (CWW) initiatives to reduce the frequency of employee commuting, while encouraging hybrid-meetings and carpooling to minimise unnecessary business travels.

## SAFEGUARD THE ENVIRONMENT Climate Change Management

### GHG EMISSIONS BY TYPE

Scope 1 Breakdown by GHG Type



Pollutant (tonnes)	2022	2023	2024	Global Warming Potential (GWP) <sup>1</sup>
● CO <sub>2</sub>	5,564,964.84	5,471,599.79	<b>5,752,363.01</b>	1
● CH <sub>4</sub>	6,725.04	14,670.71	<b>14,112.66</b>	25
● N <sub>2</sub> O	71.49	70.42	<b>70.76</b>	298

Notes:

<sup>1</sup> GWP is a factor describing the radiative forcing impact of one (1) mass-based unit of a given GHG relative to an equivalent unit of carbon dioxide. Hence, the higher the value, the higher the global warming impact of the specific type of GHG. We are following Malaysian reporting standards using the Fourth Assessment Report.

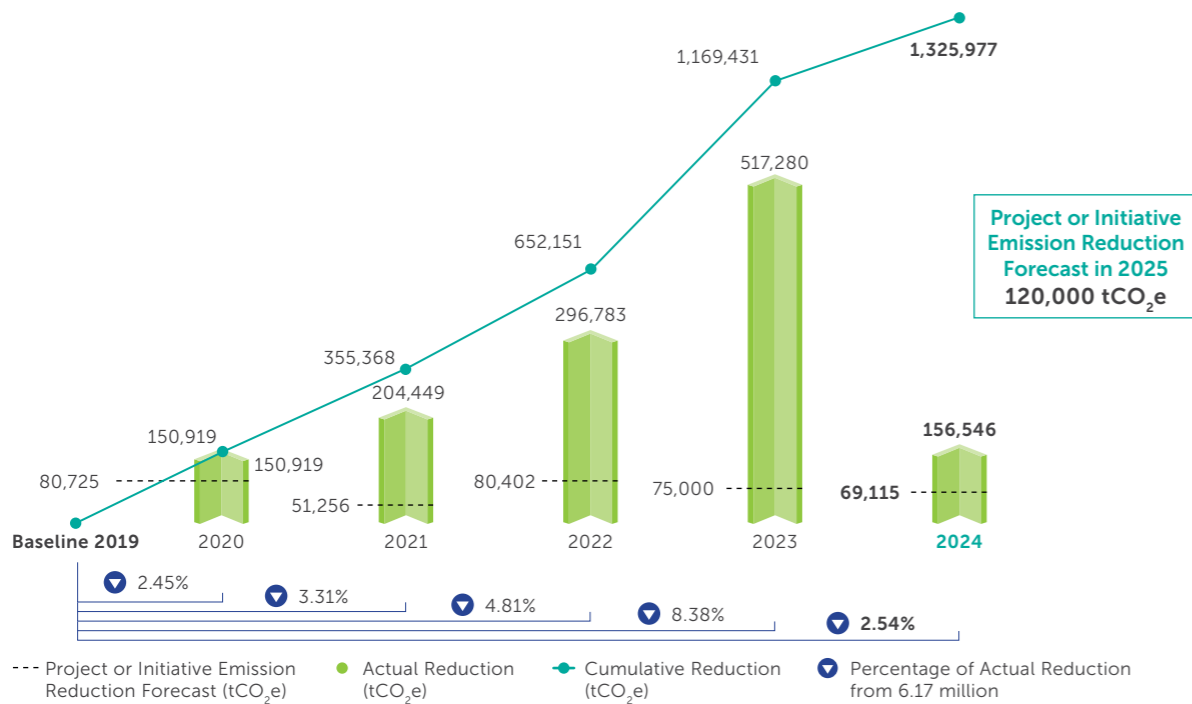
We recorded an increase in CO<sub>2</sub> emissions due to higher CO<sub>2</sub> loading, driven by an increased CO<sub>2</sub> composition in feedgas used as feedstock. Additionally, higher production demand for UT (2.4%) and GP (6.5%) resulted in increased fuel gas consumption.

Methane (CH<sub>4</sub>) levels from GPU decreased in 2024 due to reduced flaring, driven by improved plant efficiency and optimisation. In November 2024, two (2) new Acid Gas Oxidiser (AGO) units were commissioned at GPS, representing an RM85 million investment that is expected to reduce methane venting by 10,000 tonnes. However, this reduction was offset by increased CH<sub>4</sub> emissions from GTR, attributed to venting from new pipeline commissioning, pipeline replacement, and maintenance activities.

## SAFEGUARD THE ENVIRONMENT

### Climate Change Management

#### GHG EMISSIONS REDUCTION



Our journey towards NZCE is driven by a range of GHG emissions reduction initiatives. In 2024, we successfully completed eight (8) projects targeted at reducing Scope 1 and Scope 2 emissions across our facilities. These included new operational optimisations, such as automating LNG Drain Spool Operations at our Regas Terminal in Sungai Udang, and replicating successful initiatives, including the enhancement of overhead compressors at Gas Processing Plant 6 (GPP6) in Gas Processing Santong, which was initially implemented at GPP5 in 2023. Additionally, we expanded CO<sub>2</sub> sales to our customers, reinforcing our focus on carbon capture and utilisation. In addition to the continuation of previous initiatives, the newly implemented projects in 2024 contributed to reducing emissions by an additional 156,546 tCO<sub>2</sub>e.

#### Projects Contributing to Reduced GHG Emissions

Abatement Strategies	Projects	Reduction (tCO <sub>2</sub> e)
Eliminate or Reduce Emissions	<b>GPU</b>	<b>Scope 1: 95,495</b>
	• Enhanced Utilisation of GPS Overhead Compressors	
	• UG Utility Optimiser	
	• Alternative insulation installation for GPS Auxiliary Boiler	
CO <sub>2</sub> Capture and Monetise Emissions	<b>GTR</b>	<b>Scope 1: 10,270</b>
	• Automation Enhancement for LNG Drain Spool Operations at BOG Suction Drum (LASPOOL) – PLNG2	
	• RB211 Bleed-Off Valve (BOV) Optimisation at Segamat Compressor Station	<b>Scope 2: 19.61</b>
	• Adoption of Gas Transmission Optimisation (GTOP)	
Total Reduction	• Solar installation at roof admin building and office, carpark, warehouse (RGTSU)	
	<b>GPU</b>	<b>Scope 1: 50,761</b>
	• Increased sales of CO <sub>2</sub> to neighbouring plants	
		<b>156,546</b>

## POLLUTION MANAGEMENT

#### WHY IT MATTERS

As a key contributor to the nation's development, we recognise the impact of our choices and are committed to preserving natural environments for generations to come. This includes mitigating pollutants from our operations, minimising our ecological footprint, and conserving finite resources.

In an operating landscape marked by escalating environmental challenges, stakeholders increasingly value organisations that champion responsible practices and support cleaner, healthier environments. Our commitment to environmental protection is therefore not only a moral imperative but also a strategic business decision that aligns with stakeholder expectations and drives sustainable growth.



#### OUR APPROACH

##### Driving Environmental Responsibility and Resource Sustainability

We are committed to managing pollution, effluent, and resources responsibly to minimise the environmental impact of our operations. This commitment is guided by the PGB Health, Safety, and Environment (HSE) Policy, developed in alignment with PETRONAS' HSE Mandatory Control Framework (MCF), ensuring effective management of environmental risks and hazards related to our business activities.

In addition to adhering to our internal guidelines, we align our practices with global and industry standards, including the International Organisation for Standardisation (ISO), Original Equipment Manufacturer (OEM) standards, and other relevant regulatory frameworks. Our resource management efforts are further aligned with UNSDG 12 (Responsible Consumption).

By actively identifying environmental hazards such as pollution, resource depletion, and excessive effluent generation, we work to reduce risks to levels 'as low as reasonably practicable' (ALARP). This informed approach allows us to implement continuous measures to protect the environment, prevent pollution, and promote the sustainable use of natural resources, as demonstrated by the ongoing initiatives outlined below.

Element	Initiatives	Impacts
<b>Resources</b>	Monoethylene Glycol (MEG) usage at Industrial Effluent Treatment System (IETS) GPK	Reduce usage of chemicals i.e. MEG in IETS
<b>Pollution</b>	Scheduled Waste Yard Project Upgrading at TSET	Pollution prevention by improving our secondary containment that potentially lead to soil and groundwater contamination
<b>Air Emissions</b>	Continuous Emission Monitoring System (CEMS)	Enables real-time monitoring of air emissions, enabling the prompt identification and addressing of abnormal readings



## SAFEGUARD THE ENVIRONMENT Pollution Management

### UTILISING LIFE CYCLE ASSESSMENTS TO ENHANCE OUR PRACTICES

Life Cycle Assessment (LCA) is a critical tool we use to evaluate the environmental footprints of products generated from PGB facilities. Conducted in compliance with ISO 14040/44 standards (Environmental Management: Life Cycle Assessment), these assessments are performed in collaboration with the PETRONAS HSE Product Stewardship and Toxicology team. These insights enable us to identify opportunities for pollution prevention programmes and improve natural resource utilisation.

For 2024, the scope of products included in the assessment is outlined in the table below:

Facility	Products Assessed
GPK and GPS	<ul style="list-style-type: none"> <li>Sales Gas (C1)</li> <li>Ethane (C2)</li> <li>Propane (C3)</li> <li>Butane (C4)</li> <li>Condensate (C5+)</li> <li>CO<sub>2</sub> (only for GPK)</li> </ul>
UK and UG	<ul style="list-style-type: none"> <li>Electricity</li> <li>Steam</li> <li>Demineralised Water</li> <li>Cooling Water</li> <li>Raw Water</li> <li>Gaseous N<sub>2</sub></li> <li>Liquid N<sub>2</sub></li> <li>Liquid O<sub>2</sub> (UK only)</li> <li>Gaseous O<sub>2</sub> (UK only)</li> <li>Argon (UK only)</li> <li>Instrument Air (UK only)</li> </ul>
TSET	<ul style="list-style-type: none"> <li>Propane (C3)</li> <li>Butane (C4)</li> <li>Liquified Petroleum Gas (LPG)</li> </ul>

### Lifecycle Analysis (LCA)



## SAFEGUARD THE ENVIRONMENT Pollution Management

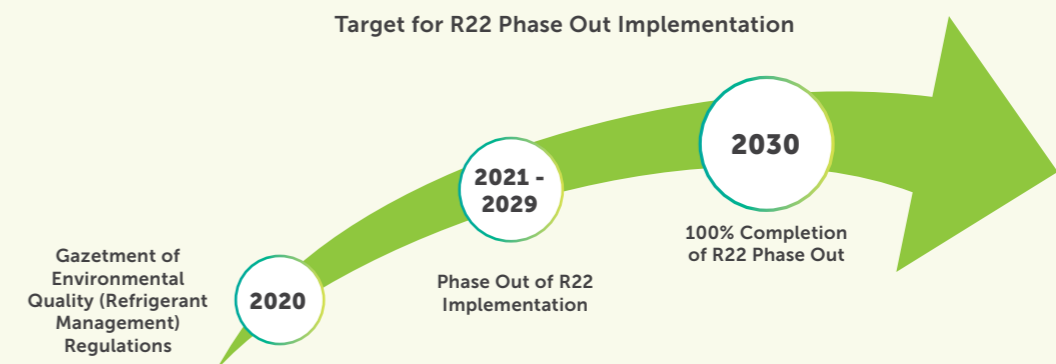
### POLLUTION MANAGEMENT

Throughout 2024, we carried out activities aimed at identifying and managing potential hazards stemming from pollution sources or pollution risks associated with sources of pollution.

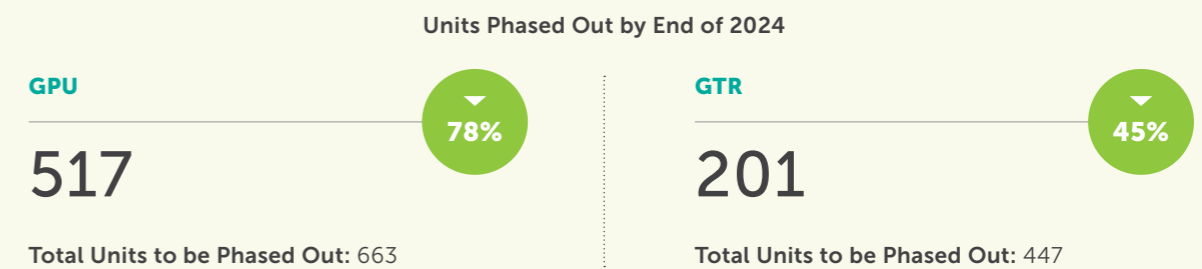
#### Ongoing R22 Refrigerant Phase-Out Activities

In alignment with the Environmental Quality (Refrigerant Management) Regulations introduced by the Malaysian Government in 2020, we are actively working to reduce and ultimately eliminate the use of R22 refrigerants. These regulations aim to address environmental sustainability by banning the use of R22 refrigerants in the manufacturing and assembly of air conditioning equipment and setting a target to phase out R22 usage entirely by 2030.

R22 refrigerant is classified as an ozone-depleting substance (ODS), one (1) of the pollutants that significantly affects the environment by breaking down ozone molecules when released into the atmosphere, causing the depletion of the ozone layer.



To ensure compliance in accordance with the act, we have implemented monitoring mechanisms to track and report progress in phasing out R22 refrigerants across our operations. The status as at the end of 2024 is depicted below:



#### Visual Management Improvement at GPS

At GPS, we have enhanced visual management practices to improve the handling and storage of scheduled waste. These enhancements include educational initiatives with our staff and contractors, and using pictorial signage to ensure correct labelling, packaging, and storage of scheduled waste.

#### Scheduled Waste Yard Projects

We have upgraded the scheduled waste yard at TSET, ensuring it is both efficient and compliant with the Environmental Quality Act 1974 (Scheduled Waste Regulation 2005). This upgrade enhances pollution prevention by improving our secondary containment systems. Additionally, new scheduled waste yards have been constructed at our Gurun, Seremban, and Kerteh Regional Offices to accommodate the storage of scheduled wastes generated across multiple states and regions, including Perlis, Penang, Melaka, and Kerteh.

## SAFEGUARD THE ENVIRONMENT Pollution Management

### RESOURCE MANAGEMENT

We aim to optimise our use of finite natural resources that are vital in maintaining the delicate balance of natural ecosystems. The following initiatives are ongoing in this aspect:



#### Optimisation of Raw Water and Chemical Usage at GPK Cooling Water System

The GPK Cooling Water System initiative underscores our strategic approach to integrating sustainable water management into maintenance activities. To drive continual improvement, we have prioritised chemical and operational adjustments over resource-intensive flushing and passivation processes. This approach has resulted in a reduction of chemical wastage by 11,622 kg.



#### Monoethylene Glycol (MEG) usage at Industrial Effluent Treatment System (IETS) GPK

Integrates the 4R principles into daily operations, fostering effective waste management and conserving chemicals as resources. In 2024, we reused MEG from the decommissioned plant at GPK as an alternative nutrient for biological treatment instead of disposal to scheduled waste treatment facilities.

### RAW MATERIALS (CHEMICALS) USAGE (ANNUAL CONSUMPTION IN KG)

Unit	Type of Chemical	2022	2023	2024
Cooling Water	3DT 129	10,780	9,259	9,619
	3DT 304	15,055	10,586	10,187
	N7330	19,557	12,816	14,842
	3DT 199	4,355	3,960	3,290
	GN8020	24,934	24,032	22,605
	NX1103	15,850	14,137	13,867
	NX1104	13,902	12,976	12,697
	SODIUM HYPOCHLORITE	120,201	280,000	229,200
<b>Total</b>		224,634	367,766	316,307
Boiler Water	TriAct 1800	35,449	28,531	30,805
	ELIMINOX	5,369	4,270	4,297
	HTP73614	27,418	20,568	17,850
	NA0660	5,065	5,171	4,888
	OS5300	5,586	5,359	5,121
<b>Total</b>		78,887	63,899	62,961

Note:  
Both units are at GPU assets only

## SAFEGUARD THE ENVIRONMENT Pollution Management

### EFFLUENT MANAGEMENT

Effluent from our operations is primarily generated at GPK, GPS, UK, and RGTP, and we are committed to managing it responsibly in accordance with the Environmental Quality (Industrial Effluent) Regulations 2009 (IER 2009). Discharges from our IETS are rigorously monitored to ensure compliance with the Department of Environment's (DoE) Standard B limit outlined in the IER 2009.

To uphold these standards, a DoE-certified IETS-competent person conducts regular performance monitoring, with reports submitted via the DoE's Online Environmental Reporting (OER) system. Effluent monitoring is further strengthened through the use of both internal and third-party laboratories, alongside online analysers installed at our facilities, ensuring accurate and reliable oversight of final discharges.

### EFFLUENT PERFORMANCE

The table below shows our IETS discharge and Chemical Oxygen Demand (COD) parameters across all plants between 2022 and 2024, alongside the respective locations where this effluent is discharged. Based on the analysis, the results were within the limit as per IER 2009 Standard B.

Plant	Destination	Effluent Quality	2022	2023	2024
● GPK	Sg Kertih	Amount of Effluent Discharge (m <sup>3</sup> )	30,340.00	38,853.00	48,928.98
		COD Loading (tonnes)	2.75	3.32	3.46
● GPS	Sg Paka	Amount of Effluent Discharge (m <sup>3</sup> )	48,925.00	32,673.00	48,471.22
		COD Loading (tonnes)	1.29	0.98	1.35
● UK	Sg Kertih	Amount of Effluent Discharge (m <sup>3</sup> )	792,005.00	705,236.00	915,532.22
		COD Loading (tonnes)	27.24	25.22	32.24
● RGTP	South China Sea	Total Amount of Effluent Discharge (m <sup>3</sup> )	0	0	0
		COD Loading (tonnes)	0	0	0
<b>Total</b>		Total Amount of Effluent Discharge (m <sup>3</sup> )	871,270.00	776,763.00	1,012,932.42
		COD Loading (tonnes)	31.29	29.52	37.05





## SAFEGUARD THE ENVIRONMENT Pollution Management

### EFFLUENT COMPLIANCE

We have established internal limits for specific parameters in GPU's IETS, which are intentionally set below the Standard B limit outlined in the IER 2009. This proactive approach ensures early alerts for our operations team in the event of any irregularities in the IETS process.

To ensure the quality of receiving water bodies and prevent any adverse impacts on rivers and oceans, we conduct regular monitoring of seawater and river conditions in accordance with the frequency stipulated in our Environmental Management Plan (EMP).

This initiative reflects our commitment to responsible effluent management and has contributed to our consistent record of zero incidents of non-compliance with discharge limits.

Incidents of Non-Compliance Related to Discharge Limits	2022	2023	2024
<b>Total</b>	0	0	0



## SAFEGUARD THE ENVIRONMENT Pollution Management

### AIR EMISSIONS MANAGEMENT

To drive proactive air emissions management and ensure compliance with the Environmental Quality (Clean Air) Regulations 2014, we have implemented advanced technologies such as the Continuous Emission Monitoring System (CEMS) and Predictive Emission Monitoring System (PEMS), complemented by periodic air emissions quality monitoring conducted by accredited third-party contractors.

As of 2024, we have installed 35 CEMS units across our equipment, enabling real-time monitoring of air emissions. These systems are integrated with the DoE Integrated Remote and Monitoring System (iREMOTE) platform and supported by our internal GPU Technical Centre (GTC). This robust framework allows us to promptly identify and address any abnormal readings, ensuring effective air emissions management and regulatory compliance.

### AIR EMISSIONS PERFORMANCE

As part of our commitment to monitoring air emissions, we measure the quantity of Nitrous Oxide (NOx) and Sulphur Oxides (SOx) loading in our emissions, as well as quantify our Volatile Organic Compound (VOC) Emissions, across all of our facilities.



SOx emissions increased in 2024 compared to 2023 due to higher H<sub>2</sub>S and sulphur content in the feed gas supplied to the GPP plant. VOC emissions in 2024 decreased by only 0.2 tonnes compared to 2023, primarily due to a lower frequency of diesel tank refills, which are conducted based on operational requirements.

Note:  
\* Data from 2022-2023 has been corrected based on the findings from an independent third-party verification conducted in January 2024.

## SAFEGUARD THE ENVIRONMENT Pollution Management

### ENVIRONMENTAL FINES AND PENALTIES

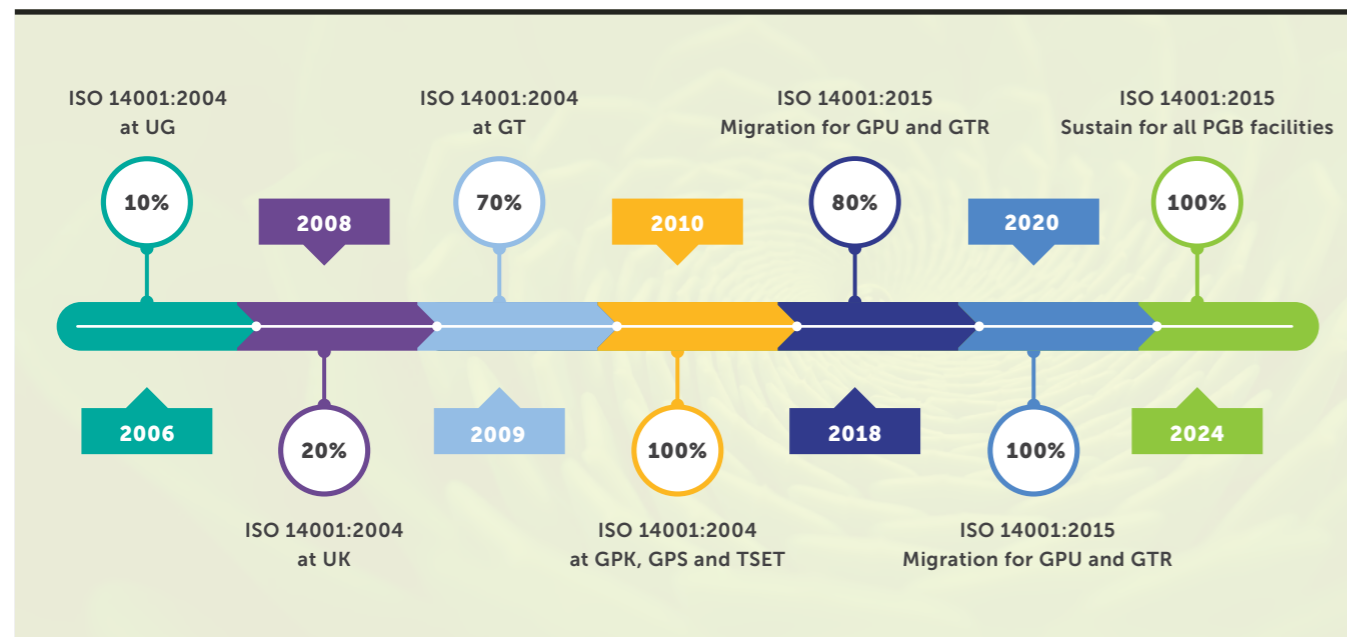
In 2024, we successfully maintained our track record of zero environmental fines and penalties. We remain committed to upholding exemplary standards and consistently delivering practices that go beyond compliance requirements.

	2022	2023	2024
Number of Environmental Fines or Penalties	0	0	0
Total Cost of Environmental Fines (RM)	0	0	0

### UPHOLDING GLOBAL ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) CERTIFICATIONS

Our journey with ISO certification began in 2008 when Utilities Gebeng (UG) and Utilities Kerteh (UK) achieved ISO 14001:2004 accreditation. By 2010, this standard was implemented across other facilities, including Gas Processing Kerteh (GPK), Gas Processing Santong (GPS), Tanjung Sulong Export Terminal (TSET), and Gas Transportation (GT). Since then, we have successfully transitioned to the updated ISO 14001:2015 standard.

Today, 100% of our sites, including Regasification Terminal Sungai Udang (RGTSU) and Regasification Terminal Pengerang (RGTP), hold ISO 14001:2015 certification and we are committed to maintaining our accreditation. These certifications underscore our focus on efficient resource utilisation, pollution prevention and waste management in alignment with global sustainability practices. Possession of these accreditations also provide us with a competitive edge within the industry and reputation amongst stakeholders.



### Ensuring Compliance Through Environmental Audits

In line with Environmental Impact Assessment (EIA) approval conditions, selected PGB facilities, including RGTSU and RGTP, conduct annual third-party environmental audits. These audits, carried out by DOE-registered auditors, to confirm compliance with environmental regulations.

To further ensure adherence to global standards, these facilities also undergo yearly independent limited assurance audits by SIRIM auditors to maintain ISO 14001:2015 certification. As part of our ongoing commitment to transparency and accuracy, PGB engaged SIRIM in February 2025 to perform independent assurance through data verification, affirming our adherence to environmental best practices.

## SAFEGUARD THE ENVIRONMENT Pollution Management

### COLLABORATING FOR ENVIRONMENTAL CONSERVATION

Aligned with our HSE policy on environmental protection, we are committed to partnering with various organisations to deliver impactful CSR initiatives. Over the past year, we continued to collaborate with local authorities and non-governmental organisations (NGOs) to support the preservation and conservation of environmental ecosystems. These efforts not only strengthened relationships between our staff and partners but also encouraged a healthy and active lifestyle among participants. The following are some of the key initiatives in 2024:

Collaborating Partner(s)	Events
Universiti Sultan Zainal Abidin (UniSZA), University Malaysia Terengganu (UMT), DoE Terengganu, Politeknik Kuala Terengganu, TATI UC, Kuala Terengganu City Council (MBKT)	<b>Enviro Fun Walk and Nakudah</b> The NAKUDAH Programme (Nampak, Kutip, and Riadah) at Muzium Negeri Terengganu was a standout feature of the Hari Alam Sekitar Negara (HASN) celebration at the state level in Terengganu, held on 24 October 2024. This programme engaged various community segments and was organised in collaboration with a total of 163 participants from UniSZA, UMT, DoE Terengganu, Politeknik Kuala Terengganu, TATI UC, and other key partners. With the support of the MBKT, which provided transportation services, the programme successfully collected and responsibly disposed of 105 kg of waste.
DoE Terengganu	<b>Environment Awareness during Hari Alam Sekitar Negara (HASN) celebration</b> To instil environmental conservation awareness among students, a colouring contest was held during the HASN celebration on 24 October 2024 at Muzium Negeri Terengganu. Officiated by YB Datuk Razali bin Idris, the program involved 178 students and 20 teachers. As part of our support and strategic partnership with local authorities, we contributed 200 packs of colouring kits to the program.
SMK Kerteh, SMK Rantau PETRONAS dan Politeknik Sultan Mizan Zainal Abidin	<b>4R Campaign Towards Sustainable Environment</b> The "4R Campaign Towards Sustainable Environment" initiative, with the tagline "Sustainable Environment: You have the power to change," is a key part of our company's commitment to environmental sustainability. A total of 150 employees and students participated in this impactful program, demonstrating strong community engagement. A significant aspect of the campaign is encouraging the reuse and recycling of pre-loved items such as clothes, paper, and electronic waste (e-waste). The initiative emphasises rethinking the lifecycle of products, urging individuals to repurpose instead of discarding items.

This practice reduces waste, conserves valuable resources, and minimises the energy required for producing new goods. The success of the campaign is evident in the total collection of 6,037 kg of materials, showcasing the remarkable collective impact made by the community's commitment to these sustainable practices. Beyond its environmental benefits, the initiative focuses on educating and raising awareness among the younger generation about the critical need for environmental conservation.

Through partnerships with institutions such as the Civil Engineering Department of Politeknik Sultan Mizan Zainal Abidin (PSMZA) in Dungun, SMK Rantau PETRONAS, and SMK Kerteh, we aim to instil a strong sense of environmental responsibility in students. These collaborations provide a platform for students to actively engage in sustainability efforts, empowering them to become informed, proactive leaders in future environmental conservation efforts.



## SAFEGUARD THE ENVIRONMENT

# WASTE MANAGEMENT



### WHY IT MATTERS

As a large-scale operator, PGB generates various types of waste across its facilities, making effective waste management essential to minimising environmental impact and promoting resource efficiency.

By implementing structured waste handling, storage, and disposal practices, we reduce environmental risks, optimise material recovery, and contribute to a circular economy. Our commitment to responsible waste management not only safeguards the environment but also reinforces operational sustainability and regulatory adherence across all our sites.

### OUR APPROACH

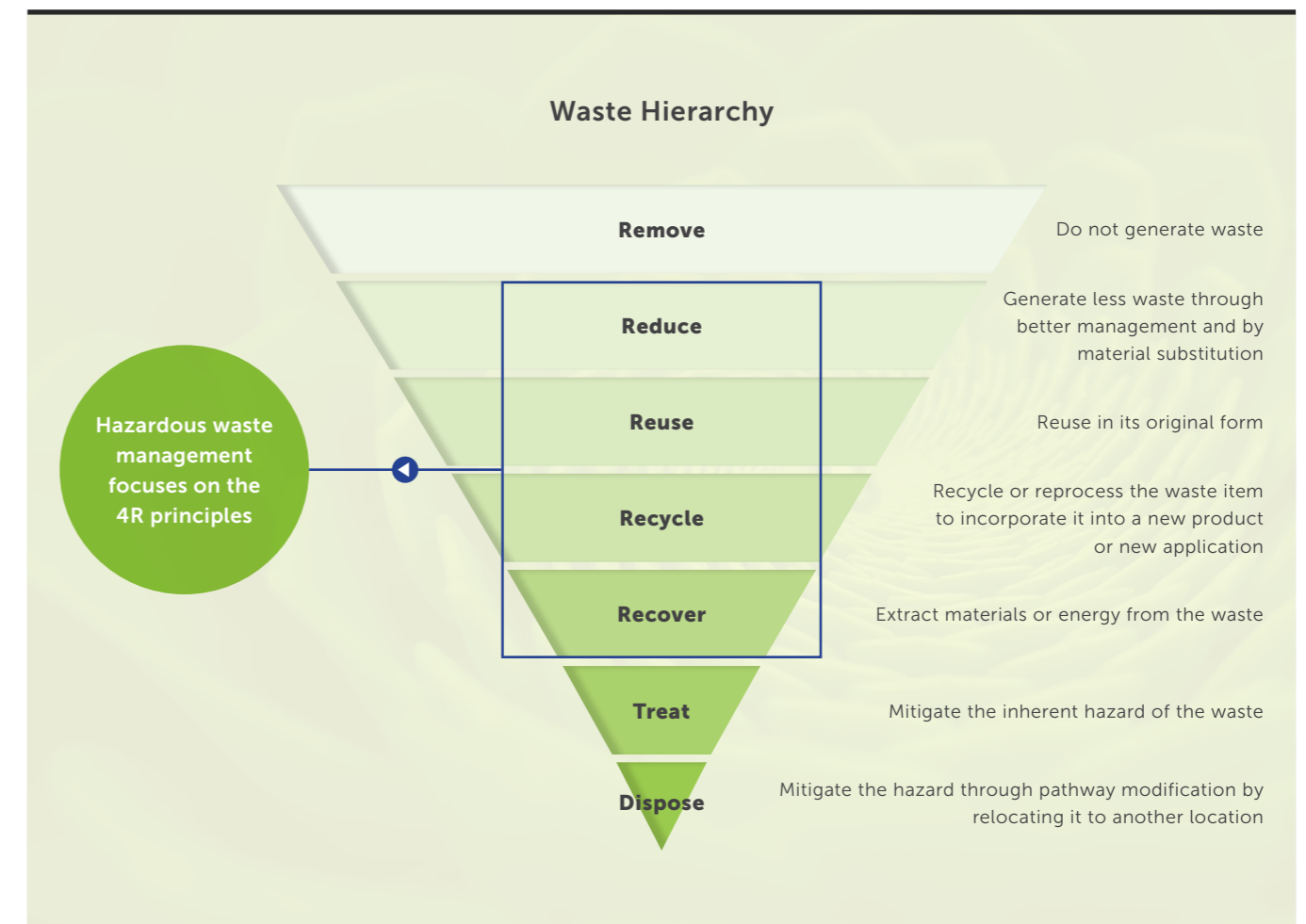
#### Adopting a Systematic and Informed Approach

Within our operations, waste is primarily generated from routine activities, operation and maintenance tasks, shutdowns, and turnaround activities, among other sources. Our commitment to responsible waste management has been embedded in our HSE Policy and is further supported by a Waste Management Plan, which is reviewed annually to ensure our practices are updated in accordance with best practices.

Element	Initiatives	Impacts
Hazardous Waste	Recovery of spent lube at recovery premises	Reduce the resources required for the generation of new products
	Reuse containers under "Take Back Programme"	
Non-Hazardous Waste	Food compost initiative	Reduce waste disposed at landfill

## SAFEGUARD THE ENVIRONMENT Waste Management

We employ tailored approaches for handling hazardous and non-hazardous waste, ensuring compliance with the specific requirements of each category. Central to our strategy is the adoption of the Waste Hierarchy concept, which informs our priorities and drives continuous improvements in our waste management practices through the 4R principles of Recover, Recycle, Reuse, and Reduce.



Another cornerstone of our Environmental Management system (EMS) are Environmental Aspect Impact (EAI) assessments, which are fully aligned with and certified under ISO 14001:2015. These live assessments are carried out periodically across routine operations, maintenance activities, projects, and turnarounds, enabling us to identify and address actual and potential waste-related impacts effectively. A sample of waste outputs from our typical business activities is outlined below.

Activities	Inputs	Outputs
Routine Operations (Top Up of Chemicals)	Chemicals (Glycol)	Spent Chemicals (Used Glycol)
Maintenance Activities (Lube Oil Change Out)	Lube Oil	Spent Lube Oil
Turnaround (Catalyst Change Out)	Catalyst	Spent Catalyst

# SAFEGUARD THE ENVIRONMENT

## Waste Management

### Hazardous Waste Management

In our commitment to local authority compliance, we engage licensed waste contractors registered with the Department of Environment (DoE) to handle hazardous waste. This ensures adherence to local environmental regulations at all times. To uphold the highest standards, these contractors undergo third-party assurance review to verify continued compliance with legislative requirements.

We also leverage the Electronic Scheduled Waste Information System (eSWIS), developed by the DoE, to systematically monitor waste-related data from its generation through to treatment and disposal. The adoption of eSWIS streamlines processes and enhances reporting accuracy, supporting our commitment to effective and transparent waste management.

#### KEY ACTIVITIES TO MANAGE HAZARDOUS WASTE IN 2024



#### Recovery of Spent Lube Oil

Spent lube oil from PGB facilities is recovered and processed into low-grade oil for use in the automotive and machinery industries. This process involves collecting the used oil, treating it to remove contaminants, and refining it for practical applications. In 2024, a total of 195 MT was sent to recovery facilities, effectively managing waste while reducing the need for new oil production and contributing to environmental conservation.



#### Reuse of Containers under the "Take-Back Programme"

Aligned with our HSE policy on sustainable resource use, we collaborate with chemical vendors through a container take-back program. With approval from the Department of Environment (DoE), packaging is reused to deliver chemicals until the containers reach the end of their lifespan. This initiative supports waste reduction and promotes a more circular approach to resource utilisation.



#### Recovery of Spent Activated Carbon

In 2024, a total of 43 MT of spent activated carbon was collected and sent to recovery facilities. After undergoing the filtration and carbonisation process, the activated carbon may be recovered and utilised in various industrial applications that leverage its excellent adsorption properties. It is particularly useful in wastewater treatment plants for removing impurities, contaminants, and odours.



#### Recovery of Discarded Chemical and Laboratory Waste

Recognising the significant volume of hazardous waste generated, amounting to 653 MT in 2024, we have pursued opportunities to recover discarded chemical and laboratory waste. By segregating waste at the source and analysing its characteristics, we have increased the proportion of chemical and laboratory waste that are recovered instead of disposed. This initiative, spearheaded by the ForcEco team under GPU, was honoured with a bronze award at the *Making Impossible Possible Awards & Convention (MIPAC) 2024*.

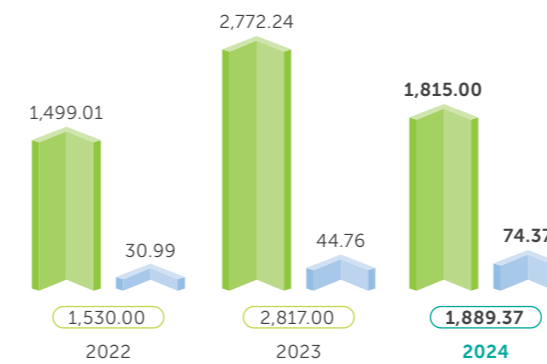
# SAFEGUARD THE ENVIRONMENT

## Waste Management

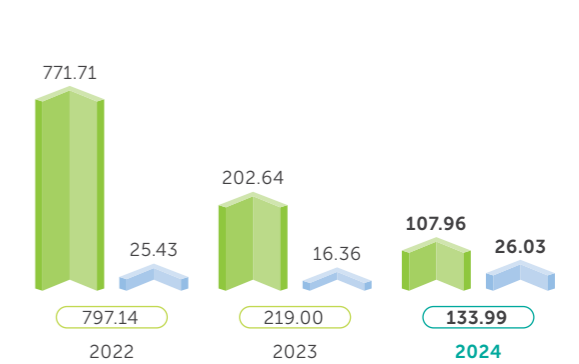
### OUR PERFORMANCE

#### HAZARDOUS WASTE MANAGEMENT

Quantity of Hazardous Waste Generated (MT)



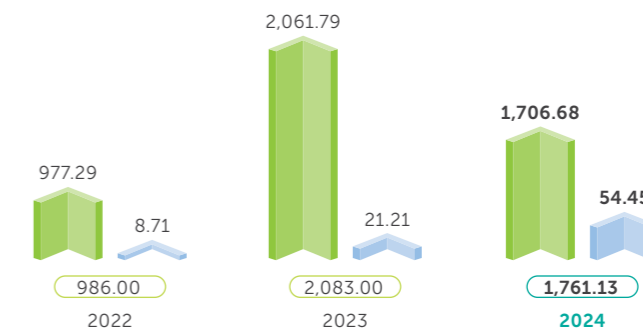
Quantity of Hazardous Waste Disposed (MT)



Hazardous Waste Disposed by Disposal Operations (MT)

Type of Disposal Operation	GPU			GTR		
	2022	2023	2024	2022	2023	2024
Incineration with Energy Recovery	0	0	0	0	0	0
Incineration without Energy Recovery	590.69	191.11	87.39	17.39	14.01	19.30
Secured Landfill	0.60	6.60	0	2.85	1.19	2.92
Other Disposal Operations (Physical Treatment, Solidification)	180.85	4.93	20.57	2.19	1.16	3.81

Quantity Hazardous Waste Diverted from Disposal by 4R Activities-Waste Recycled (MT)



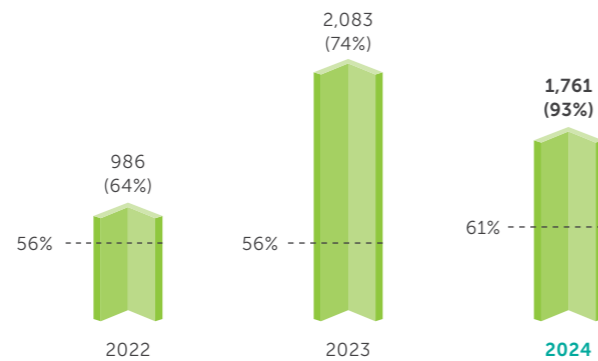
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● GPU ● GTR

Type of Recovery Operation	GPU			GTR		
	2022	2023	2024	2022	2023	2024
Preparation for Reuse	0	0	0	0	0	0
Internal Recycling	0	0	0	0	0	0
Other Recovery Options – Third Party Prescribed Premises	977.29	2,061.79	1,706.68	8.71	21.21	54.45



## SAFEGUARD THE ENVIRONMENT Waste Management

### Actual Against Target 4R



● Actual --- Target

	2022	2023	2024
Target 4R (%)	56	56	61
Actual 4R (%)	64	74	93
Actual 4R (MT)	986	2,083	1,761

A total of 1,761 MT, equivalent to 93% of our total hazardous waste, was recovered by 4R activities at prescribed premises, exceeding our target of 61% set for 2024.

Notes:  
Preliminary target based on FY2022 plan. Increment of 4R % due to new 4R project at our facilities and for long term commitment and sustenance, we established long term contract with 4R company.

## SAFEGUARD THE ENVIRONMENT Waste Management

Alongside our focus on hazardous waste management, we are equally committed to the responsible handling of non-hazardous waste. To this end, we have launched several key initiatives designed to prevent waste generation and effectively manage its significant impacts. Many of these efforts involve partnering with other companies to amplify the overall impact.

### Food Waste Compost During Turnaround at Utilities Kertih

As part of our commitment to minimising waste and adopting sustainable practices, we have successfully expanded the food waste composting programme that was piloted at Regas Terminal Pengerang (RGTP) to Utilities Kertih during the NGU3 turnaround.



This initiative exemplifies our commitment to reducing landfill strain while nurturing our environment. Transforming food waste into nutrient-rich compost not only prevents wastage but also enhances soil quality. Through our dedication to composting, we are not merely reducing food waste but creating a valuable resource that improves land fertility. To date, UK has collected 140 kg of compost.

### GPU Free Market at Dewan Sivik Kertih

On 1 April 2024, the GPU Free Market 2024 held at Dewan Sivik Kertih. This charity program aims to contribute to deserving recipients and create awareness among GPU staff about recycling practices, encouraging them to adopt these habits for a better future. Under the Community Wellbeing and Development focus area, PGB is committed to reaching out to communities and establishing positive relationships with those living near our site. This initiative also contributes to PETRONAS' Sustainability Lenses of Positive Social Impact.



Organised by the GPU Social Bureau, the GPU Free Market aims to share the 'Barakah' of Ramadhan and Aidilfitri by donating new and preloved items to the underprivileged community. The program also seeks to raise awareness among GPU staff about recycling practices and encourage them to adopt these habits for a sustainable future. During the event, a total of 5,000 pairs of clothes, pants, scarves, and shoes were collected. Additionally, items like books, toys, and kitchen utensils were donated by GPU staff to the deserving communities. This initiative highlights the dedication of GPU staff to supporting the community and promoting recycling for a greener, cleaner, and more sustainable future.

### 4R (Reduce, Reuse, Recycle, Recover) Campaign

Our dedicated recycling campaign aims to improve waste management and domestic waste handling practices while raising recycling awareness among our workforce. We are collaborating with various concession and waste recycling companies, including SWM Environment Sdn. Bhd., Alam Flora, and Klang Waste Care. Additionally, seeing the significant success of our collaboration with the AWIE Metal recycling centre in Terengganu to recycle waste from our GPK and GPS during turnaround or shutdown activities, we have extended the initiative to the UK plant during normal operations. In 2024, the UK plant contributed 1,213 kg of recycled waste.



### Food Waste Compost Programme at GTR and Collaboration with UiTM on Tanah Subur Pintar Program

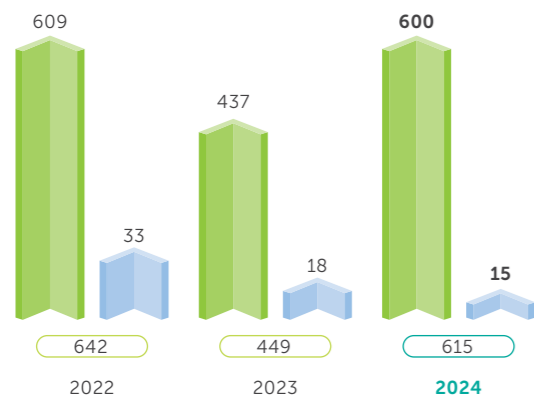
GTR has also launched a Food Waste Compost Program to repurpose food waste by converting it into nutrient-rich compost. In collaboration with UiTM, PGB – GTR initiated the Tanah Subur Pintar Program that promotes sustainable agriculture using smart composting techniques. GTR supplies food waste-derived compost to UiTM, supporting research on improving soil health and reducing reliance on chemical fertilisers. The programme will be continued in 2025, further including workshops, awareness campaigns and CSR activities to encourage responsible food waste management.



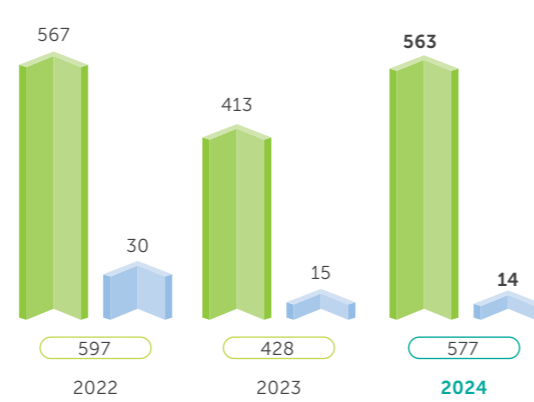
## SAFEGUARD THE ENVIRONMENT Waste Management

### NON-HAZARDOUS WASTE MANAGEMENT

Quantity of Non-Hazardous Waste Generated (MT)



Quantity of Non-Hazardous Waste Disposed (MT)



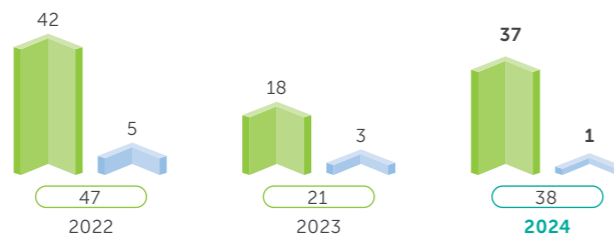
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● GPU ● GTR

Non-Hazardous Waste Disposed by Disposal Operations (MT)

Type of Disposal Operation	GPU			GTR		
	2022	2023	2024	2022	2023	2024
Incineration with Energy Recovery	0	0	0	0	0	0
Incineration without Energy Recovery	0	0	0	0	0	0
Landfill	567	413	563	30	15	14
Other Disposal Operations	0	0	0	0	0	0

Quantity Non-Hazardous Waste Diverted from Disposal-Waste Recycled (MT)



Coverage:

● GPU ● GTR

Type of Recovery Operation	GPU			GTR		
	2022	2023	2024	2022	2023	2024
Preparation for Reuse	0	0	0	0	0	0
Recycling	42	18	37	5	3	1
Other Recovery Options	0	0	0	0	0	0

## SAFEGUARD THE ENVIRONMENT Waste Management

### TOTAL OF HAZARDOUS WASTE AND NON-HAZARDOUS WASTE (MT)

	2022	2023	2024
Total Waste Generated	2,172.00	3,266.00	2,504.56
Total Waste Diverted from Disposal (4R)	1,033.00	2,104.00	1,799.13
Total Waste Directed to Disposal	1,394.74	647.00	710.99





## SAFEGUARD THE ENVIRONMENT

## SAFEGUARD THE ENVIRONMENT Water Management

# WATER MANAGEMENT



### WHY IT MATTERS

The global challenge of water scarcity impacts public health, sanitation, agriculture, and economic development, emphasising the need for sustainable water management. As a critical resource increasingly strained by rapid development and rising global temperatures, we prioritise the integration of water conservation practices and strategies at all levels of decision-making and operational management.

These efforts contribute to preserving water resources for future generations while building resilient systems capable of withstanding the escalating pressures of climate change and population growth.

### OUR APPROACH

#### Robust Standards to Drive Sustainable Water Practices

Our efforts to safeguard the environment and promote the sustainable use of natural resources is upheld through our Health, Safety, and Environment (HSE) Policy, which guides the implementation of comprehensive measures for reducing water usage, enhancing water efficiency and addressing water-related issues responsibly.

To ensure responsible water management and efficient resource utilisation, we adhere to the PETRONAS Guidelines on Water Practices (WAPS) and the Technical Standard (PTS) for Wastewater and Water Management. These standards cover key areas such as cooling water systems, ion exchange processes, reverse osmosis, electrode ionisation, steam generation, and condensate water management. They also provide detailed procedures for sludge handling, wastewater treatment and discharge, and water recycling.

Our sites adhere to the PTS and our GPU sites have established robust water management plans aligned with its requirements. These include condensate return systems and brine reverse osmosis facilities, alongside detailed water recycling frameworks, to ensure efficient and sustainable water practices.

### Our Water Sources and Usage

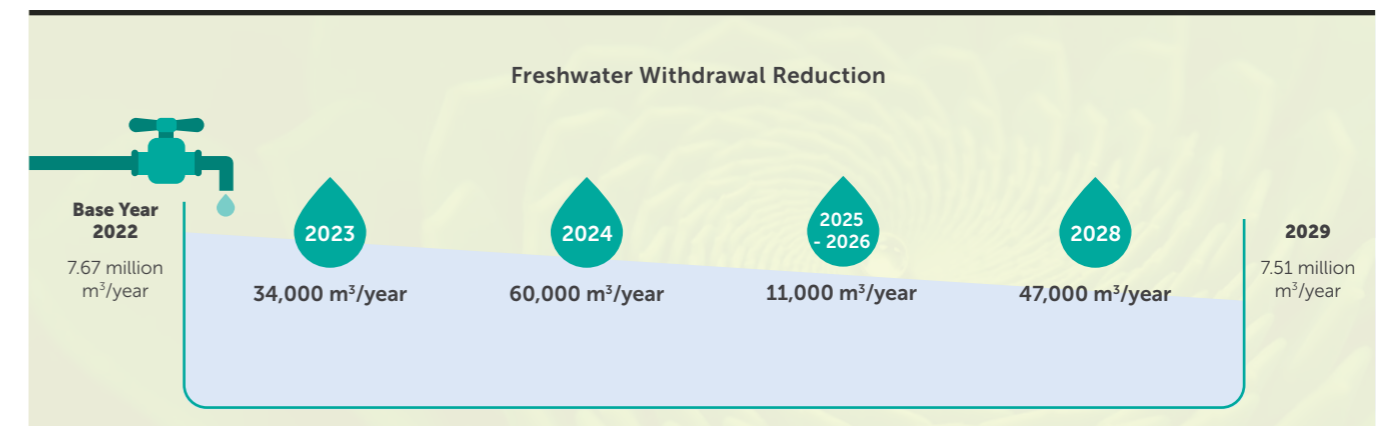
Our primary freshwater supply comes from municipal potable water, which supports the majority of our operations. At our regasification terminals, RGTSU and RGTP, seawater is utilised as a medium to heat LNG and convert it back into its gaseous state for commercial use. To protect marine ecosystems, we have systematic procedures in place to monitor and regulate the temperature of discharged seawater, ensuring it remains at optimal levels for marine life.

Water consumption or withdrawal is not required for powering our facilities, as electricity generation is exclusively supported by gas turbines and rooftop solar panels.

### PGB Water Roadmap

To reinforce our commitment to conserving natural resources, we have established the PGB Water Roadmap for the period 2023 to 2028, using 2022 data as the baseline to drive continuous improvements. The roadmap outlines staggered targets for reducing water withdrawal annually, which will be driven by various initiatives and innovative solutions.

With total freshwater withdrawal recorded at 7.67 million m<sup>3</sup> per year in 2022, the roadmap targets a gradual reduction to 7.51 million m<sup>3</sup> per year by 2029. Additionally, it sets a specific reduction target for freshwater withdrawal in water-stressed regions, aiming for a decrease of 43,800 m<sup>3</sup> per year by 2028.



### Stringent Water Management

We have implemented innovative initiatives to reduce freshwater withdrawal and improve water efficiency. These efforts include optimising our operations to improve the cycle of concentration in the boiler water system, as well as identifying and rectifying water and steam leaks within the pipeline infrastructure, alongside other water recycling and conservation measures.

Additionally, we have adopted robust wastewater management processes to ensure regulatory compliance and minimise environmental impact. A key focus is the systematic monitoring of Chemical Oxygen Demand (COD) in wastewater prior to discharge. Elevated COD levels indicate organic pollutants that can deplete oxygen in receiving water bodies, posing risks to aquatic ecosystems. By proactively managing COD levels, we ensure adherence to environmental standards while protecting aquatic life.

Beyond COD, we monitor additional critical parameters such as temperature, ammonia, free residuals, and pH. This ensures all treated wastewater complies with the Level 3 requirements of the PTS for Wastewater Management and the Standard B limits set under the Environmental Quality (Industrial Effluent) Regulations 2009 (IER 2009).

Treated wastewater is responsibly discharged into open water bodies, such as rivers and seas, to mitigate ecological risks that could arise from discharge into enclosed water bodies. Monitoring of these receiving water bodies is conducted regularly as specified in our Environmental Management Plan (EMP), incorporating risk assessments to evaluate and address potential environmental impacts.

# SAFEGUARD THE ENVIRONMENT

## Water Management

### OUR PERFORMANCE

Saved 66,500 m <sup>3</sup> in freshwater withdrawal from our water reduction initiatives	Successfully maintained operations within the set water intensity limit	Recorded zero fines and incidents of non-compliance
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### Freshwater Withdrawals

In 2024, we recorded a total water withdrawal of 8.00 million m<sup>3</sup>, compared to 8.26 million m<sup>3</sup> in 2023, reflecting a 3.15% decrease in our water withdrawal activities. This change in water usage can be attributed to several key factors:

- GPU implemented a range of initiatives and innovative solutions to enhance water reduction efforts.
- GPU optimised plant operations by improving the cycle of concentration and minimising water blowdown.
- GPU actively rectified water and steam loss in primary containment under the Fantastic Four+ (F4+) programme.
- GPU recorded fewer plant shutdowns in 2024, resulting in a decrease in maintenance activities that require water.

Municipal Freshwater Withdrawal <sup>1</sup> by Location (million m <sup>3</sup> )	2022	2023	2024
GTR	0.38	0.63	0.43
GPU	7.77	7.63	7.57
<b>Total</b>	8.15	8.26	8.00

Water Withdrawal <sup>1</sup> by Source (million m <sup>3</sup> )	2022	2023	2024
Surface Water from Rivers, Lakes, Natural Ponds	0	0	0
Groundwater from Wells, Boreholes	0	0	0
Used Quarry Water Collected in the Quarry	0	0	0
Municipal Potable Water	8.15	8.26	8.00
External Wastewater (Recycled Condensate Water)	1.73	1.95	3.39
Harvested Rainwater	0.000254	0.000254	0.000028
Sea Water, Water Extracted from the Sea or Ocean	128	109	125
<b>Total</b>	136.15	117.26	133.00

Note:  
<sup>1</sup> Water withdrawal represents the total amount of water withdrawn from surface water or groundwater sources

# SAFEGUARD THE ENVIRONMENT

## Water Management

### Freshwater Intensity

GP Freshwater Intensity (m <sup>3</sup> /tonne production)	2022	2023	2024
Q1	0.2098	0.1975	0.2037
Q2	0.1908	0.2107	0.1791
Q3	0.2271	0.2205	0.2063
Q4	0.2164	0.1851	0.1981
Total Average Per Year	0.2099	0.2024	0.1968
<b>Limit or Target</b>	0.2890	0.2890	0.2890

UT Freshwater Intensity (m <sup>3</sup> /tonne production)	2022	2023	2024
Q1	0.4035	0.4262	0.4588
Q2	0.4434	0.4730	0.3769
Q3	0.4636	0.4418	0.3946
Q4	0.4131	0.4593	0.4752
Total Average Per Year	0.4305	0.4503	0.4264
<b>Limit or Target</b>	0.4710	0.5200	0.5200

### Water Discharge

Water Discharge by Location (million m <sup>3</sup> )	2022	2023	2024
Ocean Total Discharge	128.00	109.00	125.00
Surface Water Total Discharge	3.50	4.15	2.99
Subsurface or Well Total Discharge	0	0	0
Off-site Water Treatment Total Discharge	0	0	0
Beneficial or Other Use Total Discharge	0	0	0
<b>Total</b>	131.50	113.15	127.99

### Water Consumption

Water Consumption at All Sites by Source (million m <sup>3</sup> )	2022	2023	2024
<b>Total</b>	4.063	4.168	4.543

Note:  
GPU recorded an increase in water consumption due to the commissioning of the New Instrument Air Compressor Project (NICE), which involved the installation of a new cooling water system at GPS to support business needs.

### Water Consumption Intensity for Power Generation

Power Generation Water Withdrawal or Consumption Intensity by Source (m <sup>3</sup> /MWh)	2022	2023	2024
<b>Total</b>	0	0	0



## SAFEGUARD THE ENVIRONMENT Water Management

### Water Withdrawal and Consumption at Water Stressed Regions

Two (2) of our assets, the UG operational site and the RGTSU site office, are located in water-stressed regions. We continue to explore measures and initiatives for optimising water use to safeguard our access to clean water.

Costing Category	Cost (RM)	Remarks
Costs associated with water-related risks	0	No cost was incurred for purchasing and transporting water as there was no recurrence of the water crisis within the area in 2024.
Investment in R&D to mitigate water related risks	296,995	Investments were made in an Environmental Resource Management (ERM) study to develop an action plan for Gebeng Utilities, focusing on site location, water sources, and infrastructure. The study addresses key challenges such as water availability, quality, and infrastructure constraints. Its outcomes include recommendations to enhance water management through improved water use efficiency, rainwater harvesting, and the development of a stormwater management plan.

Water withdrawal at UG increased due to plant shutdowns by customers, which led to a reduction in condensate return. This limitation in water reuse within the system necessitated higher raw water intake to compensate for the shortfall. Additionally, maintenance activities at the Brine Reverse Osmosis (BRO) unit further contributed to the increase in water withdrawal.

During the maintenance period, the BRO unit was unable to process and recover water for reuse, reducing the overall water recycling capacity. As a result, a greater volume of raw water was required to meet operational demands, leading to an overall increase in water withdrawal.

	2022	2023	2024
<b>UG</b>			
Water Withdrawal (million m <sup>3</sup> )	1.217	1.238	<b>1.283</b>
Water Consumption (million m <sup>3</sup> )	0.758	0.720	<b>0.693</b>
Percentage of Water Consumption (%)	62	58	<b>54</b>
<b>RGTSU</b>			
Water Withdrawal (million m <sup>3</sup> )	0.002	0.001	<b>0.002</b>
Water Consumption (million m <sup>3</sup> )	0.000	0.000	<b>0.000</b>
Percentage of Water Consumption (%)	0	0	<b>0</b>
<b>Total</b>	<b>1.977</b>	<b>1.959</b>	<b>1.978</b>

Note:  
The percentage of water consumption is calculated based on the amount of water consumed out of the total water withdrawn

### Wastewater Discharge and Chemical Oxygen Demand (COD) Loading

Wastewater Discharge by Location (m <sup>3</sup> )	2022	2023	2024
GPK (Sg Kertih)	30,339.93	38,853.38	<b>48,928.98</b>
GPS (Sg Paka)	48,997.00	32,673.17	<b>48,471.22</b>
UK (Sg Kertih) <sup>1</sup>	792,004.51	705,232.14	<b>915,532.22</b>

Wastewater COD Loading (tonnes)	2022	2023	2024
GPK	2.75	3.32	<b>3.46</b>
GPS	1.29	0.98	<b>1.35</b>
UK	27.24	25.22	<b>32.24<sup>2</sup></b>
RGTP	0.00	0.00	<b>0.00</b>

Notes:  
<sup>1</sup> The wastewater discharge from UK is inclusive of the treated effluent from other plants (customers)  
<sup>2</sup> A higher COD discharge was recorded in 2024 due to the onboarding of an additional customer (PCC Oxyalkylates Malaysia Sdn Bhd)

## SAFEGUARD THE ENVIRONMENT Water Management

### Water Conservation Initiatives in 2024

Our facilities across various business segments have implemented tailored water management approaches to align with operational needs and sustainability goals. The execution of strategic initiatives throughout PGB has resulted in a 66,500 m<sup>3</sup> per year reduction in freshwater withdrawal. This achievement underscores our commitment to conserving natural resources and meeting the water reduction targets set for 2024.

**Reduction of blowdown via improvement in water cycle of concentration throughout the company facilities**  
UK and UG conducted studies and implemented operational adjustments to optimise the cycle of concentration in their boiler systems, increasing it from 10 to 35 cycles. This optimisation reduced boiler blowdown, leading to lower water consumption. In 2023, UK further enhanced its cycle of concentration from 35 to 40 cycles, achieving an annual water savings of 30,344 m<sup>3</sup> across both plants.

Building on this progress, in 2024, GPK adopted the same approach, optimising its boiler system by increasing the cycle of concentration from 80 to 120 cycles, resulting in water savings of 56,000 m<sup>3</sup> per year. These improvements highlight our continued commitment to sustainable water management and operational efficiency.

**Collaboration with UK and UG customers to recycle condensate water**  
UK and UG, which produce a diverse range of industrial gases and products, have sustained collaborative efforts with neighbouring customers to recycle condensate water. This practice involves repurchasing and reusing condensate from the steam supplied, serving as an input for boiler operations. In 2024, this initiative led to the recycling of 3.392 million m<sup>3</sup> of water at both UK and UG facilities, further reinforcing our focus on sustainable resource management.

**Rainwater Harvesting**  
The GPK Green Scheduled Waste Yard integrates Rain Harvesting Technology, enabling the collection and storage of up to 3,000 litres of clean rainwater for daily operations. In 2024, we successfully utilised a total of 28,800 litres of harvested rainwater, reducing our reliance on conventional water supplies and promoting resource conservation.

**Optimisation of Raw Water Usage**  
The GPK Cooling Water System also enabled sustainable water management during plant shutdown activities by eliminating the high raw water consumption typically required for flushing and passivation during start-up. Through process optimisation, the initiative avoided the use of 10,500m<sup>3</sup> of raw water during shutdown in 2024. This approach not only conserved critical water resources but also demonstrated our ability to operate sustainably while upholding system reliability and compliance.

**Water and Steam Leak Rectification**  
In line with our commitment to sustainability and resource conservation, we regularly identify and address water and steam leaks across our operations. A total of 25 Loss of Primary Containment (LOPC) water leaks and 48 steam leaks have been identified, with 8 water leaks (32% rectification rate) and 24 steam leaks (50% rectification rate) successfully resolved. These rectifications have reduced water wastage and improved the efficiency of our systems.

### MOVING FORWARD

Looking ahead, we will prioritise preserving the integrity of our assets to optimise water use and minimise wastage. We aim to enhance monitoring systems, allocate additional resources for leak rectifications, and train employees to proactively manage leaks, targeting a better rectification rate in 2025. By continually embracing innovation and setting industry benchmarks, we strive to conserve resources and protect the environment for future generations.

## SAFEGUARD THE ENVIRONMENT

# BIODIVERSITY MANAGEMENT



### WHY IT MATTERS

A significant portion of the planet's biodiversity is increasingly at risk due to various human-driven pressures, including pollution, overexploitation of species, deforestation, and other activities that disrupt natural habitats and ecological balance. As a leader within the energy sector, we recognise the critical importance of adopting sustainable development practices to safeguard biodiversity and ensure the long-term health of ecosystems.

Overlooking biodiversity considerations in our corporate strategy could result in operational inefficiencies, heightened public and regulatory scrutiny, and significant reputational risks. Aligned with our broader climate objectives, we remain steadfast in our commitment to biodiversity conservation, prioritising the protection of endangered species and the ecosystems that sustain them within the regions where we operate.

### OUR APPROACH

#### Enhancing Our Position on Nature and Biodiversity

We are proud to play our part in advancing in the nation's nature and biodiversity agenda. Our biodiversity management efforts are fully aligned with PETRONAS' Position on Nature and Biodiversity, which represents a cornerstone of the broader Group's Sustainability Approach and NZCE 2050 ambitions.



## SAFEGUARD THE ENVIRONMENT Biodiversity Management

The Position outlines five (5) key focus areas, each supported by specific commitments to ensure our operations and new business ventures uphold the respect, preservation, and enhancement of biodiversity and natural ecosystems, in line with global best practices.

<b>ESTABLISHING VOLUNTARY EXCLUSION ZONES</b>	<ul style="list-style-type: none"> <li>We recognise the Outstanding Universal Values<sup>1</sup> of UNESCO World Heritage Sites and pledge to refrain from undertaking new operations or projects within these sites.</li> </ul>
<b>MANAGING NATURE AND BIODIVERSITY RISKS</b>	<ul style="list-style-type: none"> <li>Understanding the importance of nature and biodiversity conservation, we aim to minimise or eliminate any potential adverse impacts from our ongoing and future operations.</li> <li>Our goal is to achieve a net positive impact (NPI) on nature and biodiversity for new projects or developments in Protected Areas<sup>2</sup> and Key Biodiversity Areas<sup>2</sup>.</li> <li>For existing sites, we will conduct site-specific inventories of critical biodiversity features and assess the need for additional conservation measures based on a risk-based approach.</li> <li>A Biodiversity Action Plan (BAP) will be developed for new operations and projects in Protected Areas<sup>2</sup> and Key Biodiversity Areas<sup>2</sup>. For ongoing operations, a BAP will be developed for sites determined as 'high risk' or 'very high risk' through Biodiversity and Ecosystem Services (BES) risk profiling.</li> </ul>
<b>PROMOTING NATURE AND BIODIVERSITY THROUGH PARTNERSHIPS AND COLLABORATIONS</b>	<ul style="list-style-type: none"> <li>We actively support and engage in initiatives focused on preserving and restoring nature and biodiversity, particularly in protecting endangered species and habitats across Malaysia and our operating regions.</li> <li>We collaborate with international organisations to align our conservation initiatives with global best practices, frameworks, and standards.</li> <li>To drive collective action to prevent biodiversity loss, we prioritise fostering goodwill and strengthening collaborative relationships with local communities and non-profit organisations in our development areas.</li> <li>Additionally, we regularly partner with government and local authorities, including district offices, regulatory bodies and agencies such as the Department of Environment (DoE), state drainage and irrigation authorities, forestry and education departments, municipal councils, state assemblies, and police departments, to drive joint conservation efforts. Further details on these collaborations are available in the "Our Performance" section of this topic.</li> </ul>
<b>SUPPORTING PUBLIC POLICY TO PROTECT NATURE AND BIODIVERSITY</b>	<ul style="list-style-type: none"> <li>We support PETRONAS' endorsement of the Post-2020 Global Biodiversity Framework (GBF) and Malaysia's National Policy on Biological Diversity (NPBD).</li> <li>We are committed to aligning our operations with the policies and objectives of the countries in which we operate.</li> </ul>
<b>PROMOTING HIGH-QUALITY NATURE-BASED CLIMATE SOLUTIONS</b>	<ul style="list-style-type: none"> <li>We acknowledge the vital role that balanced and biodiverse ecosystems play in offsetting carbon emissions and contributing to our NZCE 2050 goal.</li> <li>We will ensure that the nature-based climate solutions we adopt adhere to internationally recognised certification standards.</li> </ul>

Notes:

<sup>1</sup> Outstanding Universal Values means cultural and/or natural significance which is so exceptional so as to transcend national boundaries and to be of common importance for present and future generations of humanity (Source: UNESCO World Heritage Centre – Compendium).

<sup>2</sup> Will be determined using BES risk profiling and analysis by leveraging the Integrated Biodiversity Assessment Tool (IBAT) (Source: UNESCO World Heritage Centre - Compendium).



## SAFEGUARD THE ENVIRONMENT Biodiversity Management

### Our Scope of Biodiversity and Ecosystem Assessments

Aligned with PETRONAS Group's conservation initiatives, we are dedicated to minimising the impact of our operations on biodiversity while preserving the benefits provided by surrounding ecosystems.

To support these efforts, we employ a comprehensive range of assessments and tools to analyse sites, identify risks, and implement effective mitigation measures.

#### ► Biodiversity and Ecosystem Services (BES) Surveys

BES Surveys help us identify and evaluate the diversity of flora and fauna at ecological sites and assess the importance of these ecosystems in terms of their contribution to human well-being and the surrounding natural systems.

#### ► Biodiversity and Ecosystem Services Risk Assessments (BESRA) and BES Risk Profiling

Using internationally recognised methodologies, BESRAs and BES Risk Profiling activities provide enhanced insights into the potential impacts of undertaking operations at assessed sites. These allow us to determine the likelihood and severity of risks to biodiversity and natural ecosystems, developing risk ratings for each site.

#### ► Integrated Biodiversity Assessment Tool (IBAT)

The IBAT provides access to a centralised global dataset on biodiversity, including information on Protected Areas, Key Biodiversity Areas, and the IUCN Red List of Threatened Species. This tool allows us to adopt fact-based decision-making to manage biodiversity risks and impacts effectively.

#### ► Environmental Impact Assessments (EIA)

Environmental Impact Assessments (EIAs) are integral to our approach to sustainable operations, providing a comprehensive evaluation of the ecological impacts of our business activities in the areas where we operate, including impacts on flora, fauna and natural ecosystems.

#### ► Environmental Aspect and Impact (EAI)

An environmental aspect refers to any element of an organisation's activities, products, or services that can impact the environment, while an environmental impact is the outcome of that aspect. In alignment with the ISO 14001:2015 framework, we adopt an Environmental Aspect and Impact (EAI) approach to evaluate the environmental risks and opportunities associated with our operations.

### Utilising BES Surveys to Understand Surrounding Ecosystems

Our assessments are conducted within the PETRONAS Petroleum Industry Complex (PPIC) operations area, encompassing all PETRONAS onshore and offshore facilities in Malaysia, including our GPK, GPS, TSET, and UK facilities located in Kertih, Terengganu. A follow-up survey was conducted in 2022 by an external party, Chemsain Konsultant Sdn. Bhd. alongside a subject matter expert from Universiti Sains Malaysia (USM), to provide an updated perspective on the ecosystem's health and identify changes in the area over the course of a decade.

The survey assessed the four (4) main habitats in the area, which include hill forests, coastal sandy beaches, freshwater swamps, man-made lakes, mangroves and riparian areas of Sungai Kertih. It also examined various flora and fauna groups such as fish, avifauna (birds), herpetofauna (reptiles and amphibians) and arthropods (insects). Additionally, the results from the 2022 BES survey were compared against the Biodiversity Blueprint developed by the Malaysian Nature Society (MNS) in 2010.



## SAFEGUARD THE ENVIRONMENT Biodiversity Management

Despite differences in survey methodologies and coverage areas between the 2010 and 2022 surveys, the 2022 survey indicated an overall increase in species groups around the facilities. The findings are summarised in the following table:

	2010	2022
Plants	190	286
Mammals	7	10
Fish (Swamp and Man-Made)	17	18
Fish (Sg Kertih)	9	13
Avifauna (Birds)	123	122
<b>Total</b>	<b>346</b>	<b>449</b>

Based on the BES Survey, we have crafted a directory of all species identified across our PPIC, listed in the following table.

Group	Species
<b>Flora</b>	Kelat Jambu Laut, Rhizophora Spp, Nypha Fruticans (Nipah), Balau Laut, Willow, Asam Kumbang, Rotan Kerai Laut, Serdang, Calamus Ericanceus (Rotan Bakau), Keruing Gasing, Akasia, Semalu Gajah
<b>Snakes</b>	Mangrove Snake, Painted Bronzeback, Striped Bronzeback, Puff-Faced Water Snake, King Cobra, Equatorial Spitting Cobra, Dog-Faced Water Snake
<b>Mammals</b>	Long-Tailed Macaque, Dusky Leaf Monkey, White-Handed Gibbon, Smooth-Coated Otter
<b>Frogs</b>	Sunda Toad, Butler's Rice Frog, Dark-Sided Chorus Frog, Banded Bullfrog, Greenback Frog, Three-Striped Frog, Common Treefrog, Malayan Slender Treefrog, Dark-Eared Treefrog, Grass Frog, Rough-Sided Frog
<b>Birds</b>	Lesser Adjutant, Grey-Headed Fish Eagle, Great Hornbill, Red-Crowned Barbet, Red-Throated Barbet, Mangrove Pitta, Green Iora, Black-Bellied Malkoha, Rhinoceros, Hornbill
<b>Lizards</b>	Spiny-Tailed House Gecko, Flat-Tailed House Gecko, Many-Lined Sun Skink, Garden-Fenced Lizard, Green-Crested Lizard, Water Monitor, Common Butterfly Lizard, Clouded Monitor
<b>Turtles</b>	Southern River Terrapin, Painted Terrapin, Southeast Asian Box Turtle, Malayan Softshell Turtle
<b>Crocodiles</b>	Estuarine Crocodile
<b>Freshwater Fish</b>	Puyu, Tahi Lalat, Haruan, Tilapia, Keli Kayu, Bulan, Selat, Sepilai, Sepat Siam, Sepat Kedah, Keli Bunga, Pelampong Jaring, Seluang, Tembok Tebing, Patung, Julung
<b>Seawater Fish</b>	Serinding, Tahi Lalat, Duri, Kapas, Ubi, Bawal Bulan, Belanak, Bolos, Buntal, Julung, Gerut, Siakap, Kekek, Udang, Ketam Nipah, Udang Galah
<b>Insects</b>	Bees, Wasps, Ants, Flies, Mosquitoes, Beetles, Weevils, Moth, Bugs, Treehoppers, Cicadas, Termites, Cockroaches, Dragonflies, Damselflies, Mantids, Butterflies, Grasshopper, Katydid, Cricket, Caddisflies, Barkflies, Earwig, Lacewings

## SAFEGUARD THE ENVIRONMENT Biodiversity Management

### Conducting BESRAs and BES Risk Profiling to Identify Risk Potential

Recognising the diverse ecosystems surrounding our operations, as highlighted in the 2010 BES Survey, a BESRA was conducted for PPIC in 2018, covering key operations in the region. The assessment indicated that PPIC presents a low to moderate risk to BES. The biodiversity data collected during this process will serve as baseline information for future assessments.

Building on this, a Biodiversity and Ecosystem Services (BES) risk profiling exercise was undertaken in 2020 for all PETRONAS onshore and offshore facilities in Malaysia, including sites within PPIC. Although located outside a protected area, PPIC was assigned a medium risk rating due to its scale and operational complexity, which increase the likelihood of environmental pollution potentially impacting vital riverine, marine, and coastal ecosystems, as well as nearby communities. This medium risk rating was also applied to the GPK, GPS, TSET, and UK sites within PPIC.

Separately, the UG site in Pahang received a medium risk rating owing to its proximity to protected forest reserve areas. Despite the medium risk classification, a BAP is not required under PETRONAS' Biodiversity Positioning guidelines. Concurrently, BES risk matrices were developed using the PETRONAS HSE Matrix and the "Good Practices for Biodiversity Inclusive Impact Assessment and Management Planning" document.

The table below outlines the risk likelihoods and severity levels across our operational sites:

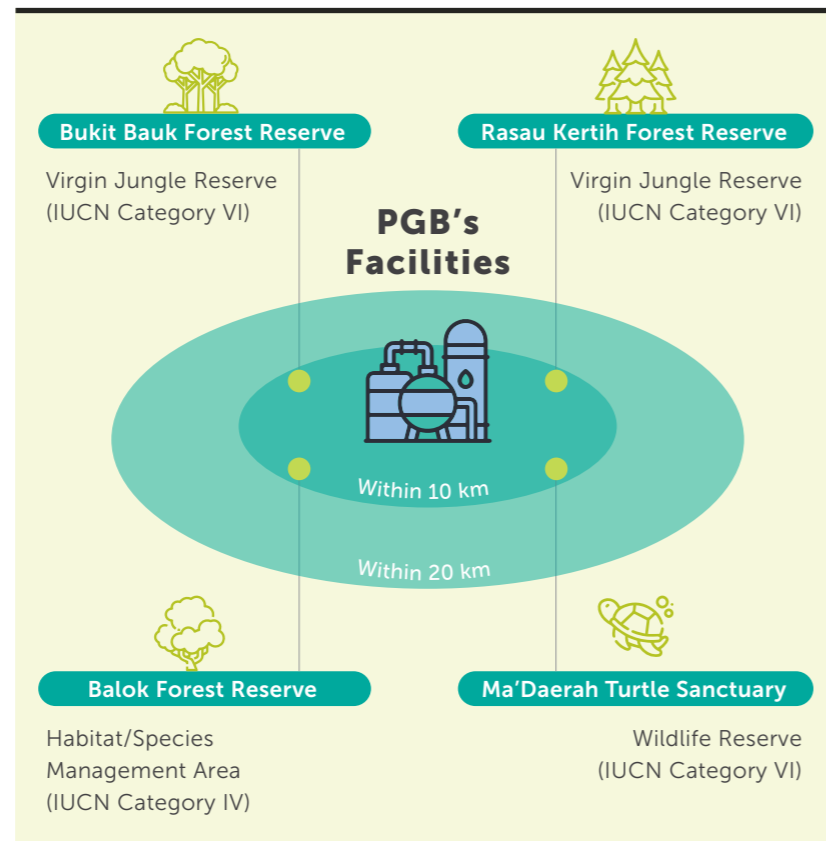
Facility or Asset	Likelihood	Severity	Risk Rating	Justification
PPIC Facilities in Kertih (GPK, GPS, TSET, UK)	(C) Possible	(3) Moderate	C3 Medium	Attributed to PPIC's scale and complexity and potential impact on vulnerable surrounding ecosystems and communities
UG	(C) Possible	(3) Moderate	C3 Medium	Attributed to UG's proximity to protected areas

### Leveraging IBAT to Identify Key Biodiversity Areas and Endangered Species

We identify and categorise the significance of KBAs near our operations using the International Union for Conservation of Nature (IUCN)'s Red List of Threatened Species. This globally recognised repository provides the most comprehensive conservation statuses for animal, fungi, and plant species.

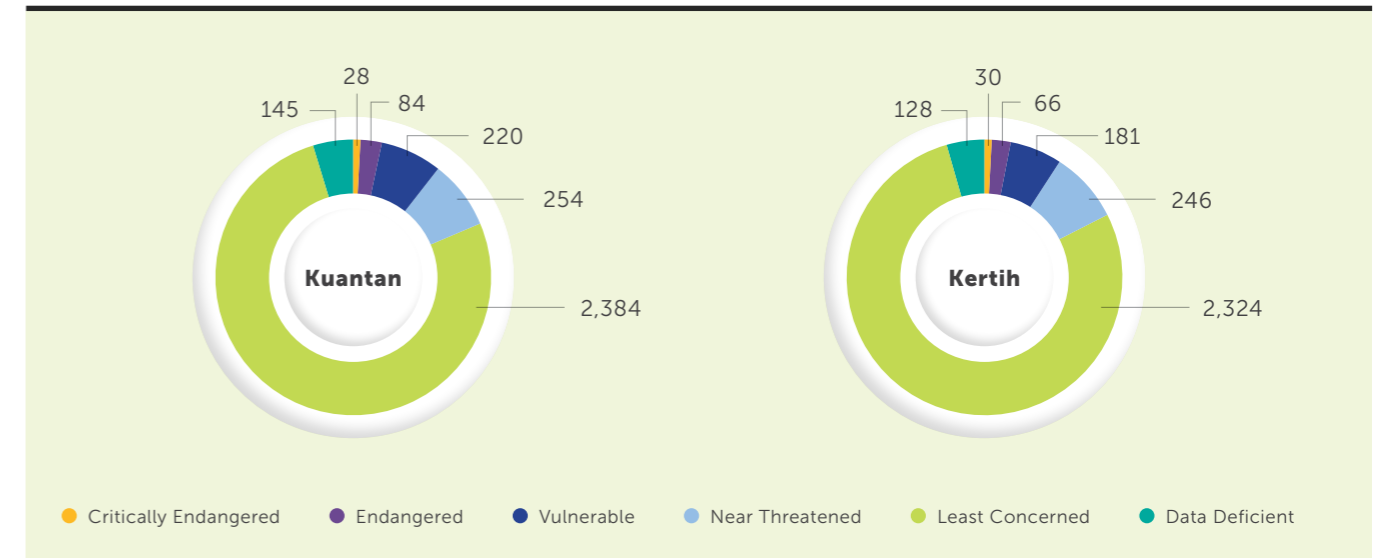
The IUCN classifies protected areas based on their ecological significance and conservation objectives. Category VI represents areas that allow sustainable use of natural resources, while Category IV indicates the necessity to protect specific species or habitats with management strategies.

The accompanying graphic highlights the KBAs located within a 10 km to 20 km radius of our Gas Processing and Utilities facilities, along with their corresponding IUCN categories.



## SAFEGUARD THE ENVIRONMENT Biodiversity Management

The IBAT has provided insights into the potential number of flora and fauna species within a 50 km radius of our facilities, along with details on their vulnerability and endangered status, as depicted below:



### Ensuring Responsible Growth Through Environmental Impact Assessments

In line with our commitment to biodiversity protection within the framework of economic development, Environmental Impact Assessments (EIAs) are a critical component of our due diligence process for new operations and projects. They play a vital role in evaluating the ecological impact of our activities in the areas where we operate, ensuring responsible and sustainable business practices.

#### Commissioning of the New PGU-I Replacement Pipeline

The new replacement pipeline, which replaces the aging PGU-I pipeline, was successfully commissioned in 2024. This new 36-inch diameter, 33-kilometer pipeline passes through three (3) key areas in the Kemaman district: Kerteh, Kemasik, and Kijal. Before the project execution, a comprehensive Environmental Impact Assessment (EIA) was conducted to evaluate its potential effects on biodiversity and socioeconomic factors.

Result from EIA study conducted are mentioned below:

#### Impact on Flora and Fauna

The Right of Way (ROW) clearing and trench excavation typically results in habitat loss and reduced population along the pipeline route. However, in this case, the environmental impact was minimal since most of the alignment had already been cleared, with only small bushes present. As a result, the overall impact on flora and fauna was very limited.

#### Impact on Socioeconomic

The project's social impact was assessed through stakeholder engagement and perception surveys. Feedback from the local community was overwhelmingly positive, as the project brought aesthetic improvements, enhanced the general landscape, and contributed to a better living environment. Additionally, the project stimulated local economic growth, particularly benefiting businesses in food services, construction material supply, and maintenance support.

The commissioning of this pipeline marks a significant step in infrastructure improvement while ensuring minimal environmental disruption and fostering community development.



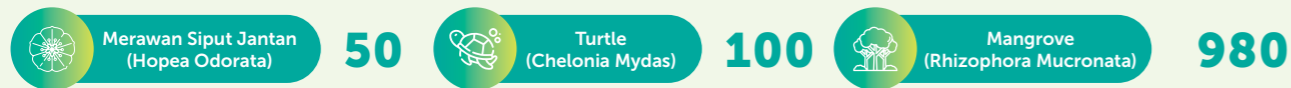
## SAFEGUARD THE ENVIRONMENT Biodiversity Management

### OUR PERFORMANCE

#### Biodiversity Protection and Conservation Programmes

In our commitment to upholding the highest standards of corporate citizenship, we actively collaborate with industries, NGOs, national regulators, and local communities to implement biodiversity protection and conservation programmes. These initiatives reflect our dedication to preserving ecosystems and fostering sustainable development.

#### FLORA AND FAUNA SPECIES HIGHLIGHT



#### REPLANTING PROGRAMME FOR FLORA

##### Mangrove Planting

On 15 February 2024, PGB collaborated with Jabatan Perhutanan Negeri Selangor (JPNS) to plant 980 mangrove trees at Hutan Simpan Banjar Utara, Kuala Selangor. The initiative brought together volunteers from various parties, including representatives from PGB, JPNS, and Puspanita, in a collective effort to promote environmental sustainability and biodiversity.

##### Mangrove Cleaning

This programme was conducted in collaboration with Majlis Bandaraya Pasir Gudang (MBPG) and the community members of Kg. Pasir Gudang Baru. More than 100 volunteers participated in this initiative, including both internal and external volunteers.



The primary objective of this programme was to conserve natural resources for present and future generations by providing communities with opportunities to reduce carbon emissions and mitigate the effects of climate change. Additionally, the engagement helped enhance our reputation, strengthen relationships with stakeholders through social impact initiatives, and promote sustainable livelihoods within local communities.



##### Funride with Green Growth and Tree Planting

In celebration of Ozone Day at the Terengganu State level, we partnered with the Department of Environment (Regulator Terengganu), Forestry Department of Peninsular Malaysia and local communities to plant 50 Merawan Siput Jantan (Hopea Odorata) trees on 24 September 2024 at SMK Balai Besar, Dungun. This initiative promotes biodiversity conservation and healthy lifestyle by encouraging cycling, with tree planting at checkpoints to aid in carbon removal and ecosystem strengthening.

## SAFEGUARD THE ENVIRONMENT Biodiversity Management

#### FAUNA SPECIES RESTORATION AT MA' DAERAH, TERENGGANU AND PUSAT KONSERVASI PENYU, SEGARI, PERAK



##### Educational Talk of Biodiversity Conservation and Constructing Turtle Nest Protection

This initiative aimed to support sea turtle conservation efforts and promote awareness of marine biodiversity protection, particularly for the Green Turtle (Penyu Agar), one (1) of Malaysia's endangered species. Activities included an awareness briefing to educate participants on the importance of sea turtle conservation, the threats posed by habitat destruction and pollution, and the urgent need for protective measures. Volunteers also engaged in creating protective barriers for turtle nests, monitoring nesting sites, and collecting data on turtle habits and migration patterns.

##### Beach and Turtle Conservation Area Clean Up

A cleanup initiative focused on preserving sea turtle habitats through beach cleanup, turtle pond maintenance, and direct turtle care. Volunteers removed harmful waste from nesting areas, ensuring a safer environment for turtles and hatchlings. They also cleaned turtle ponds to maintain healthier living conditions for rehabilitated turtles and assisted in scrubbing algae and barnacles from turtle shells. The effort significantly reduced pollution, improved turtle well-being, and raised awareness about marine conservation. Through collective action, such initiatives contribute to the long-term protection of endangered sea turtles and their ecosystems.



##### Turtle Hatching Release

Turtle hatchlings that have successfully completed their incubation period are separated and taken to the shoreline for release into the sea. The release is carried out in the early morning to ensure the hatchlings' comfort and safety as they return to their natural habitat. A total of 100 Green Turtle (Penyu Agar) hatchlings were successfully released into the sea as part of an ongoing conservation effort to protect endangered marine species. This initiative aimed to improve hatchling survival rates by ensuring a safe journey from the shore to the ocean. Volunteers and conservationists gathered to witness and support the release, emphasising the importance of protecting nesting beaches from pollution and human interference.

### MOVING FORWARD

In line with our broader climate protection objectives, we remain committed to advancing biodiversity conservation initiatives to safeguard endangered species and protect natural ecosystems surrounding our operations. Moving forward, our efforts will remain guided by PETRONAS' Position on Nature and Biodiversity, complemented by ongoing biodiversity risk assessments and dedicated conservation programmes.



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Relevant UNSDGs



# POSITIVE SOCIAL IMPACT

We are committed to generating lasting value for both our business and society by prioritising the well-being and development of our employees, suppliers, and communities. Alongside a sharp focus on upholding stringent health and safety practices and targets, we place great emphasis on upskilling our workforce with the expertise needed to drive sustainability and growth. At the same time, we have strengthened oversight of human rights and ethical conduct across our supply chain, leveraging the new PETRONAS Supplier Support Programme (PSSP) to enhance long-term sustainability and resilience among our vendors.



POSITIVE SOCIAL IMPACT

## POSITIVE SOCIAL IMPACT

# HUMAN RIGHTS



Gas Processing and Utilities - GP

### WHY IT MATTERS

As a leading gas infrastructure company, upholding human rights is both an ethical imperative and a cornerstone of our social license to operate. We are deeply committed to safeguarding the well-being and fair treatment of every individual within our vast workforce and supply chain.

We recognise that a breach of these principles could result in significant consequences, such as eroding stakeholder trust, diminishing employee morale, and hindering our ability to secure contracts or meet strategic goals. By placing human rights at the core of our operations, we strengthen our reputation as a responsible and principled organisation, laying a solid foundation for business stability and sustainable growth.

### OUR APPROACH

#### Enshrining Our Human Rights Commitments

As the oil and gas industry navigates increasingly complex environments where social concerns take centre stage, proactive oversight of human rights-related risks is critical to sustaining ethical growth. Upholding the highest standards of human rights protection is a core priority for PGB, and our approach is guided by a comprehensive framework of internal and external instruments and policies, including:

HUMAN RIGHTS INSTRUMENTS APPLIED	
<p><b>External Human Rights Instruments</b></p> <ul style="list-style-type: none"> <li>United Nations Guiding Principles (UNGP) on Business and Human Rights</li> <li>Fundamental Principles of the International Labour Organisation</li> <li>OECD Guidelines for Multinational Enterprises on Responsible Business Conduct</li> <li>International Bill of Human Rights</li> </ul>	<p><b>Guidelines</b></p> <ul style="list-style-type: none"> <li>PETRONAS Technical Guideline on Human Rights Due Diligence</li> <li>PETRONAS Technical Guideline on Indigenous Peoples Assessment</li> <li>PETRONAS Technical Guideline on Cultural Heritage Assessment</li> <li>PETRONAS Technical Guideline on Land Acquisition and Involuntary Resettlement</li> </ul>
<p><b>Internal Human Rights Instruments</b></p> <ul style="list-style-type: none"> <li>PETRONAS Human Rights Policy</li> <li>Code of Conduct and Business Ethics (CoBE)</li> <li>Health, Safety and Environment Policy</li> <li>Anti-Bribery and Corruption (ABC) Manual</li> <li>Contractors' Code of Conduct on Human Rights (CoCHR)</li> </ul>	<p><b>Standards</b></p> <ul style="list-style-type: none"> <li>PETRONAS Technical Standard on Social Risk Assessment</li> <li>PETRONAS Technical Standard on Grievance Mechanism</li> <li>PETRONAS Security Management System</li> </ul>



## POSITIVE SOCIAL IMPACT Human Rights

### Ensuring Protection of Rights Across the Spectrum

Our key instruments and policies for upholding human rights include Code of Conduct and Business Ethics (CoBE) and PETRONAS' Human Rights Policy. These foundational documents establish clear commitments and standards for human rights protection, aligning with international benchmarks such as the United Nations Guiding Principles (UNGP) on Business and Human Rights, the UNGP Effectiveness Criteria, the Fundamental Principles of the International Labour Organization, and all applicable legal requirements within our markets of operation.

#### CoBE - WORKPLACE CULTURE AND ENVIRONMENT

The CoBE outlines clear standards for workplace culture and conduct, applicable to all employees and third parties carrying out work for or on behalf of PGB. It is actively communicated to stakeholders, including business partners, through regular engagement sessions to ensure alignment with our ethical expectations.

The CoBE addresses a broad spectrum of workplace culture and environment standards, integral to fostering a respectful, inclusive, and safe work environment while upholding our commitment to ethical business practices. These standards include the following:

- Safe, Secure, and Conducive Workplace Environments
- Unlawful Discrimination
- Occupational Health, Safety and Environment
- Sustainable Development
- Substance Misuse (Drug and Alcohol Abuse)
- Dress Code
- Borrowing Money
- Sexual Harassment
- Workplace Bullying and Harassment
- Non-Business Workplace Relationships
- Human Rights

#### PETRONAS' HUMAN RIGHTS POLICY

PETRONAS' Human Rights Policy further strengthens our human rights commitments and practices. Anchored in the following five (5) key principles, it underscores our dedication to safeguarding human rights across all areas of our operations:

- Respect for internationally recognised human rights
- Adoption of a risk-based approach to human rights due diligence
- Access to effective grievance mechanisms and remedies
- Implementation of appropriate governance for human rights policy and processes Groupwide
- Commitment to maintaining disclosure and reporting across the Group

The policy affirms our commitment to respecting the rights of all individuals impacted by our activities and eliminating all forms of discrimination, child labour, and human trafficking. It ensures a risk-based approach to human rights due diligence, focusing on four (4) critical areas of material importance: labour and working conditions, community well-being, supply chain management, and responsible security. Additionally, it guarantees access to effective grievance mechanisms and appropriate remedies to uphold accountability.

Aligned with the United Nations Guiding Principles (UNGP) on Business and Human Rights, we prioritise four (4) key areas: Labour and Working Conditions, Responsible Security, Supply Chain, and Community Well-being. Through rigorous due diligence and effective grievance management, we proactively address human rights risks while fostering positive social impact in the communities where we operate.

## POSITIVE SOCIAL IMPACT Human Rights

### Promoting Human Rights Compliance Amongst Contractors

In 2024, we made significant strides in enhancing human rights oversight across our supply chain, which included a comprehensive revamp of the Contractors' Code of Conduct on Human Rights (CoCHR) that was officially approved and implemented in June 2024.

The CoCHR applies to any parties performing work or services for or on our behalf and those holding PETRONAS' license and/or registration. Contractors are obliged to ensure that any parties performing work and/or business for or on our behalf adhere to the CoCHR as well.

To ensure adherence to the CoCHR, contractors, are engaged on human rights issues through a pre-mobilisation assurance process prior to the commencement of jobs at our worksites, and are assessed for compliance from time to time. Failure by contractors to comply with the requirements set out in the CoCHR may result in actions taken, including terminating the non-complying party's relationship with PGB and other measures.



PETRONAS requires its contractors to:

### 10 KEY REQUIREMENTS FOR CONTRACTORS



Respect internationally recognised human rights, complying with PETRONAS' CoBE and all relevant legal requirements.



Take reasonable steps to ensure that policies and guidelines with respect to human rights are in place and adhered to by any party performing work and/or business for or on behalf of PETRONAS. These policies and guidelines shall include labour rights, workplace health and safety, security, and conditions of employment. These policies and guidelines shall be made known to employees, workers, and contract personnel in languages they understand.



Sign an attestation confirming compliance with the CoCHR.



Identify, mitigate, and address human rights risks, at a minimum on risks relating to forced labour, child labour, labour rights, non-discrimination, freedom of association, and humane treatment ("material risks").



Provide human rights awareness training to employees, workers, and contract personnel and ensure that all employees, workers, and contract personnel providing works or services to PETRONAS attend the training.



Establish a grievance mechanism for its employees, workers, contract personnel and any party involved in providing works or services to PETRONAS. This grievance mechanism shall be made known to them and in languages they understand. The grievance mechanism shall have appropriate follow-up measures while ensuring that the identity of the complainant is protected.



Systematically close actual or potential adverse human rights impacts through time-bound corrective action plans



Provide access to remedy and cooperate in the resolution process of impacted stakeholders where the contractors have caused or contributed to adverse human rights impact.



Take reasonable steps to embed safeguards for human rights in supply chain processes; ensure appropriate governance frameworks are applied to non-compliant high-risk contractors and subcontractors.



Provide timely feedback to PETRONAS regarding human rights performance as gathered through personnel engagements, questionnaires and other appropriate means as required.

## POSITIVE SOCIAL IMPACT Human Rights

## POSITIVE SOCIAL IMPACT Human Rights

### ESTABLISHING MATERIAL HUMAN RIGHTS RISKS FOR CONTRACTORS



In line with the above, contractors shall ensure adherence to the following material risks:



#### Forced Labour

By not engaging or employing people, under any circumstances, against their own free will or engaging in bonded labour/debt slavery.



#### Child Labour

By not employing children below the legal minimum working age requirement of any country.



#### Labour Rights

By upholding the rights and welfare of their employees, workers, and contract personnel (both local and foreign) through compliance with all applicable laws and agreements related to compensation and working conditions. This includes adherence to minimum wage, overtime pay, legally mandated benefits, and the maximum number of working hours. Contractors must also respect local laws or collective agreements that govern overtime work and holiday work, ensuring that their operations do not exploit employees, workers, and contract personnel and provide them with fair compensation for their labour.



#### Commitment to Non-Discrimination

By not engaging in any form of unlawful discrimination based on race, ethnicity, colour, age, gender, gender identity or expression, sexual orientation, political beliefs, citizenship, national origin, religion, disability, parental status, economic/class status, or unrelated characteristic in hiring and employment practices.



#### Freedom of Association

By respecting the legal rights of employees, workers, and contract personnel to become members of a labour union or otherwise.



#### Humane Treatment

By respecting rights of employees, workers, and contract personnel and ensuring no harsh and inhumane treatment, including any form of mental or physical coercion, or verbal abuse of employees, workers, and contract personnel.

### LEVERAGING DIGITAL TOOLS TO ENHANCE OVERSIGHT



We leverage the following digital instruments to ensure the compliance of our contractors to our human rights commitments and standards:

#### Express Registration for External Service Provider (XPRESS)

We strictly prohibit the employment of underaged children and forced labour, holding contractors accountable to these standards. To enhance oversight, all potential contractors and their employees are verified through the XPRESS system before engagement. Contract clauses also mandate compliance with CoCHR and relevant labour laws.

For PETRONAS employees, hiring processes are managed through HRM systems to ensure full compliance with human rights standards.

#### Fatigue Management System (FMS)

To prevent fatigue-related incidents, the FMS system tracks and monitors the hours worked by PGB employees and contractors, ensuring adherence to the Hours-of-Service Limit. Those exceeding the limit are restricted from accessing their workplace. This system adheres to the following legal and industry standards:

- Laws of Malaysia Act 265; Employment Act 1955
- Occupational Safety and Health Industry Code of Practice for Road Transport Activities 2010 (Malaysia)
- Fatigue Risk Management Systems for Personnel in the Refining and Petrochemical Industries – ANSI/API Recommended Practice 755; Second Edition, 2019
- IOGP-IPIECA Managing Fatigue in the Workplace – A Guide for Oil and Gas Industry Supervisors and Occupational Health Practitioners – IOGP Report 626, 2019
- IOGP-IPIECA Performance Indicators for Fatigue Risk Management Systems – Guidance document for the oil and gas industry 2012
- IOGP-IPIECA Assessing Risks from Operator Fatigue – Guidance document for the oil and gas industry 2014
- IOGP-IPIECA (2012). Performance Indicators for Fatigue Risk Management Systems – Guidance document for the oil and gas industry – IOGP-IPIECA Health Committee, 2012

#### Proactively Assessing Human Rights Impacts

PGB integrates human rights impact assessments into our core business processes, ensuring an ongoing, proactive approach to identifying and addressing human rights risks. We remain committed to conducting SRAs every five (5) years or as and when required to uphold our human rights commitments across all operations and projects. The previous Social Risk Assessment (SRA) cycle was conducted at GPU in 2021 and served as a critical tool in identifying and understanding our salient human rights issues. We continued this effort at GTR assets in 2024.

These assessments enable us to take targeted actions for the avoidance, prevention, and mitigation of human rights issues. In alignment with industry standards and the unique nature of our business, we actively engage with stakeholders to identify salient and business-specific human rights concerns. This collaborative approach ensures we remain attuned to the expectations of affected communities, employees, and other relevant parties.



## POSITIVE SOCIAL IMPACT Human Rights

## POSITIVE SOCIAL IMPACT Human Rights

### Ensuring Equal and Fair Working Hours

To ensure equitable working conditions and equal expectations from employees regarding working hours, we strictly comply with the Employment Act 1955 and its 2022 Amendment, which introduced key changes to working hours and overtime regulations. Most notably, the amendment reduced the maximum weekly working hours from 48 to 45 hours. Consequently, any work performed beyond 45 hours per week entitles employees to overtime pay, with a total overtime limit capped at 104 hours per month.

To drive consistent application of these rules, we have explicitly outlined our compliance in key policy documents. The Collective Agreement between PETRONAS and In-house Unions guides our treatment of non-executives, while the Flexible Work Options document provides guidance for all employees.

In line with our commitment to preventing excessive working hours, PGB has set maximum working hours at 39-42 hours per week—well below the regulatory maximum of 45 hours. Under the Collective Agreement, shift employees and regular offshore employees work an average of 42 hours per week, while other employees work 39 hours per week. Similarly, the Flexible Work Options document specifies a 39-hour workweek for employees with non-shift schedules.

### Dedicated Grievance Mechanism for Human Rights

To ensure transparency and accountability in addressing human rights issues, we have established a dedicated grievance mechanism accessible to all internal and external stakeholders, including local communities affected by our operations.

#### KEY HUMAN RIGHTS ELEMENTS COVERED BY THE MECHANISM



##### Labour and Working Conditions

- Forced labour
- Child labour and young workers
- Non-discrimination
- Freedom of association
- Workplace or accommodation health and safety
- Conditions of employment

##### Responsible Security

- Conduct of third-party security
- Mechanism to report on security personnel

##### Community Well-being

- Land management (Right-of-Way, compensation, access to natural resources)
- Indigenous peoples
- Cultural heritage
- Community health and safety
- In-migration
- Right to clean air and water

##### Supply Chain Management

- Supplier performance related to labour and working conditions, responsible security and community well-being

#### DEDICATED STAFF, COMMITTEES AND PROCESS TO MANAGE GRIEVANCES



To address grievances effectively and equitably, we have established three (3) key roles, each undertaken by dedicated personnel:

##### Community Liaison Officer (CLO) or Grievance Focal

- Develops and manages the grievance mechanism procedure
- Establishes and maintains the grievance database or system
- Monitors, analyses, and reports on grievance mechanism performance
- Serves as the primary point of contact with complainants or aggrieved parties
- Conducts screening and initial assessments of grievance legitimacy
- Facilitates and promotes grievance resolution to the complainant

##### Grievance Mechanism Custodian

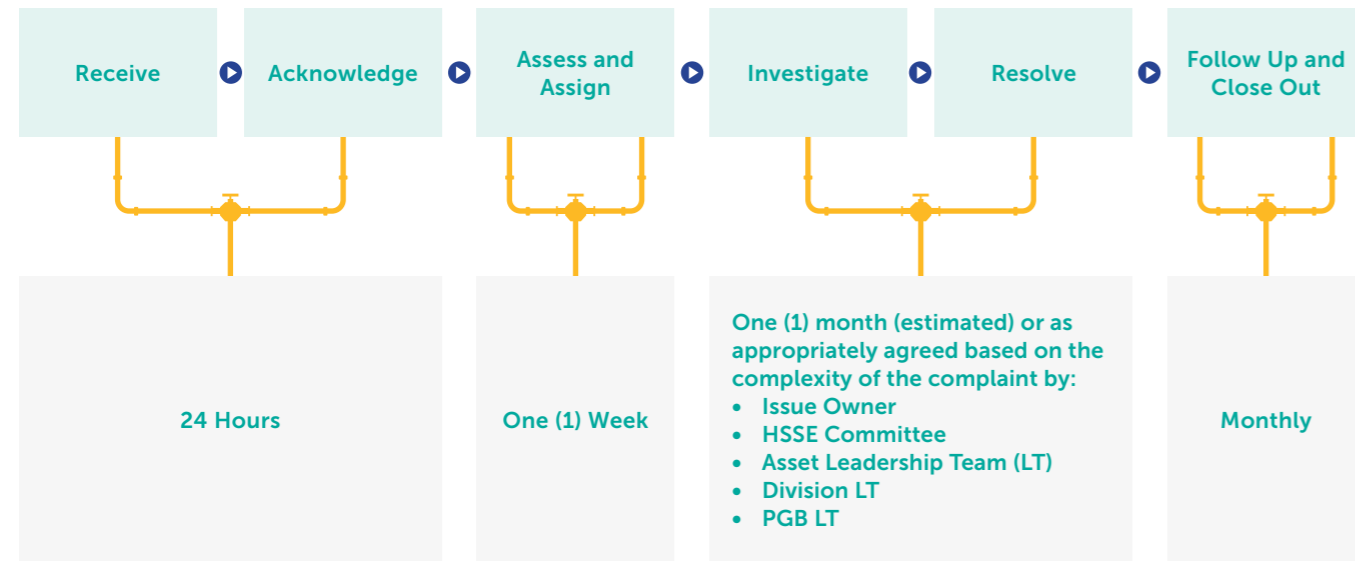
- Appoints a dedicated Grievance Focal or CLO
- Oversees the development and management of the grievance mechanism
- Assigns an Issue Owner to handle specific grievances
- Chairs the Grievance Resolution or Appeal Committee at the site level
- Appoints third-party mediators or collaborators if required
- Escalates grievances to higher levels (such as Business Units) when necessary
- Approves reports for internal and external reporting

##### Grievance Resolution Committee or Grievance Appeal Committee

- Integrates grievance monitoring and tracking as a fixed agenda in HSE Committee meetings
- Analyses grievances and deliberates options for resolution, ensuring no conflict of interest
- Deliberates on appeal cases and approves final resolutions
- Ensures the implementation of agreed resolutions or escalates cases if necessary
- Signs off on case closures

## POSITIVE SOCIAL IMPACT Human Rights

The process flow outlined below serves as a comprehensive guide for all staff handling grievance reports, ensuring that each grievance is promptly assigned, thoroughly investigated, and effectively resolved. By adhering to this structured approach, we mitigate the risk of minor grievances escalating into significant issues, safeguarding the interests of all stakeholders involved.



To maintain the effectiveness of our grievance mechanism and processes, we implement a First Line Assurance process. This involves a designated focal person conducting quarterly evaluations to ensure the mechanism operates as intended.

In instances where a grievance reveals a human rights issue that the PGB is found to have contributed to, we are committed to taking swift and decisive action to address the matter and provide appropriate remedies to all affected parties.

### KEEPING STAKEHOLDERS INFORMED



We ensure that stakeholders are well-informed about our grievance mechanism and empowered to utilise it effectively when needed. Relevant information is disseminated through various channels, including brochures, posters, helplines, as well as through CIMAH engagements and townhalls.

### Supporting Whistleblowing

Our support of human rights extends to fostering a workplace environment that respects every individual's rights. To uphold this commitment, we leverage the PETRONAS Whistleblowing Policy, ensuring our affairs are conducted ethically, responsibly, and transparently.

The policy, along with its whistleblowing channel, provides a secure platform for employees and the public to report any improper conduct within PGB. This avenue allows individuals to raise complaints regarding observed or experienced wrongdoings, including but not limited to:

- ▶ Workplace Bullying
- ▶ Sexual Harassment
- ▶ Fraud
- ▶ Abuse of Power
- ▶ Conflicts of Interest
- ▶ Misuse of Company Property
- ▶ Bribery
- ▶ Theft or Embezzlement
- ▶ Non-Compliance with Procedures

## POSITIVE SOCIAL IMPACT Human Rights

The list above is not exhaustive and includes any act or omission that, if substantiated, would constitute misconduct under the CoBE or a criminal offence under applicable laws and regulations in force.

### THOROUGH AND CONFIDENTIAL INVESTIGATION



Complainants may submit their reports through the PETRONAS WhistleNOW platform powered by Whispli. All complaints received are handled with utmost care and processed as follows:

#### Whistleblowing Secretariat (WBS)

The WBS is responsible for the registration, monitoring, and reporting of the complaint. The secretariat will conduct a preliminary assessment and present the findings to the Whistleblowing Committee. The secretariat will ensure the complaint is given due attention and is pursued until closure.

#### Whistleblowing Committee (WBC)

The WBC is responsible for the evaluation of the preliminary assessment. They will assign the Investigation Party to conduct a detailed investigation. The committee will then assess and deliberate on the investigation report and determine a forward course of action. The committee will ensure justice is delivered for any misconduct ascertained from the investigation.

#### Investigation Party

The Investigation Party is responsible for performing a thorough investigation of the complaint. They will carry out a comprehensive investigation to allow for a fair evaluation by the committee.

All complainants are assured anonymity throughout the whistleblowing process to the extent reasonably practicable and are protected from any repercussions arising from their lodged complaints, provided the complaint is made in good faith. This protection remains in place even if subsequent investigations reveal that the complainant was mistaken about the facts of the issue or the rules and procedures involved.

To ensure the effective handling of bullying or harassment cases, we conduct industrial relations training for our line managers, with 25 managers attending the training during 2024. Additionally, 60 employees completed the CoBE e-learning module, providing them with a refresher on the policy as part of our continuous learning efforts.

### Engaging Employees on Human Rights Issues

We regularly engage with our employees and contractors to refresh their understanding of human rights and inform them of any new developments in the field. These sessions also serve as a platform for transparent discussions, allowing us to gather feedback on our processes and identify areas for improvement. In addition to engagement activities, we embed human rights commitments into our corporate practices by ensuring that all employees receive training in human rights management.

In 2024, we conducted the following key engagement initiatives and refresher training via e-learning open to all stakeholders:

#### Engagement and Training on Workplace Culture

- The engagement sessions covered issues such as sexual harassment and workplace harassment during multiple platforms on February, July and August 2024
- 60 newly hired staff completed CoBE learning in 2024

#### Human Rights Engagement Sessions

- We continued this effort at GTR assets in 2024

### Supporting Freedom of Association and Collective Bargaining

Since its establishment in 1983, Kesatuan Kakitangan Petroliaam Nasional Berhad (KAPENAS) has served as the union for our non-executive staff, providing a platform for employees to exercise their right to freedom of association. With representatives from each of our assets, KAPENAS facilitates collective bargaining processes with the Group every three (3) years. During the reporting year, four (4) engagement session between KAPENAS and management was conducted to address union matters, including provisions and implementation of the collective agreement.



## POSITIVE SOCIAL IMPACT

### Human Rights

#### OUR PERFORMANCE

##### Human Rights and Labour Violations

During the year in review, we recorded a solitary misconduct issue related to workplace harassment, which was investigated and resolved in a timely manner.

	2022	2023	2024
Human Rights Violations	1	0	1
Labour Standard Violation	0	0	0

##### Child Labour and Forced or Compulsory Labour

In alignment with the standards outlined in Part III: Workplace Culture and Environment of our CoBE, we remain resolute in preventing child labour and all forms of forced or compulsory labour. These commitments are further reinforced for contractors through the provisions included in our CoCHR.

During the year under review, assessments revealed that neither our operations nor our suppliers faced any significant risks of incidents involving child labour or young workers in hazardous conditions. Similarly, no significant risks of forced or compulsory labour were identified across our operations or supply chain.

##### Protecting the Rights of Indigenous Peoples

Across PGB projects and operations, we adhere to established policies and procedures that govern our engagements with indigenous peoples, ensuring that their rights, concerns, and expectations are fully addressed. Our approach involves identifying, avoiding, minimising, and mitigating potential impacts on their communities, livelihoods, cultural heritage, and the surrounding environment. We also provide access to culturally appropriate grievance mechanisms and actively seek to deliver development benefits, including access to employment and economic opportunities.

During the year under review, no incidents involving violations of the rights of indigenous peoples were recorded. This includes the absence of legal actions or complaints related to the impacts of our employees' practices or the effects of our existing or planned activities on indigenous communities.

##### Formal Human Rights Training for Security Personnel

PETRONAS Group Security ensures that our security personnel receive formal training in human rights and the proper procedures to uphold them. In the year under review, a total of 74 security personnel participated in this specialised training, reinforcing our commitment to ethical security practices and human rights protection.

## POSITIVE SOCIAL IMPACT

# EQUAL OPPORTUNITY, DIVERSITY AND INCLUSION

#### WHY IT MATTERS

We believe that fostering diverse and inclusive workplaces is key to driving sustainable growth and creating value. Embracing a mix of ideas, perspectives, and backgrounds cultivates a more innovative and progressive work environment, enabling better outcomes and advancing our strategic objectives as an organisation.

Moreover, being part of an inclusive organisation that champions equal opportunities enhances employee satisfaction and inspires individuals to perform at their best. This, in turn, strengthens our reputation as an employer of choice, helping us attract and retain talent in the relevant industries.



#### OUR APPROACH

##### Stringent Policy to Foster Non-Discriminatory Practices

At PGB, we uphold a zero-tolerance stance against unlawful discrimination in the workplace or during the hiring process. Our practices fully comply with all relevant Malaysian laws and are further strengthened by the PETRONAS Code of Conduct and Business Ethics (CoBE).

Aligned with the PETRONAS CoBE, we ensure that no individual is subjected to discrimination in employment or hiring decisions. This includes discrimination based on any characteristic unrelated to the individual's merit or the requirements of the job.

The only preference we maintain is in favour of local recruitment, supporting our commitment to uplifting local communities.

# POSITIVE SOCIAL IMPACT

## Equal Opportunity, Diversity and Inclusion

### Upholding Competitive Merit-Based Remuneration Practices

We are committed to fostering a high-performance culture through merit-based remuneration and reward programmes. Our rewards framework, which is built on the three (3) core pillars outlined below, aims to attract, retain, and motivate a diverse talent pool while fostering an inclusive and supportive work environment. This ensures every employee has equal opportunities to thrive and succeed based on their efforts and contributions.

	<b>Adaptable Rewards</b>	Ensuring rewards are aligned with business goals and adapted accordingly to changes in our business outlook or strategies.
	<b>Equitable Rewards</b>	Providing rewards that are commensurate with individual accountabilities, competencies, and performance.
	<b>Sustainable Rewards</b>	Offering market-competitive rewards that cater to the diverse needs of our workforce while adhering to statutory requirements.

### Providing Equal Access to Policy Documents

We prioritise rightful access to our policy documents, ensuring that all employees, regardless of their language or origin, can easily avail and understand our guidelines and procedures. All PGB policies, including our labour standard policy (CoBE), are readily available on PGB intranets, accessible to all employees, and has been translated into the relevant languages spoken by our diverse workforce.

### Promoting D&I Amongst Leaders and Employees

We recognise the importance of educating our employees on the value of diverse perspectives and backgrounds while addressing unconscious biases that hinder inclusivity and equal opportunities.

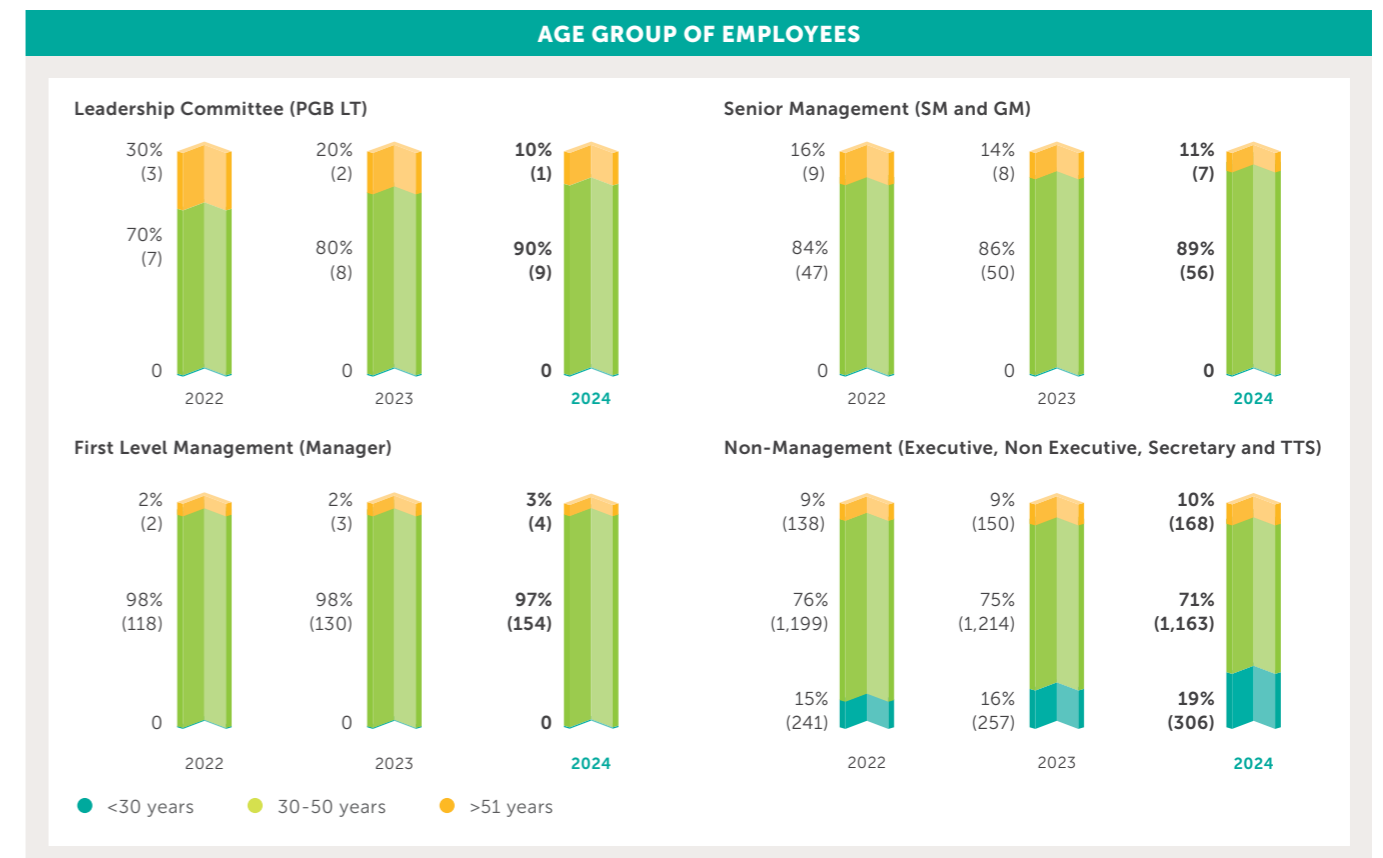
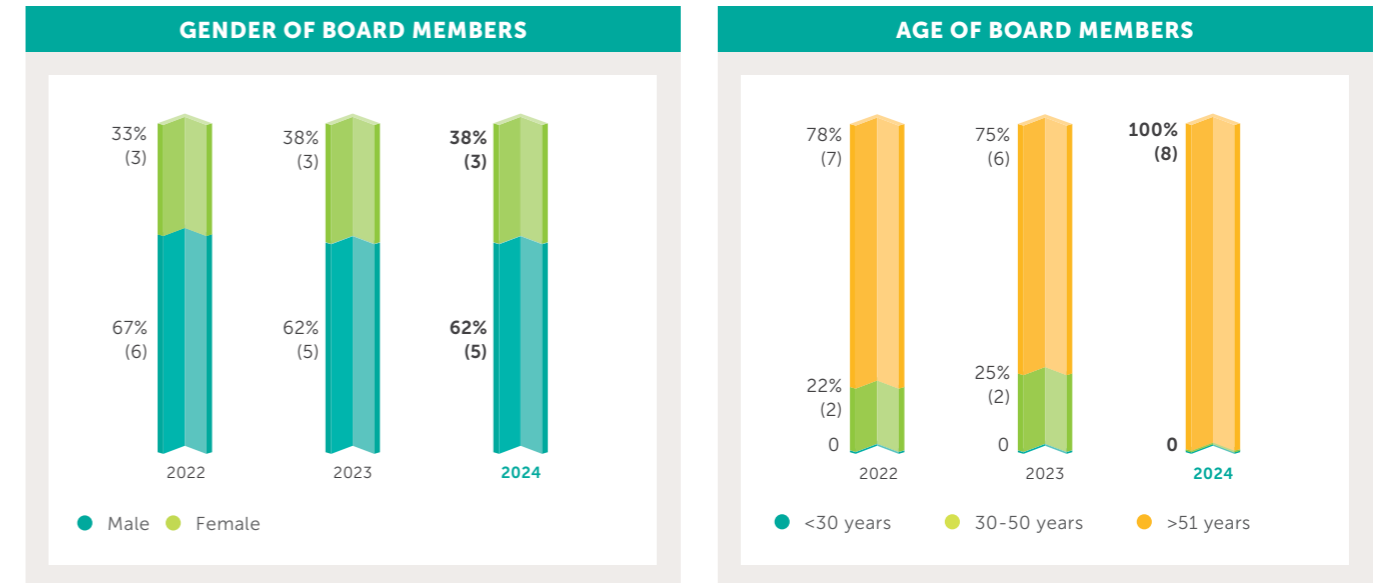
In line with PETRONAS' Diversity and Inclusion (D&I) programme, we introduced the Conscious Inclusion Programme in 2024, targeting General Managers (GMs) and People Development Committee (PDC) members. This one-day seminar is structured into two (2) modules – Being Inclusive and Leading Inclusive Teams – and aims to foster awareness and drive meaningful action among leaders to uphold D&I principles in the workplace. This interactive session equips leaders with the tools to create a more inclusive work environment. It empowers them to champion D&I within their teams by articulating key messages to employees and mitigating potential biases in their daily interactions. Through such initiatives, we aim to build a workplace culture that thrives on inclusivity and celebrates diversity.

# POSITIVE SOCIAL IMPACT

## Equal Opportunity, Diversity and Inclusion

### OUR PERFORMANCE

#### Board and Employee Diversity





# POSITIVE SOCIAL IMPACT

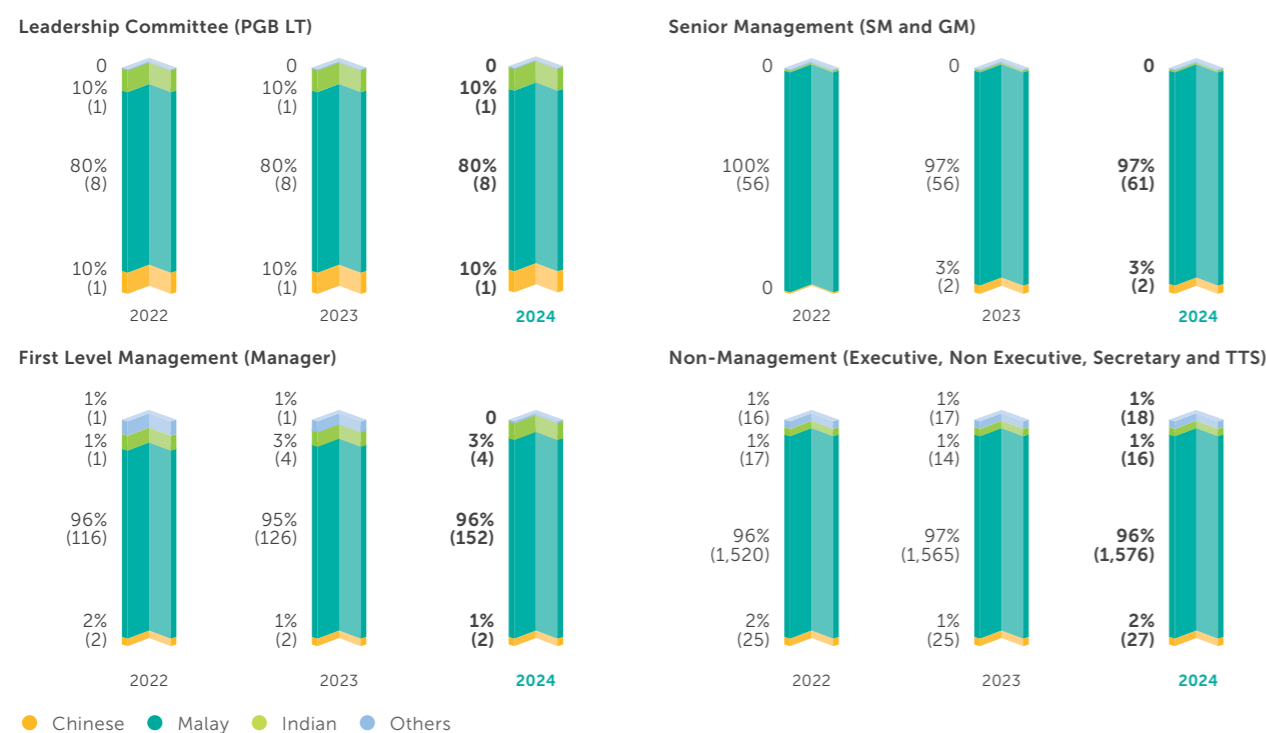
## Equal Opportunity, Diversity and Inclusion

# POSITIVE SOCIAL IMPACT

### GENDER OF EMPLOYEES



### ETHNICITY OF EMPLOYEES



# TALENT MANAGEMENT

## WHY IT MATTERS

### Empowering a Future-Ready Workforce

To achieve our strategic goals and maintain competitiveness in a dynamic business environment, we prioritise having the right talent with the right technical and leadership skills to drive performance and foster innovation. Our comprehensive talent management strategies encompass targeted training to enhance skills and capabilities, leadership development, and the identification and nurturing of future leaders to build high-performing teams.

These efforts, combined with impactful employee engagement systematically strengthen our workforce, enhance talent retention, maximise productivity, and position the company as an employer of choice. Ultimately, our commitment to develop our talent is key to realise our strategic growth ambitions.



## OUR APPROACH

### Robust Frameworks and Governance of Talent Management

Our talent management practices are designed to create an enabling environment where talents can self-drive their own performance and professional growth.

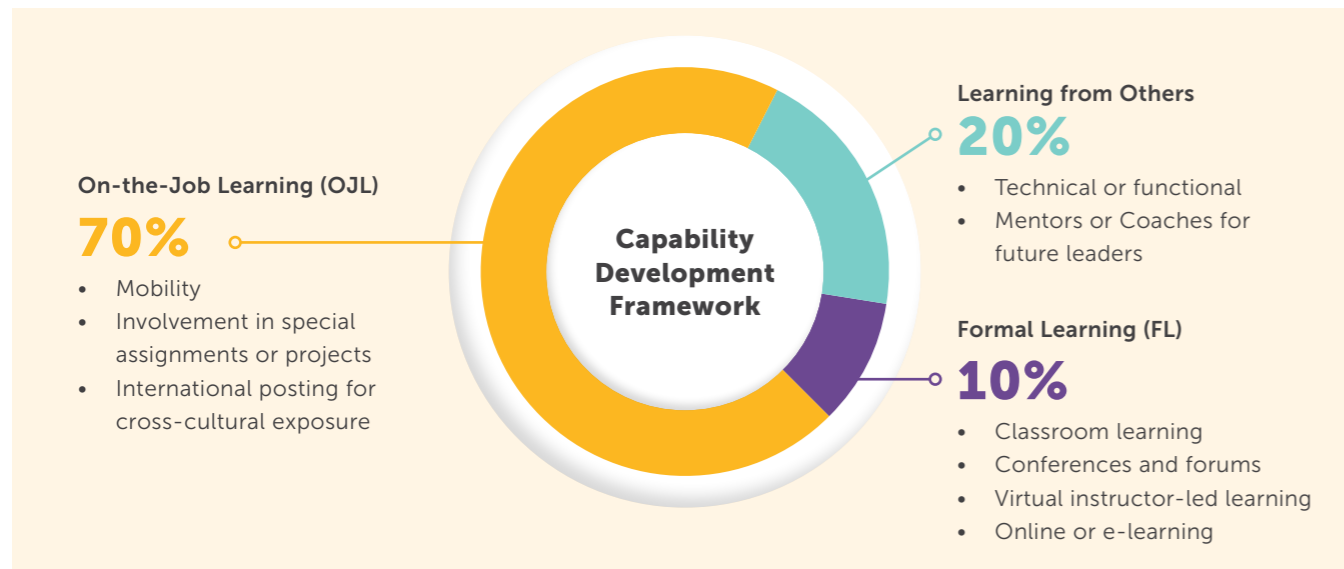
At the core of these efforts is our monthly People Development Committee (PDC), which formulates staff development plans, mobility strategies, and career progression initiatives. Complementing this is our bi-monthly Talent Council (TC), a platform for robust discussions on succession planning for critical positions and the structured development of top talents within PGB.

With a strong focus on building a pipeline of future leaders, we prioritise leadership development opportunities through our Leadership and Conditioning Framework. The framework aims to develop future leaders, nurture emerging young leaders, condition newly appointed leaders, and foster workplace mental health awareness to cultivate balanced and effective leadership.

## POSITIVE SOCIAL IMPACT Talent Management

In 2024, we further enhanced this focus by introducing a 3-Year Leadership Development Implementation Plan. This structured roadmap is designed to prepare a robust talent pool and ensure the readiness of identified successors through tailored, fit-for-purpose programmes for potential leaders.

All our leadership development initiatives are underpinned by the Capability Development Framework, which utilises the three (3) key channels of On-the-Job Learning, Learning from Others and Formal Learning, as depicted below.



### Developing Leadership Skills at all Levels

To support experienced staff as they transition into roles with greater responsibility, we offer a suite of purpose-driven leadership programmes tailored to their organisational roles and individual development needs.

Transformational Leadership	High Impact Leadership	Dynamic Leadership	Foundational Leadership
Aimed at senior leaders transitioning into new roles, this programme offers blended, customised solutions that equip them with the critical knowledge and skills needed to drive sustainable and transformative business results.	Designed for experienced managers, this programme focuses on enhancing leadership knowledge and practical skills, enabling participants to create a meaningful impact in their current roles.	Targeted at new managers, this programme empowers them with essential leadership and motivational skills to excel in their new responsibilities and confidently navigate managerial challenges.	Developed for executives, this programme prepares participants to become future leaders by honing their ability to drive operational excellence in dynamic business environments with finesse, resilience, and agility.

Complementing these programmes, we accelerate the growth of junior staff through a structured development plan that emphasises technical, HSE, functional, and leadership skills during their first six (6) years at PGB.

In 2024, 32 talents have completed the above leadership programmes, catering to employees across various levels.

## POSITIVE SOCIAL IMPACT Talent Management

### Nurturing Young Leaders

A cornerstone of our talent management and succession planning framework is the Nurturing Young Leaders Programme (NYLP), which accelerates the readiness of employees for leadership roles. This three-year programme equips potential leaders with essential skills through a structured framework encompassing leadership training, mentoring, and high-impact assignments.

In addition to targeted training modules that develop critical leadership capabilities—such as influencing others, adopting a leadership mindset, and delivering impactful presentations—participants gain access to curated learning programmes on the myLearningX platform, fostering self-driven digital learning.

Currently, 71 identified potential leaders are participating in the NYLP. In 2024, six (6) leadership programmes were successfully conducted under this initiative, including:

- Coaching for Action**
- Effective Thought Structuring**
- CX Academy**
- Leadership Masterclass**
  - Influencing Others
  - Behaving as a Business Owner
- PL Mentoring**
- Self-Driven digital learning through curated myLearningX NYLP playlist**

### Developing Talent Capabilities

We are committed to equipping our talent with the skills and competencies necessary to achieve excellence. The Technical Specialist Qualified Leaders (TPQL) programme plays a vital role in developing competent employees with leadership qualities to operate plants safely and efficiently, ultimately enhancing productivity. In 2024, the programme delivered improved results, with 89% of participants achieving TPQL qualification, compared to 88% in the previous year.

A comprehensive development plan has been established to nurture identified talents to become effective business builders in supporting PGB growth agenda. The focus is on equipping them with the commercial, strategic, and business development skills needed to become competent techno-commercial leaders, capable of driving both technical and commercial success. These skills are acquired through a blended learning approach which include masterclass and assignments. In addition to internal initiatives, we contribute to the broader industry through internship opportunities and employability programmes. In 2024, 73 students participated in our internship programme, while 103 graduates benefitted from placements under the Graduate Employability Enhancement Scheme (GEES), gaining valuable industry exposure and improving their career prospects.

### Engaging Employees to Foster a Collective Vision

We prioritise impactful employee engagement by offering a variety of channels for open communication and feedback, enabling employees to address workplace challenges and connect with their teams and leaders. These include annual townhalls, monthly newsletters, and continuous updates on company strategies and plans via our intranet, as well as interactions facilitated through employee unions.

In 2024, we conducted 51 activities and programmes to foster an engaged workforce and facilitate direct engagement with leaders, ensuring transparent and open communication across all levels. Additionally, we issued 11 communications through G&P HRM Bytes and provided regular updates via the HRM Intranet, keeping employees well-informed and connected.

To support employee development, all talent with more than six (6) months of tenure receive annual performance reviews, offering insights into their contributions, areas for improvement, and opportunities for growth. Regular performance conversations are also conducted to ensure alignment with individual and team targets while identifying areas where additional development and support are needed.

For the third consecutive year, we have maintained favourable scores in the PETRONAS Organisational Culture Survey. Our score of 84 in 2024 reflects a engaged workforce aligned with the company's vision and direction. Moving forward, we will continue to address gaps and enhance engagement initiatives to further strengthen employee satisfaction and organisational culture.



# POSITIVE SOCIAL IMPACT

## Talent Management

### Providing Upskilling Opportunities

Beyond professional development, we are committed to offering our employees opportunities to expand their knowledge in non-work-related areas, recognising that this contributes to greater satisfaction and loyalty. In 2024, our employees participated in the following initiatives:



- A Career in Code: Your Career Path as a Software Developer
- A closer look at the elements of social innovation
- A Design Thinking Approach to Putting the Customer First
- A Great Place to Work for All (getAbstract Summary)
- A Hands-On Introduction to Hugging Face for Developers
- A Manager's Guide to Inclusive Teams
- A Marketer's Guide to Cross-Departmental Collaboration
- A Modern Guide to Strategy Implementation
- A Navy SEAL's Surprising Key to Building Unstoppable Teams: Caring
- A New Way to Think: Your Guide to Management Effectiveness (Book Bite)
- A Practical Guide to Upskilling Your Organisation on AI
- A Strengths-Based Approach to Managing Your Team
- Advanced SQL for Query Tuning and Performance Optimisation
- Articulating Your Value
- Artificial Intelligence and Business Strategy
- AutoCAD Facilities Management: Occupancy
- AutoCAD LT Essential Training
- Azure Fundamentals: Management und Governance (AZ-900 Teil 3)
- Azure Key Vault for Developers
- Azure Machine Learning Development: Part 2
- Business Innovation Foundations
- Business Leadership, Social Change, and Movements
- Business Lessons from a Chess Champion
- Business Process Improvement
- Business Storytelling for Finance
- Business Writing Principles
- Career Clinic: Developer Insights
- Career Essentials in Generative AI by Microsoft and LinkedIn
- Career Strategies for Women Re-Entering the Workforce after 2020
- Career Wellness Nano Tips with Shadé Zahrai
- Careers in Supply Chain and Operations
- Certified Information Privacy Manager (CIPM) Cert Prep: 1 Privacy Programme Development

### CONFERENCES

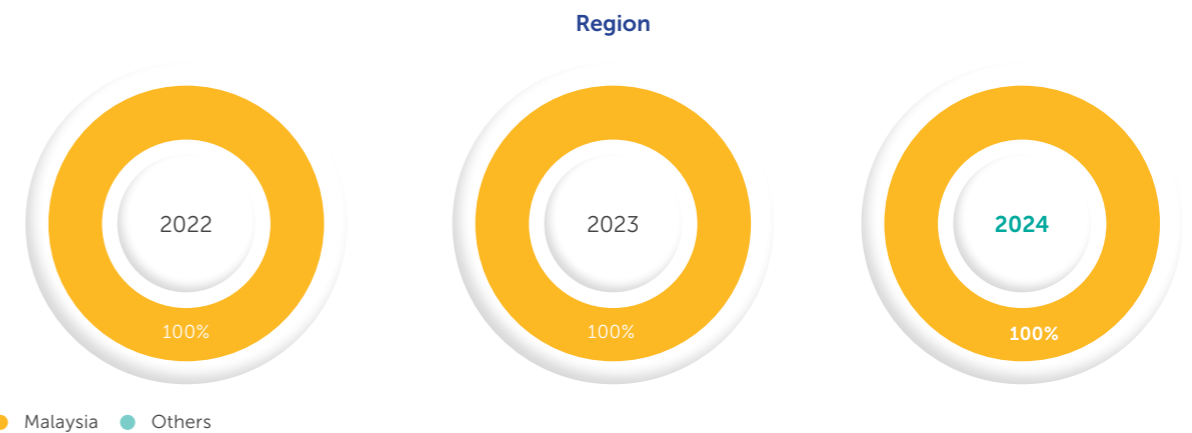
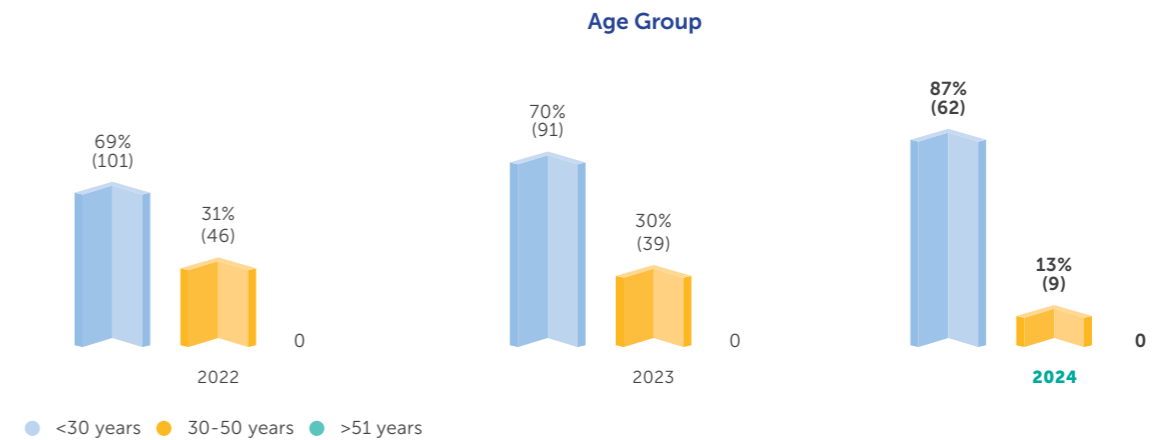
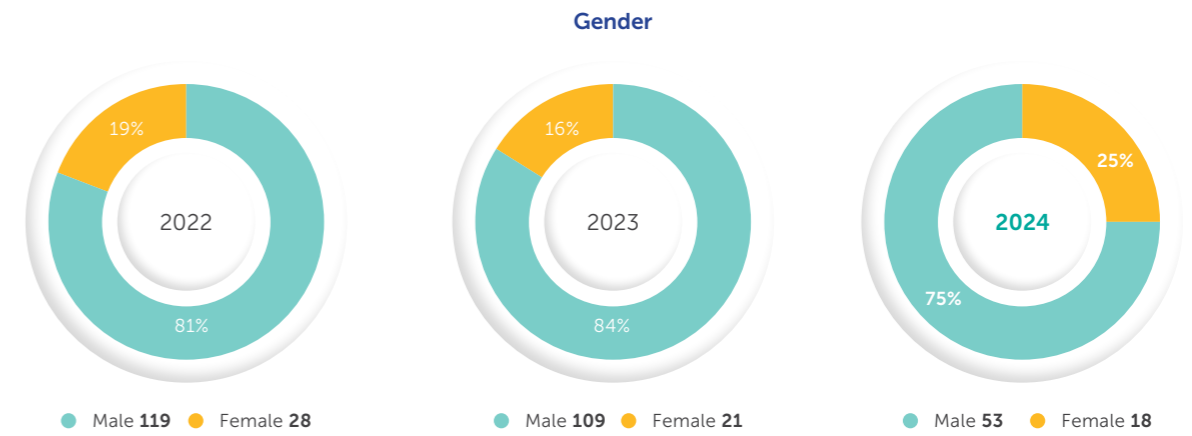
- Seminar: Simposium Pengurusan Air Dan Marin Ke Arah Kelestarian Alam Sekitar
- Seminar Pengurusan Buangan Terjadual Ke Arah Kelestarian Alam Sekitar and Hands-On Eswis
- Seminar Pematuhan Kepada Akta Kualiti Alam Sekeliling 1974 (Efluen Perindustrian 2009)
- Seminar Pematuhan Akta Kualiti Alam Sekeliling 1974, Halatuju Dan Pemakluman Pindaan Akas 2024 Anjuran Jabatan Alam Sekitar Negeri Sembilan
- Seminar Kesihatan Pekerjaan (Kesuma Madani)
- Seminar Dan Majlis Pelancaran Garis Panduan Pentaksiran Dan Pengurusan Risiko Psikososial Pekerjaan Di Tempat Kerja 2024
- The 24th Conference And Exhibition On Occupational Safety And Health (COSH 2024) and 6th Scientific Conference on Occupational Safety and Health (SCICOSH 2024)
- National Human Capital Conference and Exhibition 2024
- Cybersecurity, IT Assurance And Governance Conference 2024
- Conference Symposium Paper Writing
- Conference Of Occupational Safety And Health and Scientific Conference Of Occupational Safety and Health
- Capability Vision Conference 2024 (CAPTIV8)
- 23<sup>rd</sup> Conference And Exhibition On Occupational Health and Safety

# POSITIVE SOCIAL IMPACT

## Talent Management

### OUR PERFORMANCE

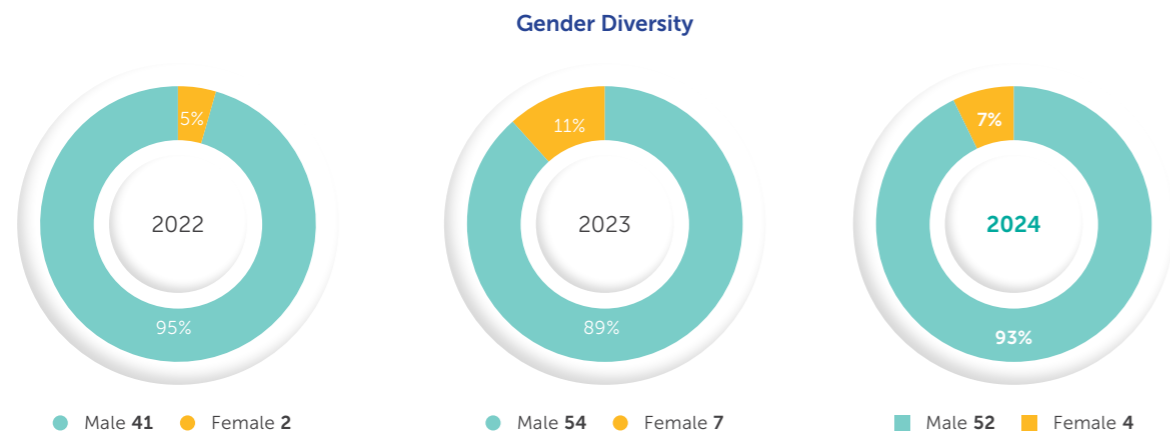
#### TOTAL AND RATE OF NEW EMPLOYEE HIRES (NEW RECRUITS INCLUDING EXPERIENCED HIRES)



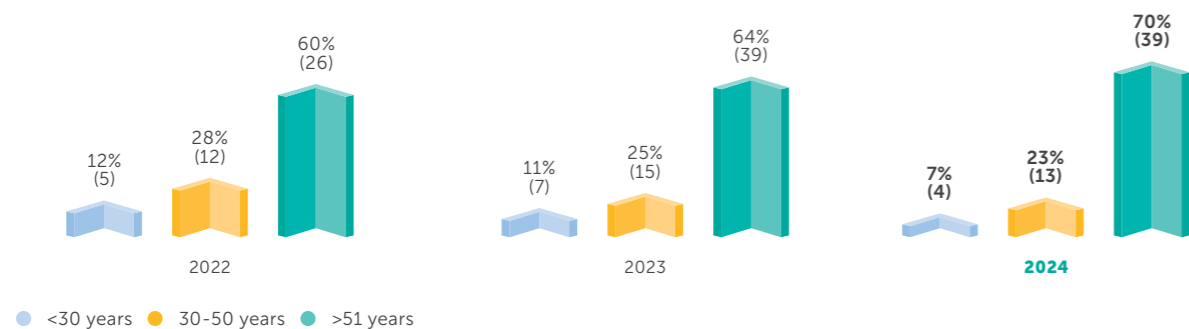
## POSITIVE SOCIAL IMPACT Talent Management

## POSITIVE SOCIAL IMPACT Talent Management

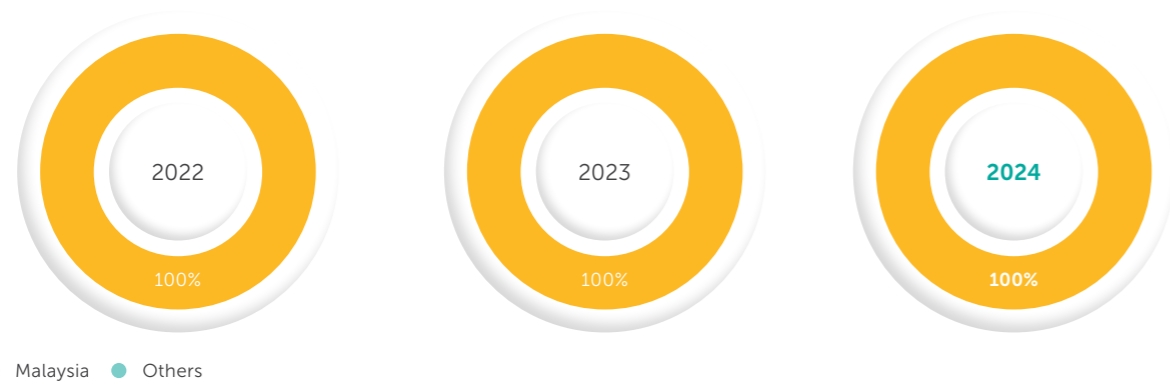
### TOTAL AND RATE OF EMPLOYEE TURNOVER (OVERALL ATTRITION)



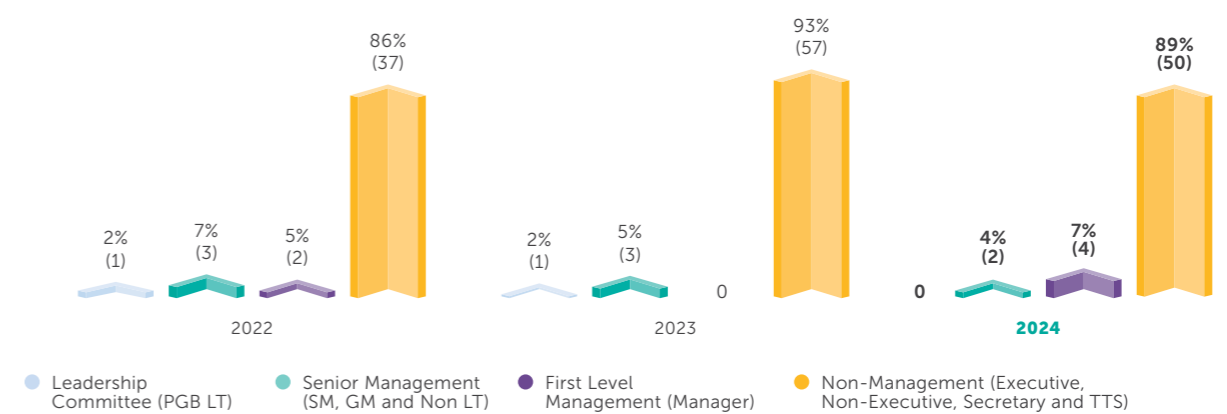
### Age Group



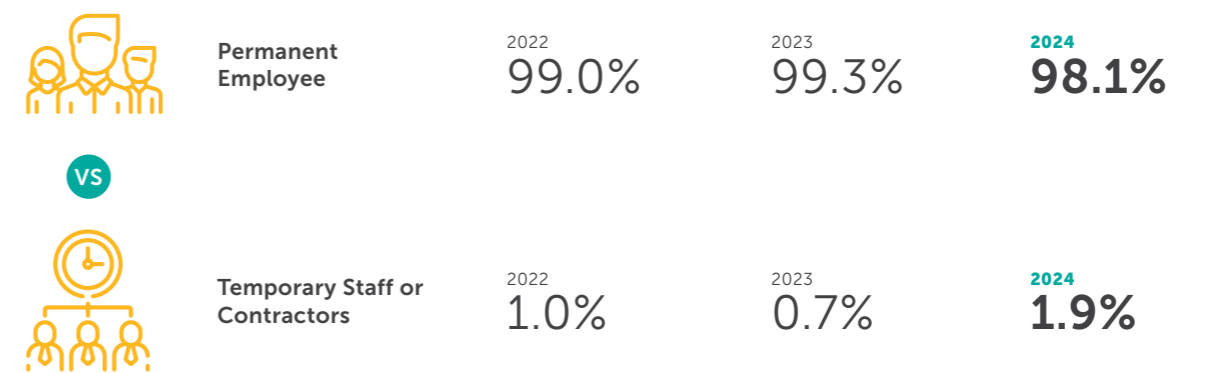
### Region



### EMPLOYEE TURNOVER BY CATEGORY



### PERMANENT EMPLOYEE VS TEMPORARY STAFF OR CONTRACTORS



### PARENTAL LEAVE

FY2024 Parental Leave Data	Men	Women	Total
Number of employees who took parental leave	139	19	158
Number of employees who returned to work after parental leave ended	139	19	158
Number of employees who returned to work after parental leave ended and were still employees 12 months after their return to work	139	19	158
Rate of return of employees who had taken parental leave	100%	100%	100%
Retention rate of employees who had taken parental leave	100%	100%	100%



## POSITIVE SOCIAL IMPACT Talent Management

### Employee Benefits

The benefits we offer to our employees meet or exceed all minimum requirements mandated by Malaysian law. These include life insurance, healthcare, disability and invalidity coverage, parental leave, retirement provisions, and more, as outlined in our internal documents.

These documents, which include the Executive Handbook, Secretary Handbook, Technical Trade Specialist (TTS) Handbook, and Collective Agreement (CA), are aligned with PETRONAS' overarching human resource policies and guidelines but are not publicly available.

For employees under Contract of Service, benefits are determined based on the provisions set within respective employment contracts.

### Training and Education

We are committed to consistently investing in the training and upskilling of our workforce. The table below details the total training hours our employees completed in 2024, categorised by gender and employee group.

Overall Training	2022	2023	2024
Total Employees	1,763	1,821	<b>1,868<sup>1</sup></b>
Total Training Hours	115,380.48	190,678.00	<b>198,881.45</b>
Average Training Hours per Employee	65.45	104.71	<b>106.47</b>
Average Training Days per Employee	8.20	13.10	<b>13.30</b>
Types of Training	HSE, Technical Business Excellence, Leadership, Functional	HSE, Technical Business Excellence, Leadership, Functional	<b>HSE, Technical Business Excellence, Leadership, Functional</b>

Note:  
<sup>1</sup> Including one (1) staff from Group Legal, PETRONAS undertaking legal function

Training by Employee Category	2022		2023		2024	
	Total Training Hours	Average Training Hours Per Employee	Total Training Hours	Average Training Hours Per Employee	Total Training Hours	Average Training Hours Per Employee
Leadership Committee (PGB LT)	275.90	30.66	834.45	83.45	<b>571.02</b>	<b>57.10</b>
Senior Management (SM, GM and Non-LT)	2,065.69	36.89	3,161.55	54.51	<b>3,360.26</b>	<b>53.34</b>
First Level Management (Manager)	3,964.48	33.04	9,218.99	69.32	<b>11,835.28</b>	<b>74.91</b>
Non-Management (Executive, Non-Executive, Secretary and TTS)	109,074.41	69.12	177,463.01	109.48	<b>183,114.89</b>	<b>111.86</b>

## POSITIVE SOCIAL IMPACT Talent Management

### Participation in Skills Development Programmes

Our skills development programmes empower employees with the knowledge and leadership capabilities needed to excel in their roles and drive organisational success.



### Transition Assistance Programmes

We offer two (2) dedicated programmes designed to support departing employees in transitioning seamlessly into their next roles outside the Group. These programmes aim to align their skills and experience with suitable opportunities while providing assistance through job counseling, resume development, interview training and practice, seminars covering practical areas and office support.

### Performance and Career Development Reviews

Gender	Male	Female
Total Employees	1,631	237
Total employees who received performance and career development reviews	1,579	225
Percentage of employees who received performance and career development reviews	97% (by overall Male)	95% (by overall Female)

Employee Category	Total Employees	Total Employees Who Received Performance and Career Development Reviews
Leadership Committee (PGB LT)	10	10
Senior Management (SM and GM)	63	63
First Level Management (Manager)	158	156
Non-Management (Executive, Non-Executive, Secretary and TTS)	1,637	1,575

Note:  
Some employees are not eligible for performance reviews as they did not meet the Year End Performance Review criteria

## POSITIVE SOCIAL IMPACT

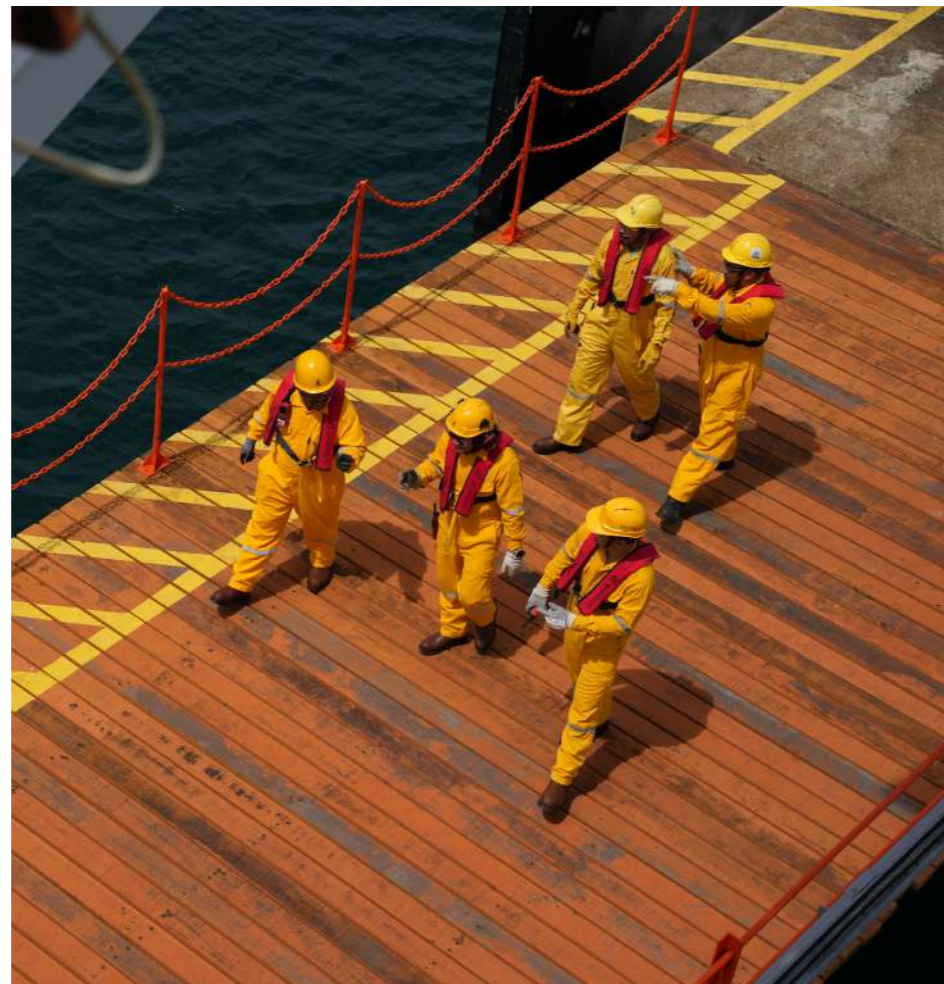
## POSITIVE SOCIAL IMPACT Occupational Safety and Health

# OCCUPATIONAL SAFETY AND HEALTH

### WHY IT MATTERS

A strong occupational safety and health system is key to sustaining operational excellence and staying competitive in a dynamic business environment. By integrating occupational safety and health (OSH) into every aspect of our operations, we reinforce our commitment to provide safe and healthy workforce.

This sharp focus on OSH management, emergency preparedness, and hazard effect management process highlight our dedication to global sustainability goals and builds trust with investors, partners, and stakeholders.



### OUR APPROACH

#### A Comprehensive Policy and System to Drive OSH Excellence

Our occupational safety and health practices are steered by our HSE Policy, which adheres to all legal requirements, including the Occupational Safety and Health Act 1994 along with Occupational Safety and Health (Amendment) Act 2022. The policy underscores our steadfast commitment to OSH excellence and empowers top management to provide clear guidance on all OSH matters.

Applicable to all employees and contractors within our premises, the policy is implemented through our HSE Management System (HSEMS), which aligns with international standards such as ISO 45001:2018 for occupational safety and health.

Oversight of the policy and its processes lies with our Board and Leadership Team (LT), who ensure its integration across all operations. By collaborating closely with employees and contractors, they foster commitment of collective responsibilities while driving progress towards established targets and KPIs.

Leveraging our HSEMS, we place emphasis on key focus areas that support safer and healthier workplaces:

- ▶ **Leadership Commitment**  
Demonstrating an unwavering commitment to OSH excellence in every aspect of our activities.
- ▶ **Hazards Effect Management Process**  
Proactively identifying and mitigating workplace hazards, guided by the 'as low as reasonably practicable' (ALARP) principle to minimise risks.
- ▶ **Resources - Communication**  
Engaging employees and stakeholders through active consultation on OSH matters, fostering a shared culture of safety and accountability.
- ▶ **Competence**  
Equipping our workforce with the necessary knowledge and skills to uphold safety standards and advocate for continuous improvements.
- ▶ **Continual Improvement**  
Driving ongoing enhancement of our OSH management system, in alignment with evolving international standards and internal performance metrics.

#### Upholding Performance Through Clear Targets and Monitoring

Our HSE Policy is designed to empower us to achieve zero fatalities, zero major fires, zero major Loss of Primary Containmentment (LOPC) incidents, and zero major security incidents. Our initiatives have supported a decreasing trend over the past five (5) years, with successful achievement of these zero targets in 2024. However, we recorded 3 Lost Time Injury (LTI) cases during the year.

Our commitment continues to be reinforced by our Annual OSH Scorecard KPIs, which are set with clearly defined limits and targets informed by historical data and continuously enhanced each year. We rigorously track both leading and lagging indicators to monitor performance, ensuring we maintain accountability and provide stakeholders with a transparent overview of our annual OSH achievements

With continuous improvement efforts, we continue to drive a reduction in total unsafe act and unsafe condition observations.

Lagging Indicator	Limit	2022	2023	2024	Industrial Standard
Fatalities	0	1	0	0	American Petroleum Institute (API)
LTI	1	1	1	3 <sup>1</sup>	
Lost Time Injury Frequency (LTIF)	0.13	0.08	0.08	0.27 <sup>2</sup>	U.S. Petroleum Industry Workforce Benchmark
Major Fire	0	0	0	0	API Recommended Practice 754
Major LOPC	0	1	1	0	
HSE Non-Monetary Sanctions	0	1	1	0	ISO 45001:2018 OHSMS

Notes:

<sup>1</sup> We recorded three (3) LTI from two (2) separate incidents. Two (2) LTIs resulted from a steam condensate splash incident, while the third occurred due to an injury caused by a tripping incident.

<sup>2</sup> LTIF value of 0.27 calculated based on 1 million multiplications as per Department of Occupational Safety and Health's (DOSH) standard. Whereas calculation as per BURSA Sustainability reporting standard which is multiplied by 200,000 would result in 0.05.

Leading Indicator	Limit or Target	2022	2023	2024
Unsafe Act, Unsafe Condition (UAUC) Submissions Total Numbers		37,773	31,554	19,859 <sup>4</sup>
First Line Assurance Implementation – Schedule Compliance (%)	85	95	97	99.9
HSE Mandatory Training (%)	100	99	99.99	100 <sup>4</sup>
Top Management HSE Walkabout Per Leader Per Quarter	1	2	2	1 <sup>2</sup>
Culture Maturity Survey Score	4.5	4.15	4.16	4.16 <sup>3</sup>

Notes:

<sup>1</sup> HSE mandatory training strategy has been revised to ensure earlier planning towards achieving 100% completion.

<sup>2</sup> Each top leader performed four (4) management walkabouts in 2024, as per target, to underscore our dedication to fostering a culture where OSH remains a top priority.

<sup>3</sup> The most recent CMS survey was conducted in 2023 where PGB scored 4.16. The score remains valid till next survey planned in 2026.

<sup>4</sup> The decline in total endorsed unsafe acts and unsafe conditions over the years reflects our ongoing commitment to reduce unsafe conditions and reinforcing safe behaviours.



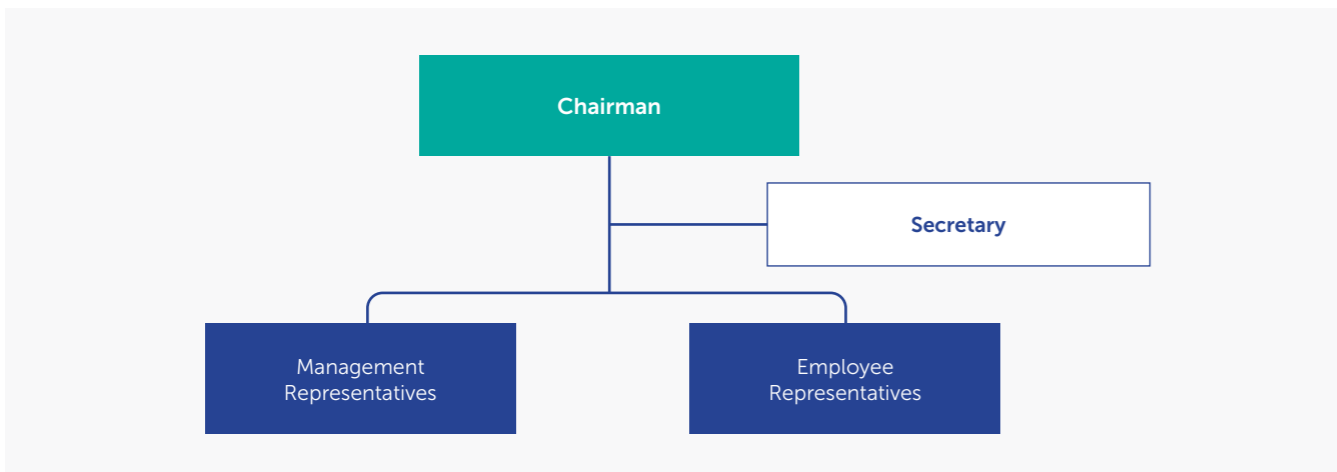
## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Structured and Collaborative OSH Management

Occupational safety and health at PGB is led by the HSE Leadership Team, which is chaired by our MD/CEO and reports directly to the Board. To ensure comprehensive oversight and an effective response to occupational safety and health risk, OSH Committees have been established at every asset level within the Group. These committees are tasked with:

	Evaluating the implementation and effectiveness of OSH MS programmes
	Enhancing employee awareness and fostering a culture of positive action towards safety and health excellence
	Identifying and implementing measures to prevent injuries, minimise property damage, reduce environmental pollution, and address occupational illnesses and diseases
	Ensuring full compliance with all relevant regulations
	Cultivating a Generative HSE Culture through workforce-wide campaigns and initiatives
	Guaranteeing 100% compliance of all mandatory and compulsory training, as well as compliance for Critical Positions

Our HSE Leadership Team holds quarterly meetings with OSH Committees to address critical occupational safety and health issues specific to each asset level. To foster a collaborative and inclusive environment, these committees maintain balanced representation from both management and employees complying to OSH Committee Regulations 1996. All employees have the opportunity to participate in committee meetings at their respective asset levels, and we work to ensure employees from all job scopes, working spaces and genders are represented. This ensures open, two-way dialogue and a unified approach to tackling OSH challenges. Our OSH management structure is detailed in the diagram below:



## POSITIVE SOCIAL IMPACT Occupational Safety and Health

Division level OSH Committees are supported by OSH Committees at the asset level, which convene monthly to address site-specific OSH matters, programmes, performance and issues related to compliance. These committees, report relevant matters to the PGB HSSE Leadership Team for further action. Key concerns raised at both division and asset-level committees are subsequently escalated to the PGB HSSE Leadership Team and ultimately presented to the Board.

Examples of topics commonly discussed in OSH Committee meetings include:

Occupational safety and health Incidents	ZeTo rules violations
Maintenance plans in supporting HSSE elements	HSE Training Plans for PGB
Emergency Response Preparedness	Air Quality in PGB assets
Permit-to-Work (PTW) Noncompliance Trends and execution of ePTW+ 2.0	Integrity of PGB's Facilities (such as corroded structures in process areas)
Unsafe Act and Unsafe Condition analysis	Fitness To Work Assessment
Tracking of leading indicators to allow proactive intervention	Internal and External Risk Management (Ex-RM) issues
Security interventions and intrusion	

OSH Committees are also instrumental in driving initiatives that enhance workplace safety, awareness, and engagement. Through activities such as walkabouts and targeted OSH awareness campaigns, the committees actively foster a Generative HSE Culture among employees and contractors.

Examples of initiatives spearheaded by OSH committees include:

Execution and implementation of ePTW+ 2.0	GPU Environment Day
Perform Management HSE Walkabout	Fitness challenge (Fat2Fit Challenge)
GTR HSE Pause sharing for incident lessons learnt	OSH Mission Zero Possible <i>Guane Gamok</i> across GPU
Elevating workplace well-being	Mental Health Day
HSE Committees engagement with site contractors	Implementation of "Whats Good Looks Like" (WGLL) checklist
PETRONAS Petroleum Integrated Complex (PPIC) Contractor profiling	

## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Ensuring Compliance and Upholding Global Certifications

To ensure full compliance with prevailing regulations and standards, we conduct regular audits of our practices and actively pursue relevant international Occupational Safety and Health (OSH) certifications for our assets. These efforts are guided by the PETRONAS Assurance Framework, a structured system based on three (3) lines of assurance and managed via the myAssurance online platform.

Our safety and health practices undergo annual reviews through PGB Management System Review (MSR) activities, with tracking of issues conducted at all levels and findings escalated to the PGB HSSE Leadership Team for analysis and action planning as and when required.

As a reflection of our adherence to internationally recognised OSH standards, all our assets and subsidiaries hold ISO 45001:2018 OHSMS certification and undergo annual surveillance or recertification audits to maintain this accreditation. This ensures our systems remain effective and compliant with evolving industry requirements.

Location	2022	2023	2024
PGB Headquarters Office	●	●	●
GP Santong	●	●	●
Tanjung Sulong Export Terminal (TSET)	●	●	●
GT <sup>1</sup> Gurun RO <sup>2</sup>	●	●	●
GT Sitiawan RO	●	●	●
GT Shah Alam RO	●	●	●
GT Seremban RO	●	●	●
GT Segamat RO	●	●	●
GT Pasir Gudang RO	●	●	●
GT Kuantan RO	●	●	●
GT Kertih RO	●	●	●
RGT <sup>3</sup> Sungai Udang	●	●	●
RGT Pengerang	●	●	●
GP <sup>4</sup> Kertih	●	●	●
UT <sup>5</sup> Kertih	●	●	●
UT Gebeng	●	●	●

● Surveillance Audit ● Recertification Audit

Notes:

- <sup>1</sup> Gas Transmission
- <sup>2</sup> Regional Office
- <sup>3</sup> Regas Terminal
- <sup>4</sup> Gas Processing
- <sup>5</sup> Utilities

Concurrently, our OSH standards are assessed and verified by independent parties, including SIRIM QAS International Sdn Bhd. These assessments ensure alignment with both local and international standards, such as the Occupational Safety and Health Act 1994 (OSHA 1994), the National Fire Protection Association (NFPA), and ISO 45001:2018 OHSMS.

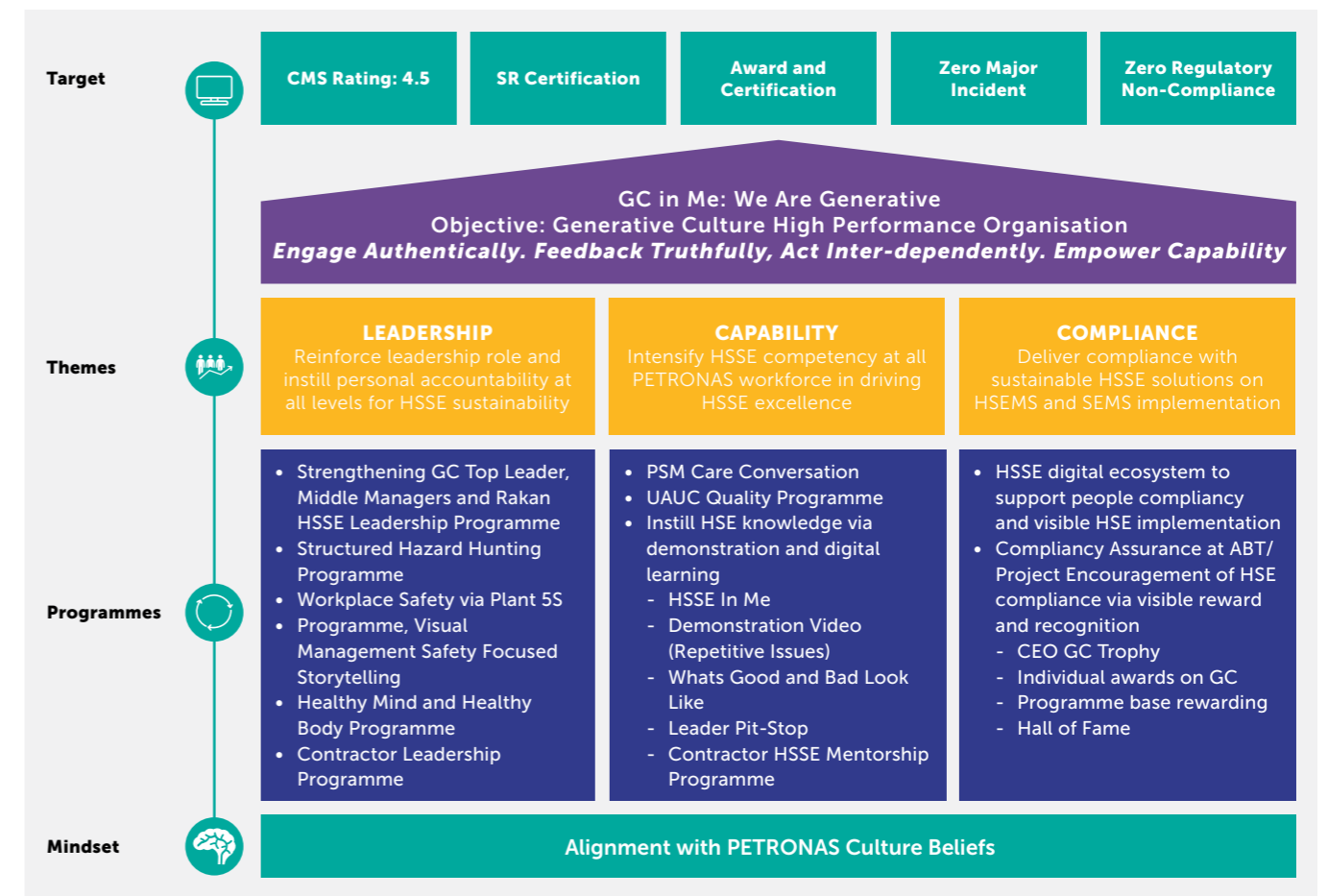
## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Fostering a Generative HSE Culture

With our operations encompassing a diverse mix of employees and workplaces across various geographical locations, we are committed to embedding OSH awareness and best practices into the mindset of every team member. Ensuring a collective responsibility is at the core of our efforts to inculcate a Generative HSE Culture—a strategic thrust that aligns with our Strategic Agenda and sets the foundation for our pursuit of operational excellence.

A Generative HSE Culture is defined by a shared commitment among all employees and contractors to take ownership of OSH matters, going beyond compliance to prioritise safety and health as part of daily decision-making and actions. It requires every individual, not just assigned leaders, to be proactive champions of OSH principles and practices, consistently prioritising safety and care across all operational contexts.

We have implemented a well-defined blueprint outlining our targets and culture goals. Built around three (3) key themes—leadership growth, capability development, and compliance—the blueprint serves as the backbone for our wide-ranging programmes aimed at embedding OSH values deeper into our organisational DNA.



In recent years, PGB has steadily improved its Culture Management Survey (CMS) score, rising from 3.91 in 2018 to 4.16 in 2023. This progress reflects the effectiveness of our existing programmes and reinforces the leadership mandate to sustain and enhance ongoing initiatives. By maintaining this momentum and continuously improving operational safety, we aim to further strengthen our Generative HSE Culture and achieve our CMS target of 4.5.

Note:  
2023 CMS results remain valid till next survey in 2026



## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Managing and Minimising Work-Related Hazards and Safety Risks

We employ a rigorous, systematic approach to managing work-related hazards and safety risks, ensuring compliance with regulatory requirements and industry standards. Recognising that our people, assets, and the environment are exposed to various hazards—including physical, chemical, biological, and psychological risks—we utilise a range of risk assessment tools to accurately identify, assess, control, and mitigate these hazards. This includes assessments tailored to specific operational risks, such as chemical and health hazards, which are conducted in accordance with relevant regulations.

Our Health Risk Assessments (HRA) place a heightened focus on identifying and addressing occupational health hazards, with insights gained from these assessments informing the development of targeted control measures to mitigate identified risks. To reinforce the effectiveness of our risk assessment processes, we provide comprehensive training to ensure our workforce is well-equipped and competent in performing these assessments. In further prioritising safety, we have adopted a stop-work commitment that empowers employees to step away from any situation posing immediate danger, ensuring their right to a safe and secure working environment without fear of reprisal.

The full range of risk assessments tools we deploy to mitigate work-related hazards include:

- Hazard Identification (HAZID)
- Process Hazard Analysis (PHA)
- Health Risk Assessment (HRA)
- Project Risk Assessment (PRA)
- Job Hazard Analysis (JHA)
- Chemical Health Risk Assessment (CHRA)
- Noise Risk Assessment (NRA)
- Simultaneous Operations (SIMOPs) Assessment
- Turnaround Risk Assessment (TARA)
- Quantitative Risk Assessment (QRA)

Further to this, we leverage the Control of Industrial Major Accident Hazards (CIMA) Report to assess the types, likelihood, and consequences of potential major accidents at our plants. The report offers clear recommendations for safe operations, outlines controls for mitigating serious deviations that could lead to accidents, and provides detailed emergency response procedures.

To comply with the CIMA Regulations 1996, we maintain on-site and off-site emergency plans that can be swiftly implemented in the event of a major accident. Furthermore, we adhere to the regulation's requirements for public notification regarding potential hazards from industrial activities involving hazardous substances above prescribed thresholds.



Gas Processing and Utilities - GP

## POSITIVE SOCIAL IMPACT Occupational Safety and Health

Additionally, we adopt the PETRONAS Technical Standards (PTS) for HSE Due Diligence framework for all potential merger and acquisition projects and new operations. This robust and comprehensive process evaluates risks and opportunities across the following critical areas, with a strong emphasis on OSH considerations:

- OSH management systems
- Environmental and Natural Resources Management
- Social Performance
- Product Stewardship and Toxicology
- Climate Change
- Operational Safety
- Process Safety Management
- Industrial Hygiene
- Occupational Health
- Crisis Management

### Ensuring Process Safety Excellence

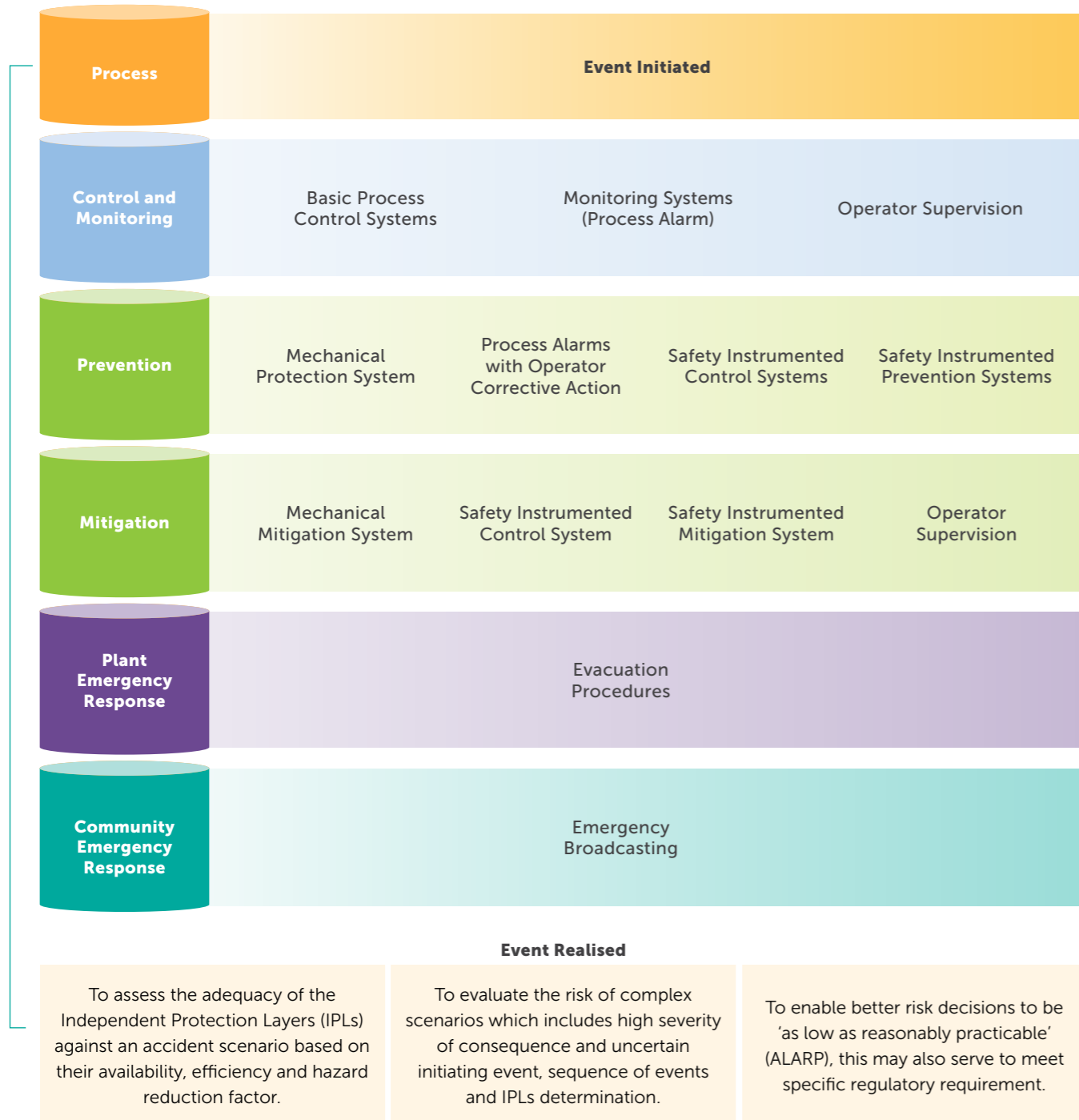
Beyond fostering a safe working environment, the nature of our operations in gas processing, regasification, transmission and utilities demands a comprehensive approach to process safety. Our efforts focus on preventing major incidents involving the release of hazardous materials from our plants and equipment. To mitigate the risks of such incidents, we strictly adhere to Process Safety Principles throughout all stages of facility design, construction, operations, maintenance, and inspections.

Our progressive adoption of digital tools plays a pivotal role in strengthening process safety. The following digital initiatives have been implemented across our operations to enhance oversight, control, mitigation of process safety risks:

<b>Integrated Process Safety Solution (IPSS)</b>	Streamlines the Management of Change (MoC), Pre-activity Safety Review (PASR), and Hazard Identification and Risk Assessment (HIRA) processes.
<b>Process Safety Management (PSM) Dashboard</b>	Monitors performance in real-time using a Power BI dashboard.
<b>Electronic Permit to Work (ePTW+ 2.0)</b>	Enhanced version 2.0 also features the Safety Critical Protective Device (SCPD) bypass for enhanced safety compliance.
<b>Barrier Risk Centralised Solution (BRICS)</b>	Supports preventive and corrective maintenance of safety-critical equipment.
<b>Predictive Revitalisation to Maximise Instrumentation Efficiency (PRIME)</b>	PRIME PSI has been migrated from physical to cloud server to provide better server reliability, data accuracy, and automated alarm reporting.
<b>Temporary Repair Digital Management</b>	Utilises digital tools to effectively manage temporary repairs.
<b>Enhanced PETRONAS Engineering Data Management System (P-EDMS)</b>	Incorporates management of process safety information including document data management and engineering design and visualisation.
<b>Corrosion Analytics</b>	Deploys analytics to predict corrosion in plant piping and equipment.
<b>Integration of P-EDMS with PETRONAS Risk-Based Inspection</b>	Enhances plant risk visualisation for better decision-making.
<b>Remote Monitoring and Control</b>	Operates via the Unified Operation Centre (UOC), leveraging digital transformation to optimise operations and maintenance.

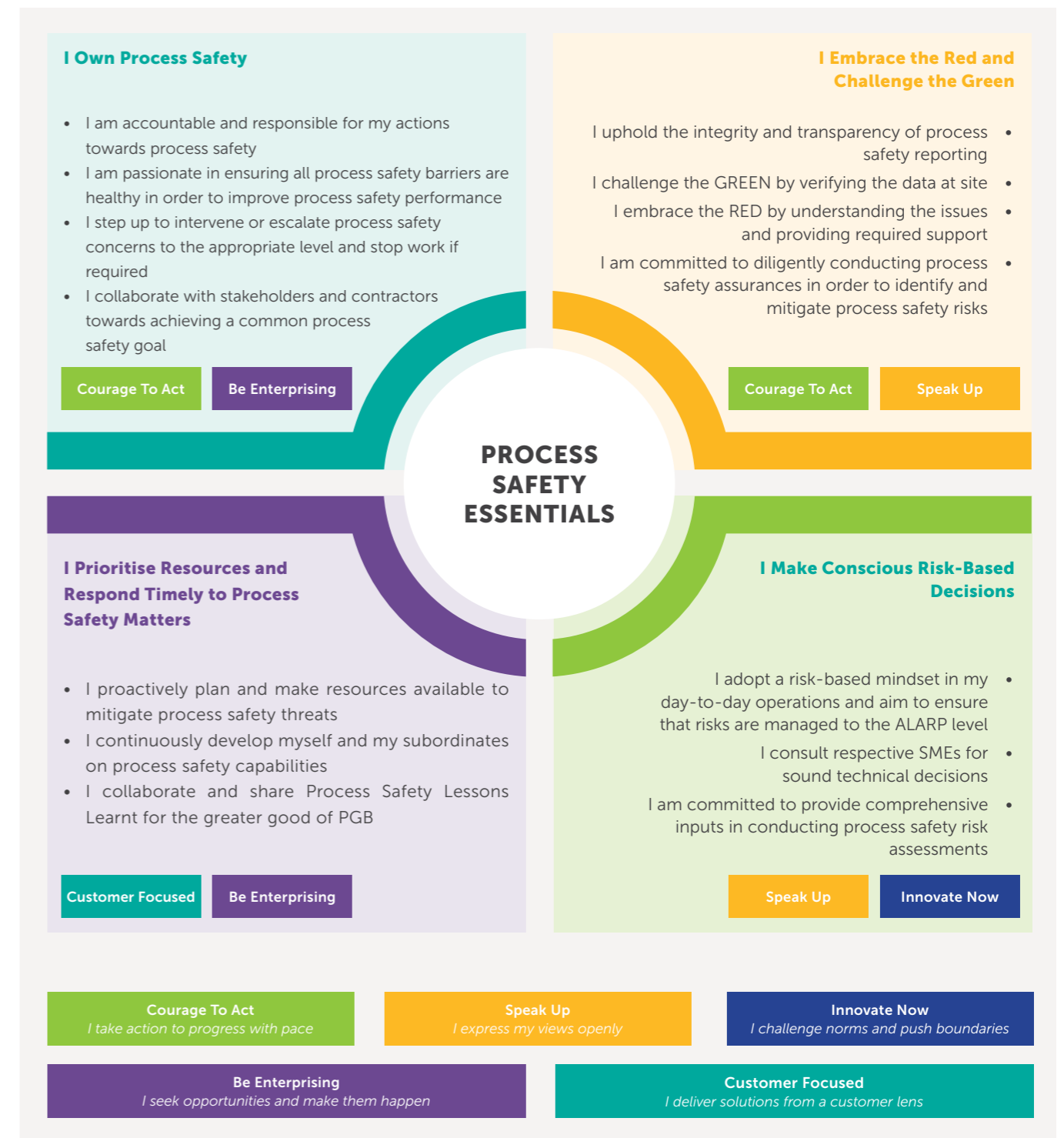
## POSITIVE SOCIAL IMPACT Occupational Safety and Health

To ensure continuous compliance with PETRONAS standards, our processes are subject to regular assessments at all levels of the organisation. Recognising the critical importance of process safety, we have also implemented the Layer of Protection Analysis (LOPA) framework, which defines five (5) layers of controls to systematically reduce risks.



## POSITIVE SOCIAL IMPACT Occupational Safety and Health

Further strengthening our process safety measures, employees receive regular communications on key safety practices through email and are required to adhere to our Process Safety Essentials—a prioritised set of guidelines designed to ensure safety remains top-of-mind during activities with potential process safety risks.





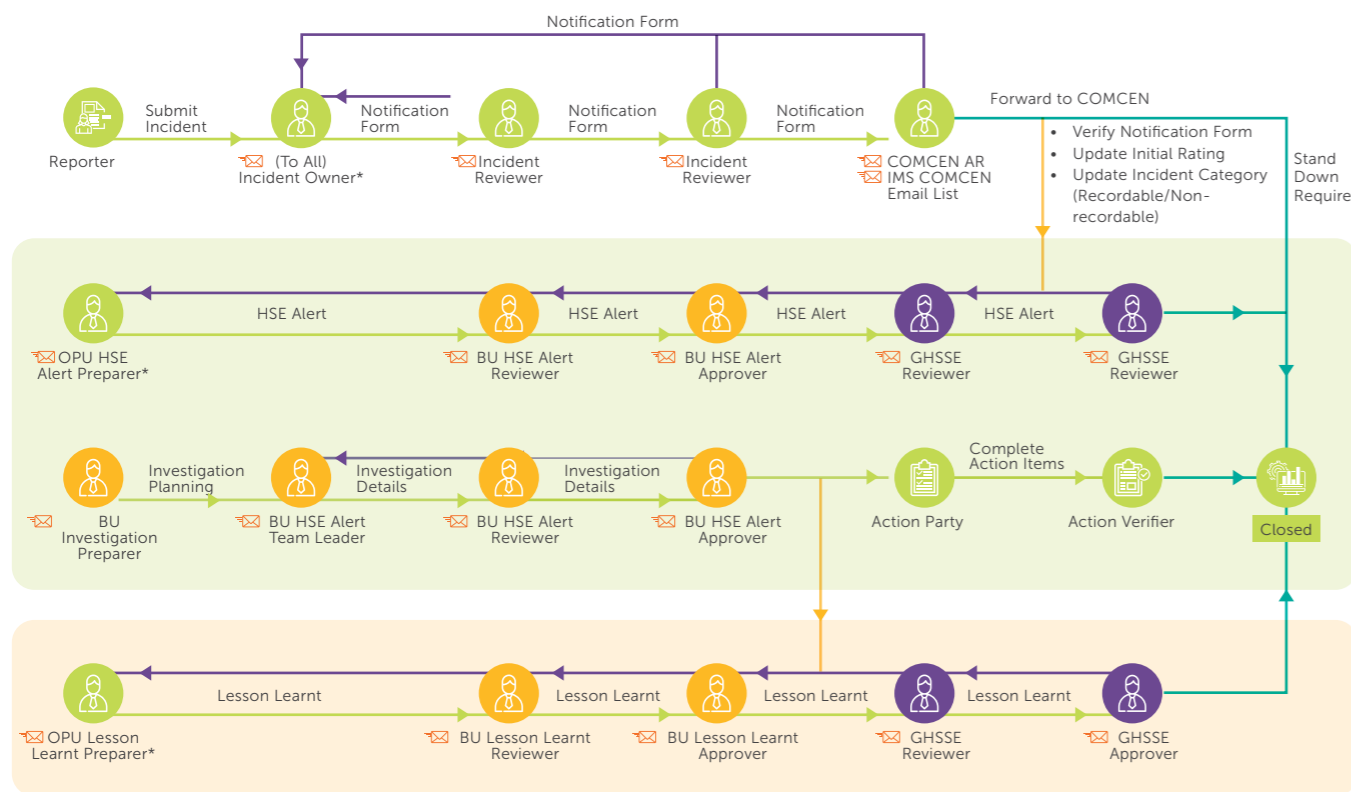
## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Comprehensive Investigation of Accidents and Incidents

We employ a structured and rigorous approach to investigating accidents and incidents, ensuring active participation from all relevant parties, including the employees involved, their line managers, and employee representatives. All health and safety-related incidents are reported and managed via our centralised HSE Incident Management (IM) system, which integrates seamlessly with our HSE Monitoring and Reporting System (MARS) for the automatic generation of monthly performance reports.

At the heart of our investigation process is the identification of root causes, wherein competent personnel utilise Root Cause Analysis (RCA) tools to systematically uncover systemic failures. Our approach actively involves a range of internal stakeholders and subject matter experts, ensuring that investigations lead to informed decisions and the implementation of effective corrective actions.

The comprehensive nature of our investigation approach, shown below, ensures accountability, promotes learning, and strengthens our overall OSH framework to prevent future incidents.



### Supporting Emergency Preparedness and Response

To ensure swift and effective responses to emergencies or crises, we adhere to the PETRONAS Resiliency Model (PRM), which provides a comprehensive framework spanning three (3) key areas: enterprise risk management, crisis management, and business continuity management.

Our emergency preparedness efforts are underpinned by regular drills and exercises as guided by the PRM's Pre-Incident Action Plan (PIAP). In 2024, we conducted 319 Tier 1 small-scale drills and 5 Tier 2 drills with the support of external response agencies. Our Tier-1 drill planning incorporated findings from inspection activities, with identified current process safety and asset integrity risks included in scenario planning for emergency response exercises. Additionally, we participated in a full-scale exercise held by PETRONAS Downstream, involving other PETRONAS operating units and local authorities. These drills and exercises continue to reinforce our readiness to manage and mitigate emergency situations effectively.

## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Full-Scale Emergency Response Exercises

PGB remains committed to effective emergency and crisis management, ensuring preparedness across all operations. In 2024, we conducted two (2) full-scale emergency response exercises at GPK and UK, namely "Ex-Gasing II" and "Ex-Kembara II", to enhance coordination between internal and external responders. At GPK, the exercise simulated a pool fire at a condensate tank within the process area. In addition to internal responders, Jabatan Bomba dan Penyelamat Malaysia (JBPM) participated, providing an opportunity for external responders to familiarise themselves with the plant's layout and emergency response equipment.

At UK, the scenario simulated a toxic gas release from a neighbouring plant, resulting in injuries within the process area. This joint exercise involved multiple KIPC OPU, including PCOGD-UK, PCASB, and IPASB, alongside key authorities such as the District Officer of Kemaman, JBPM, the Department of Environment (DOE), and the Ministry of Health Malaysia (KKM). The successful drill validated a unified response framework between KIPC OPU and relevant agencies. Embracing digital transformation, PGB leveraged various digital tools to improve emergency response efficiency. The Crisis Management Information System (CMIS), drone surveillance, CCTV monitoring, digital unauthorized drone intervention, and 3D plant modeling all contributed to real-time data accessibility, enabling informed decision-making and a more efficient crisis response.

Both exercises were executed without any Health, Safety, Security, and Environment (HSSE) incidents, with all predefined objectives successfully met. GPU received positive feedback from both internal and external stakeholders, reinforcing our commitment to emergency preparedness and response excellence.

These simulations provided valuable insights into emergency coordination, ensuring all stakeholders—internal teams and external agencies—are well-prepared for potential incidents. They also reinforced the importance of strict safety protocols, continuous engagement with authorities, and transparent communication with the public, underscoring our commitment to corporate responsibility and community safety.



### Tier 2 Emergency Response Exercise

In our commitment to sustainability and safety, we conducted a critical emergency response exercise that escalated to Tier 2 level. This exercise simulated a hydrocarbon gas leak scenario at the Pengerang Gas Lateral Pipeline, near Kg. Sungai Latoh, Kong Kong. The scenario posed a significant threat to public safety, necessitating immediate coordination with Emergency Management Teams (EMT) and collaboration with local authorities and the surrounding community. The situation involved the isolation of the 36-inch Pengerang Gas Pipeline, which resulted in a disruption to our PGU supply networks, cutting off the Regas Terminal Pengerang supply. This raised serious concerns about a potential business risk, as the interruption in the gas supply could lead to a major incident. The cause of the simulated emergency was traced to a third-party contractor who inadvertently performed illegal excavation work directly above the 36-inch gas pipeline. This reckless action heightened the potential dangers and the need for swift, coordinated response efforts.

In addition to addressing the technical and safety challenges, we also simulated a public security situation. The scenario involved a public provocation at our regional office, where individuals—some of whom were family members of those injured in the gas leak—demanded answers. This added a layer of complexity to the crisis management efforts, requiring sensitive handling of both safety concerns and public relations. Through this exercise, our teams gained valuable insights into the coordination required for an effective response, ensuring that both internal and external stakeholders are prepared for emergency situations. It also underscored the importance of maintaining strict safety protocols and ongoing communication with the public and authorities, all in line with our commitment to corporate responsibility and community safety.

## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Engaging Employees for a Safer Workplace

Our employees are at the forefront of our operations and play a critical role in improving safety and health processes. We actively encourage their participation at all levels of our OSH Management System, from policymaking and strategy development to on-the-ground execution.

In addition to their representation on OSH committees, employees have the opportunity to engage with our MD/CEO during quarterly updates on safety and health performance. Other key health and safety engagement activities held in 2024 included:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 Townhall Sessions</li> <li>2 GTR CARE Conversation 2024</li> <li>3 Permit to Work Approving Authority (AA) and Receiving Authority (RA) Engagement</li> <li>4 UAUC Campaign</li> </ul> | <ul style="list-style-type: none"> <li>5 Health Campaign: Blood Donation Drive</li> <li>6 Mental Health Campaign: I-CARE Resilience and Mind-A-Care Ambassador promotion Occupational Safety Campaign: Scaffolding Awareness Program</li> <li>7 Refreshed Zero Tolerance (ZeTo) Rules Promotion</li> </ul> |
|---|--|

To further empower employees as champions of safety and health, we leverage our Unsafe Act and Unsafe Condition (UAUC) platform, which enables employees to report potential safety risks without fear of reprisal. This fully digital platform allows submissions via web and mobile applications. To incentivise high-quality submissions and promote a proactive safety culture, the "Good Catch" reward programme recognises the best reports.



### Enhancing Workplace Safety through Education and Accountability

To equip our employees with the skills to identify and mitigate hazards, and to ensure they possess the necessary competencies to maintain safety at our worksites, PGB provides extensive OSH training.

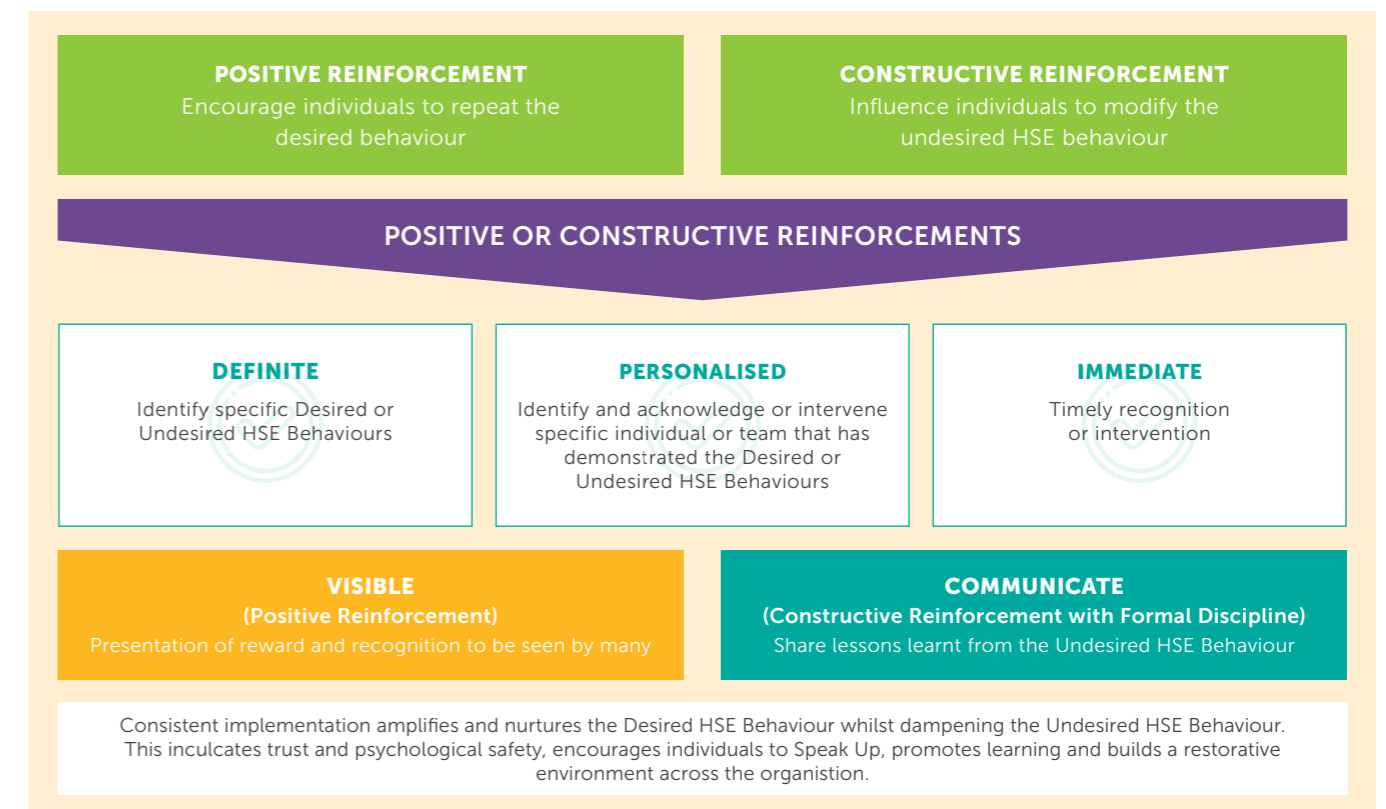
In 2024, PGB conducted 176 safety and health technical training sessions at operating units. A total of 1,475 employees attended HSE-related training under the OSH Training Matrix plan, which adheres to the PTS - HSE Competence Assurance.

## POSITIVE SOCIAL IMPACT Occupational Safety and Health

The comprehensive list of training programmes conducted during the year, along with the total attendance for each programme, is outlined below:

Programmes	Total Attendance in OSH Trainings
HSE Management System	162
Emergency and Crisis Management	356
On Scene Commander	39
Advanced Industrial Fire Fighting	91
Hazardous Waste	770
Safe Handling of Chemicals (SHOC)	925
Noise and Hearing Conservation Awareness	894
Certified First Aider and AED Training	55
Energy Isolation	840
Permit-to-Work (PTW)	919
Working at Height	722

To encourage and reward safe behaviours in the workplace, we have implemented the HSE Accountability and Behaviour Reinforcement (HSE ABR) programme. This initiative recognises employees, directors, and third parties who actively promote workplace safety while providing constructive reinforcement for behaviours that increase hazards or risks. Verified unsafe behaviours identified through incident investigations may result in disciplinary action to ensure accountability and continuous improvement in workplace safety standards. Four (4) personnel were subjected to constructive reinforcement as a result of 2 major incidents.





## POSITIVE SOCIAL IMPACT Occupational Safety and Health

### Prioritising Holistic Employee Wellness

We place a high value on the overall health and wellness of our employees, with our initiatives extending beyond occupational health concerns to promote holistic well-being. Key initiatives include:

- 

**Preventive Health Screenings**

  - Annual preventive health screenings are available for all employees aged 30 above. Additionally, employees receive insurance coverage on dental and optometry services.
- 

**Incentives for Participation in Health Programmes**

  - Our Team-Based Reward (TBR) system incentivises employees to participate in external health programmes, encouraging healthy lifestyles.
- 

**Promoting Active Lifestyles**

  - Fat to Fit Programme:** An initiative focused on promoting weight loss and overall fitness with assigned coaches.
  - GTR Fun Run:** A friendly 5 km race with the involvement of staff and contractors.
  - Green Walk:** Morning walks through nature within our office compound.
  - Sponsoring Employees to Participate in Runs:** In 2024, we sponsored the participation of 70 staff members in the Orchid Run and 7 staff members in the Bursa Bull Charge.
- 

**Supporting Mental Health**


  - Awareness:** Annual Mental Health Days highlight critical topics related to mental well-being.
  - Skill-Building:** The Mind-A-Care Ambassador programme equips employees with the tools to provide support to colleagues experiencing distress or mental health challenges.
  - Flexible Working Options:** Employees are entitled to four (4) Work-From-Home (WFH) days per month, allowing them to manage work-life balance and reduce commuting stress.
  - Professional Support:** Employees have access to professional counselling and support through the Employee Assistance Programme.


In 2024, we allocated RM1.59 million to support activities under the Integrated Health and Occupational Health (IHOH) programme at GPU and GTR, reflecting our steadfast commitment to investing in our employees' well-being.


## POSITIVE SOCIAL IMPACT Occupational Safety and Health


### Safeguarding Health and Safety Standards Across Our Supply Chain


We aim to ensure that our occupational safety and health standards are mirrored in the practices of our contractors. To achieve this, we have implemented the following processes:

- 

**Comprehensive Screening**  
All contractors must undergo a detailed pre-requisite screening before being permitted to enter our premises for work.
- 

**Risk Assessment**  
Appointed contractors are required to conduct a thorough assessment of their OSH risks using our hazard register.
- 

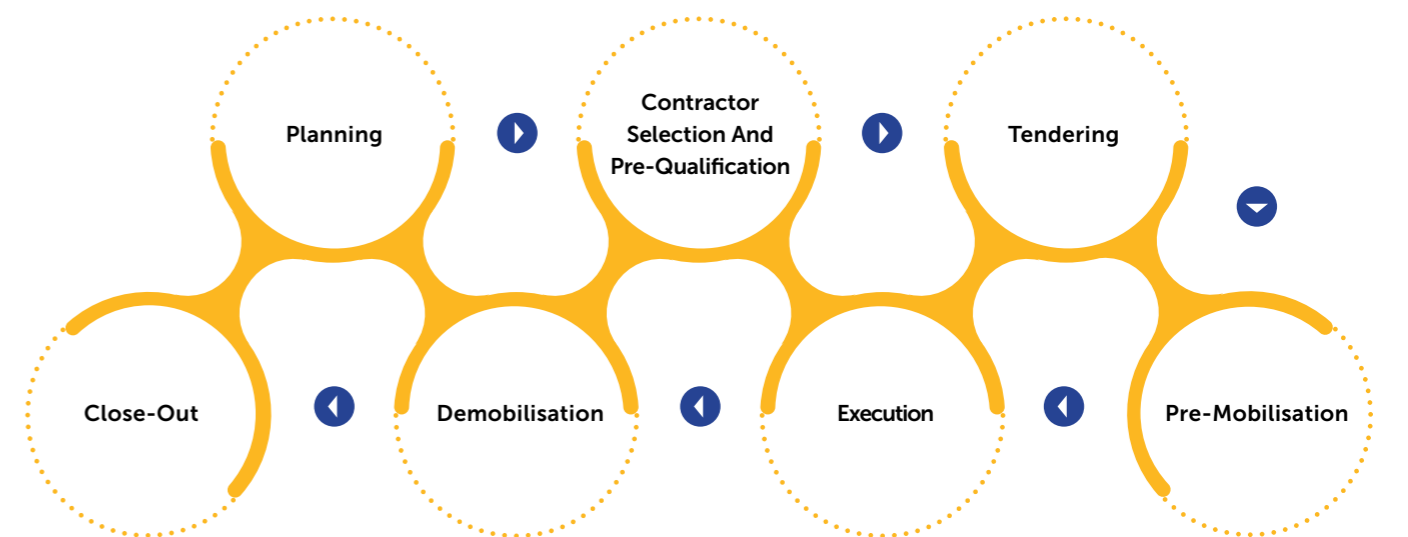
**Training and Verification**  
Contractors must complete safety and health training and become verified via the XPRESS system.
- 

**Management Engagement**  
We actively engage with contractors' top management to ensure clear communication and swift resolution of any identified OSH concerns.
- 

**Performance Evaluation**  
Contractor OSH performance is evaluated through the External Risk Management (Ex-RM) programme, which is aligned with PTS Contractor HSE Management and L3 Contractor. This covers both on-site risks and contractors' historical OSH performance.

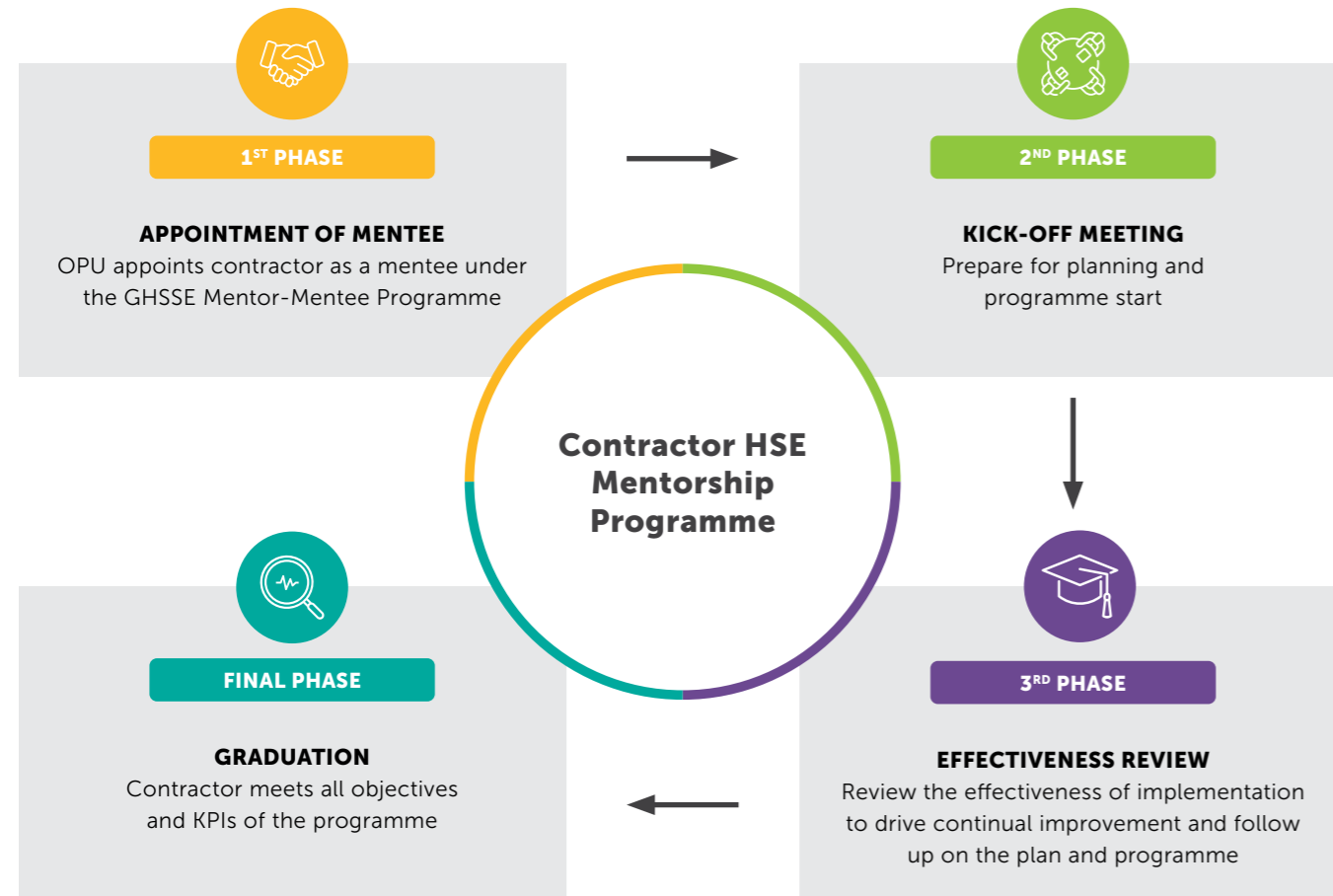
Beyond these measures, we proactively identify potential or actual hazards arising from contractor activities and implement control barriers to mitigate these risks. Continuous verification ensures the integrity of these controls, and any gaps identified are promptly addressed, maintaining the integrity of our HEMP cycle.

Recognising the significant impact of contractor performance on our OSH outcomes, we adhere to an eight-stage contractor management structure, encompassing everything from procurement planning to project close-out.



## POSITIVE SOCIAL IMPACT Occupational Safety and Health

To enhance contractors' OSH practices, we have implemented the Contractor HSE Mentorship Programme, a structured four-phase initiative that provides expert guidance to help contractors align with our standards. In 2024, Enproserve (M) Sdn Bhd became the latest company to successfully complete the programme.



We also conduct annual physical engagements with our contractors to foster open dialogue on occupational safety and health issues, reinforce our expectations, and empower contractors to raise concerns. Through these engagements, we continue to strengthen OSH practices across our supply chain, fostering a shared commitment to excellence.

## POSITIVE SOCIAL IMPACT Occupational Safety and Health

The key contractor engagements undertaken in 2024 are described in detail below:

### PGB - GTR Contractor Forum

We successfully hosted the PGB - GTR Contractor Forum, an event that brought together 75 partners from 31 different companies. This forum exemplified our commitment to fostering collaboration and communication across our operation with our valuable partners.

A core value of PETRONAS is the culture of "Speak Up," which encourages every individual—regardless of rank—to voice concerns, share feedback, and contribute ideas for continuous improvement. This culture extends beyond our internal teams to everyone we work with, including our contractors.

During the Breakout and Dialogue Sessions with GTR and Partners Management, partners took full advantage of the opportunity to speak candidly. These sessions not only allowed for a deeper understanding of the challenges and opportunities we face together but also gave GTR the chance to share our experiences and learn from the collective wisdom of our partners.

The discussions at the forum have proven invaluable. The insights gained are helping us refine our strategies and operations, ensuring that we are better equipped to navigate the future.

### PETRONAS Petrochemical Integrated Complex (PPIC) Contractor Profiling and ExRM implementation:

In 2024, GPU conducted a PPIC Contractor Profiling Workshop in collaboration with PETRONAS companies within the Kerteh Integrated Petrochemical Complex (KIPC), including PETRONAS Chemicals Ammonia, Gas Processing Kerteh, Terengganu Crude Oil Terminal, and the Group Security team. The workshop aimed to align the implementation of the Business Operating Compliance (BOC) framework and address common contractor-related issues across the region.

Following discussions, all participating companies agreed to establish a shared Contractor Profiling system across KIPC. This initiative ensures that contractors banned by one (1) company due to non-compliance will also be restricted by others within the complex. The profiling system will help contractors understand the consequences of non-compliant behaviour while enabling companies to filter out candidates with poor performance records. Additionally, contracting companies within KIPC will receive periodic updates on the profiling system, ensuring they remain informed about the reputational standing of their personnel.

The Contractor Profiling dashboard is targeted for completion in the first quarter of 2025.



# POSITIVE SOCIAL IMPACT

## Occupational Safety and Health

### Adopting Digital Technology for Improved Safety and Security

We continue to implement various upgrades to our digital infrastructure to enhance operational efficiency, safety, security and compliance. The following initiatives were undertaken in 2024:

#### DIGITAL SAFETY AND SECURITY INITIATIVES IN 2024

##### New Permit to Work ePTW+ 2.0 System

In line with our continuous efforts to enhance safety and security, we upgraded our enterprise-wide single permit-to-work system in 2024. Featuring enhancements based on past lessons learnt, the ePTW+ 2.0 introduces built-in mistake-proofing gatekeeping, requiring users to attach all relevant documents, which must be approved as necessary. These controls ensure that only workers who meet safe system of work requirements are permitted to proceed.

Other key features and benefits of ePTW+ 2.0 include:

- Incorporates and adopts best safety and security practices in alignment with Group-wide guidelines.
- Standardises work process on Permit to work, certificates and modules.
- Conditional requirements for related documents or certificates prior to PTW approval. Permits cannot proceed without necessary attachments.
- All users have role restrictions where they can only perform action as authorised. No unauthorised person can amend, review, approve or make any other changes to permits.

##### Facial Recognition System

All individuals entering our premises are required to authenticate face and identification cards to be allowed entry. This eliminates possibility of one (1) personnel using another person's identification card to enter our premises. Benefits of facial recognition system as below:

<p><b>1 Improved Contractor and Visitor Management</b></p> <ul style="list-style-type: none"> <li>• Simplifies the process of onboarding and tracking temporary workers or visitors.</li> <li>• Ensures contractors only access designated areas, reducing risks of operational interference.</li> </ul>	<p><b>2 Efficient Access Management</b></p> <ul style="list-style-type: none"> <li>• Streamlines the entry and exit process, reducing bottlenecks at checkpoints.</li> <li>• Allows for quick, contactless verification, saving time and improving operational efficiency.</li> </ul>
<p><b>3 Prevents Unauthorised Sharing of Credentials</b></p> <ul style="list-style-type: none"> <li>• Facial recognition ensures only the registered individual can use the access card, eliminating risks of card sharing or theft.</li> </ul>	<p><b>4 Enhanced Safety in Hazardous Environments</b></p> <ul style="list-style-type: none"> <li>• Ensures only trained and authorised personnel access high-risk areas, reducing accidents and improving safety compliance.</li> </ul>

##### Crisis Management Information System (CMIS)

During 2024, we migrated all emergency exercise management to the CMIS to enable more effective emergency response. By digitalising crisis management, Emergency Management Team (EMT) members can convene instantly online, regardless of location. Real-time updates from emergency sites are streamed into CMIS, allowing live monitoring through CCTV or drone footage.

Additionally, critical references for decision-making during emergencies, such as contact lists, available resources, facility layouts, and Incident Action Plans (IAPs), have been uploaded into the system for immediate access. The system also facilitates real-time documentation of emergency response activities, ensuring accurate tracking of events and response timelines.

# POSITIVE SOCIAL IMPACT

## Occupational Safety and Health

### OUR PERFORMANCE

#### Workers Covered by an OSH Management System

Our OSH Management System, which has been internally audited and is guided by the standards of ISO 45001:2018, ensures comprehensive coverage for 100% of our employees.

#### Work-Related Injuries and Incidents

In 2024, we recorded three (3) Lost Time Injury (LTI) from two (2) separate incidents. Two (2) LTIs stemmed from a steam condensate splash incident and one (1) from a tripping injury. Zero Loss of Primary Containment (LOPC) cases were reported during the year.

To prevent similar incidents, our management actively communicates lessons learned from LTIs, ensuring a cycle of continuous improvement in safety practices. Regular internal audits and comprehensive risk assessments are conducted before engaging in high-risk activities, fostering a culture of compliance and vigilance. This proactive approach ensures that both employees and contractors remain fully aware of and adhere to safety procedures, with particular emphasis on high-risk site activities.

To further mitigate risks of work-related injuries and LOPC, we are enhancing Work Leader (WL) competency through hands-on, on-site training in critical OSH matters. Since 2023, a WL capability reassessment has been underway, introducing revised requirements that prioritise training based on site-specific risk exposures.

All Employees (Staff)	2022	2023	2024
Fatalities as a Result of Work-Related Injury	0	0	0
Number of Work-Related Staff or Employee Fatalities	0	0	0
Rate	0	0	0
High-consequence Work-Related Injuries	0	0	1
Rate	0	0	0.24 <sup>1</sup>
Recordable Work-Related Injuries	2	3	1
Rate	0.50	0.75	0.24
Number of Hours Worked	4,001,044	4,008,202	4,088,112

Note:  
<sup>1</sup> LTIF value of 0.24 calculated based on 1 million multiplications as per DOSH standard. Whereas calculation as per Bursa Sustainability Reporting Standard which is multiplied by 200,000 would result in 0.05.

Workers Who Are Not Employees but Whose Work and/or Workplace is Controlled by the Organisation	2022	2023	2024
Fatalities as a Result of Work-Related Injury	1	0	0
Number of Work-related not Staff or Employee Fatalities	1	0	0
Rate	11.61	0	0
Number of High-consequence Work-Related Injuries	1	1	2
Rate	0.12	0.12	0.28 <sup>1</sup>
Number of Recordable Work-Related Injuries	5	5	3
Rate	0.58	0.58	0.42
Number of Hours Worked	8,639,726	8,617,090	7,169,875
Lost Time Injury Rate or Lost Time Injury Frequency (LTIR/LTIF)	0.12	0.12	0.28

Note:  
<sup>1</sup> LTIF value of 0.28 calculated based on 1 million multiplications as per DOSH standard. Whereas calculation as per Bursa Sustainability Reporting Standard which is multiplied by 200,000 would result in 0.06.

## POSITIVE SOCIAL IMPACT

### Occupational Safety and Health

#### Work-Related Ill Health

In 2024, we preserved our track record of recording zero cases of work-related ill health among our employees and contractors.

All Employees	2022	2023	2024
Number of Fatalities as a Result of Work-Related Ill Health	0	0	0
Number of Cases of Recordable of Work-Related Ill Health	0	0	0

Workers Who Are Not Employees but Whose Work and/or Workplace is Controlled by the Organisation	2022	2023	2024
Number of Fatalities as a Result of Work-Related Ill Health	0	0	0
Number of Cases of Recordable of Work-Related Ill Health	0	0	0

#### Pipeline Incidents and Inspection

In 2024, we recorded zero significant incidents during pipeline inspection activities. Over the year, we inspected 8.8% of our total pipeline length, covering a distance of 230 km, ensuring robust monitoring and maintenance of our infrastructure.

#### Release of Hazardous Materials

In 2024, we recorded zero major incidents involving hazardous hydrocarbon releases. We continue to implement stringent controls to minimise the risk of both accidental and non-accidental releases, supported by our robust incident management process to ensure effective handling and mitigation of any potential occurrences.

Types of Accidents	2022	2023	2024
Major Hazardous Material Releases	0	2	0
Major Hazardous Material Releases from Rail Transportation Activities	0	0	0

### MOVING FORWARD

We will continue to enhance our safety and health practices by leveraging stringent monitoring of lagging and leading indicators to drive proactive action across the organisation. Our focus remains on effectively mitigating workplace risks and maintaining our track record of zero fatalities, zero major fires, zero major Loss of Primary Containment (LOPC) incidents, and zero major security incidents.

Employees and contractors will be engaged with closely and supported on all safety matters, reinforcing a Generative HSSE culture of accountability and action.

To prevent incidents and minimise work-related injuries, we will continue to apply lessons learned from past experiences while consistently providing training, engagements, and drills to keep our employees aware, equipped and prepared, while supporting their overall well-being.

## POSITIVE SOCIAL IMPACT

### SUPPLIER SOCIAL IMPACTS



#### WHY IT MATTERS

Given our reliance on a vast network of thousands of suppliers, primarily made up of contractors, throughout our extensive value chain, we acknowledge our responsibility to ensure that these business partners adhere to ethical and socially responsible practices in alignment with our standards and stakeholder expectations.

Our robust monitoring and engagement efforts reinforce this commitment, enabling us to deliver sustainable value to people and communities while minimising environmental and social impacts across the value chain. These initiatives are essential for maintaining our social license to operate, ensuring compliance with evolving regulations, and fostering a sustainable and resilient pool of vendors capable of supporting our strategic objectives.

#### OUR APPROACH

##### Establishing Stringent Policies and Standards

In our dedication to responsible supply chain management, we ensure strict adherence to international standards such as the United Nations Guiding Principles (UNGP) on Business and Human Rights, the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work.

To set our expectations and reinforce commitments across our supply chain, we have implemented key policies and practices aimed at promoting ethical conduct, upholding human rights, and mitigating supplier-related risks. These policies and codes are accessible on our website in both English and Bahasa Malaysia and are actively communicated during supplier engagements and industry exhibitions to ensure widespread awareness and adoption.



## POSITIVE SOCIAL IMPACT Supplier Social Impacts

## POSITIVE SOCIAL IMPACT Supplier Social Impacts

<b>Human Rights Policy</b>	<ul style="list-style-type: none"> <li>Introduced in 2024, this policy replaced our previous human rights commitment to place greater emphasis on upholding human rights across all operations and partnerships.</li> </ul>
<b>Code of Conduct and Business Ethics (CoBE)</b>	<ul style="list-style-type: none"> <li>This code defines the ethical standards and business practices expected of all business partners, including suppliers, ensuring alignment with PETRONAS' values.</li> </ul>
<b>Contractor Code of Conduct and Human Rights (CoCHR)</b>	<ul style="list-style-type: none"> <li>Enhanced in 2024, this framework provides comprehensive guidelines for contractors on maintaining high standards of ethical behaviour and human rights practices. It addresses critical risks such as forced labour, child labour, labour rights, non-discrimination, freedom of association, and humane treatment.</li> </ul>
<b>Social and Environmental Clauses</b>	<ul style="list-style-type: none"> <li>In line with the PETRONAS General Terms and Conditions for the Purchase of Services and Materials, we embed specific clauses clearly outlining our expectations for compliance with health, safety, environmental, and human rights standards into supplier agreements, as well as the terms and conditions of these contracts.</li> </ul>

### Conducting Comprehensive Due Diligence and Monitoring

We employ a robust system to ensure adherence to Human Rights Due Diligence (HRDD) principles across both potential and existing contractors.

For potential contractors, the due diligence process begins with an upfront assessment, which includes completing the Contractors' Code of Conduct on Human Rights (CoCHR) Self-Assessment and attesting to full compliance with CoCHR. Based on these self-assessments, further evaluations, either desk-based or on-site, are conducted for relevant suppliers using industry-recognised standards and methodologies. Additionally, potential suppliers undergo a "Know Your Counterparty" (KYC) screening, a process established by PETRONAS to assess critical legal focus areas such as Ethics and Integrity, Data Privacy, Sanctions, and Export Control.

For existing contractors, including those holding PETRONAS licenses and registrations, continuous monitoring is required to ensure compliance with CoCHR requirements embedded in their contracts. Compliance oversight measures include first-party verification through inspections, supplier self-assessments, and grievance mechanisms that enable third parties to highlight concerns related to human rights, HSE, and social impacts.

Four (4) grievance channels have been activated, including our Whistleblowing hotline, the HSE Grievance Mechanism, the C2C (Connect to Collaborate) platform for contractors to engage with PETRONAS on Licensing and Procurement matters, and the GP Sustainability Mailbox for sustainability-related concerns.

### Stringently Addressing Non-Compliance

Our procurement practices are built on the principles of fairness, ethics, and transparency while reinforcing supply chain resilience. As part of our purchasing process, we require suppliers to diligently comply with all HSE requirements.

To enforce these standards, we have established a robust policy framework to address non-compliance. This framework enables us to take immediate action, including stopping work if a supplier fails to comply. Contractors are given the opportunity to rectify unsafe conditions or non-compliances at their own cost before work can resume. Payments may also be withheld until the issues are fully addressed.

In cases where a contractor breaches HSE obligations or persists in non-compliance, we may take further action, including enforcing performance guarantees, terminating the contract, and claiming losses or damages incurred, in addition to any other rights available under the contract or applicable laws.

Our non-compliance procedure is applied consistently across all cases and is overseen by our internal committee. Guided by the UN Guiding Principles on Business and Human Rights, we ensure that contract termination is considered only as a last resort after all other remedial actions have been exhausted.

### Leveraging the PSSP to Promote Sustainability

The newly launched PETRONAS Supplier Support Programme (PSSP) has enabled us to consolidate our engagement efforts with all licensed and registered vendors to foster long-term sustainability across our supply chain. This flagship initiative was introduced in August 2024 and developed with reference to challenges that we identified in the 2023 OGSE survey, aiming to address key sustainability-related pain points faced by OGSE suppliers.

The programme is a collaborative effort through partnership between PETRONAS, the United Nations Global Compact Network Malaysia & Brunei (UNGCMYB) and other renowned industry partners to support suppliers' key challenges in transitioning towards sustainability.

#### The PSSP features three (3) focus areas:

- ▶ Capacity Building by UNGCMYB**  
 The PSSP offers tailored, end-to-end training to PETRONAS' licensed and registered suppliers, covering varied levels of sustainability maturity and awareness. The training emphasises the four (4) core areas of Human Rights, Emissions Management, Integrity, and HSE.
- ▶ Disclosure Platform by Bursa Malaysia Berhad**  
 To support our suppliers' sustainability journeys, we collaborated with Bursa Malaysia to customise its Centralised Sustainability Intelligence (CSI) Platform for PETRONAS suppliers. The platform serves as a step-by-step guide for sustainability disclosures and is available in both English and Bahasa Malaysia to ease sustainability reporting.
- ▶ Access to Sustainable Financing by Bank Negara Malaysia (BNM) and other Financial Institutions**  
 The PSSP also facilitates access for suppliers to BNM's financing facilities under BNM's fund for SMEs, including the High Tech and Green Facility (HTG) and Low Carbon Transition Facility (LCTF). Additionally, UOB Malaysia has pledged RM1 Billion to finance their decarbonisation efforts, Bank Islam has introduced the Ihsan Financing for Business Resilience, Sustainability and Green Transition (IFIRST) for PSSP registered suppliers, and other partner financial institutions like Alliance Bank have committed to better financing rates for PSSP participants.

The PSSP is designed to facilitate a structured and equitable transition towards sustainability for OGSE suppliers. By supporting their ESG maturity journey, including the disclosure of ESG performance where relevant, we help strengthen their long-term competitiveness and resilience while reinforcing the overall sustainability of our supply chain.

The programme also aligns with our NZCE 2050 ambitions by encouraging suppliers to disclose their GHG emissions and fostering collaboration to drive decarbonisation efforts. This proactive approach enables suppliers to mitigate risks and capitalise on opportunities in line with Malaysia's National Energy Transition Roadmap, ensuring that no industry player is left behind.

## POSITIVE SOCIAL IMPACT

### Supplier Social Impacts

#### OUR PERFORMANCE

##### Proportion of Spending on Local Suppliers

We are committed to supporting local suppliers, defined as companies incorporated in Malaysia, wherever possible. In the year under review, 99% of our total procurement spend was directed towards Malaysian companies, reflecting our dedication to fostering local business growth and strengthening the national supply chain.

##### Providing Robust Supplier ESG Training

Through capability-building programmes, an ESG and emissions disclosure platform, and access to sustainable financing solutions, the PSSP empowers suppliers to actively contribute to Malaysia's net-zero goals while fostering a more resilient and sustainable supply chain.

As of 31<sup>st</sup> December 2024:

1,016 PETRONAS supplier companies have participated in the PSSP rollout.	The programme has received a 4.7/5 satisfaction rating from participants.
96% of PSSP Beginner Training participants reported an increase in sustainability knowledge.	409 PETRONAS suppliers have registered for PSSP through the ESG START Maturity Assessment.

##### Enhancing Internal Capabilities to Support Supplier ESG Progress

In 2024, PETRONAS conducted comprehensive training for 1,203 participants, mostly from Group Procurements and other internal stakeholders, to strengthen their role in advancing supplier ESG programmes. This represents 81% of the targeted audience, underscoring our commitment to equipping key personnel with the knowledge and tools necessary to drive sustainability across our supply chain.

##### Supplier Social Assessments

In 2024, we focused on enhancing our Contractor Code of Conduct on Human Rights (CoCHR) and expanding the depth and coverage of assessments across the supply chain. This strategic initiative strengthens our framework for identifying and addressing human rights risks across all supplier tiers, ensuring greater accountability and compliance.

These enhancements lay the groundwork for a more robust and effective Human Rights Due Diligence (HRDD) process. As the CoCHR framework matures, we will leverage it to generate detailed data and measurable outcomes, including the identification of significant social impacts within the supply chain and the actions taken to mitigate them.

As of 31 December 2024, a total of 3,647 companies registered in the PETRONAS License & Management System (PLMS) have completed the CoCHR Self-Assessment and attested to full compliance with PETRONAS CoCHR, including the adherence to the prohibition of forced labour and child labour. In addition, through continuous monitoring and the 63 vendor assessments conducted in 2023 under our enhanced human rights due diligence framework, 109 CoCHR Action Plans (CAPs) were issued to address identified areas for improvement. Of these, 83 CAPs have been successfully completed and closed.

## COMMUNITY ENGAGEMENT

#### WHY IT MATTERS

We recognise our responsibility to contribute to sustainable development across the nation, going beyond our role as a leading infrastructure company to support the well-being of communities through impactful programmes.

By engaging with communities, we gain valuable insights into their social and environmental challenges, enabling us to deliver tangible benefits through our social impact activations, particularly to underprivileged groups. Collaborations with NGOs further amplify our efforts, shedding light on key sustainability issues such as affordable and clean energy, quality education and economic growth. These initiatives reflect our commitment to being a responsible organisation and creating lasting value for society.



#### OUR APPROACH

##### A Framework Focused on Three (3) Pillars

Our social impact activations are guided by our Social Impact Management (SIM) Framework, with the primary goal of fostering sustainable livelihoods and equipping communities to adapt and thrive amid evolving social and environmental challenges. All of these initiatives are strategically aligned with our G5dot5 strategic agenda, ensuring the creation of shared values that benefits both our business and the local communities we serve.



## POSITIVE SOCIAL IMPACT Community Engagement

The social impact activations we undertake fall into the following three (3) focus areas:

### POWERING KNOWLEDGE

This initiative focuses on promoting knowledge, especially on STEM and matters related to the energy sector, among students and educators. By supporting their pursuit of quality education and expertise, the programme empowers them to strive for progress and create positive impacts in a rapidly changing world.



### UPLIFTING LIVES

Dedicated to providing unfortunate communities with essential resources to enhance their living standards, this initiative aims to facilitate and support communities to reach their full potential and create positive social change.



### PLANTING TOMORROW

This area focuses on championing biodiversity conservation and creating awareness about sustainable living. It includes educational programmes, reforestation efforts, and rehabilitation activities such as mangrove planting and replenishing freshwater and marine ecosystems. These efforts empower communities to contribute to a healthier planet.



#### Social Impact Activations During 2024

#### POWERING KNOWLEDGE



##### Discover PETRONAS at Schools (Labuan and Melaka)

These programmes aimed to introduce secondary students interested in STEM to the energy sector, fostering interest in the field while enhancing knowledge of PETRONAS. The first session was held at Kompleks Darul Kifayah, Labuan FT on 30 April 2024, with a contribution of RM206,390.44. The second session, Powering Knowledge Activation: Discover PETRONAS @ School (DPS), was conducted at ILP Selandar, Melaka on 10 July 2024, with PGB contributing RM50,000.

##### Sharing by PETROSAINS to SMK Kerteh

PETROSAINS reflects PETRONAS' commitment to nation-building by fostering interest in STEM and cultivating a new generation of science and technology-driven, innovation-inspired Malaysians. This initiative held at SMK Kerteh on 21 July 2024, with a contribution of RM13,470, aimed to inspire secondary students' interest in STEM while reinforcing our brand image as a future employer.

##### Tutoring for Asnaf SPM Students

Conducted from July to November 2024 at SMK Rantau PETRONAS and SMK Kerteh, this initiative aimed to improve academic performance among unfortunate students. It provided essential educational resources with a contribution of RM3,316, reinforcing our dedication to supporting education.

##### Sponsorship of Students in Technical Energy Enrichment Programme (TEP)

During the year, we expanded our sponsorship under the TEP, supporting 72 additional students to increase the total number of sponsored students to 138.

## POSITIVE SOCIAL IMPACT Community Engagement

### UPLIFTING LIVES



#### Sentuhan Kasih PETRONAS Programme

We have continued to undertake our signature Sentuhan Kasih programmes during major festive seasons, supporting underprivileged groups across various regions to ensure beneficiaries could celebrate these occasions meaningfully.

- ▶ **Sentuhan Kasih CNY:** Beneficiaries in Petaling Jaya were supported with contributions totalling RM20,003 for the festive celebration on 20 February 2024.
- ▶ **Sentuhan Kasih Aidilfitri:** Events in Kerteh, Segamat, Sitiawan and Sepang provided support during Hari Raya celebrations, with contributions amounting to RM65,219 across March and April 2024.
- ▶ **Sentuhan Kasih Deepavali:** Held in Penang, the event on 24 October 2024 brought joy and contributions of RM20,000 to underprivileged communities during the Deepavali season.
- ▶ **Sentuhan Kasih Krismas:** This programme was co-organised with Jabatan Kebajikan Masyarakat Selangor and included a total contribution of RM60,000. The initiative aimed to bring festive cheer to underprivileged B40 families by providing essential food items and festive cookies. Additionally, PGB contributed in-kind by supporting roof repair works.

#### Free Market and Back-to-School Initiatives

The Free Market and Back-to-School programmes, with contributions of RM51,076.10, were held in Cheras on 2 March 2024 and in Paka, Terengganu, on 12 March 2024. These events provided school supplies and other essentials to help beneficiaries prepare for the new academic year.

An additional GPU Free Market was held at Dewan Sivik, Kerteh, on 1 April 2024, to establish positive relationships with communities near our sites. The initiative involved a contribution of RM12,000 and included donations of new and preloved items to underprivileged individuals.

#### Charity Runs

We supported national causes through participation in and contribution to several charity runs:

- ▶ **Terry Fox Run KL:** A net contribution of RM10,000 was made to Cancer Research Malaysia to fund vital cancer research efforts on 28 September 2024.
- ▶ **Bursa Bull Charge:** RM10,000 was donated to promote financial literacy and entrepreneurship while supporting underprivileged communities on 26 October 2024.
- ▶ **Orchid Run and Ride KL:** Aimed at advancing healthcare, RM6,490 was contributed to support cancer patients and survivors on 20 October 2024.

## POSITIVE SOCIAL IMPACT Community Engagement

### PLANTING TOMORROW



#### Mangrove Planting and Engagement

On 15 February 2024, PGB collaborated with Jabatan Perhutanan Negeri Selangor to plant 980 mangrove trees at Hutan Simpan Banjar, Kuala Selangor. The initiative engaged 78 volunteers from PGB and JPNS, as well as volunteers from Pusanita, and included a contribution of RM49,280 towards promoting environmental sustainability.

#### Turtle Hatching Release Programme

Held on 16 July 2024 at Pusat Santuari Penyu Ma'Daerah in Kerteh, this programme provided an opportunity for PETRONAS employees and the local community to engage in environmental conservation and support the preservation of marine biodiversity.

#### Mangrove Flourishing Programme

PGB hosted a community engagement platform on 29 August 2024 in Kg. Pasir Gudang Baru, Johor, involving PGB staff, local councils, and community representatives. This initiative involved a contribution of RM13,501 for organisation costs and aimed to foster stronger stakeholder relationships while promoting mangrove conservation.

#### Hari Alam Sekitar Negara (HASN) 2024

As a key collaborator, PGB partnered with Jabatan Alam Sekitar Negeri Terengganu for the annual HASN event held on 24 October 2024 at Muzium Negeri, Kuala Terengganu. Contributions of RM47,740 supported this long-standing environmental awareness programme, fostering stronger engagement with key stakeholders in the state.

### Supporting Employee Volunteerism

We actively encourage our employees to volunteer for our community-based initiatives, fostering a culture of volunteerism that supports both personal growth and local development. Through the myCareerX platform, employees can conveniently browse and register for projects and volunteer teams, enabling them to contribute their time and skills toward meaningful causes.

In addition to our in-house initiatives, we extend approval to employees who wish to participate in volunteerism or recreational activities with organisations outside PGB.

- ▶ Public service initiatives led by NGOs
- ▶ Recreational activities, such as sports
- ▶ Membership or service in local bodies, including Jabatan Sukarelawan Malaysia (RELA) and Jabatan Pertahanan Awam Malaysia (JPA3)
- ▶ Councils and societies like Majlis kanser Nasional (MAKNA) and The National Autism Society of Malaysia (NASOM)

Employees who volunteered, appointed or elected to serve in such capacities are required to seek approval from their Head of Department, in consultation with HR, immediately after their appointment. This ensures that they can balance their responsibilities within these roles alongside their full-time employment commitments.

## POSITIVE SOCIAL IMPACT Community Engagement

### OUR PERFORMANCE

#### Group Donations or Investments Made to Registered Non-profit Organisations

Our contributions to non-profit organisations reflect our understanding of the vital role communities play in the success of our business activities and underscores our commitment to giving back. By prioritising social responsibility, we acknowledge that fostering the well-being and socio-economic development of communities directly supports the sustainability of our business.

Over the past three (3) years, we have made the following contributions to registered non-profit organisations:

Year	Non-profit Organisation	Total Donation (RM)
2022	Cancer Research Malaysia	10,000
2023	PETRONITA	3,760
	Cancer Research Malaysia	10,000
	Rumah KIDS	17,968
	Yayasan Hijau Malaysia	29,190
2024	Persatuan Veteran Bomba dan Penyelamat Malaysia	12,000
	Cancer Research Malaysia (CRM)	10,000
	Bursa Malaysia	10,000
	PETRONITA	6,490

#### Total Community Investment and Number of Beneficiaries

The table below details our total community investment over the past three (3) years and the number of beneficiaries our investments have benefitted.

Year	Total Amount Invested in the Community (RM)	Total Number of Beneficiaries of Our Investment
2022	-	-
2023	5,232,621.00	12 <sup>1</sup>
2024	5,723,449.54	1,548

Note:

<sup>1</sup> Total includes organisations and individual beneficiaries

### MOVING FORWARD

In the coming year, we will continue implementing quarterly programmes under the three (3) pillars of the SIM Framework, with events planned across Malaysia.

Additionally, we will advance our newly launched Community Solar Programme in collaboration with Yayasan Hijau Malaysia. This initiative is designed to raise awareness and promote action towards adopting solar power as a renewable energy source. The pilot project of this programme is set to launch in Melaka next year.



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Relevant UNSDGs



# RESPONSIBLE GOVERNANCE

Maintaining the highest standards of business ethics, fostering accountability, and ensuring robust security are crucial to sustaining stakeholder trust and driving the responsible transformation of our business in an evolving energy landscape. Through stringent policies, proactive risk assessments, and comprehensive training programmes, we uphold impeccable levels of business integrity while strengthening our cybersecurity resilience. With agile leadership, we remain committed to navigating industry developments to protect our competitiveness and ensure long-term relevance amid the energy transition.



## RESPONSIBLE GOVERNANCE

# BUSINESS ETHICS AND TRANSPARENCY

### WHY IT MATTERS

Guided by our Shared Values of Loyalty, Integrity, Professionalism, and Cohesiveness, we are dedicated to upholding the highest standards of ethical and transparent business conduct across our operations. In doing so, we foster trust with stakeholders, enhance employee satisfaction and retention, and safeguard our reputation and brand equity.

As Malaysia's leading gas infrastructure and centralised utilities company, these strong ethical practices not only strengthen our stakeholder relationships but also position PGB as a responsible leader in the regional energy transition, supporting our sustainable growth and value creation.



### OUR APPROACH

#### Defining Expected Conduct Through Comprehensive Policies

Our approach to business ethics and conduct is anchored in several key policies and guidelines, each serving a distinct purpose:

- ▶ **Code of Conduct and Business Ethics (CoBE)**  
Establishes the standards of behaviour and ethical practices expected from employees and others working on behalf of the Group.
- ▶ **Anti-Bribery and Corruption (ABC) Manual**  
Sets clear expectations for employees and third parties to prevent improper solicitation, bribery, and corruption, reflecting our zero-tolerance policy towards such activities.
- ▶ **Whistleblowing Policy**  
Provides a secure channel for employees and the public to report improper conduct involving the Group while ensuring protection for whistleblowers in line with policy procedures.
- ▶ **Directors' Fit and Proper Policy**  
Defines the qualities, competencies, and experience required of Board members to effectively fulfil their duties and responsibilities.
- ▶ **Corporate Disclosure Guide**  
Ensures compliance with Bursa Malaysia's Main Market Listing Requirements (MMLR) and Corporate Disclosure Guide (3rd Edition), guiding the accurate and transparent dissemination of information.

These documents collectively strengthen our governance framework, fostering a culture of integrity, transparency, and accountability across all facets of our operations.

## RESPONSIBLE GOVERNANCE Business Ethics and Transparency



### Driving Compliance through Employee Awareness

To uphold our high standards of business ethics, we ensure continuous learning and development through a calendar of information-sharing and training sessions. We regularly engage employees through targeted email communication, delivering concise articles that raise awareness of ethical practices. These include reminders on guidelines for accepting door gifts, insights into common corruption offences, and guidance on safely utilising our whistleblowing channels.

These initiatives not only refresh knowledge of the CoBE and our other policies but also equip employees with insights on evolving norms and industry expectations around integrity and ethical practices. In 2024, we conducted two (2) impactful awareness programmes and made legal compliance modules accessible via the myLearningX platform, ensuring broad participation and accessibility.



#### Integrity Unleashed at GPK



#### Gas and Maritime Integrity Unleashed – Central Edition



#### Legal Compliance X Modules

- Anti-Bribery and Corruptions (ABC) Manual
- Personal Data Protection and Privacy Compliance (PDPA)
- Third Party Risk Management (TPRM)
- Introduction to Sanctions
- Introduction to Export Control
- Introduction to Competition Law

### Leveraging Corruption Risk Assessments (CRA) for Oversight

To uphold ethical business practices and strengthen our oversight of corruption-related risks, we conduct comprehensive CRA across all our operations. These assessments evaluate our risk exposure in areas susceptible to inbound and outbound bribery and other forms of corruption as outlined in our policy documents.

#### The 10 key process areas in our CRA include:



By identifying and analysing risks within key aspects of our businesses, CRAs enable us to implement targeted controls to address specific vulnerabilities across our supply chain and business relationships. To date, we have successfully completed CRAs mitigations across PGB operations, reinforcing our commitment to integrity and proactive risk management.

## RESPONSIBLE GOVERNANCE Business Ethics and Transparency

### OUR PERFORMANCE

#### Communication and Training on Anti-Corruption Policies and Procedures

In alignment with our commitment to anti-corruption, all Board members and employees have been thoroughly briefed and trained on our anti-corruption policies and procedures. Additionally, the ABC Manual is readily accessible to all employees, Board members, and stakeholders via our corporate website. Regular training and engagement initiatives, as highlighted earlier, serve to further reinforce and refresh their understanding and awareness.



Note: Last year's data on Board and employee anti-corruption policy communication and training has been revised due to a previous misinterpretation of the calculation methodology.

#### Incidents of Corruption and Remedial Actions

In 2024, we continued to uphold our record of zero confirmed incidents of corruption. This includes no contract terminations or non-renewals with business partners due to violations. In addition, there are no ongoing public legal cases involving the company or our employees related to corruption.

#### Legal Action for Anti-Competitive Behaviour, Anti-Trust, and Monopoly Practices

There were no reported incidents of anti-competitive behaviour, anti-trust violations, or breaches of monopoly legislation involving PGB during 2024.

Within the context of our business, no legal proceedings were reported concerning federal pipeline and storage regulations. This includes matters related to rates, pipeline access, price gouging, or price fixing.

#### Political Contributions

PGB made zero political contributions during the year under review.

### MOVING FORWARD

We strive to steadily strengthen our commitment and practices surrounding business ethics and transparency. Our efforts will include regular evaluations of our policies and procedures and targeted investment in training sessions designed to enhance awareness and compliance across all levels of PGB.

Employees will continue to benefit from refresher sessions on the CoBE and specialised upskilling on key aspects of business ethics and related regulations. Meanwhile, our leaders will receive tailored training on ethical practices within the context of industrial relations, ensuring that the highest ethical standards are upheld in all internal operations and external engagements.



## RESPONSIBLE GOVERNANCE

RESPONSIBLE GOVERNANCE  
Cybersecurity and Data Privacy

## CYBERSECURITY AND DATA PRIVACY

## WHY IT MATTERS

As digital solutions become integral to our operations, cybersecurity has emerged as a critical pillar of our governance framework, ensuring the protection of assets, systems, and customer data in an increasingly sophisticated cyberthreat landscape.

Through the implementation of a robust cybersecurity governance framework and data privacy policy, coupled with purpose-fit technologies that strengthen our security posture, we proactively mitigate risks to safeguard our systems and data integrity, promoting cyber resilience. These efforts not only protect our businesses operations but also reinforce our reputation as a progressive and trustworthy organisation, safeguarding the confidence of our stakeholders.



In addition to the above policy and framework, we collaborate with PETRONAS to implement various systems and approaches to bolster our security posture and resilience against cyber and data privacy threats. These include:

## SECURITY POSTURE AND RESILIENCE AGAINST CYBER AND DATA PRIVACY THREATS

## Cybersecurity Capability Maturity Model (C2M2)



Designed to assess and drive continuous improvements in our cybersecurity maturity level, ensuring readiness against evolving threats.

## Security Information and Event Management (SIEM)



Enables real-time monitoring and detection of cyber threats, enhancing our ability to proactively mitigate potential security breaches.

## Enterprise Risk Management Framework



Outlines structured processes to identify, assess, and remediate control gaps in PETRONAS systems and applications, strengthening system resilience.

## Cybersecurity Incident Response Plan (CIRP)



Provides a clear set of actions for teams to effectively respond to cyber incidents, minimising potential damage and ensuring timely recovery.

## Personal Data Breach Response Plan



Establishes best practices for managing data breaches to mitigate negative impacts and protect stakeholders' information.

## OUR APPROACH

## Leveraging PETRONAS' Stringent Framework to Uphold Security and Privacy

The PETRONAS Enterprise Cybersecurity Governance Framework is a comprehensive set of standards and guidelines that collectively govern cybersecurity. This framework ensures clear accountability and adherence to internationally recognised best practices, including the National Institute of Standards and Technology Cyber Security Framework (NIST CSF), Information Organization for Standardization (ISO) 27001, Security for Industrial Automation and Control Systems (ISA/IEC) 62443, Information Security Forum - Information Risk Assessment Methodology 2 (ISF-IRAM 2) and NIST 800-30.

For data privacy protection, we have adopted the PETRONAS Corporate Privacy Policy, which provides principles and guidelines for the collection, use, processing, and storage of personal data. Aligned with the Malaysian Personal Data Protection Act 2010 (PDPA) and the European Union's General Data Protection Regulation (GDPR), this policy is applicable to all PGB employees and third-party service providers managing personal data on our behalf. The policy ensures the fair and lawful collection and processing of personal data, requires transparency regarding data usage and individual rights, and mandates the implementation of robust security measures to prevent unauthorised access, disclosure, or misuse of personal data.

## Proactively Aligning with the Cyber Security Act 2024

Malaysia's Cyber Security Act 2024 (Act 854) took effect on 26 August 2024, along with four (4) supplementary regulations, enhancing the nation's cybersecurity framework. The Act introduces key measures to protect National Critical Information Infrastructure (NCII) and safeguard citizens from cyber threats.

On 11 September 2024, the Prime Minister appointed PETRONAS as the Sector Lead for the Energy Sector. In line with Act 854, PETRONAS is developing criteria for NCII classification, identifying NCII entities within the PETRONAS Group, and establishing a Code of Practice for designated entities.

While no immediate action is required, PGB will continue adhering to PETRONAS' cybersecurity standards and monitoring regulatory developments. By proactively aligning with Act 854, we reinforce our cybersecurity posture, ensure regulatory readiness, and position ourselves for seamless compliance if designated as an NCII entity.



## RESPONSIBLE GOVERNANCE

### Cybersecurity and Data Privacy

#### Effectively Managing and Mitigating Risks

To safeguard personal data against unauthorised access, disclosure, and misuse, we have implemented a comprehensive suite of technical and organisational measures to reduce the risks of privacy breaches and ensure compliance with stringent data privacy standards.

Additionally, we conduct data protection impact assessments when required to identify potential privacy risks and emerging vulnerabilities. The insights gained from these assessments drive continuous improvements to our processes, enhancing our resilience and maintaining the integrity of our data management practices.

#### Empowering Employees to Safeguard Assets

To reinforce the critical role employees play in protecting organisational assets, we conduct annual awareness training sessions that emphasise the importance of cybersecurity, data privacy, and individual responsibilities. Through regular training, we enable our people to remain informed, vigilant, and prepared to uphold our cybersecurity and data protection standards.

Our primary educational tool is an e-learning module made accessible on the myLearningX platform. As of 31 December 2024, 1,836 employees have successfully completed the "Cyber Security and You 2024" module and assessment, reflection an overall completion rate of 98.91%, exceeding our target of 80%.

#### OUR PERFORMANCE

##### Incidents of Personal Data Privacy Breaches

In 2024, we maintained our exemplary standards in safeguarding personal data, recording zero complaints related to data privacy breaches across PGB companies.

#### MOVING FORWARD

In line with our commitment to staying ahead of the ever-evolving cyber risk landscape, we continue to enhance security measures and strengthen risk monitoring to proactively mitigate emerging threats. Reflecting our focus on technological innovation, the installation of a facial recognition system at our premises, approved in July 2024, will replace traditional access controls with multi-factor authentication, significantly enhancing security.

Looking ahead, we will continue to evaluate the feasibility of emerging technologies, ensuring alignment with PETRONAS Enterprise Cybersecurity Governance Framework. Regular security audits and assessments will remain integral to identifying and addressing vulnerabilities in the ever-changing cyberthreat threat landscape. At the same time, we will enhance employee training programmes to ensure our workforce remains well-equipped to address evolving cybersecurity and data privacy challenges.





## INDEPENDENT LIMITED ASSURANCE STATEMENT

## INDEPENDENT LIMITED ASSURANCE STATEMENT



### SIRIM QAS INTERNATIONAL SDN BHD INDEPENDENT ASSURANCE STATEMENT

**To Board of Directors, Stakeholders, and Interested Parties,**

SIRIM QAS International Sdn. Bhd. was engaged by Petronas Gas Berhad (hereafter referred to as Petronas Gas) to perform an independent verification and provide assurance of the Petronas Gas Sustainability Report 2024. The main objective of the verification process is to provide assurance to Petronas Gas and its stakeholders on the accuracy and reliability of the information as presented in this statement. The verification by SIRIM QAS International pertains to sustainable performance information (subject matter) within the assurance scope which is included in Petronas Gas Sustainability Report 2024.

The management of Petronas Gas was responsible for the preparation of the Sustainability Report. The objectivity and impartiality of this statement is assured as no member of the verification team and no other employee of SIRIM QAS International was involved in the preparation of any part of the Petronas Gas's Sustainability Report, and Integrated Annual Report 2024.

The assurance engagement was designed to provide limited assurance in accordance with the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information, and BURSA Sustainability Reporting Guide, irrespective of the organization's ability to achieve its objectives, targets or expectations on their subject matter and sustainability-related issues. The assurance activity evaluates the adequacy of Petronas Gas Sustainability Report and its overall presentation against respective frameworks such as UN-SDGs, GRI Standards requirement, TCFD and other relevant frameworks. The assurance process involves verification of applicable subject matter as presented in the report through these chapters i.e., Safeguarding the Environment, Positive Social Impact, and Responsible Governance. In addition to this, we also review and verify the sustainability indicators outlined by Bursa Malaysia to ensure the accuracy, completeness, and reliability of the reported information. The results of this verification process have been systematically tabulated in Appendix 1 and Report to Management, with further details provided therein.

The verification was carried out by SIRIM QAS International in February 2025 to March 2025, with the following methodologies:

- Reviewing and verifying the traceability, consistency and accuracy of information collected from various sources, including internal and external documentation made available during the assessment.
- Verifying the data presented in the Sustainability Report, which includes a detailed review of the sampled data.
- Interviewing key personnel responsible for collating information and developing various sections of the report to substantiate the veracity of the claims.

The verification process was subjected to the following limitations:

- The scope of work did not involve verification of any other information reported in the Petronas Gas Integrated Annual Report 2024.
- The review excluded all financial-related data, as these are subjected to the company's financial audit.

- As part of this assurance engagement, the verification team visited Petronas Gas's corporate office at Tower 1, Petronas Twin Towers. However, the verification process did not include physical inspections of any of Petronas Gas's plants, buildings, assets, and other related entities.
- The verification team did not assess or verify any data related to contractors or third parties.

**Conclusion**

SIRIM QAS International, a Conformity Assessment Body in Malaysia, is accredited to both ISO/IEC 17021-1:2015 and ISO/IEC 17065:2012 covering all our operational activities. The appointed assessors performing the assurance engagement were selected appropriately based on our internal qualifications, training and experience. The verification process is reviewed by management to ensure that the approach and assurance are strictly followed and operated transparently. During the verification process, issues were raised, and clarifications were sought from the management of Petronas Gas relating to the accuracy of some of the information contained in the report. In response to the raised findings, the Sustainability Report was subsequently reviewed and revised by Petronas Gas. It is confirmed that changes that have been incorporated into the final version of the report have satisfactorily addressed all issues. Based on the scope of the assessment process and evidence obtained, nothing has come to our attention that causes us to believe that Petronas Gas has not complied, in all material respects, with the referred assurance standard and guide. The following represents SIRIM QAS International's opinion:

- The level of data accuracy included in Petronas Gas Sustainability Report 2024 is fairly stated;
- The level of disclosure of the specific sustainability performance information presented in the report was found to be properly prepared;
- The personnel responsible were able to demonstrate the origin(s) and interpretation of data contained in the report;
- The sustainability report provides a reasonable and balanced presentation of Petronas Gas's sustainability performance.

List of Assessors.

Aernida Abdul Kadir, Team Leader

Team Member:

Ms. Kamini Sooriamoorthy

Ms. Farhanah Ahmad Shah

Ms. Aine Jamaliah Mohamad Zain

Mr. Ghazali Talib

Team Member:

Ms. Khairuza Wawiyah Khairuddin

Ms. Hazwani Yob

Ms. Evelyn Liew

Statement Prepared by:

Statement Approved by:

**AERNIDA BINTI ABDUL KADIR**

Team Leader

Management System Certification Department  
SIRIM QAS International Sdn. Bhd.

Date: 7 March 2025

**AMINUDIN BIN ABD AZIZ**

Acting Senior General Manager

Management System Certification Department  
SIRIM QAS International Sdn. Bhd.

Date: 7 March 2025

Note 1: This Independent Assurance Statement has been issued based on the content verified prior to the approval date. SIRIM QAS International Sdn Bhd does not express an opinion on, nor guarantees the integrity and/or accuracy of the information provided with the view that the conclusion was conducted post verification assessment, hence not verified. SIRIM QAS International shall not be responsible for any changes or additions made after the referred date (5 March 2025).

## PERFORMANCE DATA TABLE FROM BURSA ESG REPORTING PLATFORM

### Appendix 1

Indicator	Measurement Unit	2022	2023	2024
<b>Bursa (Anti-corruption)</b>				
Bursa C1(a) Percentage of employees who have received training on anti-corruption by employee category				
Board of Directors	Percentage	-	100.00*	100.00
Employees	Percentage	-	100.00*	100.00
Bursa C1(b) Percentage of operations assessed for corruption-related risks	Percentage	-	100.00	100.00
Bursa C1(c) Confirmed incidents of corruption and action taken	Number	-	0	0
<b>Bursa (Community/Society)</b>				
Bursa C2(a) Total amount invested in the community where the target beneficiaries are external to the listed issuer	MYR	-	5,232,621.00	5,723,449.54
Bursa C2(b) Total number of beneficiaries of the investment in communities	Number	-	12	1,548
<b>Bursa (Diversity)</b>				
Bursa C3(a) Percentage of employees by gender and age group, for each employee category				
Age Group by Employee Category				
Leadership Committee (PGB LT) Under 30	Percentage	0.00	0.00	0.00
Leadership Committee (PGB LT) Between 30-50	Percentage	70.00	80.00	90.00
Leadership Committee (PGB LT) Above 50	Percentage	30.00	20.00	10.00
Senior Management (SM and GM) Under 30	Percentage	0.00	0.00	0.00
Senior Management (SM and GM) Between 30-50	Percentage	84.00	86.00	89.00
Senior Management (SM and GM) Above 50	Percentage	16.00	14.00	11.00
First Level Management (Manager) Under 30	Percentage	0.00	0.00	0.00
First Level Management (Manager) Between 30-50	Percentage	98.00	98.00	97.00
First Level Management (Manager) Above 50	Percentage	2.00	2.00	3.00
Non-Management (Executive, Non Executive, Secretary and TTS) Under 30	Percentage	15.00	16.00	19.00
Non-Management (Executive, Non Executive, Secretary and TTS) Between 30-50	Percentage	76.00	75.00	71.00
Non-Management (Executive, Non Executive, Secretary and TTS) Above 50	Percentage	9.00	9.00	10.00
Gender Group by Employee Category				
Leadership Committee (PGB LT) Male	Percentage	70.00	70.00	70.00
Leadership Committee (PGB LT) Female	Percentage	30.00	30.00	30.00
Senior Management (SM and GM) Male	Percentage	87.00	83.00	81.00
Senior Management (SM and GM) Female	Percentage	13.00	17.00	19.00
First Level Management (Manager) Male	Percentage	77.00	75.00	72.00
First Level Management (Manager) Female	Percentage	23.00	25.00	28.00
Non-Management (Executive, Non Executive, Secretary and TTS) Male	Percentage	89.00	89.00	89.00
Non-Management (Executive, Non Executive, Secretary and TTS) Female	Percentage	11.00	11.00	11.00
Bursa C3(b) Percentage of directors by gender and age group				
Male	Percentage	67.00	62.00	62.00
Female	Percentage	33.00	38.00	38.00

Internal assurance External assurance No assurance

(\*)Restated

## PERFORMANCE DATA TABLE FROM BURSA ESG REPORTING PLATFORM

### Appendix 1

Indicator	Measurement Unit	2022	2023	2024
Under 30	Percentage	0.00	0.00	0.00
Between 30-50	Percentage	22.00	25.00	0.00
Above 50	Percentage	78.00	75.00	100.00
<b>Bursa (Energy management)</b>				
Bursa C4(a) Total energy consumption	Megawatt	18,175,000.00*	17,127,778.00*	17,630,556.00
<b>Bursa (Health and safety)</b>				
Bursa C5(a) Number of work-related fatalities	Number	1	0	0
Bursa C5(b) Lost time incident rate ("LTIR")	Rate	0.08	0.08	0.27
Bursa C5(c) Number of employees trained on health and safety standards	Number	-	1,544	1,475
<b>Bursa (Labour practices and standards)</b>				
Bursa C6(a) Total hours of training by employee category				
Leadership Committee (PGB LT)	Hours	276	834	571
Senior Management (SM and GM)	Hours	2,066	3,162	3,360
First Level Management (Manager)	Hours	3,964	9,219	11,835
Non-Management (Executive, Non Executive, Secretary and TTS)	Hours	109,074	177,463	183,115
Bursa C6(b) Percentage of employees that are contractors or temporary staff	Percentage	1.00	0.70	1.90
Bursa C6(c) Total number of employee turnover by employee category				
Leadership Committee (PGB LT)	Number	1	1	0
Senior Management (SM and GM)	Number	3	3	2
First Level Management (Manager)	Number	2	0	4
Non-Management (Executive, Non Executive, Secretary and TTS)	Number	37	57	50
Bursa C6(d) Number of substantiated complaints concerning human rights violations	Number	1	0	1
<b>Bursa (Supply chain management)</b>				
Bursa C7(a) Proportion of spending on local suppliers	Percentage	-	99.00	99.00
<b>Bursa (Data privacy and security)</b>				
Bursa C8(a) Number of substantiated complaints concerning breaches of customer privacy and losses of customer data	Number	-	0	0
<b>Bursa (Water)</b>				
Bursa C9(a) Total volume of water used	Megalitres	4,063.000000	4,168.000000	4,543.000000
<b>Bursa (Waste management)</b>				
Bursa C10(a) Total waste generated	Metric tonnes	2,172.00	3,266.00	2,504.56
Bursa C10(a)(i) Total waste diverted from disposal	Metric tonnes	1,033.00	2,104.00	1,799.13
Bursa C10(a)(ii) Total waste directed to disposal	Metric tonnes	1,394.00	647.00	710.99
<b>Bursa (Emissions management)</b>				
Bursa C11(a) Scope 1 emissions in tonnes of CO <sub>2</sub> e	Metric tonnes	5,754,544.00	5,859,402.00	6,074,946.00
Bursa C11(b) Scope 2 emissions in tonnes of CO <sub>2</sub> e	Metric tonnes	49,762.00	49,165.00	51,319.00
Bursa C11(c) Scope 3 emissions in tonnes of CO <sub>2</sub> e (at least for the categories of business travel and employee commuting)	Metric tonnes	-	-	5,055.00

Internal assurance External assurance No assurance

(\*)Restated



## GRI CONTENT INDEX

## GRI CONTENT INDEX

Statement of Use	Petronas Gas Berhad has reported the information cited in this GRI content index for the period of 1 January 2024 to 31 December 2024 with reference to the GRI Standards.
GRI 1 Used	GRI 1: Foundation 2021

GRI DISCLOSURE	PAGE REFERENCE
<b>GRI 2: General Disclosures 2021</b>	
2-1 Organisational details	IR 2024 > Who We Are, pages 8-9
2-2 Entities included in the organisation's sustainability reporting	SR 2024 > Basis of This Report, page 1
2-3 Reporting period, frequency and contact point	SR 2024 > Basis of This Report, page 1
2-4 Restatements of information	SR 2024 > Basis of This Report, page 1
2-5 External assurance	SR 2024 > Basis of This Report, page 1; Independent Limited Assurance Statement, pages 152-153
2-6 Activities, value chain and other business relationships	IR 2024 > Our Group Business Activities and Processes, pages 12-15
2-7 Employees	SR 2024 > Sustainability Scorecard, page 14  IR 2024 > Engaging Our Stakeholders, page 40; Strategic Focus Areas and Key Performance Indicators, page 53
2-8 Workers who are not employees	SR 2024 > Equal Opportunity, Diversity and Inclusion, pages 101-104
2-9 Governance structure and composition	SR 2024 > Sustainability Governance, pages 16-18
2-10 Nomination and selection of the highest governance body	SR 2024 > Corporate Governance Overview Statement > Board Appointment Process, page 107
2-11 Chair of the highest governance body	IR 2024 > Corporate Governance Overview Statement, page 103
2-12 Role of the highest governance body in overseeing the management of impacts	SR 2024 > Sustainability Governance, pages 16-18
2-13 Delegation of responsibility for managing impacts	SR 2024 > Sustainability Governance, pages 16-18
2-14 Role of the highest governance body in sustainability reporting	SR 2024 > Sustainability Governance, pages 16-18
2-15 Conflicts of interest	IR 2024 > Corporate Governance Overview Statement, pages 98-123
2-16 Communication of critical concerns	SR 2024 > Human Rights, page pages 91-100  IR 2024 > Corporate Governance Overview Statement, pages 98-123
2-17 Collective knowledge of the highest governance body	IR 2024 > Profile of the Board of Directors, pages 84-91; Company Secretaries, page 110; Profile of Leadership Team, pages 84-91

GRI DISCLOSURE	PAGE REFERENCE
<b>GRI 2: General Disclosures 2021</b>	
2-18 Evaluation of the performance of the highest governance body	IR 2024 > Corporate Governance Overview Statement, pages 98-123
2-19 Remuneration policies	IR 2024 > Corporate Governance Overview Statement, pages 118-119
2-20 Process to determine remuneration	IR 2024 > Corporate Governance Overview Statement, pages 118-119
2-22 Statement on sustainable development strategy	SR 2024 > Foreword by the Chairman of the Board Sustainability and Risk Committee, pages 4-9; Chief Executive Officer's Statement, pages 10-13; Sustainability Blueprint, page 19
2-23 Policy commitments	SR 2024 > Human Rights, pages 91-93  Website > Governance, Policies, <a href="https://www.petronas.com/pgb/governance">https://www.petronas.com/pgb/governance</a>
2-24 Embedding policy commitments	SR 2024 > Human Rights, pages 91-93; Business Ethics and Transparency, pages 145-146  Website > Governance, Policies, <a href="https://www.petronas.com/pgb/governance">https://www.petronas.com/pgb/governance</a>
2-25 Processes to remediate negative impacts	SR 2024 > Human Rights, pages 91-99  IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
2-26 Mechanisms for seeking advice and raising concerns	SR2024 > Human Rights, page 99  IR 2024 > Corporate Governance Overview Statement, page 122
2-27 Compliance with laws and regulations	SR 2024 > Sustainable Value Creation, page 28; Climate Change Management, page 46; Pollution Management, pages 61, 63-66; Waste Management, page 70; Water Management, page 77; Human Rights, pages 93, 95; Occupational Safety and Health, pages 118 and 120; Supplier Social Impacts, pages 136 and 138; Business Ethics and Transparency, page 149; Cybersecurity and Data Privacy, pages 148-149
2-28 Membership associations	SR 2024 > Climate Change Management, page 46  IR 2024 > Present Appointments in Profile of Board and Leadership Team, pages 84-97
2-29 Approach to stakeholder engagement	SR 2024 > Engaging Our Stakeholders, pages 24-27
2-30 Collective bargaining agreements	SR 2024 > Human Rights, page 91
<b>GRI 3: Material Topics 2021</b>	
3-1 Process to determine material topics	SR 2024 > Determining Our Material Matters, page 20
3-2 List of material topics	SR 2024 > Determining Our Material Matters, pages 21-23

## GRI CONTENT INDEX

GRI DISCLOSURE	PAGE REFERENCE
<b>3-3 Management of material topics</b>	
<b>SUSTAINABLE VALUE CREATION</b>	
<b>GRI 201: Economic Performance 2016</b>	
201-1 Direct economic value generated and distributed	SR 2024 > Sustainable Value Creation, page 33
201-2 Financial implications and other risks and opportunities due to climate change	SR 2024 > Climate Change Management, pages 50-51
201-4 Financial assistance received from government	No financial assistance received from government in 2024
<b>GRI 202: Market Presence 2016</b>	
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	SR 2024 > Sustainable Value Creation, page 33
202-2 Proportion of senior management hired from the local community	SR 2024 > Sustainable Value Creation, page 33
<b>GRI 203: Indirect Economic Impacts 2016</b>	
203-1 Infrastructure investments and services supported	SR 2024 > Community Engagement, pages 139-143
203-2 Significant indirect economic impacts	SR 2024 > Sustainable Value Creation, page 33 Supplier Social Impacts, page 138 Community Engagement, pages 139-143
<b>POLLUTION MANAGEMENT</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 305: Emissions 2016</b>	
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	SR 2024 > Pollution Management, page 65
<b>CLIMATE CHANGE MANAGEMENT</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 305: Emissions 2016</b>	
305-1 Direct (Scope 1) GHG emissions	SR 2024 > Climate Change Management, page 56
305-2 Energy indirect (Scope 2) GHG emissions	SR 2024 > Climate Change Management, page 56
305-4 GHG emissions intensity	SR 2024 > Climate Change Management, page 55
305-5 Reduction of GHG emissions	SR 2024 > Climate Change Management, page 58
<b>ENERGY MANAGEMENT</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 302: Energy 2016</b>	
302-1 Energy consumption within the organisation	SR 2024 > Energy Management, pages 37-41
302-4 Reduction of energy consumption	SR 2024 > Energy Management, pages 37-41
302-5 Reductions in energy requirements of products and services	SR 2024 > Energy Management, pages 37-41
<b>WASTE MANAGEMENT</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 306: Waste 2020</b>	
306-1 Waste generation and significant waste-related impacts	SR 2024 > Waste Management, pages 68-73
306-2 Management of significant waste-related impacts	SR 2024 > Waste Management, pages 68-73
306-3 Waste generated	SR 2024 > Waste Management, pages 71-75
306-4 Waste diverted from disposal	SR 2024 > Waste Management, pages 71-75
306-5 Waste directed to disposal	SR 2024 > Waste Management, pages 71-75

## GRI CONTENT INDEX

GRI DISCLOSURE	PAGE REFERENCE
<b>WATER MANAGEMENT</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 303: Water and Effluents 2018</b>	
303-1 Interactions with water as a shared resource	SR 2024 > Water Management, pages 77-81
303-2 Management of water discharge-related impacts	SR 2024 > Water Management, pages 77-81
303-3 Water withdrawal	SR 2024 > Water Management, pages 77-81
303-4 Water discharge	SR 2024 > Water Management, pages 77-81
303-5 Water consumption	SR 2024 > Water Management, pages 77-81
<b>BIODIVERSITY MANAGEMENT</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 304: Biodiversity 2016</b>	
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SR 2024 > Biodiversity Management, page 86
304-2 Significant impacts of activities, products and services on biodiversity	SR 2024 > Biodiversity Management, pages 82-89
304-3 Habitats protected or restored	SR 2024 > Biodiversity Management, pages 85-89
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	SR 2024 > Biodiversity Management, pages 86-87
<b>OCCUPATIONAL SAFETY AND HEALTH</b>	
<b>3-3 Management of material topics</b>	
<b>GRI 403: Occupational Safety and Health 2018</b>	
403-1 Occupational health and safety management system	SR 2024 > Occupational Safety and Health, pages 114-132
403-2 Hazard identification, risk assessment, and incident investigation	SR 2024 > Occupational Safety and Health, pages 120-124
403-3 Occupational health services	SR 2024 > Occupational Safety and Health, page 128-129
403-4 Worker participation, consultation, and communication on occupational health and safety	SR 2024 > Occupational Safety and Health, pages 116-117, 119, 123-24, 126, 128-30
403-5 Worker training on occupational health and safety	SR 2024 > Occupational Safety and Health, page 127 and 130
403-6 Promotion of worker health	SR 2024 > Occupational Safety and Health, pages 128
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	SR 2024 > Occupational Safety and Health, pages 121-124
403-8 Workers covered by an occupational health and safety management system	SR 2024 > Occupational Safety and Health, page 113
403-9 Work-related injuries	SR 2024 > Occupational Safety and Health, page 133
403-10 Work-related ill health	SR 2024 > Occupational Safety and Health, page 134



## GRI CONTENT INDEX

GRI DISCLOSURE	PAGE REFERENCE
<b>TALENT MANAGEMENT</b>	
3-3 Management of material topics	
<b>GRI 401: Employment 2016</b>	
401-1 New employee hires and employee turnover	SR 2024 > Talent Management, pages 110-111
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	SR 2024 > Talent Management, page 112
401-3 Parental leave	SR 2024 > Talent Management, page 111
<b>GRI 404: Training and Education 2016</b>	
404-1 Average hours of training per year per employee	SR 2024 > Talent Management, page 112
404-2 Programs for upgrading employee skills and transition assistance programs	SR 2024 > Talent Management, pages 107-108
404-3 Percentage of employees receiving regular performance and career development reviews	SR 2024 > Talent Management, page 113
<b>HUMAN RIGHTS</b>	
3-3 Management of material topics	
<b>GRI 408: Child Labor 2016</b>	
408-1 Operations and suppliers at significant risk for incidents of child labor	SR 2024 > Human Rights, page 100
<b>GRI 409: Forced or Compulsory Labor 2016</b>	
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	SR 2024 > Human Rights, page 100
<b>GRI 410: Security Practices 2016</b>	
410-1 Security personnel trained in human rights policies or procedures	SR 2024 > Human Rights, page 100
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	
411-1 Incidents of violations involving rights of indigenous peoples	SR 2024 > Human Rights, page 100
<b>SUPPLIER SOCIAL IMPACTS</b>	
3-3 Management of material topics	
<b>GRI 204: Procurement Practices 2016</b>	
204-1 Proportion of spending on local suppliers	SR 2024 > Supplier Social Impacts, page 130
<b>GRI 414: Supplier Social Assessment 2016</b>	
414-1 New suppliers that were screened using social criteria	SR 2024 > Supplier Social Impacts, page 130
414-2 Negative social impacts in the supply chain and actions taken	SR 2024 > Supplier Social Impacts, page 130
<b>EQUAL OPPORTUNITY, DIVERSITY AND INCLUSION</b>	
3-3 Management of material topics	
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	
405-1 Diversity of governance bodies and employees	SR 2024 > Equal Opportunity, Diversity and Inclusion, pages 103-104
<b>COMMUNITY ENGAGEMENT</b>	
3-3 Management of material topics	
<b>GRI 413: Local Communities 2016</b>	
413-1 Operations with local community engagement, impact assessments, and development programs	SR 2024 > Community Engagement, pages 140-142

## GRI CONTENT INDEX

GRI DISCLOSURE	PAGE REFERENCE
<b>BUSINESS ETHICS AND TRANSPARENCY</b>	
3-3 Management of material topics	
<b>GRI 205: Anti-corruption 2016</b>	
205-1 Operations assessed for risks related to corruption	SR 2024 > Business Ethics and Transparency, page 146
205-2 Communication and training about anti-corruption policies and procedures	SR 2024 > Business Ethics and Transparency, page 147
205-3 Confirmed incidents of corruption and actions taken	SR 2024 > Business Ethics and Transparency, page 147
<b>GRI 206: Anti-competitive Behavior 2016</b>	
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	SR 2024 > Business Ethics and Transparency, page 147
<b>CYBERSECURITY AND DATA PRIVACY</b>	
3-3 Management of material topics	
<b>GRI 418: Customer Privacy 2016</b>	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	SR 2024 > Cybersecurity and Data Privacy, page 151

## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S1 CONTENT INDEX

IFRS S1 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>GOVERNANCE</b>		
27(a)(i)	How responsibilities for sustainability-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s)	SR 2024 > Our Sustainability Approach, pages 17-18
27(a)(ii)	How the body(s) or individual(s) determined whether appropriate skills and competencies will be developed to oversee strategies designed to respond to sustainability-related risks and opportunities	IR 2024 > Profile of the Board of Directors and Profile of Leadership Team, pages 84-97; Corporate Governance Overview Statement, pages 98-115
27(a)(iii)	How and how often the body(s) or individual(s) is informed about sustainability-related risks and opportunities	SR 2024 > Foreword by the Chairman of the Board Sustainability and Risk Committee, pages 4-9; Sustainability Governance, pages 16-18  IR 2024 > Corporate Governance Overview Statement, pages 98-100
27(a)(iv)	How the body(s) or individual(s) takes into account sustainability-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities	SR 2024 > Climate Change Management, page 49; Sustainability Governance, pages 16-18  IR 2024 > Statement on Risk Management and Internal Control, pages 146-163
27(a)(v)	How the body(s) or individual(s) oversees the setting of targets related to sustainability-related risks and opportunities, and monitors progress towards those targets, including whether and how related performance metrics are included in remuneration policies	SR 2024 > Sustainability Governance, pages 16-18  IR 2024 > Corporate Governance Overview Statement, pages 98-120
27(b)(i)	Whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee	SR 2024 > Sustainability Governance, pages 16-18  IR 2024 > Corporate Governance Overview Statement, page 100
27(b)(ii)	Whether management uses controls and procedures to support the oversight of sustainability-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions	SR 2024 > Sustainability Governance, pages 16-18  IR 2024 > Corporate Governance Overview Statement, pages 98-120; Statement on Risk Management and Internal Control, pages 146-163
<b>STRATEGY</b>		
30(a)	Describe the sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects	SR 2024 > Determining Our Material Matters, pages 22-23  IR 2024 > Risks Linked to Strategy, pages 54-55; Business Review, pages 56-63; Statement on Risk Management and Internal Control, pages 146-163
30(b)	The time horizons—short, medium or long term—over which the effects of each of those sustainability-related risks and opportunities could reasonably be expected to occur	SR 2024 > Climate Change Management, page 42
30(c)	The definitions of 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making	SR 2024 > Climate Change Management, page 42

## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S1 CONTENT INDEX

IFRS S1 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>STRATEGY</b>		
32(a)	A description of the current and anticipated effects of sustainability-related risks and opportunities on the entity's business model and value chain	IR 2024 > Our Operating Environment, pages 35-37; Our Value Creating Business Model, pages 46-47; Risks Linked to Strategy, pages 54-55
32(b)	A description of where in the entity's business model and value chain sustainability-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets)	SR 2024 > Climate Change Management, page 44  IR 2024 > Our Value Creating Business Model, pages 46-47; Business Review, pages 56-62
33(a)	How the entity has responded to, and plans to respond to, sustainability-related risks and opportunities in its strategy and decision-making	SR 2024 > Determining Our Material Matters, pages 22-23; Climate Change Management, pages 50-51  IR 2024 > Risks Linked to Strategy, pages 54-55; Business Review, pages 56-62
33(b)	The progress against plans the entity has disclosed in previous reporting periods, including quantitative and qualitative information	SR 2024 > Sustainable Value Creation, pages 28-33; Safeguard the Environment, pages 34-89; Positive Social Impact, pages 90-143; Responsible Governance, pages 144-151
33(c)	Trade-offs between sustainability-related risks and opportunities that the entity considered (for example, in making a decision on the location of new operations, an entity might have considered the environmental impacts of those operations and the employment opportunities they would create in a community)	IR 2024 > Our Value Creating Business Model, pages 46-47
35(c)(i)	Its investment and disposal plans (for example, plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas, and asset retirements), including plans the entity is not contractually committed to	IR 2024 > Managing Director/Chief Executive Officer's Review, pages 20-27
35(c)(ii)	Its planned sources of funding to implement its strategy	IR 2024 > Strategic Focus Areas and Key Performance Indicators, pages 51-53
<b>RISK MANAGEMENT</b>		
44(a)(i)	The processes and related policies the entity uses to identify, assess, prioritise and monitor sustainability-related risks, including information about the inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes)	IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
44(a)(ii)	Application of scenario analysis to inform its identification of sustainability-related risks	SR 2024 > Climate Change Management, pages 48-53
44(a)(iii)	How the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria)	SR 2024 > Climate Change Management, pages 48-53  IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
44(a)(iv)	Whether and how the entity prioritises sustainability-related risks relative to other types of risk	IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
44(a)(v)	How the entity monitors sustainability-related risks	SR 2024 > Climate Change Management, pages 48-53  IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
44(a)(vi)	Whether and how the entity has changed the processes it used compared with the previous reporting period	Not applicable. Risk management approach has not changed



## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S1 CONTENT INDEX

IFRS S1 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>RISK MANAGEMENT</b>		
44(b)	The processes the entity uses to identify, assess, prioritise and monitor sustainability-related opportunities	SR 2024 > Climate Change Management, pages 48-49  IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
44(c)	The extent to which, and how, the processes for identifying, assessing and prioritising and monitoring sustainability-related risks and opportunities are integrated into and inform the entity's overall risk management process	SR 2024 > Climate Change Management, pages 48-49  IR 2024 > Statement on Risk Management and Internal Controls, pages 146-163
<b>METRICS AND TARGETS</b>		
46(a)	Metrics required by an applicable IFRS Sustainability Disclosure Standard for each sustainability-related risk and opportunity that could reasonably be expected to affect the entity's prospects	SR 2024 > Climate Change Management, pages 42-45
46(b)	Metrics the entity uses to measure and monitor that sustainability-related risk or opportunity and its performance in relation to that sustainability-related risk or opportunity, including progress towards any targets the entity has set, and any targets it is required to meet by law or regulation.	SR 2024 > Climate Change Management, pages 42-46
50(a)	How the metric is defined, including whether it is derived by adjusting a metric taken from a source other than IFRS Sustainability Disclosure Standards and, if so, which source and how the metric disclosed by the entity differs from the metric specified in that source	SR 2024 > Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
50(b)	Whether the metric is an absolute measure, a measure expressed in relation to another metric or a qualitative measure (such as red, amber, green – or RAG – status)	SR 2024 > Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
50(c)	Whether the metric is validated by a third party and, if so, which party	SR 2024 > Independent Limited Assurance Statement, pages 152-153
51(a)	The metric used to set the target and monitor progress towards reaching the target	SR 2024 > Climate Change Management, pages 43-44; Pollution Management, page 61; Waste Management, page 72; Water Management, pages 77 and 79; Occupational Safety and Health, pages 115 and 119; Cybersecurity and Data Privacy, page 150
51(b)	The specific quantitative or qualitative target the entity has set or is required to meet	SR 2024 > Climate Change Management, pages 43-44; Pollution Management, page 61; Waste Management, page 72; Water Management, pages 77 and 79; Occupational Safety and Health, pages 115 and 119; Cybersecurity and Data Privacy, page 150  IR 2024 > Strategic Focus Areas and Key Performance Indicators, pages 51-53
51(c)	The period over which the target applies	SR 2024 > Climate Change Management, pages 42-44
51(d)	The base period from which progress is measured	SR 2024 > Climate Change Management, pages 42-44, 58
51(f)	Performance against each target and an analysis of trends or changes in the entity's performance	SR 2024 > Performance Data Table from Bursa ESG Reporting Platform, pages 154-155

## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S2 CONTENT INDEX

IFRS S2 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>GOVERNANCE</b>		
6(a)(i)	The governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities. Specifically, the entity shall identify that body(s) or individual(s) and disclose information about:  How responsibilities for climate-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s)	SR 2024 > Sustainability Governance, pages 16-17  IR 2024 > Corporate Governance Overview Statement, pages 98-115
6(a)(ii)	How the body(s) or individual(s) determined whether appropriate skills and competencies will be developed to oversee strategies designed to respond to climate-related risks and opportunities	IR 2024 > Profile of the Board of Directors, pages 102-109; Profile of Leadership Team, pages 111-115
6(a)(iii)	How and how often the body(s) or individual(s) is informed about climate-related risks and opportunities	SR 2024 > Sustainability Governance, pages 16-17  IR 2024 > Corporate Governance Overview Statement, pages 98-115
6(a)(iv)	How the body(s) or individual(s) takes into account climate-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities	SR 2024 > Sustainability Governance, pages 16-17  IR 2024 > Corporate Governance Overview Statement, pages 98-115
6(a)(v)	How the body(s) or individual(s) oversees the setting of targets related to climate-related risks and opportunities, and monitors progress towards those targets (see paragraph 33-36), including whether and how related performance metrics are included in remuneration policies (see paragraph 29(g))	SR 2024 > Sustainability Governance, pages 16-17; Climate Change Management, pages 47-54  IR 2024 > Nomination and Remuneration Committee Report, 136-142
6(b)(i)	Disclose information about management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities, including information about:  Whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee	SR 2024 > Sustainability Governance, pages 16-18
<b>STRATEGY</b>		
9(a)	The climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects	SR 2024 > Climate Change Management, pages 47-54
9(b)	The current and anticipated effects of those climate-related risks and opportunities on the entity's business model and value chain	SR 2024 > Climate Change Management, pages 50-53
9(c)	The effects of those climate-related risks and opportunities on the entity's strategy and decision-making, including information about its climate-related transition plan	SR 2024 > Climate Change Management, pages 50-53
10(a)	An entity shall disclose information that enables users of general-purpose financial reports to understand the climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects. Specifically, the entity shall:  Describe climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects	SR 2024 > Climate Change Management, pages 50-54

## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S2 CONTENT INDEX

IFRS S2 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>STRATEGY</b>		
10(b)	Explain, for each climate-related risk the entity has identified, whether the entity considers the risk to be a climate-related physical risk or climate-related transition risk	SR 2024 > Climate Change Management, pages 50-54
10(c)	Specify, for each climate-related risk and opportunity the entity has identified, over which time horizons—short, medium, or long term—the effects of each climate-related risk and opportunity could reasonably be expected to occur	SR 2024 > Climate Change Management, pages 50-54
10(d)	Explain how the entity defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons used by the entity for strategic decision making.	SR 2024 > Climate Change Management, page 42
13(a)	An entity shall disclose information that enables users of general purpose financial reports to understand the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain. Specifically, the entity shall disclose:  A description of the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain	IR 2024 > Our Operating Environment, pages 35-36; Our Value Creating Business Model, pages 46-47
13(b)	A description of where in the entity's business model and value chain sustainability-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets)	SR 2024 > Climate Change Management, page 44
14(a)(i)	Disclose information about how the entity has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation. Specifically, the entity shall disclose information about:  Current and anticipated changes to the entity's business model, including its resource allocation, to address climate-related risks and opportunities (for example, these changes could include plans to manage or decommission carbon-, energy- or water-intensive operations; resource allocations resulting from demand or supply-chain changes; resource allocations arising from business development through capital expenditure or additional expenditure on research and development; and acquisitions or divestments)	SR 2024 > Climate Change Management, page 47 IR 2024 > Managing Director/Chief Executive Officer's Review, pages 25-26; Our Strategic Agenda, pages 48-50
14(a)(ii)	Current and anticipated direct mitigation and adaptation efforts (for example, through changes in production processes or equipment, relocation of facilities, workforce adjustments, and changes in product specifications)	SR 2024 > Climate Change Management, pages 42-54
14(a)(iii)	Current and anticipated indirect mitigation and adaptation efforts (for example, through working with customers and supply chains)	SR 2024 > Climate Change Management, pages 42-54
14(a)(iv)	Any climate-related transition plan the entity has, including information about key assumptions used in developing its transition plan, and dependencies on which the entity's transition plan relies	SR 2024 > Climate Change Management, pages 50-54
14(a)(v)	How the entity plans to achieve any climate-related targets, including any greenhouse gas emissions targets, described in accordance with paragraphs 33–36.	SR 2024 > Climate Change Management, pages 55-58

## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S2 CONTENT INDEX

IFRS S2 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>STRATEGY</b>		
15(b)	The anticipated effects of climate-related risks and opportunities on the entity's financial position, financial performance and cash flows over the short, medium and long term, taking into consideration how climate-related risks and opportunities are included in the entity's financial planning (anticipated financial effects).	SR 2024 > Climate Change Management, pages 50-51
22(b)(i)(1)	How and when the climate-related scenario analysis was carried out, including information about the inputs the entity used, including:  Which climate-related scenarios the entity used for the analysis and the sources of those scenarios	SR 2024 > Climate Change Management, pages 49-54
22(b)(i)(3)	Whether the climate-related scenarios used for the analysis are associated with climate-related transition risks or climate-related physical risks	SR 2024 > Climate Change Management, pages 49-54
22(b)(i)(4)	Whether the entity used, among its scenarios, a climate-related scenario aligned with the latest international agreement on climate change	SR 2024 > Climate Change Management, pages 52-53
22(b)(i)(5)	Why the entity decided that its chosen climate-related scenarios are relevant to assessing its resilience to climate-related changes, developments or uncertainties	SR 2024 > Climate Change Management, pages 52-53
22(b)(i)(6)	The time horizons the entity used in the analysis and	SR 2024 > Climate Change Management, pages 42 and 52-53
22(b)(i)(7)	What scope of operations the entity used in the analysis (for example, the operating locations and business units used in the analysis)	SR 2024 > Climate Change Management, pages 44-45 and 53
22(b)(ii)(1)	The key assumptions the entity made in the analysis, including assumptions about:  Climate-related policies in the jurisdictions in which the entity operates	SR 2024 > Climate Change Management, page 52
22(b)(ii)(4)	Energy usage and mix and	SR 2024 > Climate Change Management, pages 42-58
22(b)(ii)(5)	Developments in technology and	SR 2024 > Climate Change Management, pages 42-58
22(b)(iii)	The reporting period in which the climate-related scenario analysis was carried out (see paragraph B18).	SR 2024 > Climate Change Management, pages 42-58
<b>RISK MANAGEMENT</b>		
25(a)(i)	The processes and related policies the entity uses to identify, assess, prioritise and monitor climate-related risks, including information about  the inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes)	SR 2024 > Climate Change Management, pages 48-49; Integrated Report 2024 > Statement on Risk Management and Internal Controls, pages 146-163
25(a)(ii)	whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related risks	SR 2024 > Climate Change Management, pages 52-53
25(a)(iii)	how the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria);	SR 2024 > Climate Change Management, pages 48-49
25(a)(v)	How the entity monitors climate-related risks; and	SR 2024 > Climate Change Management, pages 48-49
25(a)(vi)	Whether and how the entity has changed the processes it uses compared with the previous reporting period;	Not applicable. Risk management approach has not changed



## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S2 CONTENT INDEX

IFRS S2 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>RISK MANAGEMENT</b>		
<b>25(b)</b>	The processes the entity uses to identify, assess, priorities and monitor climate-related opportunities, including information about whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related opportunities; and	SR 2024 > Climate Change Management, pages 48-54
<b>25(c)</b>	The extent to which, and how, the processes for identifying, assessing, prioritising and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process.	SR 2024 > Climate Change Management, pages 48-54
<b>29(a)(i)(3)</b>	Scope 3 greenhouse gas emissions	SR 2024 > Climate Change Management, pages 45 and 56; Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
<b>METRICS AND TARGETS</b>		
<b>29(a)(i)(1)</b>	An entity shall disclose information relevant to the cross-industry metric categories of: greenhouse gases—the entity shall  Disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO <sub>2</sub> equivalent (see paragraphs B19–B22), classified as: Scope 1 greenhouse gas emissions;	SR 2024 > Climate Change Management, pages 45, 56-57; Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
<b>29(a)(i)(2)</b>	Scope 2 greenhouse gas emissions; and	SR 2024 > Climate Change Management, pages 45 and 56; Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
<b>29(a)(i)(3)</b>	Scope 3 greenhouse gas emissions	SR 2024 > Climate Change Management, pages 45 and 56; Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
<b>29(a)(ii)</b>	Measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) unless required by a jurisdictional authority or an exchange on which the entity is listed to use a different method for measuring its greenhouse gas emissions (see paragraphs B23–B25);	SR 2024 > Climate Change Management, pages 42 and 58; Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
<b>29(a)(iii)(1)</b>	Disclose the approach it uses to measure its greenhouse gas emissions (see paragraphs B26–B29) including: the measurement approach, inputs and assumptions the entity uses to measure its greenhouse gas emissions;	SR 2024 > Climate Change Management, pages 42 and 58; Performance Data Table from Bursa ESG Reporting Platform, pages 154-155
<b>29(a)(v)</b>	Location-based Scope 2 greenhouse gas emissions, and the information about any contractual instruments that is necessary to inform users' understanding of the entity's Scope 2 greenhouse gas emissions	SR 2024 > Climate Change Management, page 44
<b>29(g)(i)</b>	Remuneration, including the information about:  A description of whether and how climate-related considerations are factored into executive remuneration (see also paragraph 6(a)(v))	SR 2024 > Sustainability Governance, page 18  IR 2024 > Nomination and Remuneration Committee Report, 136-142
<b>33(a)</b>	An entity shall disclose the quantitative and qualitative climate-related targets it has set to monitor progress towards achieving its strategic goals, and any targets it is required to meet by law or regulation, including any greenhouse gas emissions targets. For each target, the entity shall disclose:  The metric used to set the target (see paragraphs B66–B67);	SR 2024 > Climate Change Management, pages 43-44
<b>33(b)</b>	The objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives);	SR 2024 > Climate Change Management, pages 43-44

## INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) S2 CONTENT INDEX

IFRS S2 INDICATOR	DESCRIPTION	PAGE REFERENCE
<b>METRICS AND TARGETS</b>		
<b>33(c)</b>	The part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographical region);	SR 2024 > Climate Change Management, pages 43-44
<b>33(d)</b>	The period over which the target applies;	SR 2024 > Climate Change Management, pages 42-43
<b>33(e)</b>	The base period from which progress is measured;	SR 2024 > Climate Change Management, pages 43 and 58
<b>33(f)</b>	Any milestones and interim targets;	SR 2024 > Climate Change Management, pages 43 and 58
<b>33(g)</b>	If the target is quantitative, whether it is an absolute target or an intensity target; and	SR 2024 > Climate Change Management, pages 43-44 and 58
<b>34(c)</b>	The metrics used to monitor progress towards reaching the target; and	SR 2024 > Climate Change Management, pages 45 and 58
<b>36(a)</b>	For each greenhouse gas emissions target disclosed in accordance with paragraphs 33–35, an entity shall disclose: which greenhouse gases are covered by the target.  Which greenhouse gases are covered by the target.	SR 2024 > Climate Change Management, pages 42-58
<b>36(b)</b>	Whether Scope 1, Scope 2 or Scope 3 greenhouse gas emissions are covered by the target.	SR 2024 > Climate Change Management, pages 42-58
<b>36(e)(i)</b>	The entity's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target. In explaining its planned use of carbon credits the entity shall disclose information including, and with reference to paragraphs B70–B71: the extent to which, and how, achieving any net greenhouse gas emissions target relies on the use of carbon credits;	SR 2024 > Climate Change Management, page 47

## GLOSSARY OF TERMS, ABBREVIATIONS AND ACRONYMS

## GLOSSARY OF TERMS, ABBREVIATIONS AND ACRONYMS

ABBREVIATION	MEANING OR DEFINITION
4R	Reduce, Reuse, Recycle and Recover
ABC	Anti-Bribery and Corruption
ABR	Accountability and Behaviour Reinforcement
ALARP	As Low As Reasonably Practicable
API	American Petroleum Institute
ASU	Air Separation Unit
BAP	Biodiversity Action Plan
BES	Biodiversity and Ecosystem Services
BESRA	Biodiversity and Ecosystem Services Risk Assessments
BNM	Bank Negara Malaysia
BRC	Board Risk Committee
BRICS	Barrier Risk Centralized Solution
BSRC	The Board Sustainability and Risk Committee
C2M2	Cybersecurity Capability Maturity Model
CCRM	Climate Change Risk Management Framework
CCS	Carbon Capture and Storage
CFA	Carbon Footprint Assessments
CLO	Community Liaison Officer
CMIS	Crisis Management Information System
CoCHR	Code of Conduct on Human Rights
COD	Chemical Oxygen Demand
CRA	Corruption Risk Assessment
D&I	Diversity and Inclusion
DoE	Department of Environment
DOSH	Department of Occupational Safety and Health
EAI	Environmental Aspect Impact
EIA	Environmental Impact Assessment
EIA	Environmental Aspect and Impact Assessment
ELMS	Energy and Loss Management System
EMP	Environmental Management Plan
EMS	Environmental Management System
EPF	Employees Provident Fund
ePTW+ 2.0	Electronic e-Permit to Work
eSWIS	Electronic Scheduled Waste Information System
Ex-RM	External Risk Management
FMS	Fatigue Management System
FSU	Floating Storage Unit
GBF	Global Biodiversity Framework
GDPR	General Data Protection Regulation
GEES	Graduate Employability Enhancement Scheme

ABBREVIATION	MEANING OR DEFINITION
GET	Green Electricity Tariff
GHG	Greenhouse Gas
GHSE	Group Health, Safety, and Environment
GPP	Gas Processing Plant
GPP6	Gas Processing Plant 6
GPU	Gas Processing and Utilities
GRI	Global Reporting Initiative
GTC	GPU Technical Centre
GTOP	Gas Transmission Optimisation
GTR	Gas Transportation and Regasification
GWP	Global Warming Potential
HANS	Hari Alam Sekitar Negara
HAZID	Hazard Identification
HEMP	Hazard and Effect Management Process
HIRA	Hazard Identification and Risk Assessment
HRA	Health Risk Assessment
HSE	Health, Safety and Environment
HSSE	Health, Safety, Security and Environment
IBAT	Integrated Biodiversity Assessment
IBR	Incentive Based Regulation
IER	Industrial Effluent Regulation
IETS	Industrial Effluent Treatment System
IFRS	International Financial Reporting Standards
IGC	Internal Gas Consumption
IHOH	Integrated Health and Occupational Health
IPCC	The Intergovernmental Panel on Climate Change
IPL	Independent Protection Layers
IR	Integrated Report
iREMOTE	Integrated Remote and Monitoring System
ISO	International Organisation for Standardisation
ISSB	International Sustainability Standards Board
IUCN	International Union for Conservation of Nature
JHA	Job Hazard Analysis
JPKK	Village Development and Safety Committee
KAPENAS	Kesatuan Kakitangan Petroliaam Nasional Berhad
KIPC	Kertih Integrated Petrochemical Complex
KKM	Ministry of Health Malaysia
KPI	Key Performance Indicators
KWAP	Kumpulan Wang Persaraan (Diperbadankan)
KWSP	Kumpulan Wang Simpanan Pekerja
LCA	Life Cycle Analysis
LNG	Liquefied Natural Gas

ABBREVIATION	MEANING OR DEFINITION
LOPA	Layer of Protection Analysis
LOPC	Loss of Primary Containment
LPA	Loss Prevention Asia
LT	The Board and Leadership Team
LTI	Lost Time Injury
LTIR/LTIF	Lost Time Incident Rate/Lost Time Incident Frequency
MARS	Monitoring and Reporting System
MATA	Mitigate, Accept, Transfer and Avoid
MBKT	Kuala Terengganu City Council
MCCG	Malaysian Code on Corporate Governance
MCF	Mandatory Control Framework
MD/CEO	Managing Director/Chief Executive Officer
MFRS	Malaysian Financial Reporting Standards
MMLR	Main Market Listing Requirements
MNS	Malaysian Nature Society
MoC	Management of Change
MSR	Management System Review
NEDA	New Electricity Dispatch Arrangement
NEP	National Energy Policy
NETR	National Energy Transition Roadmap
NFPS	National Fire Protection Association
NGO	Non-Governmental Organisations
NOx	Nitrous Oxide
NPBD	National Policy on Biological Diversity
NPI	Net Positive Impact
NRA	Noise Risk Assessment
NZCE 2050	Net Zero Carbon Emissions 2050
OE	Operational Excellence
OEM	Original Equipment Manufacturer
OEMS	Operational Excellence Management System
OGMP 2.0	Oil and Gas Methane Partnership 2.0
OHSMS	Occupational Safety and Health Management System
OSHA 1994	Occupational Safety and Health Act 1994
PASR	Pre-Activity Safety Review
PEMS	Predictive Emission Monitoring System
PGU	Peninsular Gas Utilisation
PDR	Product Delivery Reliability
PHA	Process Hazard Analysis
PNB	Permodalan Nasional Berhad
PPIC	PETRONAS Petroleum Industry Complex
PRM	PETRONAS Resiliency Model
PSM	Process Safety Management
PTS	Petronas Technical Standard

ABBREVIATION	MEANING OR DEFINITION
PTW	Permit-to-Work
PwC	PricewaterhouseCoopers
QRA	Quantitative Risk Assessment
RCA	Root Cause Analysis
RCC	Risk and Compliance Committee
RCFA	Root Cause and Failure Analysis
RGTP	Regas Terminal Pengerang
SASB	Sustainability Accounting Standards Board
SCPD	Safety Critical Protective Device
SEC	Specific Energy Consumption
SIEM	Security Information and Event Management
SIM	Social Impact Management
SIMS	Structure Integrity Management System
SHOC	Safe Handling of Chemicals
SOx	Sulphur Oxide
SR	Sustainability Report
SRC	The Sustainability and Risk Committee
SVC	Sustainable Value Creation
SWC	Sustainability Working Committee
TARA	Turnaround Risk Assessment
TBR	Team-based Reward
TCFD	Task Force on Climate-Related Financial Disclosures
TNFD	Task Force on Nature-related Financial Disclosures
TOR	Terms of Reference
TTS	Technical Trade Specialist
UAUC	Unsafe Act, Unsafe Condition
UMT	University Malaysia Terengganu
UNGP	United Nations Guiding Principles
UniSZA	Universiti Sultan Zainal Abidin
UNSDG	United Nations Sustainable Development Goals
UOC	Unified Operation Centre
USM	Universiti Sains Malaysia
VOC	Volatile Organic Compound
WAPS	Water Practices
WBC	Whistleblowing Committee
WBCSD	World Business Council for Sustainable Development
WBS	Whistleblowing Secretariat
WFH	Work-From-Home
WL	Work Leader
WRI	World Resources Institute
WGLL	Whats Good Looks Like
XPRESS	Express Registration for External Service Provider





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