

1st Half 2021

Sustainability Disclosure

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Four Lenses of Sustainability

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Charlotte Wolff-Bye

Chief Sustainability Officer,
PETRONAS

Letter from Chief Sustainability Officer (1 of 3)

Welcome to the 5th publication of PETRONAS's Half Yearly Sustainability Disclosure. In this half-yearly report, I would like to highlight where we are against the three (3) sustainability targets committed by PETRONAS thus far, as well as other notable highlights of our sustainability performance.

In addition, this disclosure includes our position and highlight our efforts in respecting human rights especially for operations in conflict-affected countries. As a global energy player, it is our responsibility to ensure strong governance mechanisms and ethical business practices are in place. Beyond safeguarding our operations, we engage in several efforts to ensure that our presence is positively adding value to the society in the communities where we operate, with the common goal of building a sustainable future together.

Lens 1: Responsible Governance

The energy transition has become the top agenda of countries and corporations across the world. The recent report by Intergovernmental Panel on Climate Change re-affirms that without immediate, rapid and large-scale reductions in greenhouse gas (GHG) emissions, global temperature increase is poised to reach or even exceed 1.5 degrees Celsius in the next decades. In tandem with the heightened interest on energy transition, stakeholders' expectations on effective management of sustainability impacts by companies and corporations are also on the rise. The focus is more so on energy companies which are regarded as both causing and essential in resolving the climate change problem.

Responding to the urgency of the issue, in October 2020, PETRONAS announced its aspirations to achieve net zero carbon emissions by 2050 (NZCE 2050). This aspiration has since been embedded in our PETRONAS's Moving Forward Together 50:30:0 (MFT 50:30:0) target. The components of the 50:30:0 represent 50% improvement in cash flow from operations by 2025, 30% revenue by 2030 from new non-traditional business to complement growth in existing core areas, and 0 represents the NZCE 2050.

In charting the pathway to realise the NZCE 2050 aspiration and strengthening PETRONAS's approach in its long-term sustainability journey, in August 2021 PETRONAS established a dedicated Corporate Sustainability office. This new function is led by myself to drive the integration of the sustainability agenda across key business processes and strengthen the capability to transform PETRONAS into an effective energy company that enriches lives for a sustainable future.

Transparency is a key imperative for a sustainable corporation. Therefore, in April this year, we pledged our commitment to a uniform set of metrics by signing up to the Stakeholder Capitalism Metrics promoted by the World Economic Forum. This commitment to 21 core metrics will allow for comparable disclosures with our peers across the world for the benefit of our stakeholders.

Letter from Chief Sustainability Officer (2 of 3)

Lens 2: Safeguard the Environment

Managing GHG emissions and increasing renewable energy capacity are key components in our journey to realise our NZCE 2050 aspiration. In managing our GHG emissions, we have recorded a total of 22.5 Million tonnes of carbon dioxide equivalent (MtCO₂e) of GHG emissions across our global operations for the first half of 2021. For our Malaysia operations, 21.8 MtCO₂e was recorded against a total of 45.2 MtCO₂e planned for FY2021 which is 4% lower than the same period last year (22.8 MtCO₂e). This is at the back of our target to cap GHG emissions to 49.5 MtCO₂e for our Malaysia operations by 2024. In our mission to increase renewable energy capacity to 3,000 megawatts (MW) by 2024, as at half year 2021, we've installed a cumulative 762 MW renewable energy capacity against plan of 1,228 MW for FY 2021.

On other parts of environmental management, H1 2021 also sees us recording no hydrocarbon spills to the environment that is over one (1) barrel. In addition, we've recorded lower sulphur oxide and nitrogen oxide emissions at 23,953 metric tonnes and 64,888 metric tonnes respectively, compared to the same period in 2020. Reduction of sulphur oxide is due to lower operating level of our refineries, which has led to reduction of approximately 1,100 metric tonnes compared to the same period last year.

On water management, we have recorded a slightly higher freshwater withdrawal volume of 31.59 million cubic metres compared to the same period in 2020. This is due to change where we have included PETRONAS Refinery and Petrochemical Corporation (PRPC) Utilities and Facilities data in the reporting. On waste management, we've recorded 29,046 metric tonne of waste disposed in H1, a slight increase compared to the same period in 2020. The increase in hazardous waste disposal is contributed by tank

cleaning activity at one of the local oil terminals which account for approximately 4,100 metric tonnes of waste.

Lens 3: Positive Social Impact

Integrating the sustainability agenda into PETRONAS's operations entails several key business areas including health, safety and environmental (HSE) management. The senior management of PETRONAS has consistently reinforced the aspiration to achieve zero (0) fatality in our operations as one of the key performance target for HSE Groupwide. This signals the commitment from the top that the safety of our employees and partners is our utmost priority.

Thus, I am pleased to inform that as of June 2021 with 128 million manhours exposure recorded at all entities within our operational control, PETRONAS has not recorded any fatality. Alarming, we have observed that the number of Tier-1 Process Safety Event (PSE) is on the rise, with five (5) incidents recorded during the first half of the year. A Tier 1 PSE is a Loss of Primary Containment (LOPC) with the greatest consequence as defined by API 754. It is an unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials, from a process that results in one or more of the consequences as listed in the API 754. We also observed a slight increase in Lost Time Injuries Frequency (per 1 million manhours) from 0.10 in 2020 to 0.11 in H1 2021 and Total Recordable Case Frequency (per 1 million manhours) from 0.29 in 2020 to 0.38 in H1 2021. There is a need for us to strengthen compliance to standards and operating discipline. On the health management front, we recorded an increase in Total Recordable Occupational Illness Frequency (per 1 million manhours) from 0.16 in 2020 to 0.18 in H1 2021 due to a food poisoning incident and noise induced hearing loss incidents.



Letter from Chief Sustainability Officer (3 of 3)

On the health and safety outlook, the second half of the year will bring along new HSE challenges and risks. This includes risks coming from process safety, the monsoon season as well as the uncertainty brought about by new variants of COVID-19 to PETRONAS's operations. Straddling through the ensuing uncertainties, we continue to manage the pandemic impact through our PETRONAS Pandemic Preparedness and Response Team (PPRT). Details of how we managed COVID-19 can be referred to in our [Integrated Report 2020](#). In addition to our on-going efforts, and in support of the community at large, this year, we've also introduced programs such as the 'Food Bank Programme', Graduate Employability Enhancement Scheme and support of the 'Cerdik' initiative to provide devices with data connectivity to more than 12,000 less privileged students.

Despite the discouraging trends in the first half of 2021, we will be vigilant in managing our HSE risks by increasing management oversight and implementing initiatives anchoring on Leadership, Culture and Compliance across all our operations. Efforts to leverage Digitalisation, Technology, and Innovation to ensure timely and efficient HSE decisions will also be fortified for the overall sustainability of our operations.

We are also progressing in our efforts to nurture our future generations. As of first half of 2021, 1,837 education beneficiaries were recorded against a total of 6,697 beneficiaries planned for FY2021. Since 2020, a cumulative total of 7,025 beneficiaries has been recorded in line with our target to reach over 24,000 beneficiaries through various education programs between 2020 to 2024.

With increasing focus on operational efficiency, Businesses are prioritising manning fulfilment while concurrently taking into consideration the optimum level of manning at the beginning of the year. Therefore, in H1 2021, we saw a reduction of 60% of new hires and 2% reduction in overall manpower compared to the same period in 2020. It is expected that this number will show an increasing trend because of the hiring of our scholars graduating in the second half of the year. However, this manpower level will also be balanced out with a higher attrition rate due to the implementation of Early Leaving Service Option (ELSO) for eligible employees who are interested to depart early from their employment with PETRONAS. As at H1 2021, total PETRONAS manpower stood at 47,344.

Lens 4: Value Creation

We believe that our sustainability efforts bring value to the organisation both in the short and the long-term. In August this year, we announced our Half-Year Results. Good progress has been achieved through continued operational excellence and favourable market conditions during the period in review. Details of the H1 2021 financial performance can be accessed [here](#).

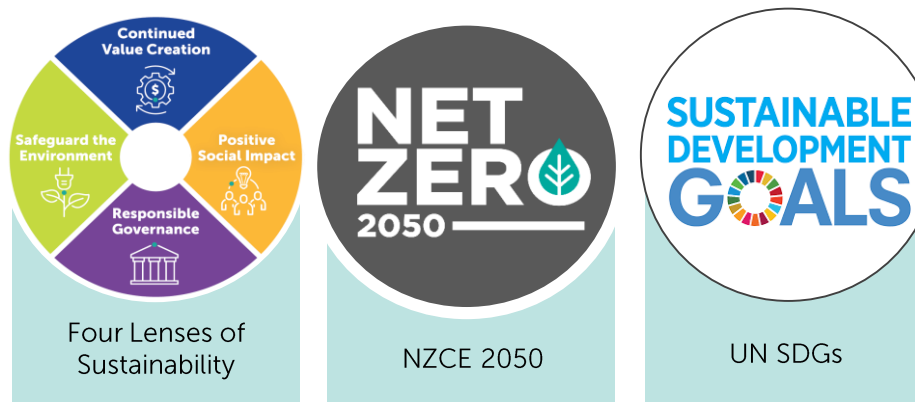
Call to Action

Despite the positive progress we are making, there is a lot more to be done. The only way to move forward is 'Together'. Collaborative efforts with our stakeholders including suppliers, partners, consumers, and communities are pertinent for the success of our sustainability journey. I am excited to go through this journey with you. Do follow us at www.petronas.com as we embrace the opportunities ahead. Enjoy this First Half 2021 edition and have a look at the progress we have made so far.



Preface

Armed with the goal of achieving NZCE 2050, this edition remains guided by our Sustainability Agenda and the four lenses of sustainability, in alignment with United Nations Sustainable Development Goals (UN SDGs).

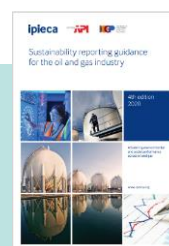


As such, our reporting approach in this edition has been enhanced by linking the half yearly sustainability performance data to our sustainability stories. The performance data are also mapped to key international sustainability reporting standards. This ensures the credibility of the report while continuously improving the sustainability performance data disclosure.

Sustainability Performance Indicators

1. International Petroleum Industry Environmental Conservation Association (IPIECA)/ American Petroleum Institute (API)/ International Association of Oil & Gas Producers (IOGP) Sustainability reporting guidance for the oil and gas industry
2. Global Reporting Initiative (GRI) Standards

IPIECA¹



GRI²



We hope you will benefit from this disclosure report of the first half of 2021 and would like to call upon you to continue lending us your support in our journey towards a sustainable future. We welcome any feedback that you may have at sustainability@petronas.com.



Four Lenses of Sustainability

Key Highlights

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GHG Emissions Reduction

Target: Cap GHG emissions to 49.5 Million tonnes of carbon dioxide equivalent (MtCO₂e) for our Malaysia operations by 2024

Year End Projection

45.2 MtCO₂e

On installed renewable energy capacity, 762 MW were recorded against planned of 1,228 MW for FY 2021. Lockdown measures on COVID-19 have impacted the final investment decisions and intercompany project's deliverables which resulted in re-phasing of the projects to 2022. Realisation of year end target is subjected to smooth execution of planned projects at both international and domestic space.



Step Up on Clean Energy

Target: Increase renewable energy capacity to cumulative 3,000 Megawatts (MW) by 2024

Cumulative Capacity

762 MW



Nurture Future Leaders

Target: Reach over 24,000 beneficiaries through education programmes cumulatively between 2020 to 2024

Cumulative Beneficiaries since 2020

7,025 pax

1,837 education beneficiaries were recorded for the first half of this year against a total of 6,697 beneficiaries planned for FY 2021. 5 planned programs have been successfully carried out as of year-to-date and 3 other programmes will commence in Q3 2021. On-going efforts are in place to realise the year-end target, subject to the smooth execution of all planned programs. The total cumulative beneficiaries recorded since 2020 to date is 7,025 beneficiaries.

Note: Performance data highlighted are those with an established target. For other PETRONAS's sustainability data, go to [PETRONAS 1st Half 2021 sustainability performance data](#)



Respecting Human Rights - Our Commitment

PETRONAS is committed to respecting internationally-recognised human rights in line with the United Nations Guiding Principles on Business and Human Rights (UNGPR), in compliance with PETRONAS Code of Conduct and Business Ethics (“CoBE”) and all other applicable laws where we operate. Anchoring from our Human Rights Commitment, governance and controls have been established to manage human rights risks across our business operations. More information on our human rights processes are available in our PETRONAS Human Rights Report which is published on our corporate website ([PETRONAS Human Rights Report](#)).

Human Rights and Social Performance

Our commitment to social performance includes conducting business in an ethical, responsible and transparent manner, in accordance with internationally recognized standards of integrity, openness and accountability and in compliance with applicable laws and regulations. This commitment is upheld in our CoBE, which not only promotes legal and procedural compliance, but also ensures that our individual behaviour is in line with our PETRONAS Shared Values - loyalty, professionalism, integrity and cohesiveness. As part of the commitment, we apply integrated controls throughout PETRONAS’s systems and processes including areas of Risk Management, Procurement and Supply Chain, HSE, Human Resource Management, Business Operations, Legal and Security.

Compliance Controls and Framework

Our compliance controls and programmes including that on human rights management, are derived from a comprehensive framework comprising:

1. Governance and Risk Assessment: Policies, standards and guidelines are established and set the tone from the top, and form the basis for carrying out internal controls across the organisation. It is an important foundation that includes listing individuals’ roles and responsibilities, which establishes the overall culture of an organisation.
2. Training and Awareness: To strengthen employees’ awareness on human rights, training and programmes are established to raise awareness across the PETRONAS Group on critical, legal areas including human rights management and compliance.



**SUSTAINABLE
DEVELOPMENT GOALS**

3. **Due Diligence and Contractual Obligations:** A robust due diligence process is established to safeguard PETRONAS from entering into transactions that may violate human rights. Additionally, as part of our commitment and efforts in upholding the respect for human rights, the imposition of strict clauses in our contracts will also ensure compliance by our counterparties in respect of human rights obligations and management.
4. **Business Practice:** Business practice are actions established through policies and procedures in our holding company units and subsidiary companies' daily activities on critical legal areas including human rights management and compliance. The activities may include preventive or detective controls and usually include a segregation of duties to ensure appropriate checks and balances
5. **Monitoring and Assurance:** Monitoring and assurance activities are established to ascertain the adequacy and effectiveness of controls established. Ongoing evaluations of 3rd party transactions via periodic reviews and compliance assurance are conducted to improve our legal compliance programs



**SUSTAINABLE
DEVELOPMENT GOALS**