PT Pertamina (Persero)

2025 CDP Corporate Questionnaire 2025

Word version

Important: this export excludes unanswered questions
This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.
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09/17/2025, 09:28 am

Contents

C1. Introduction

(1.1) In which language are you submitting your response?

Select from:

☑ English

(1.2) Select the currency used for all financial information disclosed throughout your response.

Select from:

☑ USD

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☑ State owned organization

(1.3.3) Description of organization

Pertamina is fully committed to ensuring national energy availability and driving the energy transition towards cleaner and more sustainable resources. The Company's excellence is supported by its long experience and solid expertise in building the country's energy security. For more than six decades, Pertamina has continued to adapt and transform. Our commitment to becoming a world-class energy company has never wavered. With this new structure, we are ready to face future challenges and achieve faster growth through a flexible, agile, aggressive, adaptive, and focused organization. We are also better equipped to realize our mission and meet the expectations of all stakeholders. We aspire to be a leading global energy company with a valuation of USD100 billion. Our vision is "To become an energy company that prioritizes energy resilience, availability, and sustainability" while our mission is "Providing energy through innovative solutions that add value to society". Pertamina runs a fully integrated energy business, covering the entire value chain from upstream to downstream. In June 2020, the Ministry of SOEs officially announced PERTAMINA as a holding company in the energy sector. Shareholders then established a new corporate structure, placing PERTAMINA as a holding company overseeing six subholdings: Upstream Subholding (PT Pertamina Hulu Energi), Refining and Petrochemical Subholding (PT Kilang Pertamina Internasional), Commercial & Trading Subholding (PT Pertamina Patra Niaga), Gas Subholding (PT Perusahaan Gas Negara Tbk), Power New & Renewable Energy Subholding (PT Pertamina Power Indonesia), and Integrated Marine Logistics Subholding (PT Pertamina International Shipping). Completion of this legal structure was achieved on September 1, 2021. With the new group structure, Pertamina is expected to have a more agile and focused organization, able to quickly develop business capabilities with world-class quality standards. This will accelerate innovation beyond Pertamina's conventional businesses, including in the areas of new

and renewable energy, biofuels and digital technology. This will provide opportunities for Pertamina to expand its business scale, which in turn will be a strong foundation in realizing a leading global energy company. We have faced various challenges in our efforts to achieve the Sustainable Development Goals (SDGs) targeted to be achieved by 2030, including the issue of climate change which continues to be a global concern. With the vision of becoming an energy company that prioritizes energy resilience, availability, and sustainability, Pertamina must take these global challenges seriously. As a national energy company, we understand that emissions in the oil and gas sector are still quite high. Therefore, our main focus is on emission control. To address the challenges of the energy transition, we have established a Net Zero Emissions Roadmap as part of the Company's long-term planning. Our strategy, formulated until 2060 or earlier, includes maximizing legacy businesses and building low carbon businesses. This commitment reflects our responsibility as an energy company to contribute to the achievement of net zero emissions in Indonesia. We are confident that with everyone's support, the sustainability strategy we have designed will facilitate a stronger transformation. This will enable us to embrace change and build a stronger future for Indonesia and the world.
[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

(1.4.1) End date of reporting year

12/30/2024

(1.4.2) Alignment of this reporting period with your financial reporting period

Select from:
☑ Yes

(1.4.3) Indicate if you are providing emissions data for past reporting years

Select from:
☑ Yes

(1.4.4) Number of past reporting years you will be providing Scope 1 emissions data for

Select from:
☑ 2 years

(1.4.5) Number of past reporting years you will be providing Scope 2 emissions data for

Select from:
☑ 2 years

(1.4.6) Number of past reporting years you will be providing Scope 3 emissions data for

Select from:
☑ 2 years
[Fixed row]

(1.4.1) What is your organization's annual revenue for the reporting period?

75327000000

(1.5) Provide details on your reporting boundary.

	Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
	Select from: ☑ Yes

[Fixed row]

(1.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ Yes

(1.6.2) Provide your unique identifier

144A: US69370PAL58; RegS: US69370RAL15

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

144A: 69370PAL5; RegS: 69370RAL1

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

254900NDAKGNZ2IBBL45

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

[Add row]

(1.7) Select the countries/areas in which you operate.

Select all that apply

☑ Algeria

☑ Indonesia

(1.8) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?
	Select from: ☑ No, not currently but we intend to provide it within the next two years

[Fixed row]

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:

☑ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

Select all that apply

☑ Upstream value chain

☑ Downstream value chain

(1.24.3) Highest supplier tier mapped

Select from:

☑ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

Select from:

☑ Tier 2 suppliers

(1.24.7) Description of mapping process and coverage

Pertamina categorizes suppliers within the Upstream value chain into two classifications: tier 1 and tier 2 groups. Tier 1 Pertamina comprises suppliers that directly deliver services and products to Pertamina, including contractors, consultants, and suppliers. All tier 1 suppliers of Pertamina are duly registered in the e-procurement system. Suppliers will subsequently be categorized according to their risk classification, which will be restructured within Pertamina's contractor safety management system. Suppliers identified as having a high risk of employment at Pertamina are mandated to submit reports concerning health, safety, security, and environmental management information, which must be communicated to Pertamina on a regular basis. Tier 1 suppliers within this category will undergo regular evaluations. Regarding tier 2 suppliers, since Pertamina only has direct contracts with tier 1 suppliers, the management of tier 2 suppliers is the responsibility of tier 1 suppliers. As for the Downstream value chain, Pertamina downstream value chain into 2 Tiers/Categories: 1. Tier/Category 1customer area customer companies or organizations that have purchased products directly to Pertamina where their purchase information data is recorded in Pertamina Subholding data which is directly related to the type of customer. 2. Tier/Category 2 customers are the general public who buy and use Pertamina products. In this type of customer, Pertamina does not collect personal data on purchases made.
[Fixed row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

(1.24.1.1) Plastics mapping

Select from:

☑ No, but we plan to within the next two years

(1.24.1.5) Primary reason for not mapping plastics in your value chain

Select from:

☑ Not an immediate strategic priority

(1.24.1.6) Explain why your organization has not mapped plastics in your value chain

Pertamina does not yet have a dedicated mapping system for plastic waste. Waste management across the Group refers to regulations, ISO 14001:2015, Internal Regulation (SUPREME), and Health, Safety, Security, and Environment (HSSE) standards, including for contractors in managing hazardous and non-hazardous waste. Each operational unit or business unit manages its own waste or involves licensed third parties with safe transportation and storage facilities. Non-hazardous solid waste, including plastic, is stored in temporary storage facilities and further managed through reduce, reuse, and recycle (3R) programs or handed over to third parties. Hazardous waste is also stored in temporary facilities before being transported to licensed treatment facilities for incineration, landfilling, or reuse. All waste management activities are recorded and reported in line with the Ministry of Environment's system. In 2024, Pertamina's waste intensity was calculated at 3.37 x 10^-6 tons/USD, derived from the total volume of hazardous and non-hazardous waste divided by company revenue. This indicates that although a dedicated plastic waste mapping system is not yet in place, overall waste generation remains relatively low compared to revenue, and the company plans to establish such a system within the next two years.

[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

3

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Pertamina defines the short term as 0–3 years plan in the strategy to achieve sustainability targets by 2025. This strategy is implemented via a two-year rolling plan that is updated each year. Strategies aim to implement the two-year strategic plan in line with the 2025 sustainability roadmap, referencing the 2022 baseline and conducting annual progress reviews.

Medium-term

(2.1.1) From (years)

4

(2.1.3) To (years)

10

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Pertamina defines the medium term as a 10-year plan in the strategy to achieve sustainability targets by 2030, including the GHG emission reduction target of 32% for the energy sector by 2030 and reduced fresh-water consumption in water-stressed areas. To achieve these goals, Pertamina has developed a roadmap of emission reduction, water efficiency, energy efficiency, and energy transition strategies, as well as Pertamina's Long Term Plan (RJPP). The targets are aligned with Pertamina's sustainability focus for 2030 and are reviewed through the annual financial planning (RKAP) and the 5-year strategic planning (RJPP).

Long-term

(2.1.1) From (years)

10

(2.1.2) Is your long-term time horizon open ended?

Select from:

☑ No

(2.1.3) To (years)

40

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Pertamina views the long-term as focusing on future developments in the energy sector and enhancing the Company's performance in alignment with the Government's goals for a low-carbon pathway towards net-zero emissions by 2060 and our sustainability targets for 2034, which directly refer to the net zero goal. Pertamina's Long-Term Plan is designed to sustain the business portfolio up to 2060, in line with the short-term and medium-term strategic plans.
[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	Select from: ☑ Yes	*Select from:* ☑ Both dependencies and impacts

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	Select from: ☑ Yes	*Select from:* ☑ Both risks and opportunities	*Select from:* ☑ Yes

[Fixed row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply

☑ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

☑ Sub-national

☑ National

(2.2.2.12) Tools and methods used

Enterprise Risk Management

☑ Enterprise Risk Management

☑ ISO 31000 Risk Management Standard

☑ Risk models

International methodologies and standards

☑ IPCC Climate Change Projections

☑ ISO 14001 Environmental Management Standard

☑ Life Cycle Assessment

Databases

☑ Nation-specific databases, tools, or standards

☑ Regional government databases

Other

☑ Scenario analysis

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Drought

☑ Flood (coastal, fluvial, pluvial, ground water)

☑ Heavy precipitation (rain, hail, snow/ice)

☑ Landslide

Chronic physical

☑ Sea level rise

Policy

☑ Carbon pricing mechanisms

☑ Other policy, please specify :Changes to regulation of existing products and services

Market

☑ Changing customer behavior

☑ Uncertainty in the market signals

Reputation

☑ Increased partner and stakeholder concern and partner and stakeholder negative feedback

Technology

☑ Transition to lower emissions technology and products

☑ Unsuccessful investment in new technologies

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Investors

☑ Local communities

☑ Suppliers

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ No

(2.2.2.16) Further details of process

Pertamina utilizes an integrated risk management framework to identify, assess, and mitigate climate-related dependencies, impacts, risks, and opportunities. This involves assessing operational sites, activities, and assets throughout the value chain to evaluate dependence on environmental resources and to quantify the environmental impact of operations. The methodology utilizes ISO 31000:2018, Enterprise Risk Management (ERM), climate risk assessments, and life cycle analyses, ensuring alignment with corporate strategy and the Sustainable Development Goals (SDGs). A collaborative process involves various business units and subsidiaries, integrating qualitative and quantitative elements to evaluate the probability, characteristics, and magnitude of impacts. Risks are categorized into six segments within the Risk Intelligence Map (RIM): Corporate Strategy, Financial Management, Operations, Corporate Environment, Organizational Reputation, and Legal, Governance & Compliance. Impact is assessed through established metrics: financial (decrease in net profit relative to function risk thresholds); reputation (adverse effects from local to global levels); health & safety (severity of incidents like fatalities or lost-time injuries); environment (range of environmental impact and oil spill volume); workforce (drop in employee morale); legal (scope of disputes and court verdicts); and IT (length of operational interruptions). Impact scores result from the multiplication of probability and impact, represented on a 5x5 matrix for inherent and residual risks, incorporating mitigation effectiveness. Scores above 15 or those that exceed average exposure are classified as Top Risks through bottom-up identification. Meanwhile, management's top-down assessment identifies strategic risks, including those related to climate. The Risk Management Committee reviews these candidates and conducts quarterly monitoring. Data utilized in the process is sourced from both internal and external channels, encompassing climate analytics and predictive scenarios, thereby aligning with the organization’s risk framework and financial strategy. Ongoing assessments are conducted to evaluate shifts in dependencies, impacts, risks, and opportunities. Enterprise Risk Management conducts quarterly assessments, whereas Strategy & Investment evaluates global market trends for strategic planning. The analytical approach has been enhanced using scenario-based methods, incorporating models like the Representative Concentration Pathways, the Indonesian NDC scenario model, and the Customized Scenario, which has improved the company's climate strategy and mitigation planning.

Row 2

(2.2.2.1) Environmental issue

Select all that apply

☑ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Partial

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

☑ Sub-national

☑ National

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ GEMI Local Water Tool

☑ WRI Aqueduct

Enterprise Risk Management
☑ Enterprise Risk Management
☑ ISO 31000 Risk Management Standard
☑ Risk models

International methodologies and standards
☑ Alliance for Water Stewardship Standard
☑ ISO 14001 Environmental Management Standard
☑ Life Cycle Assessment

Databases
☑ Nation-specific databases, tools, or standards

Other
☑ Scenario analysis
☑ Other, please specify :Pertamina Water Tools is a tool developed internally by Pertamina, based on the GEMI and Alliance for Water Stewardship (AWS) Standards, and modified to align with Pertamina's Sustainable Water Management Guidelines.

(2.2.2.13) Risk types and criteria considered

Acute physical
☑ Drought
☑ Flood (coastal, fluvial, pluvial, ground water)

Chronic physical
☑ Declining water quality
☑ Water stress
☑ Other chronic physical driver, please specify :Inadequate water related infrastructure

Policy
☑ Regulation of discharge quality/volumes

Market

☑ Inadequate access to water, sanitation, and hygiene services (WASH)

Liability

☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ NGOs

☑ Employees

☑ Investors

☑ Regulators

☑ Local communities

☑ Water utilities at a local level

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ Yes

(2.2.2.16) Further details of process

The change observed this year compared to the previous year is that the risk identification process related to water has already been extended and carried out at the upstream level of the value chain. Pertamina utilizes an integrated risk management framework to identify, assess, and mitigate dependencies, impacts, risks, and opportunities related to water security. The evaluation encompasses operational locations, activities, and assets within its jurisdiction to assess dependence on water resources and to quantify the environmental impacts of operations. This process adheres to international standards and tools such as ISO 31000:2018, Enterprise Risk Management (ERM), GEMI Local Water Tool, WRI Aqueduct, the Alliance for Water Stewardship Standard, ISO 14001 Environmental Management, and life cycle assessment, aligning with the Company's overall strategy and SDGs. A cross-functional mechanism facilitates participation across various functions, business divisions, and subholdings, integrating qualitative and quantitative assessments to evaluate the likelihood, type, and scale of potential impacts. Risks are categorized into six segments within the Risk Intelligence Map (RIM): Corporate Strategy, Financial Management, Operations, Corporate Environment, Organizational Image, and Legal, Governance & Compliance. Impact criteria are outlined as follows: Financial: reduction in net profit relative to risk limits per function; Reputation: adverse effects from internal to international levels; Health & Safety: severity of incidents, including fatalities and lost-time injuries; Environmental: degree of ecological impact and volume of oil spills; Workforce: decrease in morale; Legal: frequency of disputes and verdicts; IT: length of operational disruptions. Risk scores are determined by multiplying impact and probability, subsequently represented on a 5x5 risk map for both inherent and residual risks, while considering mitigation effectiveness. Scores

of 15 or higher, indicating above-average exposure, are categorized as Top Risks via a bottom-up approach. Concurrently, strategic risks, including those related to water, are recognized through a top-down assessment conducted by senior management. Candidate risks receive endorsement from the Risk Management Committee and are monitored on a quarterly basis. This framework aligns with the organization's strategic and financial objectives. Monitoring activities assess changes in dependencies, impacts, risks, and opportunities, with Enterprise Risk Management conducting quarterly reviews and the Strategy & Investment Function evaluating global trends for strategic planning. The current water risk management approach is only partially comprehensive, as it does not encompass all operational areas within the commercial and trading subholding. The primary focus of the subholding is oil and gas marketing and sales, which necessitates minimal water usage; therefore, its impact on water security is limited.
[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

Select from:

☑ Yes

(2.2.7.2) Description of how interconnections are assessed

Pertamina recognizes and addresses water and climate-related risks and opportunities as integral to its operations, aligning them with strategies to meet short-, medium-, and long-term climate objectives. Climate change increases the probability of natural disasters and extreme weather events, including floods, landslides, tsunamis, storms, lightning, heavy rainfall, and strong winds, which can damage assets, disrupt operations, and elevate costs. Pertamina acknowledges the potential in advancing renewable and low-emission energy facilities and engaging in carbon credit markets, in addition to the associated risks. Ongoing risks encompass potential failures in new technology investments and market signal uncertainty, which could increase indirect operational expenses. Pertamina's transition initiatives illustrate the linkages among environmental dependencies, impacts, risks, and opportunities. The Company’s reliance on new energy sources such as geothermal, biomass, biofuel, hydrogen, and ammonia underpins its pathway toward energy diversification and decarbonization. These strategies yield beneficial outcomes, including emission reductions, enhanced energy efficiency, and value generation via carbon credits, which lead increase the revenue. Nonetheless, they present risks associated with technology adoption, market volatility, and operational difficulties in scaling low-carbon fuels. Simultaneously, these risks create opportunities for innovation, cost efficiency, enhanced reputation, and market diversification, strengthening an adaptive and sustainable transition framework. Water-related risks, such as drought and water stress, impact upstream and geothermal operations, especially during drilling activities. Pertamina oversees these via tailored water management protocols informed by environmental evaluations and effluent management. Actions encompass wastewater treatment and monitoring (TSS, turbidity, pH, TDS, temperature, nutrients) to comply with regulatory standards; implementation of ISO 14001; recycling via closed-loop systems; reinjection of produced water to sustain reservoir pressure and minimize withdrawals; and physical modifications including oil catcher systems. Water quality is assessed via laboratory analysis and enhanced by tools like the WRI Aqueduct and Pertamina Water Risk Tools to guide strategic decisions. Pertamina systematically identifies and manages water- and climate-related risks and opportunities through the implementation of Enterprise Risk Management, ISO 31000, Alliance for Water Stewardship, ISO 14001, scenario analysis, and Life Cycle Assessment, enhancing resilience and fostering long-term value creation
[Fixed row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

Select from:

☑ Yes, we have identified priority locations

(2.3.2) Value chain stages where priority locations have been identified

Select all that apply

☑ Direct operations

(2.3.3) Types of priority locations identified

Sensitive locations

☑ Areas important for biodiversity

☑ Areas of high ecosystem integrity

☑ Areas of limited water availability, flooding, and/or poor quality of water

Locations with substantive dependencies, impacts, risks, and/or opportunities

☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to water

☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to biodiversity

(2.3.4) Description of process to identify priority locations

Pertamina recognizes that some of its operational sites are located within or adjacent to protected areas and regions susceptible to water scarcity. The company's operational and production activities may have direct or indirect impacts on the surrounding environment. To address water-related risks, Pertamina has identified three operational sites situated in areas with potential water shortages. This assessment is based on the Aqueduct Water Risk Atlas by the World Resources Institute (WRI) and incorporates the Pertamina Water Risk Tool. These three sites are classified as high-risk, with a water risk rating of 80-90% according to WRI. The less than 1% figure represents the proportion of facilities exposed to water risk relative to the total facilities within the sub-holding. Regarding biodiversity, some of Pertamina's operational areas are located in or near conservation zones that host valuable biodiversity. Activities in these areas may affect habitats, ecosystems, and biodiversity. Specifically, seven sites in the upstream segment and most of Pertamina Geothermal Energy (PGE) operational areas, including Kamojang, Lumut Balai, Hululais, Bukit Daun, and Ulubelu, are located within protected forest areas. In accordance with applicable environmental regulations, the company ensures that all operational activities potentially affecting conservation areas are supported by valid permits from the Ministry of Environment and Forestry (KLHK). In line with its

commitment to biodiversity conservation, Pertamina implements environmental risk mitigation in phases, from prevention and impact reduction to recovery. The company also actively participates in endemic species conservation and fauna relocation initiatives, collaborating with relevant stakeholders such as the Natural Resources Conservation Agency (BKSDA) and local environmental authorities.

(2.3.5) Will you be disclosing a list/spatial map of priority locations?

Select from:

☑ Yes, we will be disclosing the list/geospatial map of priority locations

(2.3.6) Provide a list and/or spatial map of priority locations

Spatial Map of Priority Locations.pdf
[Fixed row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ % decrease

(2.4.4) % change to indicator

Select from:

☑ 1-10

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

Pertamina assesses risk through both qualitative and quantitative methods, indicating that the potential reduction in revenue from operational areas affected by water stress and physical climate risk is projected to be under 1% over the long term. We evaluate the timeframe during which these risks may arise, ensuring that risk mitigation strategies can be executed promptly to minimize the adverse effects on revenue within the designated period. However, in the long term, Pertamina may face a reduction in our fossil product revenue in upstream sectors. Based on our analysis, in the long term, our fossil product revenue may reduce by around 4% from the revenue forecast in the long term.

Opportunities

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ % increase

(2.4.4) % change to indicator

Select from:

☑ 21-30

(2.4.6) Metrics considered in definition

Select all that apply

☑ Time horizon over which the effect occurs

(2.4.7) Application of definition

Pertamina identified opportunities through qualitative and quantitative methods, estimating a potential revenue increase of 21-30% in the long term for green business initiatives. The anticipated growth is projected to be achieved through increased capacity in biofuels, renewable power generation, battery production, hydrogen for commercial applications, carbon business, the manufacture of solar PV, and other related sectors. The projected revenue growth opportunities are also supported by Pertamina's actions to improve the efficiency of resources used, including water and energy. We integrate qualitative and quantitative methodologies, using production capacity indicators to assess significant impacts. By evaluating the timeframe of impact, we have planned and monitored so that these opportunities can be managed effectively to drive long-term growth and sustainability.
[Add row]

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☑ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

1. Policy: Pertamina defines policies related to environmental aspects in HSSE Policy and Sustainability Policy. We also implement the integrated Sustainability Pertamina Expectations For HSSE Management Excellence (SUPREME) guideline, manage potential hazards and accidents, investigate incidents, involve all employees in monitoring and improving HSSE performance, and engage and synergize with relevant stakeholders. Pertamina also has a target to improve our water efficiency and has identified our water risks. 2. Management system guideline: The Pertamina Group has internal guidelines for sustainable water management based on ISO 14001, ISO 45001, IPIECA, and Indonesian legislation related to environmental standards for oil, gas, and renewable energy activities, as well as regulations on Environmental Protection and Management in Indonesia. 3. Procedure: Sustainable water management framework in Pertamina, consists of two stages: planning and design, followed by action stages including implementation, reporting, evaluation, adjustment, and communication. Pertamina also conducts a water risk assessment framework that focuses on: Availability, Accessibility, and Quality. Pertamina utilizes HIRADC to ensure employee and environmental safety. After implementing the control measures, Pertamina monitors and reviews their effectiveness regularly. 4. Water quality Pertamina is regularly monitors and reports water quality to the government, covering key metrics such as TSS, Turbidity, pH, TDS, temperature, inorganic, and nutrient substances.
[Fixed row]

(2.5.1) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Row 1

(2.5.1.1) Water pollutant category

Select from:
☑ Oil

(2.5.1.2) Description of water pollutant and potential impacts

Oil is commonly present in produced water and includes aliphatic and aromatic hydrocarbons, which can be toxic, persistent, and bioaccumulative in aquatic organisms. These pollutants must be managed to meet environmental standards, as excessive levels can harm ecosystems, contaminate sediments, soil, and water, and pose health risks to humans. Oil spills are a major contributor to groundwater contamination, allowing hydrocarbons to infiltrate reserves and threaten both human and wildlife health. For Pertamina, unmanaged oil discharge or spills carry significant environmental, reputational, and operational risks. Mitigation measures include: 1. Assessing critical infrastructure and storage conditions to prevent leaks, spills, or erosion 2. Industrial and chemical accident prevention, preparedness, and response using OSERAT, internal and external collaborations, and compliance with the Oil Spill Contingency Plan No. A-013/I00400/2009-S0 and Emergency, Crisis, and Business Continuity Management Guideline No. A4.4-02/S00000/2024-S9 3. Applying water recycling in operations to reduce wastewater 4. Treating discharges to consistently meet regulatory and permit requirements. Additionally, Pertamina applies ISO 14001 hazard identification to manage materials or waste with potential health or pollution impacts. Closed-loop water recycling systems are implemented in several operations, and in upstream activities, produced water reinjection maintains reservoir pressure and supports

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

☑ Industrial and chemical accidents prevention, preparedness, and response

☑ Water recycling

☑ Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

(2.5.1.5) Please explain

One of Pertamina's key sustainability priorities is reducing its environmental footprint through strict control of hydrocarbon pollutants and robust spill prevention. Long-term targets include limiting hydrocarbon concentrations in wastewater (30 mg/L offshore, 10 mg/L onshore) and maintaining zero spill incidents, reflecting regulatory compliance and stewardship. In 2024, Pertamina recorded zero major spills. Subholding Upstream noted four minor incidents totaling 26.44 barrels, all below the 15-barrel threshold. No significant chemical or non-hydrocarbon spills occurred, including from third-party transport, showing progress toward long-term goals. To mitigate risks, Pertamina implements key measures: assessing infrastructure and storage to prevent leaks; strengthening prevention and response through emergency programs, stakeholder collaboration, and compliance with the Oil Spill Contingency Plan No. A-013/I00400/2009-S0 and Emergency, Crisis, and Business Continuity Guideline No. A4.4-02/S00000/2024-S9; applying water recycling; and ensuring all discharges meet regulatory standards. Environmental management is reinforced through ISO 14001-based hazard identification, closed-loop recycling, and produced water reinjection to maintain reservoir pressure and support enhanced oil recovery (EOR). Safeguards such as oil catchers and drainage channeling further reduce risks. Collectively, these actions secure compliance and strengthen Pertamina's commitment.

Row 2

(2.5.1.1) Water pollutant category

Select from:

☑ Other nutrients and oxygen demanding pollutants

(2.5.1.2) Description of water pollutant and potential impacts

Nutrients (Fe, Mn, Zn, NH3-N) and pollutants (Cd, Pb, As) are emitted from liquid waste, including produced water, domestic wastewater, and drainage. Seawater and coastal areas are the main recipients at risk. Excessive pollutants can cause eutrophication, deplete oxygen, and degrade water quality, harming flora, fauna, and ecosystems. Pertamina manages these risks through: 1. Assessing critical infrastructure and storage to prevent leaks or spillages of untreated wastewater containing

nutrients and heavy metals 2. Exceeding regulatory requirements in monitoring and treatment to reduce nutrient loads and oxygen depletion 3. Industrial and chemical accident prevention, preparedness, and response to minimize sudden discharges of oxygen-demanding pollutants or heavy metals 4. Water recycling to reduce wastewater volume and pollutant load 5. Discharge treatment with sector-specific processes to ensure compliance with environmental standards, preventing eutrophication or toxic contamination. Performance is evaluated through continuous water quality monitoring, compliance with regulator reporting, and regular assessments. These measures collectively ensure hydrocarbon management and environmental protection, reducing the likelihood of ecosystem damage and safeguarding public health

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

☑ Beyond compliance with regulatory requirements

☑ Industrial and chemical accidents prevention, preparedness, and response

☑ Water recycling

☑ Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

(2.5.1.5) Please explain

Pertamina's operational target is to ensure all produced water and wastewater comply with the effluent quality standards set in Indonesian Ministry of Environment Regulation No. 19/2010 for Oil and Gas and Geothermal Activities. To achieve this, the Company conducts routine monitoring of treated wastewater in line with regulatory procedures. In 2024, results confirmed that parameters such as COD, sulfide, ammonia, phenol, and TSS remained within limits across all operations, with no incidents linked to nutrient discharges or oxygen-demanding pollutants. This demonstrates Pertamina's compliance and continuous improvement in managing environmental risks. Beyond compliance, Pertamina applies structured risk management to wastewater and produced water. Measures include assessing infrastructure and storage to prevent leaks; implementing monitoring and treatment that exceed regulatory standards to lower nutrient loads; and strengthening accident prevention and emergency preparedness to reduce risks of sudden discharges. The Company also applies sector-specific treatment and water recycling to reduce volumes and pollutant loads, preventing eutrophication and toxic contamination. Performance is monitored via continuous water quality checks, regulatory reporting, and emergency response drills. These efforts enhance hydrocarbon management, reduce environmental and health risks, and reinforce Pertamina's reputation as a responsible energy company.
[Add row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Water

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Plastics

(3.1.1) Environmental risks identified

Select from:

☑ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:

☑ Not an immediate strategic priority

(3.1.3) Please explain

Since Pertamina does not produce plastic materials or generate significant plastic waste from its operations, and has not conducted evaluations of plastic-using suppliers or contractors, the company's risk register has not identified plastic materials or plastic waste as having a substantive financial or strategic impact. In line with its commitment to environmental management systems, Pertamina evaluates the likelihood of such impacts through hazard identification and risk assessment processes.
[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Market
☑ Uncertainty in market signals

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ Indonesia

(3.1.1.9) Organization-specific description of risk

Pertamina acknowledges that unpredictable market risks may emerge from rising public awareness of climate change, evolving government regulations on green energy, and related factors. In response, the company is not only concentrating on oil and gas production but also actively pursuing environmentally friendly business initiatives to address the projected 2.1% increase in energy demand by 2040. To support the national energy transition, Pertamina plans to expand its business portfolio by raising the share of renewable energy to 17% by 2030. Key areas of development will include geothermal, hydrogen, electric vehicle batteries, and other clean energy technologies.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The effect has quantified financially which will impacted to our sales and demand in the medium term which will impact our revenue.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

100000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

110000000

(3.1.1.25) Explanation of financial effect figure

The potential financial impact is difficult to quantify, as impacts on retail sites are unlikely to be equally distributed. Lower demand is likely to drive network rationalization,which may mitigate potential losses. The figures presented here represent an approximate range of potential cumulative impacts on commercial and trading business processes.

(3.1.1.26) Primary response to risk

Diversification

☑ Market expansion

(3.1.1.27) Cost of response to risk

2419000

(3.1.1.28) Explanation of cost calculation

The potential cost of responding to this risk is difficult to quantify as it will include a combination of network rationalization, convenience, mobility offer changes, and demand for renewable energy. However, this figure in cost calculation represents an approximate potential cost of responding to this risk in operational & marketing sales in the commercial and trading business.

(3.1.1.29) Description of response

As worldwide demand for sustainable energy solutions increases, Pertamina plans to expand its marketing initiatives in the biofuel sector. Biofuels play a vital role in lowering carbon emissions, enhancing energy independence, and supporting a healthier environment for future generations. Through this expanded outreach, the company aims to establish a dedicated marketing arm for biofuels from R&P, targeting both domestic and international markets.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :Citarum River Basin

(3.1.1.9) Organization-specific description of risk

WRI identifies Indonesia as facing drought risks that could affect Pertamina's operations, particularly in Sumatra, Java, Bali, Nusa Tenggara, and Sulawesi. These regions are categorized as having a high level of drought risk, which poses significant challenges to Pertamina's upstream and geothermal activities. Limited water availability during drilling can disrupt well pressure, resulting in reduced production capacity. In addition, drought conditions may increase costs for the company's domestic utility division.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial impact of this risk amounted to less than 1% of total revenue, indicating that this risk did not significantly affect Pertamina's overall financial stability or performance during the period.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

849000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

11551000

(3.1.1.25) Explanation of financial effect figure

This figure reflect the one of potential impact of drought that can lead to a decrease in the production capacity of geothermal power generation. Insufficient water availability for the drilling process hampers the optimization of drilling operations, resulting in reduced production capacity. This financial impact is estimated based on the reduction in production capacity of geothermal wells. The potential financial impact data is derived from the predicted total capacity of production wells that could be affected if a drought occurs, with estimates reflecting the impact if all operational areas are affected.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

1186915

(3.1.1.28) Explanation of cost calculation

The estimated response cost includes expenses for reforestation or planting in the watershed area and the costs associated with the enhanced steam regeneration program.

(3.1.1.29) Description of response

To address drought risks, Pertamina carries out afforestation initiatives around watershed areas to help sustain water availability in operational regions. The company has also implemented an enhanced steam regeneration program to support water supply management. Furthermore, Pertamina has also strengthened its assessment approach by applying the Pertamina Water Risk Tool (PWRT) alongside the WRI Aqueduct. This tool is used to identify operating units in water-stressed areas by assessing watershed conditions such as basins and reservoirs and monitoring water quality, availability, and accessibility.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Heavy precipitation (rain, hail, snow/ice)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.9) Organization-specific description of risk

Acute physical and systemic risks are among the challenges faced by operational sites in Indonesia, largely due to the country's geographic position as an archipelago situated between two oceans and below the equator. Over the past two decades, Indonesia has repeatedly experienced severe natural disasters that have caused fatalities, damaged land and infrastructure, and led to significant economic losses. Several of Pertamina's production facilities are exposed to acute physical risks such as landslides triggered by heavy rainfall. Intense rain can lead to water accumulation, and with some facilities located in highland regions, the risk of landslides increases, potentially causing infrastructure damage, operational disruption, and higher maintenance needs. This risk is not limited to operational sites alone but may also affect subholdings and subsidiaries, including oil refineries and public filling stations (SPBUs). While categorized as medium in magnitude, these risks can influence energy production efficiency and maintenance costs, thereby impacting overall operational performance, although the effect on earnings remains manageable.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The effect has quantified financially which will impacted to our operation cost in the short term from operational area that operated in highland area which will impacted not only our direct operational but also operational in surronding area.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

805000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

1206000

(3.1.1.25) Explanation of financial effect figure

The cost is one example of cost incurred due to the repair of affected geothermal facilities and suspension of operations. Pertamina has accounted for the financial impact of expenses related to losses from natural disasters. This budget is allocated for the repair of damaged infrastructure as well as post-disaster recovery support for workers, their families, and outsourced workers. Emergency assistance includes the distribution of clean water, basic foodstuffs, medicines, home repairs, as well as mourning compensation for employees and families of victims who died as a result of the disaster. In addition, attention is also paid to the restoration of the damaged environment as well as the provision of assistance to communities around the area of operations.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Improve monitoring of direct operations

(3.1.1.27) Cost of response to risk

1600000

(3.1.1.28) Explanation of cost calculation

This is an example of costs incurred to respond to risks associated with the repair of damaged power generation facilities and suspension of operations.

(3.1.1.29) Description of response

1. Develop comprehensive monitoring and early warning mechanisms by: • Utilizing the Early Warning System (EWS) and Landslide Detector to track potential landslide risks. • Installing weather stations for continuous monitoring of rainfall and weather patterns. • Analyzing historical records and geohazard studies to accurately assess physical climate risks. • Creating advanced detection and monitoring tools to identify and track hazards effectively. 2. Enhance emergency preparedness and response by: • Applying the Continuous Improvement Program (CIP) to consistently strengthen response procedures and protocols. • Conducting regular Disaster Emergency Response Tabletop Exercises, with a focus on earthquake scenarios and disaster management optimization. • Using proven risk management approaches such as Hazard Identification (HAZID), Risk Assessment, Risk Register, and Hazard Identification, Risk Assessment, and Determining Controls (HIRADC). 3. Implement robust engineering measures, including landslide barriers, water flow barriers, and specialized tsunami tripods, to reduce risks. 4. Strengthen collaboration and communication with government bodies and stakeholders, including partnerships with the Regional Disaster Management Agency and the Meteorology, Climatology, and Geophysics Agency. 5. Improve coordination for mitigation, evacuation, and recovery, ensuring timely provision of essential utilities and equipment.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.9) Organization-specific description of risk

Climate change intensifies the risk of worsening drought across Indonesia and globally. Rising temperatures accelerate evaporation, reducing surface water availability and causing soils and vegetation to become drier. It also disrupts the timing of water availability, creating the need for expanded water storage during drought periods, while at the same time increasing the risk of flooding and dam failure during extreme rainfall events. Within Pertamina's operational scope, drought impacts the drilling process by limiting water supply, which can lead to operational disruptions and project completion delays.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial impact of this risk amounted to less than 1% of total revenue, indicating that this risk did not significantly affect Pertamina's overall financial stability or performance during the period.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

849000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

11551000

(3.1.1.25) Explanation of financial effect figure

This figure reflect the one of potential impact of drought that can lead to a decrease in the production capacity of geothermal power generation. Insufficient water availability for the drilling process hampers the optimization of drilling operations, resulting in reduced production capacity. This financial impact is estimated based on the reduction in production capacity of geothermal wells. The potential financial impact data is derived from the predicted total capacity of production wells that could be affected if a drought occurs, with estimates reflecting the impact if all operational areas are affected.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

1186915

(3.1.1.28) Explanation of cost calculation

The estimated response cost includes expenses for reforestation or planting in the watershed area and the costs associated with the enhanced steam regeneration program.

(3.1.1.29) Description of response

To reduce drought risk, Pertamina carries out afforestation programs in watershed areas to help sustain water availability in its operational regions. The company has also introduced an enhanced steam regeneration program to support water supply management. Furthermore, Pertamina has also strengthened its assessment approach by applying the Pertamina Water Risk Tool (PWRT) alongside the WRI Aqueduct. This tool is used to identify operating units in water-stressed areas by assessing watershed conditions such as basins and reservoirs and monitoring water quality, availability, and accessibility.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk5

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Increased difficulty in obtaining operations permits

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.9) Organization-specific description of risk

Pertamina's subholding engaged in new and renewable energy faces regulatory risks related to the sector's implementation. Currently, Indonesia's regulations on renewable energy remain unclear. While the country has committed to achieving a diversified energy mix, ongoing regulatory uncertainty presents obstacles to fulfilling this commitment. Such uncertainty can affect revenue through delays in commercialization, limiting the ability to meet demand for products and services. Although the direct impact on Pertamina's revenue is not significant, the risk is classified as medium-high due to its potential implications for the company's overall energy transition.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Virtually certain

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial impact of this risk amounted less than 1% from revenue of new and renewable energy subholding.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

275862

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

413793

(3.1.1.25) Explanation of financial effect figure

This potential impact reflects the level of lost revenue from one of our renewable energy business which is solar power projects. With the uncertainty of renewable energy regulations in Indonesia, there is a risk of delays in the commercialization of our power plants, so the projects may not generate revenue immediately upon completion.

(3.1.1.26) Primary response to risk

Engagement

☑ Other engagement, please specify :Engagement with governance

(3.1.1.27) Cost of response to risk

68966

(3.1.1.28) Explanation of cost calculation

This is an example of costs incurred to respond to risks associated with government regulations identified.

(3.1.1.29) Description of response

To implement its climate transition plan, Pertamina develops power plants within the group. As part of this effort, the company must engage and coordinate with government stakeholders to address issues related to new and renewable energy regulations and licensing in Indonesia. This engagement typically involves multiple interactions with government agencies to secure faster environmental approvals for renewable energy projects. The cost of this risk response represents expenses incurred to organize three discussion forums with the government aimed at accelerating environmental approvals in the licensing process.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk6

(3.1.1.3) Risk types and primary environmental risk driver

Technology

☑ Transition to lower emissions technology and products

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.9) Organization-specific description of risk

The pursuit of global net-zero emission targets, together with the Indonesian government's commitment to limiting temperature rise, requires companies to adopt low-emission technologies and products. As a result, long-term initiatives to transition toward low-emission technologies and products may potentially reduce revenue generated by Pertamina's oil and gas production subholding.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The effect has quantified financially which will impacted to our revenue in the long term from fossil product.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

4400000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

5500000000

(3.1.1.25) Explanation of financial effect figure

The financial impact presented here is the potential financial impact on the company of the composition of fossil product revenue from upstream processes declining by approximately 4% over Pertamina's projected revenue in 2034 under several scenarios.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Increase investment in R&D

(3.1.1.27) Cost of response to risk

120000000000

(3.1.1.28) Explanation of cost calculation

Pertamina plans to allocate investment funds Capex (Capital Expenditure) that required for the new green/transition business (e.g. CCS/CCUS, Bioenergy, Hydrogen, Battery and EV, carbon business and renewable energy) with a total estimated investment of around USD120 billion.

(3.1.1.29) Description of response

Pertamina has outlined a climate transition strategy supported by a comprehensive roadmap. This strategy includes commitments to invest in carbon reduction initiatives, focusing on (i) decarbonizing internal operations, (ii) producing low-carbon fuels, (iii) engaging in carbon capture, storage, and credit ventures, and (iv) enabling customer decarbonization through renewable energy solutions. Pertamina plans to allocate 15.3% of its total capital expenditure (Capex) to this transition

strategy by 2023, with an increase to 29.04% by 2040, as set forth in its sustainable finance framework. A detailed assessment of Capex requirements for green and transition business sectors including Carbon Capture and Storage (CCS), Carbon Capture, Utilization, and Storage (CCUS), bioenergy, hydrogen, batteries, electric vehicles (EVs), carbon management, and renewable energy indicates a total projected investment of around USD 120 billion. In addition, Pertamina has committed to directing at least 30% of its realized investment and operational budget toward decarbonization-related research and development by 2025, with a target of no less than 44% by 2030.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk7

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Water stress

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Solo (Bengawan Solo)

(3.1.1.9) Organization-specific description of risk

According to WRI, Indonesia is exposed to water stress risks that may disrupt Pertamina's operations. Water stress poses challenges for the company as it can restrict the operation of facilities and energy production. In water-scarce regions, Pertamina may face higher water costs or be forced to reduce output, leading to production disruptions, increased expenses for consumers and businesses, and reputational risks. Pertamina Upstream is more significantly affected by water stress as exploration and production activities demand substantial water use. In particular, water is reinjected into wells to maintain pressure, which can exacerbate scarcity if the water cannot be recycled or regenerated. To address these risks, Pertamina is implementing measures to reduce water consumption, explore alternative water sources, and establish partnerships with other companies and organizations.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial impact of this risk amounted to less than 1% of total upstream facilities exposed to water stress in the short- to medium-term

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.26) Primary response to risk

Nature based solutions, restoration and conservation

☑ Support river basin restoration

(3.1.1.27) Cost of response to risk

205130.25

(3.1.1.28) Explanation of cost calculation

The estimated response cost includes expenses for reforestation or planting in the watershed area in the upstream area of Solo Region.

(3.1.1.29) Description of response

To address water stress risks in the Solo River basin, particularly for the upstream business sector, Pertamina is implementing a reforestation strategy that engages community participation, NGOs, and government agencies. In parallel, Pertamina has also strengthened its assessment approach by applying the Pertamina Water Risk Tool (PWRT) alongside the WRI Aqueduct. This tool is used to identify operating units in water-stressed areas by assessing watershed conditions such as basins and reservoirs and monitoring water quality, availability, and accessibility.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk8

(3.1.1.3) Risk types and primary environmental risk driver

Liability

☑ Non-compliance with legislation

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Solo (Bengawan Solo)

☑ Other, please specify :Citarum River Basin

(3.1.1.9) Organization-specific description of risk

Water-related risks include potential penalties for non-compliance with wastewater discharge regulations when established quality standards are not met. Such non-compliance can cause pollution in receiving water bodies, impacting both the environment and surrounding communities. This risk applies to all of Pertamina's operational areas. Failure to comply may result in reputational damage, legal consequences, administrative sanctions, and increased scrutiny from regulators.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Fines, penalties or enforcement orders

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ More likely than not

(3.1.1.14) Magnitude

Select from:

☑ Medium-low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial impact of this risk amounted to less than 1% of total revenue. However the implication of this risk affected to all operational area of Pertamina.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

0

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

400000

(3.1.1.25) Explanation of financial effect figure

The expected financial implications associated with this risk pertain to the penalties that Pertamina may incur in the event of water pollution resulting from wastewater discharge that exceeds established quality standards. Noncompliance with wastewater quality standards may result in imprisonment for up to three years and a fine not exceeding Rp3,000,000,000.00 (three billion rupiah).

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Greater compliance with regulatory requirements

(3.1.1.27) Cost of response to risk

550000

(3.1.1.28) Explanation of cost calculation

The projected response cost encompasses expenditures associated with environmental management, specifically the appropriate handling of wastewater prior to its release into water bodies. The expenses encompass the establishment of wastewater treatment facilities, ongoing maintenance, and the operational costs necessary to guarantee compliance with regulatory standards for wastewater management. Furthermore, expenses associated with ongoing monitoring and regular evaluations to guarantee compliance are also included.

(3.1.1.29) Description of response

Pertamina carries out regular monitoring and measurement of water pollution parameters to mitigate risks associated with wastewater discharge. This ensures that wastewater is effectively treated and complies with regulatory limits before being released into the environment. The monitoring process involves evaluating key water quality indicators, both chemical and biological, to maintain consistent compliance with wastewater standards and reduce the risk of environmental contamination.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk9

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Inadequate water-related infrastructure

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Upstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Indonesia

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :Cimanuk River Basin

(3.1.1.9) Organization-specific description of risk

The key water-related risk arises from potential disruptions in raw water supply caused by vulnerabilities in the supplier's transfer infrastructure. Contributing factors include aging supplier-owned pipelines, limited transfer capacity, and recurring leakages along the water distribution lines. These deficiencies may not result in a complete shutdown of operations but can cause a slowdown in unit performance due to constrained water availability. Such disruptions may adversely affect both routine and non-routine maintenance activities, thereby posing risks to operational continuity and overall reliability.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ More likely than not

(3.1.1.14) Magnitude

Select from:

☑ Low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial effects of this risk can be quantified, as the short-term operational costs may be elevated due to the failure of the provider's infrastructure to deliver raw water. In the operational area of the refinery, such disruptions can result in temporary slowdowns across all processing units and reduce production efficiency.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

1498000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

2478000

(3.1.1.25) Explanation of financial effect figure

The cost represents one example of expenses incurred as a result of refinery unit slowdowns, which are caused by disruptions in raw water distribution. These disruptions hinder both routine and non-routine maintenance of refinery equipment, as well as the effective management of utilities and energy, ultimately driving additional operational expenditures.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Improve maintenance of infrastructure

(3.1.1.27) Cost of response to risk

0

(3.1.1.28) Explanation of cost calculation

No additional costs are incurred in mitigating this risk, as the actions are integrated into routine maintenance activities and fall under the supplier’s responsibility.

(3.1.1.29) Description of response

A series of preventive and corrective measures have been implemented by the operational area in close collaboration with the supplier to mitigate water-related risks that arise from vulnerabilities in the supplier's transfer infrastructure. These consist of the regular cleaning of transfer pipelines, scheduled pump overhauls, the modification of lines to facilitate additional installations, and the regular dredging of intake areas and canal estuaries to ensure a smooth flow. Furthermore, in order to maintain efficiency and guarantee consistent water quality throughout operations, routine cleaning is implemented
[Add row]

(3.1.2) Provide the amount and proportion of your financial metrics from the reporting year that are vulnerable to the substantive effects of environmental risks.

Climate change

(3.1.2.1) Financial metric

Select from:
☑ CAPEX

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

181127613.9

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:
☑ 1-10%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

2622404.55

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.6) Amount of CAPEX in the reporting year deployed towards risks related to this environmental issue

183750018.5

(3.1.2.7) Explanation of financial figures

Pertamina estimated its financial exposure to transition and physical climate-related risks to be around USD 183.75 million in 2024. Approximately USD 181.1 million, or about 2.756% of total CAPEX, was allocated to initiatives addressing transition risks. Meanwhile, USD 2.6 million, or 0.04% of total CAPEX, was allocated to managing physical risks through adaptation measures. This allocation demonstrates Pertamina's proactive approach to incorporating climate considerations into capital investment planning.

Water

(3.1.2.1) Financial metric

Select from:

☑ OPEX

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

15101009.12

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

198894.99

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.7) Explanation of financial figures

In 2024, Pertamina allocated approximately USD 15.1 million, or 0.23% of total OPEX, to manage transition risks related to water. A further USD 1.99 million, or 0.003% of total OPEX, was set aside to address physical water-related risks, which included adaptation measures aimed at increasing resilience in water management operations. This allocation demonstrates Pertamina's ongoing commitment to integrating water-related transition and physical risks into financial planning and operational decision-making, as well as ensuring sustainable water resource management across all business activities.

Climate change

(3.1.2.1) Financial metric

Select from:

☑ OPEX

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

47309741.02

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

4318317.32

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.7) Explanation of financial figures

In 2024, Pertamina allocated approximately USD 47.3 million, or about 0.72 % of total OPEX, to initiatives addressing transition risks. In addition, USD 4.3 million, or 0.066 % of total OPEX, was set aside to address physical risks. This allocation reflects Pertamina's continuous efforts to incorporate both transition and physical climate-related risks into operational planning and cost structures, strengthening the company's resilience strategy.
[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

Indonesia

☑ Other, please specify :Serayu River Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization’s total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ Less than 1%

(3.2.10) % organization’s total global revenue that could be affected

Select from:

☑ Unknown

(3.2.11) Please explain

Refinery Unit IV (RU IV) in Cilacap, located in the Serayu River Basin on the Donan River, is one of Pertamina’s key operational assets. The facility uses water for cooling systems, steam generation, facility maintenance, and cleaning, and accounts for less than 1% of Pertamina’s total direct operational sites. With a relatively high level of complexity compared to other refineries, RU IV requires considerable water volumes to process crude oil into refined products, including LPG, gasoline, diesel, and chemical derivatives. Water is also used as a cooling medium and as feedstock for steam generation in utilities and process units. The refinery relies on local water sources, making it potentially sensitive to scarcity risks. In 2024, water withdrawal increased slightly due to higher operational capacity in several units. To address these risks, the facility applies efficiency initiatives, recycling practices, and water management programs aimed at optimizing use and reducing potential impacts in a water-stressed basin. These measures support operational stability and help manage resource constraints in the Serayu River Basin. Although the operation plays a material role within Pertamina’s portfolio, the direct financial impact of water stress on operational areas exposed to water risk on global revenue has not been fully quantified. For this reason, the percentage of global revenue potentially affected is reported as unknown in this disclosure.

Row 2

(3.2.1) Country/Area & River basin

Indonesia

☑ Other, please specify :Cimanuk River Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ Less than 1%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ Unknown

(3.2.11) Please explain

Pertamina EP Jatibarang, one of Pertamina's upstream operations, is located in the Cimanuk River Basin and uses water to support production activities as part of the company's direct operations. The facility relies on local water sources, which may be affected by water stress conditions. In 2024, the site recorded notable levels of water withdrawal and discharge, primarily due to increased business activity. Water consumption also rose as discharge volumes decreased, reflecting the optimization of recycling programs and the application of efficiency measures. These initiatives contributed to reducing potential risks associated with water availability in the basin. Although the operation plays a material role within Pertamina's portfolio, the direct financial impact of water stress on operational areas exposed to water risk on global revenue has not been fully quantified. For this reason, the percentage of global revenue potentially affected is reported as unknown in this disclosure.

Row 3

(3.2.1) Country/Area & River basin

Indonesia

☑ Other, please specify :Musi River Basin and Banyuasin River Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ Less than 1%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ Unknown

(3.2.11) Please explain

PHE Jambi Merang, located in the Musi and Banyuasin river basin, uses water to support production activities as part of Pertamina's direct operations. The facility relies on local water sources, which may be affected by water stress conditions. In 2024, total water withdrawal was reduced to 54.73 megaliters, representing a 27.34% decrease compared to the previous year. Water consumption also declined, supported by recycling efforts and efficiency initiatives that contributed to mitigating potential risks related to water availability in the basin. Although the operation holds a material role within Pertamina's portfolio, the direct financial impact of water stress on operational areas exposed to water risk on global revenue has not been fully quantified. Accordingly, the percentage of global revenue that could be affected is reported as unknown in this disclosure.
[Add row]

(3.3) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

(3.3.1) Water-related regulatory violations

Select from:

☑ No

(3.3.3) Comment

During the period of 2024, Pertamina did not incur any fines, enforcement orders, or other penalties related to water regulatory violations. Pertamina has consistently adhered to all relevant water-related regulations
[Fixed row]

(3.5) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Select from:
☑ No, but we anticipate being regulated in the next three years

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Currently, Indonesia does not yet have comprehensive regulations governing carbon business activities and carbon taxation mechanisms that can be directly adopted by companies. However, the Ministry of Finance has initiated steps by drafting derivative regulations through a Minister of Finance Regulation and a Government Regulation to operationalize the Carbon Tax. In anticipation of these regulatory developments, Pertamina has actively reviewed advancements in both Indonesia's regulatory landscape and the global voluntary carbon market. These developments are highly relevant to the company's pilot projects, particularly in determining eligibility for carbon credits (including the issuance of credits for post-2020 activities) and ensuring the integrity of cross-border and cross-sector transactions. To accelerate the achievement of its sustainability targets, Pertamina prioritizes strong collaboration with multiple stakeholders and has actively contributed to advancing the national energy transition agenda. As part of this effort, Pertamina has executed a carbon trading transaction through the Indonesia Carbon Exchange (IDX), with a total sales volume of 864,000 tCO_2e and a 55% market share. The production process has been completed, and verification by the Ministry of Environment and Forestry (KLH) is currently underway. Furthermore, Pertamina has developed a Greenhouse Gas (GHG) Protocol Manual that will be applied across all sub-holdings and holdings within the Pertamina Group. The company has also initiated an internal study on carbon pricing and tax mechanisms to strengthen its readiness in managing future compliance obligations and market opportunities.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized

	Environmental opportunities identified
Water	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Increased sales of existing products and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.8) Organization specific description

As part of addressing the energy trilemma of energy resilience, affordability, and environmental sustainability, Pertamina Group has gradually intensified the development of low-carbon products by expanding the production of new and renewable energy (NRE). In 2024, this realization was reflected in the Group's progress on the energy transition, with an installed NRE capacity of 1,878 MW and geothermal production reaching 4,600 GWh. Pertamina also strengthened its role as a pioneer in carbon trading in Indonesia, capturing a 55% national market share. These activities are managed under Pertamina New and Renewable Energy (PNRE) Subholding and represent tangible opportunities realized in 2024 to accelerate the transition toward a lower-carbon energy system.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ The opportunity has already had a substantive effect on our organization in the reporting year

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.13) Effect of the opportunity on the financial position, financial performance and cash flows of the organization in the reporting period

This opportunity contribute approximately 0.54% to the organization's total revenue in 2024.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.16) Financial effect figure in the reporting year (currency)

416815000

(3.6.1.23) Explanation of financial effect figures

In 2024, the Company expects revenue of USD75,327 million. Meanwhile, the Company's external revenue from the Power & NRE (PNRE) Subholding reached USD416.8 million in 2024, contributing 0.54% of total revenue.

(3.6.1.24) Cost to realize opportunity

242244000

(3.6.1.25) Explanation of cost calculation

This cost to realize the opportunity is the operational expenditure of subholding PNRE

(3.6.1.26) Strategy to realize opportunity

The realization in 2024 reflects the implementation of Pertamina's transition plan opportunities, recorded as operating expenditure under Subholding PNRE. PNRE develops and operates power generation projects utilizing gas and New and Renewable Energy (NRE) sources, such as solar, biogas, biomass, geothermal, and other renewables, and expands into businesses related to battery energy storage and decarbonization solutions. In addition to electricity generation, PNRE produces steam from geothermal resources for use in geothermal power plants and records carbon sales generated from NRE facilities. These activities demonstrate concrete actions taken in 2024 to support Pertamina's energy transition strategy and contribute to reducing the Company's overall carbon footprint

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Development of new products or services through R&D and innovation

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Other, please specify :Rokan River Basin

(3.6.1.8) Organization specific description

Currently, approximately 10% of the produced water from upstream operations is discharged into the environment. This opens up a significant opportunity to use advanced treatment technologies to further process and recycle produced water for commercial and industrial use. Treated water could be supplied to regional water utilities (PDAM) to meet community needs and sanitation, as well as industrial sectors like oil refineries, pulp and paper, and palm oil. Capturing this opportunity would generate new revenue streams, reduce freshwater withdrawals, and strengthen Pertamina's role in sustainable water resource management.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The anticipated financial impact, based on the Phase 1 R&D analysis, indicates that reprocessing currently discharged produced water has the potential to generate additional revenue for the Company over the long term. This initiative is expected to contribute to long-term value creation by optimizing resource utilization, reducing operational inefficiencies, and converting a waste stream into a value-added resource.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

1588799.68

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

6562198.69

(3.6.1.23) Explanation of financial effect figures

The anticipated financial impact has been calculated using a Net Present Value (NPV) approach, derived from benchmarking across different production capacities and selling price scenarios. This analysis should be regarded as an estimate, as it is based on preliminary assumptions developed during Phase 1 of the R&D process. The figures remain indicative and subject to refinement and validation in subsequent phases of project evaluation and implementation.

(3.6.1.24) Cost to realize opportunity

(3.6.1.25) Explanation of cost calculation

The estimated cost to capitalize on this opportunity is based on historical CAPEX and OPEX data from similar water treatment projects. These calculations include investment in advanced treatment technologies, infrastructure, and operational expenses required to scale the initiative to commercial and industrial applications.

(3.6.1.26) Strategy to realize opportunity

Pertamina has identified a strategic opportunity to optimize produced water management by addressing the critical challenge of high TDS or salinity. To close this gap, membrane technologies can be applied to generate high-quality treated water suitable for industrial processes and refinery operations, which represent the most profitable utilization pathways. Beyond commercial benefits, sanitation water can also be allocated for in-house needs and Corporate Social Responsibility (CSR) initiatives, strengthening ESG performance and stakeholder value. To realize this opportunity, the R&D team has completed Phase 1, including comprehensive laboratory testing and onsite trials to confirm technical feasibility. These tests demonstrated that salinity levels can be successfully reduced and system operations sustained under field conditions. The next step is Phase 2, which will advance the initiative into a pilot project stage, focusing on scaling up treatment capacity, validating reliability, and assessing operational and financial performance. This phased approach ensures technological, commercial, and ESG benefits are systematically realized, building a foundation for full-scale deployment and long-term value creation.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Increased sales of existing products and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.8) Organization specific description

Pertamina aims to reduce its reliance on electricity from the public grid, which has a higher emission intensity. Through its subholding, Power & NRE Subholding, PT Pertamina Power Indonesia (PPI) is developing solar power plant projects to strengthen the energy mix in its operational areas. The expansion of solar energy generation represents a significant opportunity for this subholding. In addition, solar power holds considerable potential in Indonesia, supported by the government's ambitious targets, including reaching 3.6 GW of solar PV capacity by 2025 and shifting from diesel to solar energy complemented by battery storage.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Virtually certain (99–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

This opportunity will contribute approximately 0.076% to the revenue of our new and renewable energy subholding.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

40000000

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

50000000

(3.6.1.23) Explanation of financial effect figures

From the commercialization of the 25 MW solar power plant, we assessed the potential financial impact measured by Earning Before Interest, Taxes, Depreciation, and Amortization (EBITDA) over a 30-year period. The calculation estimates that the potential EBITDA impact of the solar power plant is approximately 40 million to 50 million USD over 30 years.

(3.6.1.24) Cost to realize opportunity

35000000

(3.6.1.25) Explanation of cost calculation

The total capital expenditure required for the development and commercialization of a large-scale solar power generation project with a capacity of 25 MW is estimated to be around USD35 million. This figure represents the investment needed to bring the solar power generation facility into operation.

(3.6.1.26) Strategy to realize opportunity

The deployment of solar power plants within the Pertamina group is intended to reduce dependence on electricity from PLN, the state-owned utility, while also lowering Scope 2 emissions. Electricity from the public grid has a higher emission intensity compared to solar-generated power. To address this, our Electricity Generation and Renewable Energy subholding is developing a 25 MW solar power plant to reduce Scope 2 emissions. To realize the financial benefits of this 25 MW solar project, Pertamina NRE must secure and allocate USD 35 million in capital expenditure. This investment will support the successful development and commercialization of the solar facility, enabling the achievement of the projected financial outcomes and revenue potential.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp4

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Increased sales of existing products and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.8) Organization specific description

Pertamina plans to achieve the world's largest geothermal capacity by 2029. The company aims to generate substantial value throughout the geothermal supply chain, encompassing exploration, development, production, and distribution. The targeted capacity of 1,134 MW will enhance Pertamina New and Renewable Energy's position in the global market while supporting the transition to sustainable energy. Key objectives include exploring both new and existing geothermal working areas, as well as developing strategic partnership initiatives to maximize the potential of geothermal resources.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

This opportunity will contribute approximately 0.54% to the revenue of our new and renewable energy subholding.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

700000000

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

800000000

(3.6.1.23) Explanation of financial effect figures

The anticipated financial benefit from realizing this geothermal capacity is projected to generate revenue ranging from USD700 million to USD800 million. This figure represents the potential revenue increase that may be realized from 1,134 MW of geothermal capacity, considering elements such as energy production volumes, selling prices, and operational efficiency.

(3.6.1.24) Cost to realize opportunity

2226000000

(3.6.1.25) Explanation of cost calculation

The assessment of expenses required to capitalize on the opportunity, utilizing historical capital expenditure data from comparable geothermal power plants, is intended for projections in 2029.

(3.6.1.26) Strategy to realize opportunity

We plan to invest in geothermal technology to improve the efficiency and output of power plants in order to seize this opportunity. Our approach includes strengthening exploration and development activities by targeting new geothermal working areas while optimizing the potential of existing sites. Additionally, we will form strategic partnerships with technology providers, research institutions, and government agencies to drive innovation and secure financial support.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp5

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☑ Use of carbon capture and storage

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.8) Organization specific description

Carbon capture, storage, and utilization (CCS/CCUS) technologies play a critical role in achieving climate goals. The adoption of CCS/CCUS is expected not only to reduce emissions directly in targeted sectors but also to remove CO2 from the atmosphere, either through direct air capture or by combining CCS/CCUS with bioenergy (BECCS) for storage. Pertamina has launched a pilot CCS/CCUS project in the upstream oil and gas sector. In the near term, the focus is on reducing internal emissions generated by upstream operations. Over the long term, Pertamina aims to expand CCS/CCUS deployment to address wider regional market demand and additional sectors. This will include exploring integrated solutions, scaling up operations, and expanding service offerings through comprehensive CCS services.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

This opportunity will contribute approximately 2.5% to the revenue of our upstream subholding.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

500000000000

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

1000000000000

(3.6.1.23) Explanation of financial effect figures

The expected financial advantage from implementing this technological expansion is forecasted to yield annual revenue between USD500 million and USD1 billion in the long term. This figure illustrates the potential revenue growth achieved from the Commercialise CCUS pilots in Gundih, Sukowati, and Ramba, aimed at abating approximately 1 million tonnes of CO2. Additionally, it highlights the development and scaling of CCS to establish centralized hubs, facilitating the abatement of around 16-18 million tonnes per annum of CO2 across Pertamina.

(3.6.1.24) Cost to realize opportunity

2792000000000

(3.6.1.25) Explanation of cost calculation

The cost represents the projected capital expenditure required for investment in CCS/CCUS technology within the upstream subholding.

(3.6.1.26) Strategy to realize opportunity

The development of CCS/CCUS technology is currently being carried out through six distinct projects: CCS/CCUS Hub Central Sumatra, CCS coal-to-Dimethyl Ether (DME) in Tanjung Enim, CCS/CCUS Hub Kutai and South Asri Basin, CCUS/EGR Gundih, CCUS CO2 EOR Sukowati, and CCS at Donggi Matindok. In the long term, Pertamina requires a capital expenditure investment of approximately USD 2,792 million to achieve a cumulative absolute emissions reduction of around 21.3 MtCO2e

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp6

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☑ Participation in carbon market

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.8) Organization specific description

By 2029, Pertamina plans to implement policies and regulations that support and encourage the development of Nature- and Ecosystem-Based Solutions (NEBS) and the carbon market ecosystem. This includes introducing an Emissions Trading System (ETS) in Indonesia and implementing a carbon tax, both of which will strengthen Pertamina's green business initiatives.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

This opportunity will contribute approximately 0.32% to the revenue of our new and renewable energy subholding.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

400000000

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

500000000

(3.6.1.23) Explanation of financial effect figures

This opportunity is anticipated to yield revenue ranging from USD400 million to USD500 million, derived from the potential income associated with the sale of carbon credits. This is made possible through the implementation of NEBS projects designed to reduce CO2 emissions by 17,693,219.11 tons. The revenues are further bolstered by the ETS and carbon tax policies, which are anticipated to enhance the demand and market value for carbon credits. This creates a financial incentive for PNRE to persist in the development of sustainability projects.

(3.6.1.24) Cost to realize opportunity

61391.43

(3.6.1.25) Explanation of cost calculation

The calculation of costs to realize the opportunity, based on historical capital expenditure data for projections in 2029.

(3.6.1.26) Strategy to realize opportunity

Pertamina NRE will focus on developing significant and sustainable NEBS projects to effectively reduce carbon emissions. We will work closely with the government to support the introduction and implementation of the Emissions Trading System (ETS) and carbon tax in Indonesia, acting as a driver for the growth of the carbon market. Additionally, PNRE will participate in the development of favorable policies to advance NEBS and the carbon market, while fostering partnerships with both international and local organizations to ensure successful project execution and maximize the benefits of this opportunity.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp7

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Use of new technologies

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.8) Organization specific description

To advance its energy efficiency strategy, Pertamina, through its subholding companies, has implemented various initiatives to reduce carbon emissions across its operations. These emission reduction efforts include enhancing energy efficiency in both upstream and downstream operational processes.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced direct costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

This opportunity will contribute approximately 0.00016% to the revenue of our new and renewable energi subholding.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

450000

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

550000

(3.6.1.23) Explanation of financial effect figures

This figure pertains to an initiative by our geothermal power generation subsidiary, which involves using Binary Cycle Power Plant technology to generate clean electricity from geothermal resources. This technology supports a closed-loop energy conversion system and aims to replace electricity imported from the public grid. This initiative is part of the company's broader efforts to cut scope 2 emissions while also enhancing energy efficiency in production facilities.

(3.6.1.24) Cost to realize opportunity

2400000

(3.6.1.25) Explanation of cost calculation

The figure refers to the investment and implementation costs for a 500 kW Binary Cycle Power Plant. This cost encompasses the expenditure required to set up and operationalize the plant, which is designed to generate clean electricity from geothermal resources.

(3.6.1.26) Strategy to realize opportunity

To realize the benefits of the 500 kW Binary Cycle Power Plant, Pertamina NRE will invest in and implement this technology. The plant will generate clean electricity, support a closed-loop energy conversion system, and reduce reliance on electricity from the public grid.

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp8

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Cost savings

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Indonesia

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Other, please specify :N/A

(3.6.1.8) Organization specific description

Pertamina plans to provide communities near its operations with access to clean water, supporting the government's targets of achieving 90% access to proper sanitation, 100% access to safe drinking water, and 15% access to potable water by 2024.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Other, please specify :Increased upstream value chain resilience

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

This opportunity will contribute approximately less than 1% to Pertamina total capital cost.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.24) Cost to realize opportunity

56820000

(3.6.1.25) Explanation of cost calculation

This cost represents the planned capital expenditure allocated to activities to improve access to essential services.

(3.6.1.26) Strategy to realize opportunity

In supporting the Government's target in the National Medium Term Development Plan (RPJMN), to realize 90% access to proper sanitation, have 100% access to proper drinking water and 15% access to safe drinking water by 2024, Pertamina has allocated capital expenditure funds of USD56,820,000.
[Add row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

Select from:
☑ Revenue

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

416815000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:
☑ Less than 1%

(3.6.2.4) Explanation of financial figures

The financial figure of USD416,815,000 (0.54%) reflects the total revenue generated from initiatives focused on addressing environmental challenges associated with climate change. This amount represents the revenue generated by Pertamina from its renewable energy business, which includes renewable power generation. The expansion of the market in green business is a key component of Pertamina's transition strategies.

Water

(3.6.2.1) Financial metric

Select from:

☑ OPEX

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

93778781.24

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

The Company’s environmental costs consist of expenditures for activities aimed at preventing and managing environmental impacts. In 2024, total environmental costs amounted to Rp 1562980000000 (USD 93778781.24). These operating expenditures represented approximately 1% of the Company’s total operational costs. [Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☑ More frequently than quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☑ Executive directors or equivalent

☑ Non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☑ No

[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Director on board
☑ Other C-Suite Officer
☑ Board-level committee
☑ Chief Risk Officer (CRO)
☑ Chief Executive Officer (CEO)
☑ Chief Financial Officer (CFO)

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify :Order Letter of Sustainability Committee & Environmental Guidelines

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

☑ Overseeing and guiding major capital expenditures

☑ Monitoring the implementation of the business strategy

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

(4.1.2.7) Please explain

The Company has implemented a robust structure for governance to integrate sustainability into its corporate strategy and operations. The Sustainability Committee, led by the President Director or CEO, assists the Board of Directors in managing impact and implementing sustainability initiatives. The Sustainability Committee is comprised of the Sustainability Steering Board, which is chaired by the President director & CEO, and includes members from the entire Board of Directors. The President Director, as Chairman, is responsible for steering the Company's vision, mission, and strategic policies in line with climate goals; establishing and monitoring climate-related targets; evaluating and directing short-, medium-, and long-term strategies and roadmaps; and providing leadership to ensure the attainment of set objectives. The Sustainability Steering Board is responsible for: (i) approving sustainability related climate policies, strategies, roadmaps, and frameworks to ensure alignment with corporate objectives and directives from the Board of Commissioners; (ii) supervising and evaluating the implementation across business units; (iii) monitoring and assessing material risks and opportunities to enhance resilience and capture value; (iv) providing an annual report to the Board of Commissioners on progress and performance. The Board of Directors has approved multiple initiatives stemming from this governance process, such as the release of the annual Sustainability Report, the adoption of the Company's Transition Plan, the execution of energy audits, and the revision of the Sustainability Policy. The energy transition collaboration strategy designates clear responsibilities for each Board member, enhancing accountability and facilitating effective implementation throughout the Pertamina Group.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Director on board
☑ Other C-Suite Officer
☑ Board-level committee
☑ Chief Risk Officer (CRO)
☑ Chief Executive Officer (CEO)
☑ Chief Financial Officer (CFO)

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify :Order Letter of Sustainability Committee & Environmental Guidelines

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets
☑ Overseeing the setting of corporate targets
☑ Monitoring progress towards corporate targets
☑ Approving corporate policies and/or commitments
☑ Overseeing and guiding major capital expenditures
☑ Monitoring the implementation of the business strategy
☑ Monitoring the implementation of a climate transition plan
☑ Overseeing and guiding the development of a business strategy

☑ Approving and/or overseeing employee incentives
☑ Overseeing and guiding acquisitions, mergers, and divestitures
☑ Overseeing and guiding the development of a climate transition plan
☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

The Company has established a robust governance framework to ensure sustainability is embedded in corporate strategy and operations. The Sustainability Committee, chaired by the President Director or CEO, supports the Board of Directors (BoD) in overseeing impact management and executing sustainability initiatives. The Sustainability Committee consists of the Sustainability Steering Board chaired by the President Director & CEO with members from the entire Board of Directors. In the context of water management, As Chairman, the President Director is accountable for directing and aligning the Company's vision, mission, and strategic policies with water stewardship objectives; setting and monitoring water efficiency and conservation targets; reviewing and guiding short-, medium-, and long-term ambitions, strategies, and roadmaps; and exercising leadership to ensure the achievement of approved goals. While, the Sustainability Steering Board carries the following duties: (i) approve water sustainability policies, strategies, roadmaps, and frameworks, ensuring alignment with corporate objectives and directives of the Board of Commissioners; (ii) supervise and evaluate the implementation of water management initiatives across business units; (iii) monitor and assess material water-related risks and opportunities, including availability, quality, and accessibility; and (iv) report annually to the Board of Commissioners on progress and performance. The BoD has endorsed several initiatives arising from this governance process, including the issuance of the annual Sustainability Report with dedicated water performance disclosures, adoption of water efficiency and conservation programs, and reformulation of the Sustainability Policy.

Biodiversity

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply
☑ Director on board
☑ Other C-Suite Officer
☑ Board-level committee
☑ Chief Risk Officer (CRO)
☑ Chief Executive Officer (CEO)
☑ Chief Financial Officer (CFO)

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:
☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify :Order Letter of Sustainability Committee & Environmental Guidelines

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding the development of a climate transition plan

☑ Overseeing and guiding major capital expenditures

☑ Monitoring the implementation of the business strategy

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

The Company has established a robust governance framework to ensure sustainability is embedded in corporate strategy and operations. The Sustainability Committee, chaired by the President Director or CEO, supports the Board of Directors (BoD) in overseeing impact management and executing sustainability initiatives. The Sustainability Committee consists of the Sustainability Steering Board chaired by the President Director & CEO with members from the entire Board of Directors. In the context of biodiversity management, the President Director, as Chairman, is accountable for directing and aligning the Company's vision, mission, and strategic policies with biodiversity protection objectives; setting and monitoring biodiversity conservation targets; reviewing and guiding short-, medium-, and long-term ambitions, strategies, and roadmaps; and exercising leadership to ensure the achievement of approved goals. While, the Sustainability Steering Board carries the following duties: (i) approve biodiversity-related policies, strategies, roadmaps, and frameworks, ensuring alignment with corporate objectives and directives of the Board of Commissioners; (ii) supervise and evaluate the implementation of biodiversity management programs across business units, particularly in priority areas; (iii) monitor and assess material biodiversity-related risks and opportunities, including dependencies on ecosystems and potential impacts on habitats; and (iv) report annually to the Board of Commissioners on progress and performance. The BoD has endorsed several initiatives arising from this governance process, including the issuance of the annual Sustainability Report with dedicated biodiversity disclosures, adoption of biodiversity action plans and conservation programs, identification and monitoring of biodiversity priority areas, and reformulation of the Sustainability Policy.

[Fixed row]

(4.2) Does your organization’s board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☑ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

☑ Active member of an environmental committee or organization

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group
☑ Engaging regularly with external stakeholders and experts on environmental issues
☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)
☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience
☑ Active member of an environmental committee or organization

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Implementing the business strategy related to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The President Director (CEO) reports directly to shareholders and the Board of Commissioners and holds ultimate accountability for climate-related strategy and performance. The CEO is responsible for defining the Company's vision and policies, setting and monitoring climate targets, directing short-, medium-, and long-term ambitions, and ensuring integration of climate considerations across business lines and support functions. The CEO also leads coordination among functions to secure the achievement of approved targets. Under the CEO's leadership, Pertamina developed a strategic decarbonization roadmap built on three core pillars: (1) Low Carbon Solutions, (2) New and Renewable Energy (NRE) Development, and (3) Electric Vehicle (EV) Ecosystem Development. This roadmap guides the Company's transition toward a greener future, balancing emission reduction in current operations with investments in new growth opportunities. Pertamina actively engages in strategic partnerships with government, private, and academic stakeholders, positioning the Company as a key player in advancing Indonesia's contribution to global Net Zero Emissions (NZE). In 2024, macroeconomic and geopolitical pressures amplified the "energy trilemma" of resilience, affordability, and sustainability. The CEO directed a dual growth strategy in response. The first strategy secures national energy resilience by maintaining and expanding the core oil and gas business, with a Government-aligned target of producing 1 million barrels per day by 2030, while embedding environmentally responsible practices. The second strategy accelerates low-carbon initiatives, including biofuels, Sustainable Aviation Fuel (SAF), pilots of Carbon Capture, Utilization, and Storage (CCUS), and Nature-Based Solutions (NBS). Through these CEO-led actions, Pertamina aligns national energy goals with climate accountability, ensuring resilience and long-term environmental stewardship.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Implementing the business strategy related to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

The responsibilities of the Chief Executive Officer (CEO) & President Director are as follows: · Providing directions and controlling the vision, mission, and strategy policies of the Company. · Determining, monitoring, and supervising the progress of climate change goals and targets. · Making a decision, reviewing, and providing directions on short, medium, and long terms ambitions, strategies, roadmaps, and initiatives aspects for each business line and support functions. · Leading and coordinating the functions, such as achieving the approved target.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities
☑ Assessing environmental dependencies, impacts, risks, and opportunities
☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets
☑ Setting corporate environmental policies and/or commitments
☑ Setting corporate environmental targets

Strategy and financial planning
☑ Developing a business strategy which considers environmental issues
☑ Implementing the business strategy related to environmental issues

Other
☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:
☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ Annually

(4.3.1.6) Please explain

The responsibilities of the Chief Executive Officer (CEO) & President Director are as follows: · Providing directions and controlling the vision, mission, and strategy policies of the Company. · Determining, monitoring, and supervising the progress of climate change goals and targets. · Making a decision, reviewing, and providing directions on short, medium, and long terms ambitions, strategies, roadmaps, and initiatives aspects for each business line and support functions. · Leading and coordinating the functions, such as achieving the approved target.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Financial Officer (CFO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Developing a climate transition plan

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing annual budgets related to environmental issues

☑ Managing major capital and/or operational expenditures relating to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The CFO oversees climate change initiatives' day-to-day financial management and project finance activities. The CFO is responsible in: • Developing financial strategies and allocating resources related to ambitions, strategies, roadmaps, policies, and initiatives regarding climate change risks and opportunities. • Reviewing and directing risk management policies and annual budgets. • Managing and optimizing financial resources prudently and efficiently to add value and support the Company's business and work plan. • Ensuring effective and accountable optimization of company finance management Pertamina has allocated 14 percent of the total Capital Expenditure (Capex) to support the success of the energy transition in Indonesia.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify :Director of Strategy, Portfolio & New Ventures

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Conducting environmental scenario analysis

☑ Managing annual budgets related to environmental issues

☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:
☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ More frequently than quarterly

(4.3.1.6) Please explain

The responsibilities of the Director of Strategy, Portfolio & New Ventures are as follows: • Develop strategy and business masterplan for the Group, which may act as a reference for short-, medium-, and long-term climate targets. • Reviewing and evaluating investment plan and business portfolio across the Group in accordance with the business principles and risk management to support the competitiveness and business continuity of the company. • Supervising major capital expenditures, acquisitions, and divestitures on investments and business portfolios, including climate-related issues. • Managing sustainable innovation and cultivating new venture business integrally in developing the company's business as part of mitigation and adaptation to climate change. • Monitoring the implementation and performance of climate change objectives.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level
☑ Other C-Suite Officer, please specify :Director of Logistics & Infrastructure

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Implementing the business strategy related to environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The responsibilities of the Director of Logistics & Infrastructure are as follows: • Planning and optimizing supply activity and product distribution according to the needs of energy resilience. • Providing direction on the planning and coordinating infrastructure operations for the product supply and distribution to achieve the climate's

goals and targets. • Monitoring the implementation and performance of climate change objectives. • Planning infrastructure development related to climate transition through development logistics and cross-sub-holding of infrastructure development synergy.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Sustainability committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Conducting environmental scenario analysis

☑ Managing annual budgets related to environmental issues

☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing environmental reporting, audit, and verification processes
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing major capital and/or operational expenditures relating to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other
☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:
☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ More frequently than quarterly

(4.3.1.6) Please explain

Pertamina Sustainability Committee to oversee the effective implementation of its ESG policy. This committee is responsible for: 1. Aligning long-term business strategies with climate change scenarios. 2. Examining the climate change scenario for preparing the strategic plan. 3. At all organizational levels, emphasize the significance of environmental measures, climate change objectives, and performance. 4. Providing best practices for tackling climate change issues related to the business-impacting structure, policies, and regulations. 5. Raising awareness and comprehension of climate change factors affecting the industry 6. Implementing and promote climate change common and effective corporate governance standards for the business. 7. Evaluating potential climate-related risks and opportunities. 8. Engaging with policymakers on climate-related issues.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Other

☑ Other, please specify :Senior Vice President Environmental, Health, Safety, and Security

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing engagement in landscapes and/or jurisdictions

☑ Managing public policy engagement related to environmental issues

☑ Managing supplier compliance with environmental requirements

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Implementing the business strategy related to environmental issues

☑ Managing environmental reporting, audit, and verification processes

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The Senior Vice President of Environmental, Health, and safety is responsible for overseeing issues related to climate, environment, emission, biodiversity, health & safety, prevention of major accidents, water, effluent, waste management, emergency response, offshore well management, land closure & rehabilitation. The senior vice president of Environmental, Health, and Safety also offer recommendations and insights based on their specific areas of expertise, while overseeing and implementing programs within their respective business units.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Financial Officer (CFO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing annual budgets related to environmental issues

☑ Managing major capital and/or operational expenditures relating to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

The responsibilities of the Chief Financial Officer (CFO) are as follows: · Financial strategy & allocation related to ambitions, strategies, roadmaps, policies, and initiatives on risks and opportunities. · Reviewing and directing risk management policies and annual budgets. · Managing and optimizing financial resources prudently and efficiently and adding values to support the company's business and work plan. · Optimizing company finance management effectively.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify :Director of Strategy, Portfolio & New Ventures

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning
☑ Conducting environmental scenario analysis
☑ Managing annual budgets related to environmental issues
☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:
☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ Quarterly

(4.3.1.6) Please explain

The responsibilities of the Director of Strategy, Portfolio & New Ventures are as follows: · Develop strategy and business masterplan for the Group, which may act as a reference for short-, medium-, and long-term environmental targets. · Reviewing and evaluating investment plan and business portfolio across the Group in accordance with the business principles and risk management to support the competitiveness and business continuity of the company. · Supervising major capital expenditures, acquisitions, and divestitures on investments and business portfolios. · Managing sustainable innovation and cultivating new venture business integrally in developing the company's business. · Monitoring the implementation and performance of ESG objectives.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify :Director of Logistics & Infrastructure

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Implementing the business strategy related to environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

The responsibilities of the Director of Logistics & Infrastructure are as follows: • Planning and optimizing supply activity and product distribution. • Providing direction on the planning and coordinating infrastructure operations for the product supply and distribution to achieve the climate's goals and targets. • Monitoring the implementation and performance of environmental objectives. • Planning infrastructure development through development logistics and cross-sub-holding of infrastructure development synergy.

Water

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Sustainability committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Managing annual budgets related to environmental issues

☑ Implementing the business strategy related to environmental issues

☑ Developing a business strategy which considers environmental issues
☑ Managing environmental reporting, audit, and verification processes
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing major capital and/or operational expenditures relating to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other
☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:
☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ Quarterly

(4.3.1.6) Please explain

Pertamina established a Sustainability Committee to oversee the effective implementation of its ESG strategies, targets, and policy. This committee is responsible for: 1. Addressing the integration of water strategy, evolution scenarios, and business sustainability in the medium to long term. 2. Analyzing the water scenario to develop a strategic plan. 3. Emphasize the importance of environmental measures, objectives, and performance at all levels of the organization. 4. Providing best practices for addressing water issues that affect the business's structure, policies, and regulations. 5. Increasing awareness and understanding of water factors affecting the industry. 6. Assessing potential water risks and opportunities. 7. Communicating with policymakers about water-related issues.

Water

(4.3.1.1) Position of individual or committee with responsibility

Other
☑ Other, please specify :Senior Vice President Environmental, Health, Safety, and Security

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing engagement in landscapes and/or jurisdictions

☑ Managing public policy engagement related to environmental issues

☑ Managing supplier compliance with environmental requirements

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Implementing the business strategy related to environmental issues

☑ Managing environmental reporting, audit, and verification processes

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

The Senior Vice President of Environmental, Health, and safety is responsible for overseeing issues related to climate, environment, emission, biodiversity, health & safety, prevention of major accidents, water, effluent, waste management, emergency response, offshore well management, land closure & rehabilitation. The senior vice president of Environmental, Health, and Safety also offer recommendations and insights based on their specific areas of expertise, while overseeing and implementing programs within their respective business units.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Financial Officer (CFO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing annual budgets related to environmental issues

☑ Managing major capital and/or operational expenditures relating to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

The responsibilities of the Chief Financial Officer (CFO) are as follows: · Financial strategy & allocation related to ambitions, strategies, roadmaps, policies, and initiatives on risks and opportunities. · Reviewing and directing risk management policies and annual budgets. · Managing and optimizing financial resources prudently and efficiently and adding values to support the company's business and work plan. · Optimizing company finance management effectively.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify :Director of Strategy, Portfolio & New Ventures

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Managing annual budgets related to environmental issues
☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:
☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:
☑ Annually

(4.3.1.6) Please explain

The responsibilities of the Director of Strategy, Portfolio & New Ventures are as follows: · Develop strategy and business masterplan for the Group, which may act as a reference for short-, medium-, and long-term environmental targets. · Reviewing and evaluating investment plan and business portfolio across the Group in accordance with the business principles and risk management to support the competitiveness and business continuity of the company. · Supervising major capital expenditures, acquisitions, and divestitures on investments and business portfolios. · Managing sustainable innovation and cultivating new venture business integrally in developing the company's business. · Monitoring the implementation and performance of ESG objectives.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Committee
☑ Sustainability committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Managing annual budgets related to environmental issues

☑ Implementing the business strategy related to environmental issues

☑ Developing a business strategy which considers environmental issues

☑ Managing environmental reporting, audit, and verification processes

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing major capital and/or operational expenditures relating to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Pertamina established a Sustainability Committee to oversee the effective implementation of its ESG strategies, targets, and policy. This committee is responsible for: 1. Addressing the integration of sustainability strategy, evolution scenarios, and business sustainability in the medium to long term. 2. Analyzing the water scenario to develop a strategic plan. 3. Emphasize the importance of environmental measures, objectives, and performance at all levels of the organization. 4. Providing best practices for addressing biodiversity issues that affect the business's structure, policies, and regulations. 5. Increasing awareness and understanding of water factors affecting the industry. 6. Assessing potential water risks and opportunities. 7. Communicating with policymakers about biodiversity-related issues.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Other

☑ Other, please specify :Senior Vice President Environmental, Health, Safety, and Security

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing engagement in landscapes and/or jurisdictions

☑ Managing public policy engagement related to environmental issues

☑ Managing supplier compliance with environmental requirements

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Implementing the business strategy related to environmental issues

☑ Managing environmental reporting, audit, and verification processes

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

The Senior Vice President of Environmental, Health, and safety is responsible for overseeing issues related to climate, environment, emission, biodiversity, health & safety, prevention of major accidents, water, effluent, waste management, emergency response, offshore well management, land closure & rehabilitation. The senior vice president of Environmental, Health, and Safety also offer recommendations and insights based on their specific areas of expertise, while overseeing and implementing programs within their respective business units.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Risks Officer (CRO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The Director of Risk Management (CRO) is responsible for integrating climate change, water, and biodiversity risks into the company's enterprise risk framework. This responsibility is carried out through three primary functions: risk strategy and governance, operational and project risk management, and subsidiary risk oversight. The Director of Risk Management will ensures 1. Climate, water, and biodiversity risks are integrated into corporate policies, long-term planning, and governance processes. 2. Aligning business strategies with energy transition goals, incorporating environmental risk factors into performance monitoring, and ensuring that sustainability risks are thoroughly evaluated. 3. Responsible for risk profiling, monitoring, and reporting on environmental exposures such as water resource dependency, physical climate hazards, and biodiversity impacts. 4. Emerging risks, such as water scarcity, ecosystem degradation, and climate-related operational disruptions, are addressed using business continuity planning, technology risk management, and loss-event analysis. 5. Environmental safeguards are included in project-level risk assessments to ensure resilience when making new investments and strategic initiatives.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Risks Officer (CRO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

The Director of Risk Management (CRO) is responsible for integrating climate change, water, and biodiversity risks into the company's enterprise risk framework. This responsibility is carried out through three primary functions: risk strategy and governance, operational and project risk management, and subsidiary risk oversight. The Director of Risk Management will ensures 1. Climate, water, and biodiversity risks are integrated into corporate policies, long-term planning, and governance processes. 2. Aligning business strategies with energy transition goals, incorporating environmental risk factors into performance monitoring, and ensuring that sustainability risks are thoroughly evaluated. 3. Responsible for risk profiling, monitoring, and reporting on environmental exposures such as water resource dependency, physical climate hazards, and biodiversity impacts. 4. Emerging risks, such as water scarcity, ecosystem degradation, and climate-related operational disruptions, are addressed using business continuity planning, technology risk management, and loss-event analysis. 5. Environmental safeguards are included in project-level risk assessments to ensure resilience when making new investments and strategic initiatives.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Risks Officer (CRO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

(4.3.1.4) Reporting line

Select from:

☑ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

The Director of Risk Management (CRO) is responsible for integrating climate change, water, and biodiversity risks into the company's enterprise risk framework. This responsibility is carried out through three primary functions: risk strategy and governance, operational and project risk management, and subsidiary risk oversight. The Director of Risk Management will ensures 1. Climate, water, and biodiversity risks are integrated into corporate policies, long-term planning, and governance processes. 2. Aligning business strategies with energy transition goals, incorporating environmental risk factors into performance monitoring, and ensuring that

sustainability risks are thoroughly evaluated. 3. Responsible for risk profiling, monitoring, and reporting on environmental exposures such as water resource dependency, physical climate hazards, and biodiversity impacts. 4. Emerging risks, such as water scarcity, ecosystem degradation, and climate-related operational disruptions, are addressed using business continuity planning, technology risk management, and loss-event analysis. 5. Environmental safeguards are included in project-level risk assessments to ensure resilience when making new investments and strategic initiatives.
[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:
☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

18

(4.5.3) Please explain

In 2024, climate-related issues represented 18% of the overall Key Performance Indicators (KPIs) for the Board of Directors. This included the Acceleration of CCS/CCUS Implementation (6%), the Acceleration of Biofuel Development (6%), and ESG Ratings (6%). All of these elements are embedded as key determinants for incentive eligibility. These climate-focused KPIs are also cascaded across all levels of the Company—covering the Holding, Subholding, and operating units. Incentive allocation is adjusted based on individual performance outcomes and remains fully aligned with applicable regulations

Water

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:
☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

6

(4.5.3) Please explain

In 2024, water-related issues were incorporated into the Board of Directors' KPIs through the ESG Rating, which accounted for 6% of the overall KPIs. The achievement of this KPI target serves as the basis for determining incentives and related performance components. Incentives are allocated in accordance with performance results, achievements, and compliance with prevailing incentive regulations.
[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Board/Executive board

(4.5.1.2) Incentives

Select all that apply

☑ Bonus – set figure

(4.5.1.3) Performance metrics

Targets

☑ Organization performance against an environmental sustainability index

Strategy and financial planning

☑ Shift to a business model compatible with a net-zero carbon future

☑ Increased proportion of revenue from low environmental impact products or services

Emission reduction

☑ Increased share of renewable energy in total energy consumption

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

In 2024, climate-related issues accounted for 18% of the overall Key Performance Indicators (KPIs) of the Board of Directors. This includes the Acceleration of CCS/CCUS Implementation (6%), Acceleration of Biofuel Development (6%), and ESG Ratings (6%), all of which are embedded as key determinants for incentives. These climate focused KPIs are also cascaded across every level of the company covering the Holding, Subholding, and operating units. Incentive allocation is adjusted based on individual performance outcomes and in line with applicable regulations

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

The incentive program aims to drive the Board of Directors and senior management to successfully fulfill Pertamina's climate commitments and transition plan. In 2024, climate-related issues represented 18% of the total Key Performance Indicators (KPIs) for the Board of Directors, including the Acceleration of CCS/CCUS Implementation (6%), the Acceleration of Biofuel Development (6%), and ESG Ratings (6%). Climate-focused KPIs are integral to determining incentive eligibility, promoting a proactive stance on climate risks and opportunities. This strategy strengthens Pertamina's commitment to Indonesia's Nationally Determined Contribution (NDC), promotes the energy transition, and speeds up decarbonization throughout the value chain. Through this incentive program, In 2024, the realization of the NRE Development Milestone reached 54.7% or equivalent to 58.67 MW, an increase from 22.6% (equivalent to 16.2 MW) in 2023. Pertamina Group is also expanding its business portfolio in the NRE sector, with a target of reaching 17% by 2030

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Board/Executive board

(4.5.1.2) Incentives

Select all that apply

☑ Bonus – set figure

(4.5.1.3) Performance metrics

Targets

☑ Organization performance against an environmental sustainability index

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

In 2024, water-related issues were represented in the Board of Directors' ESG Rating KPIs (6% of overall KPIs). The achievement of these KPI targets serves as the basis for determining incentives and related performance components. Incentives are distributed according to performance results, achievements, and compliance with prevailing incentive regulations.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Pertamina integrates water-related performance of board members into an incentive system to meet ESG targets. This initiative seeks to improve awareness and collaboration in water management while aligning the company's strategy with water-related risks and opportunities. This water-related performance target is part of the KPI aimed at achieving ESG ratings assessed by external rating agencies. Assessing ESG ratings is essential for maintaining transparency and accountability among companies in achieving their ESG goals.

Climate change

(4.5.1.1) Position entitled to monetary incentive

Senior-mid management

☑ Environmental, Health, and Safety manager

(4.5.1.2) Incentives

Select all that apply

☑ Bonus – set figure

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

☑ Reduction in absolute emissions in line with net-zero target

Emission reduction

☑ Reduction in absolute emissions

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

In 2024, the Environmental, Health, and Safety Manager's KPIs cascade directly from the Board of Directors. Based on this cascade, the Environmental, Health, and Safety Manager is specifically responsible for achieving the Emission Reduction Indicator (6%) and the Environmental Excellence Indicator (10%), where successful delivery entitles the Manager to a fixed bonus in 2024 in accordance with corporate incentive policies.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

The incentive program has been developed to incentivize the Board of Directors and management at the management level to execute Pertamina's climate commitment and transition plan effectively. This will foster a proactive approach to addressing climate risks and opportunities. This approach supports Pertamina's efforts to meet Indonesia's Nationally Determined Contribution (NDC) objectives, facilitate energy transition and accelerate decarbonization throughout our value chain. Through this incentive program, In 2024, the realization of the NRE Development Milestone reached 54.7% or equivalent to 58.67 MW, an increase from 22.6% (equivalent to 16.2 MW) in 2023. Pertamina Group is also expanding its business portfolio in the NRE sector, with a target of reaching 17% by 2030

Water

(4.5.1.1) Position entitled to monetary incentive

Senior-mid management

☑ Environmental, Health, and Safety manager

(4.5.1.2) Incentives

Select all that apply

☑ Bonus – set figure

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

In 2024, The Environmental, Health, and Safety Manager's KPIs cascade from the Board of Directors. This cascade extends to Environmental, Health, and Safety Manager's KPIs, whose accountability includes the Environmental Excellence Indicator (10%) as performance measures linked to water and broader environmental outcomes. Fulfillment of these indicators forms the basis for incentive eligibility, with bonuses granted in line with performance achievements and applicable regulations.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Pertamina integrates water-related performance of Environmental, Health, and Safety Manager into an incentive system to meet ESG targets. This initiative seeks to improve awareness and collaboration in water management while aligning the company's strategy with water-related risks and opportunities. This water-related performance target is part of the KPI aimed at achieving ESG ratings assessed by external rating agencies, as well as the implementation of internal and external environmental audits in Pertamina Groups. This KPI is essential for maintaining transparency and accountability among companies in achieving their ESG goals. [Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☑ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Climate change

☑ Water

☑ Biodiversity

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

Climate change, water, and biodiversity issues are covered in the Net Zero Commitment; Sustainability Policy: Health, Safety, Security, and Environmental HSSE Policy: and Green Procurement Policy. All these policies applies to all individuals employed by the company, partners and all parties under Pertamina's influence or authority, this includes all of the company's contractors and suppliers, as well as all entities within Pertamina Group.

(4.6.1.5) Environmental policy content

Environmental commitments

☑ Commitment to No Net Loss

☑ Commitment to Net Positive Gain

☑ Commitment to take environmental action beyond regulatory compliance

☑ Commitment to stakeholder engagement and capacity building on environmental issues

☑ Commitment to a circular economy strategy

☑ Commitment to respect legally designated protected areas

☑ Commitment to comply with regulations and mandatory standards

Climate-specific commitments

☑ Commitment to net-zero emissions

☑ Other climate-related commitment, please specify :Commitment to reduce emission and use energy efficiently

Water-specific commitments

☑ Commitment to reduce or phase out hazardous substances

☑ Commitment to control/reduce/eliminate water pollution

☑ Commitment to reduce water consumption volumes

☑ Commitment to reduce water withdrawal volumes

☑ Commitment to safely managed WASH in local communities

Social commitments

☑ Commitment to respect and protect the customary rights to land, resources, and territory of Indigenous Peoples and Local Communities

☑ Commitment to respect internationally recognized human rights

Additional references/Descriptions

☑ Description of environmental requirements for procurement

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with the Paris Agreement

☑ Yes, in line with Sustainable Development Goal 6 on Clean Water and Sanitation

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

Sustainability Policy, NZE Commitment, HSSE Policy, and Green Procurement Policy.pdf
[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:

☑ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

☑ UN Global Compact

☑ Other, please specify :Oil and Gas Methane Partnership (OGMP) 2.0, Oil and Gas Decarbonisation Charter (OGDC), Zero Routine Flaring (ZRF), and Ipieca (International Petroleum Industry Environmental Conservation Association)

(4.10.3) Describe your organization's role within each framework or initiative

The United Nations Global Compact (UNGC) holds a strategic position in facilitating corporate alignment with sustainability principles. Supported by 193 UN member states, the UNGC serves as a global reference for companies committed to sustainable development. Its updated strategy emphasizes strengthening the application of the Ten Principles covering human rights, labor, the environment, and anti-corruption—which form the foundation for the long-term sustainability of business, society, and the planet. These principles guide corporate contributions toward achieving the Sustainable Development Goals (SDGs) and the Paris Agreement within the framework of the 2030 Agenda. Yet, since the Global Goals were adopted in 2015, challenges such as the pandemic and the escalating climate crisis have slowed global progress. As a member of the UNGC since 2021, Pertamina remains committed to supporting and advancing this initiative. In parallel, Pertamina has strengthened its role within the global energy transition by joining the International Petroleum Industry Environmental Conservation Association (Ipieca) Ipieca is the leading global oil and gas industry association for advancing environmental and social performance. Through this membership, Pertamina aligns with global best practices on climate, nature, and people, while reinforcing its commitment to collective action on sustainable development. Pertamina's engagement with Ipieca also enhances collaboration with international peers in advancing ESG performance and energy transition pathways. Pertamina has further reinforced its sustainability commitments by participating in multiple international initiatives. Pertamina signed an MoU with UNEP to join the Oil and Gas Methane Partnership (OGMP) 2.0, the most comprehensive methane reporting framework for the sector. This framework establishes rigorous standards for transparent methane emissions reporting across operated and non-operated assets. Pertamina's participation covers Scope 1 methane emissions across its value chain (excluding end users), in line with the OGMP 2.0 Framework. Additionally, Pertamina is a signatory to the Oil & Gas Decarbonization Charter (OGDC), supporting the Paris Agreement by committing to reduce greenhouse gas emissions, pursue net-zero pathways, and invest in future energy systems, including renewables, low-carbon fuels, carbon capture and storage (CCS), low-emission hydrogen, energy storage, and emerging negative-emission technologies. Pertamina also supports the Zero Routine Flaring (ZRF) Initiative, launched in 2015, which commits governments and oil companies to end routine flaring no later than 2030. By addressing this century-old industry practice, Pertamina is contributing to reducing climate impacts, preventing resource waste, and advancing sustainable development in producing regions. Through these international collaborations UNGC, IPIECA, OGMP 2.0, OGDC, and ZRF—Pertamina demonstrates its integrated approach to sustainability. The Company not only strengthens compliance with global frameworks but also positions itself as an active contributor to the global energy transition, reinforcing its dedication to environmental stewardship, social responsibility, and sustainable value creation.
[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

☑ Yes, we engaged directly with policy makers

☑ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

☑ Yes, we have a public commitment or position statement in line with global environmental treaties or policy goals

(4.11.3) Global environmental treaties or policy goals in line with public commitment or position statement

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

(4.11.4) Attach commitment or position statement

NZE Commitement, OGDC Charter,and Sustainability Report.pdf

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

☑ No

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

Pertamina is dedicated to aiding Indonesia in achieving its goal of producing 17% of energy from renewable sources by 2030, in accordance with the global sustainability agenda of the Energy, Sustainability & Climate B20 Task Force. Pertamina and UNEP have committed to conducting regular meetings, at least once a year, to review the progress of the Oil and Gas Methane Partnership (OGMP), exchange knowledge, and explore mutually beneficial enhancements. Pertamina implements measurement, monitoring, reporting, and verification (MMRV) of GHG emissions to fulfill the Oil and Gas Decarbonization Charter (OGDC), ensuring transparency and ongoing enhancement of data quality, in accordance with internationally recognized frameworks and presented in sustainability reports. Pertamina will report annual flaring volumes from its oil fields for the Zero Routine Flaring Initiative, endorsed in May 2024, beginning with the first full calendar year post-

endorsement, excluding equity share volumes from non-operated fields. Water stewardship remains a critical focus. Pertamina is dedicated to safeguarding clean water sources, advancing SDG 6, and minimizing its environmental impact. Pertamina engaged in the World Water Forum in 2024 to enhance partnerships focused on water sustainability. The Company promotes water efficiency through internal behavioral and technological initiatives, while also engaging with communities and CSR programs externally. Pertamina employs water management systems throughout its value chain to achieve a Net Positive Water Impact (NPWI). All initiatives adhere to international standards, including Ipieca frameworks, ensuring that climate, biodiversity, and water strategies align with global best practices and are incorporated into Pertamina's sustainability roadmap.
[Fixed row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Ethanol tax exemption for biofuel development

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply
☑ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Energy and renewables
☑ Alternative fuels

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:
☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Indonesia

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Ad-hoc meetings

☑ Participation in working groups organized by policy makers

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Our engagement on the exemption of excise duties for ethanol as a feedstock for bioethanol, particularly in East Java where our operations are located, directly supports our transition plan to accelerate low-carbon energy solutions. By reducing the cost burden of ethanol procurement, this policy creates stronger economic feasibility for scaling biofuel development, which in turn contributes to achieving our emission reduction targets and energy transition commitments. The policy is closely aligned with our environmental commitments to expand renewable energy utilization and reduce reliance on fossil fuels. Engagement with policymakers was informed by the need to ensure a stable regulatory framework that incentivizes the development and integration of biofuels into our operational energy mix. We measure the success of this engagement through three key indicators: (i) the adoption of favorable fiscal treatment for ethanol as biofuel feedstock, (ii) increased volume of ethanol utilization in our operations, and (iii) measurable progress in emission reductions linked to biofuel substitution. These outcomes demonstrate how policy engagement strengthens the enabling environment for our transition plan and supports delivery of long-term sustainability targets.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☑ Paris Agreement

Row 2

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Carbon Capture Storage Policies

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☑ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Other

☑ Climate transition plans

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Indonesia

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Regular meetings

☑ Participation in working groups organized by policy makers

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Our active engagement on emerging Carbon Capture and Storage (CCS) regulations is central to advancing our transition strategy and long-term decarbonization commitments. As one of the key solutions to reduce industrial emissions, securing a clear and enabling CCS regulatory framework covering technical standards, site safety, post-injection liabilities, and carbon credit allocation directly supports our ability to implement large-scale emission reduction projects and attract international collaboration. Recognizing the strategic importance of CCS, we have been in continuous dialogue with national regulators, including the Coordinating Ministry for Economic Affairs and relevant technical ministries. These discussions are informed by our operational needs to (i) obtain permits for carbon storage sites, including potential cooperation with Singapore for cross-border CO_2 transport and storage, (ii) ensure regulatory clarity on cost recovery and economic incentives, and (iii) develop equitable carbon credit sharing schemes that align with Indonesia’s national climate objectives. We evaluate the effectiveness of this engagement through tangible milestones: (i) progress in regulatory drafts and policy proposals that incorporate our recommendations, (ii) advancement of cross-border cooperation agreements on CCS, and (iii) recognition of CCS projects within Indonesia’s carbon market and climate policy framework. Achieving these outcomes will enable us to scale CCS deployment as a critical pathway to meeting our net-zero and climate transition targets.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☑ Paris Agreement

Row 3

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Technical Guidance on Environmental Pollution Control

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☑ Climate change

☑ Water

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Environmental impacts and pressures

☑ Other environmental impacts and pressures, please specify :Technical Guidance on Environmental Pollution Control

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Indonesia

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Regular meetings

☑ Discussion in public forums

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Our engagement in the Technical Guidance on Environmental Pollution Control (covering air, water, and hazardous waste management) under the national Program for Rating Company Performance in Environmental Management (PROPER), that is directly aligned with our environmental commitments and transition plan. PROPER serves as the government’s benchmark for corporate environmental performance, and compliance with its standards strengthens our pollution control, waste management, and emissions reduction practices. This engagement also reinforces our commitment to continuous improvement in environmental stewardship and alignment with Indonesia’s broader sustainability agenda. Participation in PROPER-related technical guidance sessions provides us with regulatory clarity, best practices, and updated requirements on pollution control. These insights inform our operational strategies and investment decisions, ensuring that our environmental management systems remain compliant, adaptive, and capable of supporting our long-term decarbonization and sustainability roadmap. We measure success through: (i) PROPER performance ratings (e.g., Gold/Green recognition), (ii) verified improvements in pollution reduction and waste management indicators, and (iii) demonstrable progress in reducing environmental risks while enhancing community and stakeholder trust. These outcomes validate that our proactive engagement with regulators translates into tangible progress toward our environmental goals.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

Row 4

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Water Pollution Fines Regulations

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☑ Water

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Financial mechanisms (e.g., taxes, subsidies, etc.)

☑ Fines, enforcement orders and/or penalties relating to groundwater contamination

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Indonesia

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Discussion in public forums

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Our engagement in the public consultation led by the Ministry of Environment and Forestry (KLH) regarding the introduction of fines for non-compliance with water quality standards (Permen LH No. 14/2024 on supervision and administrative sanctions) is directly relevant to our environmental commitments. The regulation establishes clearer enforcement mechanisms for water pollution control, which strengthens accountability and incentivizes investment in wastewater treatment and monitoring systems. This supports our commitment by reducing environmental risks, and reinforcing our commitment to safeguarding natural resources. We actively participated in consultations to provide industry perspectives on the technical and operational implications of the proposed fines. Engagement was informed by our need to balance regulatory compliance with operational feasibility, while also aligning with national water conservation and pollution control objectives. Success is measured by (i) integration of our inputs into the final regulatory provisions, (ii) enhanced compliance with water quality standards across our operations, and (iii) absence of non-compliance fines as evidence of effective water pollution control. These outcomes reflect that our engagement has not only shaped the regulatory framework but also strengthened our ability to achieve long-term sustainability targets.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

[Add row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Global

☑ International Association of Oil and Gas Producers (IOGP)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization’s position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Pertamina is an active member of the International Oil & Gas Producers (IOGP), an organization that supports the global community's efforts to address climate change challenges. IOGP also believes that the oil and gas industry plays a crucial role in tackling this issue while continuing to meet society's future energy demands.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

39273

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Membership fee

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

Row 2

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Indonesia Chamber of Commerce and Industry (KADIN)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Water

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Pertamina currently promotes KADIN's 9 strategies, especially Net Zero Hub, Sustainability, and Blue Economy which are in line with the Company's strategy to achieve sustainability targets through maintaining business legacy, decarbonization efforts, and building new green businesses.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

193.35

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Membership fee

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

Row 3

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Other trade association in Asia and Pacific, please specify :ASEAN Council on Petroleum (ASCOPE)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Water

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

ASCOPE is an organization of national oil companies from all ASEAN member countries whose main role is to serve as the hub of the oil and gas industry in Southeast Asia. The challenges of the energy sector in ASEAN are greatly influenced by the rapidly changing global energy landscape, technological advances, changing market dynamics, geopolitical tensions, and climate change issues. Therefore, Pertamina continues to encourage various strategic efforts by collaborating among ASEAN countries in order to strengthen regional energy connectivity and resilience. ASEAN connectivity and energy security are important components in addressing three strategic issues, namely energy security, energy affordability, and environmental sustainability.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

1000

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

membership fee

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

Row 4

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Other trade association in Asia and Pacific, please specify :Indonesian Petroleum Association (IPA)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Water

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

The mission of the Indonesian Petroleum Association (IPA) is in line with Pertamina's strategy as an upstream oil and gas industry in Indonesia to work together with all stakeholders in advancing and fulfilling the interests of the government, investors, communities, employees, customers, and the environment.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

4297.56

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Membership

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

Row 5

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via other intermediary organization or individual

(4.11.2.2) Type of organization or individual

Select from:

☑ State-Owned Enterprise (SOE)/Government-Owned Corporation (GOC)

(4.11.2.3) State the organization or position of individual

PERTAMINA is a national energy company whose 100% share ownership is owned by the Government of the Republic of Indonesia through the Ministry of State-Owned Enterprises (SOE) as the Shareholder Authority. Therefore, our position is to support all SOE targets and strategies.

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Water

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Pertamina is part of the State Owned Enterprises (SOE) engaged in the business of oil, gas, and new and renewable energy. As an Indonesian state-owned company, Pertamina is committed to supporting the Net Zero Emission 2060 target by continuing to encourage programs that have a direct impact on the achievement of the Sustainable Development Goals (SDGs). In addition, Pertamina also committed to supporting the SDGs targets of SOE.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

0

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

[Add row]

(4.12) Have you published information about your organization’s response to environmental issues for this reporting year in places other than your CDP response?

Select from:
☑ Yes

(4.12.1) Provide details on the information published about your organization’s response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:
☑ In mainstream reports, in line with environmental disclosure standards or frameworks

(4.12.1.2) Standard or framework the report is in line with

Select all that apply
☑ GRI
☑ TCFD
☑ Other, please specify :SASB and IPIECA

(4.12.1.3) Environmental issues covered in publication

Select all that apply
☑ Climate change
☑ Water
☑ Biodiversity

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy
☑ Governance
☑ Emission targets
☑ Emissions figures
☑ Risks & Opportunities
☑ Water pollution indicators
☑ Content of environmental policies
☑ Value chain engagement
☑ Dependencies & Impacts
☑ Biodiversity indicators
☑ Public policy engagement
☑ Water accounting figures

(4.12.1.6) Page/section reference

It shown on Sustainability Report PT Pertamina (Persero) 2024 page 261-279

(4.12.1.7) Attach the relevant publication

sustainability-report-pt-pertamina-persero-2024.pdf

(4.12.1.8) Comment

Information relating to Pertamina's strategy, materiality, targets and initiatives is provided in the Company's Sustainability Policy and Sustainability Strategy Explanation sections.
[Add row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Annually

Water

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Annually
[Fixed row]

(5.1.1) Provide details of the scenarios used in your organization’s scenario analysis.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios

☑ RCP 4.5

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:

☑ No SSP used

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.6°C - 1.9°C

(5.1.1.7) Reference year

2006

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Changes to the state of nature

☑ Number of ecosystems impacted

☑ Climate change (one of five drivers of nature change)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Pertamina Group, in collaboration with the Bandung Institute of Technology's Affiliated Institute for Research and Industry (LAPI), conducted a comprehensive assessment of physical risks related to climate change at both national and regional scales. The study leverages climate scenario modeling based on the Intergovernmental Panel on Climate Change (Representative Concentration Pathways (RCP)) to evaluate potential climate risks. These models project future greenhouse gas concentrations, changes in global and Indonesia's regional climate conditions, and their potential impacts on our business operations. Two RCP scenarios were applied: RCP 4.5 (1.8°C): Represents a moderate increase in greenhouse gas concentrations, projecting a global average temperature rise of approximately 1.8°C. This scenario was used to assess coastal inundation and maritime-related risks (such as wind and high tides), as it aligns closely with sea climate projections for 2006–2040 under current conditions. RCP 8.5 (3.7°C): Represents a high-emissions pathway, projecting a global average temperature rise of about 3.7°C. This scenario was used to model climate projections in Indonesia, focusing on annual mean temperature and precipitation trends from 2025 to 2100.

(5.1.1.11) Rationale for choice of scenario

Representative Concentration Pathways (RCP), as endorsed by the Intergovernmental Panel on Climate Change (IPCC), provide a standardized framework for evaluating climate models and projections. These pathways outline a range of potential greenhouse gas emission trajectories, enabling Pertamina Group to explore different climate futures and support evidence-based policy decisions. By assessing the potential outcomes under each scenario, Pertamina can better understand the projected impacts of climate change and develop targeted strategies to reduce greenhouse gas emissions.

Water

(5.1.1.1) Scenario used

Water scenarios

☑ WRI Aqueduct

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Changes to the state of nature

☑ Changes in ecosystem services provision

☑ Climate change (one of five drivers of nature change)

Macro and microeconomy

☑ Domestic growth

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Pertamina Group employs the World Resources Institute (WRI) Aqueduct Water Risk Atlas and internal water assessment tools to conduct water risk analyses. Pertamina applies WRI-based scenario analyses for 2030 and 2040, which assess indicators such as water demand, supply, stress levels, and seasonal (intra-annual) variability. These projections are modeled using two climate scenarios—Representative Concentration Pathways (RCP) 4.5 and 8.5—and two socioeconomic scenarios—Shared Socioeconomic Pathways (SSP) 2 and 3. Insights from the WRI analysis for Pertamina's operating areas are used to inform our water risk management strategies and to evaluate potential future outcomes under varying conditions. The WRI Water Risk Atlas integrates data from general circulation models (GCMs) developed under the Coupled Model Intercomparison Project Phase 5 (CMIP5), combined with mixed-effects regression models based on projected socioeconomic variables from the International Institute for Applied Systems Analysis (IIASA)'s SSP database.

(5.1.1.11) Rationale for choice of scenario

Pertamina leverages the WRI Aqueduct Water Risk Atlas to conduct comprehensive and reliable assessments of water-related risks, including those related to quantity, quality, and regulatory factors. This tool draws on data from general circulation models (GCMs) and socioeconomic projections to provide accurate risk evaluations. Its public accessibility enhances cost efficiency and transparency, allowing for easy validation and benchmarking against industry peers.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios

☑ RCP 8.5

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:

☑ No SSP used

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 3.5ºC - 3.9ºC

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

☑ 2050

☑ 2070

☑ 2080

☑ 2090

☑ 2100

☑ 2060

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Changes to the state of nature

☑ Number of ecosystems impacted

☑ Climate change (one of five drivers of nature change)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Pertamina Group collaborated with the Bandung Institute of Technology's Affiliated Institute for Research and Industry (LAPI) to conduct a comprehensive assessment of physical risks related to climate change at both national and regional levels. The evaluation applies Representative Concentration Pathways (RCP) scenario modeling developed by the Intergovernmental Panel on Climate Change to analyze potential climate risks. These models project future greenhouse gas concentrations, shifts in global temperatures, and climate variations in Indonesia, along with their potential impacts on the company's operations. Two RCP scenarios are used in this assessment: RCP 4.5 (1.8°C): Represents a moderate increase in greenhouse gas concentrations, resulting in a projected global average temperature rise of approximately 1.8°C. This scenario was adopted for analyzing coastal inundation and maritime-related risks, including wind and high tides, as it closely aligns with sea climate projections for 2006–2040 under current conditions. RCP 8.5 (3.7°C): Represents a high-emission trajectory, with greenhouse gas concentrations expected to drive a global average temperature increase of around 3.7°C. This scenario was used to model long-term climate projections in Indonesia, focusing on changes in annual mean temperature and precipitation from 2025 to 2100.

(5.1.1.11) Rationale for choice of scenario

Representative Concentration Pathways (RCP), endorsed by the Intergovernmental Panel on Climate Change, provide a standardized framework for evaluating diverse climate models and projections. These scenarios outline potential emissions pathways, enabling Pertamina to assess different climate futures and support evidence-based policy decisions. By analyzing the projected outcomes under each scenario, Pertamina can better understand the potential impacts of climate change and develop targeted strategies to reduce greenhouse gas emissions.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ Bespoke climate transition scenario

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

☑ Liability

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 3.0ºC - 3.4ºC

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Stakeholder and customer demands

☑ Consumer sentiment

☑ Other stakeholder and customer demands driving forces, please specify :Industrial Electrification, Total sales of Electric Vehicles (EV), Share of Green Hydrogen use from total natural gas needed in the industry

Regulators, legal and policy regimes

☑ Global regulation

☑ Level of action (from local to global)

Relevant technology and science

☑ Granularity of available data (from aggregated to local)

☑ Other relevant technology and science driving forces, please specify :Development of technological energy intensity in the industrial, transportation, household, commercial, and other sectors

Macro and microeconomy

☑ Domestic growth

☑ Globalizing markets

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Pertamina applies internally developed climate transition scenarios namely Ordinary State (OS), Appropriate Sustainability (AS), and Economic Renaissance (ER) to generate quantitative projections of primary and final energy demand, energy transformation, and associated emissions impacts. These scenarios are built using an energy–economy modeling framework that incorporates policy dynamics, technological advancements, market trends, and legal considerations as key transition risk factors. The modeling framework draws on historical data from reputable sources such as the Handbook of Energy & Economic Statistics of Indonesia (HEESI), the Central Statistics Agency of Indonesia, the Ministry of Industry, and other credible institutions. The scenarios cover the period 2023–2060, with 2019–2022 as baseline years. Ordinary State (OS) Scenario - Projects a ~3°C global temperature increase by 2100. - Assumes Indonesia's economic growth continues in line with historical trends, requiring structural transformation to overcome the middle-income trap. - Prioritizes economic growth and energy security, with a slower energy

transition due to affordability and reliability concerns. Another assumption that is utilized are: 1. Electric vehicle market sales range from 0% to 45%. 2. Carbon Capture and Storage (CCS) / Carbon Capture, Utilization, and Storage (CCUS) are assumed unavailable. 3. Indonesia's economy slows in 2023 relative to 2022. 4. The use of EBT and bioenergy in each scenario is expected to rise nationally, albeit at varying growth rates. In the OS scenario, the proportion of renewable energy in the energy mix is projected to be 15% in 2040, equating to 2.8 million TJ, and is expected to rise to 26% or 7.6 million TJ by 2060. Conversely, bioenergy is anticipated to constitute 6% or 1 million TJ in 2040, decreasing to 5% or 1.5 million TJ in 2060. The demand for bioenergy is expected to decline as coal remains a significant component of the primary energy mix. Currently, the proportion of energy derived from bioenergy remains relatively stable, primarily due to the restricted use of biodiesel, specifically B35. 5. Green hydrogen currently contributes ~0% of industrial natural gas demand. 6. Additional assumptions address long-term energy outlook and shifts in energy intensity across industrial, transport, residential, commercial, and other sectors.

(5.1.1.11) Rationale for choice of scenario

Pertamina utilizes customized climate transition scenarios to deliver precise and context-specific evaluations of climate-related risks and opportunities across its operations, industry, and geographic footprint. Unlike standardized models that provide broad, generic insights, these bespoke scenarios are designed to align closely with Pertamina's business strategy enabling more accurate risk identification and supporting stronger, forward-looking strategic planning. By incorporating tailored assumptions such as national policy frameworks and local market dynamics in Indonesia, these scenarios offer greater flexibility, adaptability, and analytical depth.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios

☑ Bespoke physical climate scenario

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

☑ Liability

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 2.0ºC - 2.4ºC

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Stakeholder and customer demands

☑ Consumer sentiment

☑ Other stakeholder and customer demands driving forces, please specify :Industrial Electrification, Total sales of Electric Vehicles (EV), Share of Green Hydrogen use from total natural gas needed in the industry

Regulators, legal and policy regimes

☑ Global regulation

☑ Level of action (from local to global)

Relevant technology and science

☑ Granularity of available data (from aggregated to local)

☑ Other relevant technology and science driving forces, please specify :Development of technological energy intensity in the industrial, transportation, household, commercial, and other sectors

Macro and microeconomy

☑ Domestic growth

☑ Globalizing markets

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Pertamina applies tailored climate transition scenarios Ordinary State (OS), Appropriate Sustainability (AS), and Economic Renaissance (ER) developed through internal models to generate quantitative projections of primary and final energy demand, energy transformation, and emissions impacts. These scenarios are built using an integrated energy–economy modeling framework that incorporates policy dynamics, technological advancements, market preferences, and legal considerations as transition risk factors. The modeling relies on historical data from credible sources, including the Handbook of Energy & Economic Statistics of Indonesia (HEESI), the Central Statistics Agency of Indonesia, the Ministry of Industry, and other trusted institutions. The three scenarios cover the period 2023–2060, with 2019–2022 as baseline years. Appropriate Sustainability (AS) Scenario - Projects a global temperature increase of approximately 2.4°C by 2100. - Assumes Indonesia's economic growth continues in line with historical trends but with a stronger commitment to the energy transition. - Envisions wider adoption of environmentally friendly technologies, with energy transition pursued through a balanced approach that considers both energy security and affordability. - Reflects a moderate pace of energy transition, taking a cautious yet proactive stance toward sustainability. Another assumption that is utilized are: 1. Electric vehicle market sales range from 70% to 100%. 2. Carbon Capture and Storage (CCS) / Carbon Capture, Utilization, and Storage (CCUS), Nuclear power, and combined power plants are available in the market. 3. Indonesia's economy experiences a slowdown in 2023 compared to 2022. 4. The share of NRE in the energy mix is 16% in 2040 or 3 million TJ and increases to 38% or 11 million TJ in 2060, while bioenergy is 11% or 2 million TJ and drops to 9%. However, bioenergy utilization increases to 2.6 million TJ. In this scenario, NRE and gas continue to grow and dominate the national primary energy mix, causing the share of bioenergy to decrease, although its utilization has increased. The increased utilization 5. Green hydrogen contributes about 0–10% of total natural gas demand in the industrial sector. 6. Additional assumptions address the long-term energy outlook and changes in energy intensity across industrial, transportation, residential, commercial, and other sectors.

(5.1.1.11) Rationale for choice of scenario

Pertamina applies customized climate transition scenarios to deliver precise and context-specific assessments of climate-related risks and opportunities across its operations, industry, and geographic footprint. Unlike standardized models that provide broad, generalized insights, these bespoke scenarios are designed to align

closely with Pertamina's business strategy, enabling more accurate risk identification and more effective strategic planning. By incorporating tailored assumptions such as national policy frameworks and local market conditions in Indonesia these scenarios offer greater flexibility, adaptability, and analytical depth.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ Bespoke climate transition scenario

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

☑ Liability

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.6ºC - 1.9ºC

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Stakeholder and customer demands

☑ Consumer sentiment

☑ Other stakeholder and customer demands driving forces, please specify :Industrial Electrification, Total sales of Electric Vehicles (EV), Share of Green Hydrogen use from total natural gas needed in the industry

Regulators, legal and policy regimes

☑ Global regulation

☑ Level of action (from local to global)

Relevant technology and science

☑ Granularity of available data (from aggregated to local)

☑ Other relevant technology and science driving forces, please specify :Development of technological energy intensity in the industrial, transportation, household, commercial, and other sectors

Macro and microeconomy

☑ Domestic growth

☑ Globalizing markets

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Pertamina applies tailored climate transition scenarios Ordinary State (OS), Appropriate Sustainability (AS), and Economic Renaissance (ER) developed using internal models to generate quantitative projections of primary and final energy demand, energy transformation, and associated emissions impacts. These scenarios are built through an integrated energy–economy modeling framework that considers policy dynamics, technological advancements, market preferences, and legal considerations as key transition risk factors. The modeling approach is grounded in historical data from credible sources, including the Handbook of Energy & Economic Statistics of Indonesia (HEESI), the Central Statistics Agency of Indonesia, the Ministry of Industry, and other reputable institutions. All three scenarios cover the period 2023–2060, with 2019–2022 as baseline years. Economic Renaissance (ER) Scenario - Represents the most ambitious pathway, projecting a global temperature increase of approximately 1.7°C by 2100. - Envisions Indonesia transforming into a high-income country, supported by significant GDP growth and progress in developing a green economy, ultimately leading to the achievement of net zero emissions (NZE). - Assumes a rapid and accelerated energy transition, driven by technological breakthroughs and a strong national commitment to decarbonization and sustainable development. Another assumption that is utilized are: 1. Electric vehicle market sales range from 75% to 100%. 2. Carbon Capture and Storage (CCS) / Carbon Capture, Utilization, and Storage (CCUS), Nuclear power, combined power plants, and bioethanol are already available in the market. 3. The share of NRE in the energy mix is 31% in 2040 or 7 million TJ and increases to 62% or 25.6 million TJ in 2060, while bioenergy is 12% or 2.7 million TJ and decreases to 10.7%. However, bioenergy utilization increases to 4.4 million TJ. In this scenario, the utilization of NRE is much higher than the other two scenarios due to government policies and the better economic value of NRE. The increased utilization of bioenergy is partly due to the plan to increase the utilization of biodiesel to B50 in 2035. 4. Green hydrogen contributes about 0–20% of the total natural gas demand in the industrial sector. 5. Additional assumptions address the long-term energy outlook and changes in energy intensity across industrial, transportation, residential, commercial, and other sectors.

(5.1.1.11) Rationale for choice of scenario

Pertamina applies customized climate transition scenarios to deliver precise and detailed assessments of climate-related risks and opportunities specific to its operations, industry, and geographic context. Unlike standardized models that offer broad, generic insights, these bespoke scenarios are designed to align closely with Pertamina's business strategy enabling more accurate risk identification and more effective strategic planning. By incorporating targeted assumptions such as national policy frameworks and local market dynamics in Indonesia, these scenarios offer greater flexibility, adaptability, and analytical depth.
[Add row]

(5.1.2) Provide details of the outcomes of your organization's scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management
☑ Strategy and financial planning
☑ Resilience of business model and strategy
☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:
☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

Pertamina uses climate scenario analysis to assess a variety of possible futures that could impact its operations, supply chain, and business model. This process enables the company to identify potential vulnerabilities, anticipate disruptions, and develop specific mitigation and adaptation strategies. Diversifying suppliers, implementing climate adaptation initiatives, and exploring sustainable business models are all important steps toward improving long-term resilience. Pertamina's transition strategy is guided by the Appropriate Sustainability (AS) Scenario, one of three modeled pathways, which ensures alignment with Indonesia's climate policies and the national Net Zero 2060 commitment. Under this scenario, Pertamina intends to increase the share of renewable energy in its portfolio from 1% in 2021 to 17% by 2030, while increasing natural gas from 3% to 19%. This energy transition is aided by an investment strategy that commits 14% of Pertamina's 2030 portfolio to gas and renewable energy projects. Pertamina's integrated approach positions it to manage climate-related risks, capitalize on emerging opportunities, and support Indonesia's transition to a low carbon economy.

Water

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply
☑ Risk and opportunities identification, assessment and management
☑ Strategy and financial planning
☑ Resilience of business model and strategy
☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:
☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

Based on WRI scenario analysis, Pertamina identified that by 2030, under a "business-as-usual" pathway, most operations in Java, Bali, West Nusa Tenggara, and Sumbawa Island will face water stress risks. In response, the Company has set a target to reduce freshwater consumption in water-stressed areas by 6% by 2030. The company will improve efficiency measures and incorporate water stewardship into operational planning. Collaboration with stakeholders across the value chain will be critical for identifying opportunities such as water recycling, alternative sourcing, and joint watershed management projects. This approach reduces operational risks by reducing reliance on limited freshwater sources and improves resilience across business units. At the same time, it generates opportunities through innovation in water efficiency and circular technologies, while also strengthening community trust and positioning Pertamina as a responsible energy provider. Pertamina uses this strategy to incorporate scenario-based insights into its business planning, ensuring that water-related risks and opportunities are managed for long-term sustainability.
[Fixed row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:
☑ Yes, but we have a climate transition plan with a different temperature alignment

(5.2.2) Temperature alignment of transition plan

Select from:
☑ 2°C aligned

(5.2.3) Publicly available climate transition plan

Select from:
☑ Yes

(5.2.4) Plan explicitly commits to cease all spending on, and revenue generation from, activities that contribute to fossil fuel expansion

Select from:

☑ No, and we do not plan to add an explicit commitment within the next two years

(5.2.6) Explain why your organization does not explicitly commit to cease all spending on and revenue generation from activities that contribute to fossil fuel expansion

As a state-owned enterprise, Pertamina carries the responsibility of meeting Indonesia's energy needs. While energy equity affordability and accessibility remains below the global average based on the Energy Trilemma Index, ensuring affordable energy supply continues to be a priority. At the same time, Pertamina is committed to supporting the Government's Net Zero Emissions (NZE) target through its NZE Roadmap, which integrates decarbonization initiatives and green business development across short-, medium-, and long-term horizons. The roadmap is structured around three strategic agendas: 1. Transitioning refinery operations to green refineries and advancing bioenergy. 2. Developing carbon-neutral projects such as geothermal and hydrogen. 3. Advancing carbon-negative projects including CCUS and nature-based solutions (NBS). These agendas carry significant financial implications, with Pertamina allocating 10% of CAPEX in 2025 and between 6–25% in 2026–2034 to support the transition.

(5.2.7) Mechanism by which feedback is collected from shareholders on your climate transition plan

Select from:

☑ Our climate transition plan is voted on at Annual General Meetings (AGMs)

(5.2.10) Description of key assumptions and dependencies on which the transition plan relies

"Pertamina applies tailored climate transition scenarios Ordinary State (OS), Appropriate Sustainability (AS), and Economic Renaissance (ER) to guide its strategy. The current transition plan adopts the Appropriate Sustainability (AS) scenario, considered most aligned with present market conditions. This scenario projects a ~2.4°C temperature rise, with economic growth consistent with historical trends, while prioritizing energy transition through environmentally friendly technologies to balance energy security and affordability. The AS scenario leverages internal models to project energy demand, transformation, and emissions impacts. Pertamina strengthens its modeling with an energy-economy approach that incorporates policy, technology, market, and legal transition risks. Key assumptions are derived from historical data provided by HEESI, the Central Statistics Agency, the Ministry of Industry, and other recognized institutions."

(5.2.11) Description of progress against transition plan disclosed in current or previous reporting period

In 2024, Pertamina advanced its transition plan through a wide range of decarbonization initiatives that delivered measurable impact. The Company achieved a cumulative emissions reduction of 1.71 million tCO_2e, surpassing its annual target of 1.09 million tCO_2e. A key driver of this achievement was the expansion of B35 biodiesel utilization to 13.15 million kL, which avoided 34.9 million tCO_2e. To accelerate progress, Pertamina initiated B40 biodiesel production at RU III Plaju and RU VII Kasim, with full rollout planned in 2025 and projected to generate 42.5 million tCO_2e reductions. At the same time, Pertamina strengthened its clean energy transition by expanding renewable-based infrastructure. The Company developed 425 Green Energy Stations and 103 Battery Swapping Stations (BSS) across 56 locations, alongside additional EV charging facilities to support electric mobility adoption. Complementing these efforts, Pertamina, through its affiliate Indonesia Battery Corporation (IBC), prepared an investment of up to USD 1.7 billion to build an integrated battery ecosystem for battery electric vehicles (BEVs). By the end of 2024, 103 public electric vehicle battery swapping stations (SPBKLU) were operational, representing 79% of the 130-unit target, strategically located at Pertamina's

service stations and in partnership with joint operation partners. In parallel, Pertamina advanced its commitment to nature-based solutions and carbon capture technologies. In 2023, the Company signed a master agreement for nine forestry concessions with Perum Perhutani, followed in 2024 by feasibility studies for large-scale projects including NEBS – Sei Tubu (77,683 ha) and NEBS – Kunyit Simendurut (120,120 ha). On the technology side, Pertamina continued to pursue carbon capture, utilization, and storage (CCUS) projects, recognizing Indonesia's vast potential for carbon storage. The Group is currently developing six CCS/CCUS initiatives, such as the Central Sumatra and Kutai CCS hubs, the CCUS/EGR Gundih project, and CCS for the coal-to-DME plant in Tanjung Enim. A milestone was reached in 2024 with the implementation of CO_2 injection through Enhanced Oil Recovery (EOR) in the Sukowati Field, Bojonegoro, East Java. Moving forward, Pertamina and its partners will expand CCS/CCUS applications to other basins, including South Sumatra, Asri, Jatibarang, East Kalimantan, and Central Sulawesi. Pertamina also enhanced methane management efforts by joining the Oil & Gas Methane Partnership (OGMP) 2.0 in 2024, working with international partners to improve leak detection and abatement. These actions demonstrate Pertamina's integrated transition pathway, combining emissions reduction, renewable energy expansion, low-carbon technology innovation, and nature-based solutions, while balancing the broader energy trilemma of resilience, affordability, and sustainability.

(5.2.12) Attach any relevant documents which detail your climate transition plan (optional)

(Report) TCFD Report Pertamina 2023.pdf,Sustainability Report 2024.pdf

(5.2.13) Other environmental issues that your climate transition plan considers

Select all that apply

☑ Water

(5.2.14) Explain how the other environmental issues are considered in your climate transition plan

Pertamina's climate transition plan addresses the risks of water stress and drought, given the Company's operations in water-stressed regions. Limited water availability poses challenges to upstream and geothermal activities, particularly during exploration and development. To ensure operational sustainability, Pertamina continuously evaluates these risks and implements innovative solutions to reduce reliance on and impacts to local water resources.

(5.2.15) Primary reason for not having a climate transition plan that aligns with a 1.5°C world

Select from:

☑ Other, please specify :Pertamina has the responsibility to fulfill national energy needs

(5.2.16) Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world

This decision underscores Pertamina's strategic role in meeting Indonesia's energy needs while supporting the Government's transition agenda. As a state-owned enterprise, the Company is committed to advancing national policies and priorities, particularly those aligned with the Nationally Determined Contribution (NDC). Pertamina aligns its transition pathway with the Nationally Determined Contribution (NDC) and aims for Net Zero Emission for Scope 1 and 2 by 2060 or sooner, in support of the national emission reduction target. Pertamina implements a dual strategy focused on decarbonization and the expansion of low-carbon business

initiatives to achieve this goal. Decarbonization efforts prioritize the reduction of Scope 1 and 2 emissions by enhancing energy efficiency, minimizing methane and flare losses, generating green power, electrifying stationary machinery and fleets, and upgrading the upstream portfolio. Pertamina simultaneously invests in low-carbon initiatives and offsets to mitigate Scope 3 emissions and tackle residual emissions. This includes biofuels, geothermal, solar, wind, blue and green hydrogen, CCUS, nature-based solutions, and participation in carbon markets. These initiatives are backed by enablers including technology, digitalization, carbon accounting, sustainability budget tagging, and internal carbon pricing. They collectively guarantee that Pertamina's transition is quantifiable, executable, and in harmony with Indonesia's long-term climate goals.
[Fixed row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

Select from:
☑ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

Select all that apply
☑ Products and services
☑ Upstream/downstream value chain
☑ Investment in R&D
☑ Operations
[Fixed row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

Select all that apply
☑ Risks
☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Climate change is reshaping client demand and stakeholder expectations, with increasing requests for low-carbon products and services to reduce energy consumption. In response, Pertamina has developed low-emission products for global markets, offering energy-efficient, innovative, and environmentally friendly solutions for consumers, businesses, and communities. Failure to adapt the product and asset portfolio to evolving societal demands and emissions requirements may create commercial risks, reducing competitiveness for companies unable to respond to shifting consumption patterns. Water availability also presents a critical operational risk. In upstream and geothermal operations, limited supply can disrupt production processes and reduce output during exploration and development.

Upstream/downstream value chain

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Climate change poses commercial risks if Pertamina fails to adapt its product portfolio and assets to meet societal expectations, emission requirements, and market demand. Such misalignment could weaken competitiveness and affect the supply chain, as both suppliers and customers increasingly require low-carbon products and practices. Pertamina recognizes the importance of collaborating with global supply chain partners to build a sustainable, long-term future. Through its integrated sustainability framework, the Company focuses on areas of greatest impact particularly reducing GHG emissions and lowering water use in water-stressed regions. Pertamina also plans to establish a platform for suppliers to share initiatives that support the collective reduction of environmental footprints."

Investment in R&D

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Influences on Pertamina's strategy in Technology Innovation (TI) are critical to strengthening the Company's position. The TI function serves as the innovation engine, conducting extensive research in the field of new and renewable energy (NRE) and advancing technologies that support decarbonization and green development. Research programs are focused on utilizing domestic resources such as palm oil waste, used cooking oil, sorghum, sugar palm, sugar cane, molasses, and microalgae as raw materials for the production of high-quality and environmentally friendly energy. Pertamina has also advanced its research in the battery ecosystem, including high-density batteries, motorbike batteries, stationary energy storage, and battery recycling technologies to support the energy transition and electric mobility growth in Indonesia. As part of its long-term strategy, Pertamina has committed to allocating 14% of the projected USD 70–80 billion capital expenditure for 2022–2060 to clean, new, and renewable energy development. Furthermore, Pertamina targets a minimum of 44% of realized investment and operational budget by 2030 to be directed toward research and development (R&D) programs that directly contribute to decarbonization. This demonstrates the Company's strong commitment to embedding innovation into business growth and climate strategies. Pertamina's financial plan also includes a 2025 allocation of 16% of total R&D Opex dedicated to renewable energy technology innovation, with an additional 1% focused on water management R&D. These investments are aligned with the Company's aspiration to reduce the share of refined products and LPG from 81% to 61%, increase the share of gas from 3% to 19%, and grow the NRE share from 1% to 17% by 2030. Through this integrated approach, Pertamina is building a resilient domestic energy supply chain while accelerating the development of a greener and more diversified energy portfolio, ensuring alignment with Indonesia's energy security and net zero emission objectives.

Operations

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Climate change and water risks directly influence Pertamina's operational strategies and cost structure. In water-intensive sectors such as upstream and geothermal, shortages can disrupt operations and increase costs, while efficient water management offers opportunities for cost savings. On climate risks, both physical and transitional impacts may expose the Company to legal and reputational challenges if emission reduction efforts are insufficient. To address this, Pertamina continues to strengthen strategies and innovations to drive a successful energy transition. Key initiatives include developing the electric vehicle ecosystem while maintaining focus on fossil energy through an evolving energy mix—targeted at 23% renewables by 2035 and 31% by 2050. The portfolio includes geothermal, hydrogen, EV batteries, energy storage systems (ESS), gasification, bioenergy, green refineries, circular carbon economy, and other renewable energy initiatives.
[Add row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Revenues

☑ Direct costs

☑ Indirect costs

☑ Access to capital

☑ Capital allocation

☑ Capital expenditures

(5.3.2.2) Effect type

Select all that apply

☑ Risks
☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply
☑ Climate change
☑ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

- Revenue As the global energy transition accelerates, Pertamina projects a long-term decline of ~4% in fossil product revenues from the upstream sector. To mitigate this, the Company is developing new revenue streams in renewable energy, positioning itself for future growth and transformation into a diversified energy company. Therefore, Pertamina identified a potential revenue from green business initiatives will increase around 21-30% in the long term - Capital Expenditure Pertamina has committed to allocating 14% of its 2022–2060 projected CAPEX (USD 70–80 billion) to clean and renewable energy development. By 2030, at least 44% of realized investment and operational budgets will be directed toward R&D focused on decarbonization. - Capital Allocation To align with the National Energy Policy (KEN) target of 23% renewables in the energy mix by 2025, Pertamina has allocated 14% of its long-term investment budget for gas and renewable energy development. This allocation supports diversification and long-term business continuity in the face of climate and water risks. - Access to Capital Pertamina is pursuing sustainability-linked financing instruments—including green, transition, and sustainability bonds and loans—to fund climate-related projects. The Company is also tagging sustainability-related budgets to improve transparency, strengthen its sustainability credentials, and expand access to green capital markets. - Direct & Indirect Costs Climate and water risks impact both direct and indirect business costs. While innovative solutions to meet sustainability targets may increase direct costs, indirect costs may rise due to higher insurance premiums, supply chain disruptions, regulatory compliance, and continuity planning.
[Add row]

(5.4) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Methodology or framework used to assess alignment with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
	Select from: ☑ Yes	*Select all that apply* ☑ A sustainable finance taxonomy	*Select from:* ☑ At both the organization and activity level

[Fixed row]

(5.4.1) Quantify the amount and percentage share of your spending/revenue that is aligned with your organization's climate transition.

Row 1

(5.4.1.1) Methodology or framework used to assess alignment

Select from:

☑ A sustainable finance taxonomy

(5.4.1.2) Taxonomy under which information is being reported

Select from:

☑ Other, please specify :Pertamina's Sustainability taxonomy which refers to EU Taxonomy for Sustainable Activities, Indonesia Green Taxonomy, Indonesia SDGs Securities Framework, ICMA Principles, SDG Finance Taxanomy China

(5.4.1.3) Objective under which alignment is being reported

Select from:

☑ Climate change mitigation

(5.4.1.5) Financial metric

Select from:

☑ OPEX

(5.4.1.6) Amount of selected financial metric that is aligned in the reporting year (currency)

47309741.02

(5.4.1.7) Percentage share of selected financial metric aligned in the reporting year (%)

0.72

(5.4.1.8) Percentage share of selected financial metric planned to align in 2025 (%)

30

(5.4.1.9) Percentage share of selected financial metric planned to align in 2030 (%)

44

(5.4.1.12) Details of the methodology or framework used to assess alignment with your organization's climate transition

Pertamina implements the Pertamina Sustainability Taxonomy, a framework that classifies the Company's economic activities supporting sustainable development. The taxonomy covers 16 thematic areas (Level 1), 61 impacts (Level 2), and 84 activities (Level 3), each aligned with the SDGs, Bappenas Development Pillars, Climate Change Action Types, Pertamina's Sustainability Focus, and Sustainable Finance Categories. For all Use of Proceeds Financing Instruments, Pertamina excludes funding for: - Coal-fired power generation and distribution assets - Exploration and development of new oil and gas fields - Coal mining and transportation - Fossil fuel–related activities, including refining, transportation, and related R&D - Heat or power facilities with emissions intensity above 100 g CO_2e/kWh - Nuclear power generation and distribution assets Under the Sustainable Finance Framework, Pertamina allocated 15.3% of CAPEX to ESG-related projects in 2023, with plans to increase this to 29.04% by 2040. The Final NZE Roadmap and Strategy outlines an estimated USD 120 billion investment in green and transition businesses, including CCS/CCUS, bioenergy, hydrogen, EVs and batteries, carbon businesses, and renewable energy. In addition, Pertamina has committed to allocate at least 30% of realized investment and operational budgets to decarbonization R&D by 2025, increasing to 44% by 2030

Row 2

(5.4.1.1) Methodology or framework used to assess alignment

Select from:

☑ A sustainable finance taxonomy

(5.4.1.2) Taxonomy under which information is being reported

Select from:

☑ Other, please specify :Pertamina's Sustainability taxonomy which refers to EU Taxonomy for Sustainable Activities, Indonesia Green Taxonomy, Indonesia SDGs Securities Framework, ICMA Principles, SDG Finance Taxanomy China

(5.4.1.3) Objective under which alignment is being reported

Select from:

☑ Climate change mitigation

(5.4.1.5) Financial metric

Select from:

☑ CAPEX

(5.4.1.6) Amount of selected financial metric that is aligned in the reporting year (currency)

181127613.9

(5.4.1.7) Percentage share of selected financial metric aligned in the reporting year (%)

2.76

(5.4.1.8) Percentage share of selected financial metric planned to align in 2025 (%)

30

(5.4.1.9) Percentage share of selected financial metric planned to align in 2030 (%)

44

(5.4.1.12) Details of the methodology or framework used to assess alignment with your organization’s climate transition

Pertamina implements the Pertamina Sustainability Taxonomy, a framework that classifies the Company's economic activities supporting sustainable development. The taxonomy covers 16 thematic areas (Level 1), 61 impacts (Level 2), and 84 activities (Level 3), each aligned with the SDGs, Bappenas Development Pillars, Climate Change Action Types, Pertamina's Sustainability Focus, and Sustainable Finance Categories. For all Use of Proceeds Financing Instruments, Pertamina excludes funding for: - Coal-fired power generation and distribution assets - Exploration and development of new oil and gas fields - Coal mining and transportation - Fossil fuel–related activities, including refining, transportation, and related R&D - Heat or power facilities with emissions intensity above 100 g CO_2e/kWh - Nuclear power generation and distribution assets Under the Sustainable Finance Framework, Pertamina allocated 15.3% of CAPEX to ESG-related projects in 2023, with plans to increase this to 29.04% by 2040. The Final NZE Roadmap and Strategy outlines an estimated USD 120 billion investment in green and transition businesses, including CCS/CCUS, bioenergy, hydrogen, EVs and batteries, carbon businesses, and renewable energy. In addition, Pertamina has committed to allocate at least 30% of realized investment and operational budgets to decarbonization R&D by 2025, increasing to 44% by 2030.

Row 4

(5.4.1.1) Methodology or framework used to assess alignment

Select from:

☑ A sustainable finance taxonomy

(5.4.1.2) Taxonomy under which information is being reported

Select from:

☑ Other, please specify :Pertamina's Sustainability taxonomy which refers to EU Taxonomy for Sustainable Activities, Indonesia Green Taxonomy, Indonesia SDGs Securities Framework, ICMA Principles, SDG Finance Taxanomy China

(5.4.1.3) Objective under which alignment is being reported

Select from:

☑ Climate change adaptation

(5.4.1.5) Financial metric

Select from:

☑ CAPEX

(5.4.1.6) Amount of selected financial metric that is aligned in the reporting year (currency)

2622404.55

(5.4.1.7) Percentage share of selected financial metric aligned in the reporting year (%)

0.04

(5.4.1.8) Percentage share of selected financial metric planned to align in 2025 (%)

30

(5.4.1.9) Percentage share of selected financial metric planned to align in 2030 (%)

44

(5.4.1.12) Details of the methodology or framework used to assess alignment with your organization’s climate transition

Pertamina implements the Pertamina Sustainability Taxonomy, a framework that classifies the Company’s economic activities supporting sustainable development. The taxonomy covers 16 thematic areas (Level 1), 61 impacts (Level 2), and 84 activities (Level 3), each aligned with the SDGs, Bappenas Development Pillars, Climate Change Action Types, Pertamina’s Sustainability Focus, and Sustainable Finance Categories. For all Use of Proceeds Financing Instruments, Pertamina excludes funding for: - Coal-fired power generation and distribution assets - Exploration and development of new oil and gas fields - Coal mining and transportation - Fossil fuel–related activities, including refining, transportation, and related R&D - Heat or power facilities with emissions intensity above 100 g CO_2e/kWh - Nuclear power generation and distribution assets Under the Sustainable Finance Framework, Pertamina allocated 15.3% of CAPEX to ESG-related projects in 2023, with plans to increase this to 29.04% by 2040. The Final NZE Roadmap and Strategy outlines an estimated USD 120 billion investment in green and transition businesses, including CCS/CCUS, bioenergy, hydrogen, EVs and batteries, carbon businesses, and renewable energy. In addition, Pertamina has committed to allocate at least 30% of realized investment and operational budgets to decarbonization R&D by 2025, increasing to 44% by 2030.

Row 5

(5.4.1.1) Methodology or framework used to assess alignment

Select from:

☑ A sustainable finance taxonomy

(5.4.1.2) Taxonomy under which information is being reported

Select from:

☑ Other, please specify :Pertamina's Sustainability taxonomy which refers to EU Taxonomy for Sustainable Activities, Indonesia Green Taxonomy, Indonesia SDGs Securities Framework, ICMA Principles, SDG Finance Taxanomy China

(5.4.1.3) Objective under which alignment is being reported

Select from:

☑ Climate change adaptation

(5.4.1.5) Financial metric

Select from:

☑ OPEX

(5.4.1.6) Amount of selected financial metric that is aligned in the reporting year (currency)

4318317.32

(5.4.1.7) Percentage share of selected financial metric aligned in the reporting year (%)

0.07

(5.4.1.8) Percentage share of selected financial metric planned to align in 2025 (%)

30

(5.4.1.9) Percentage share of selected financial metric planned to align in 2030 (%)

44

(5.4.1.12) Details of the methodology or framework used to assess alignment with your organization's climate transition

Pertamina implements the Pertamina Sustainability Taxonomy, a framework that classifies the Company's economic activities supporting sustainable development. The taxonomy covers 16 thematic areas (Level 1), 61 impacts (Level 2), and 84 activities (Level 3), each aligned with the SDGs, Bappenas Development Pillars, Climate Change Action Types, Pertamina's Sustainability Focus, and Sustainable Finance Categories. For all Use of Proceeds Financing Instruments, Pertamina excludes funding for: - Coal-fired power generation and distribution assets - Exploration and development of new oil and gas fields - Coal mining and transportation - Fossil fuel–related activities, including refining, transportation, and related R&D - Heat or power facilities with emissions intensity above 100 g CO_2e/kWh - Nuclear power generation and distribution assets Under the Sustainable Finance Framework, Pertamina allocated 15.3% of CAPEX to ESG-related projects in 2023, with plans to increase this to 29.04% by 2040. The Final NZE Roadmap and Strategy outlines an estimated USD 120 billion investment in green and transition businesses,

including CCS/CCUS, bioenergy, hydrogen, EVs and batteries, carbon businesses, and renewable energy. In addition, Pertamina has committed to allocate at least 30% of realized investment and operational budgets to decarbonization R&D by 2025, increasing to 44% by 2030.
[Add row]

(5.4.2) Quantify the percentage share of your spending/revenue that was associated with eligible and aligned activities under the sustainable finance taxonomy in the reporting year.

Row 1

(5.4.2.1) Economic activity

Select from:
☑ Electricity generation from geothermal energy

(5.4.2.2) Taxonomy under which information is being reported

Select from:
☑ Other, please specify :Pertamina Sustainability Taxonomy

(5.4.2.3) Taxonomy alignment

Select from:
☑ Taxonomy-aligned

(5.4.2.4) Financial metrics

Select all that apply
☑ CAPEX
☑ OPEX

(5.4.2.5) Types of substantial contribution

Select all that apply
☑ Own performance

☑ Activity enabling mitigation

(5.4.2.13) Taxonomy-aligned CAPEX from this activity in the reporting year (currency)

175236978.1

(5.4.2.14) Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year

2.67

(5.4.2.15) Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year

100

(5.4.2.16) Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year

0

(5.4.2.20) Taxonomy-aligned OPEX from this activity in the reporting year (currency)

3901030.15

(5.4.2.21) Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year

0.06

(5.4.2.22) Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year

100

(5.4.2.23) Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year

0

(5.4.2.27) Calculation methodology and supporting information

Pertamina applies the Pertamina Sustainability Taxonomy as the foundation of its Sustainable Finance Framework, which is aligned with the ICMA Green Bond Principles (GBP) and the LMA Green Loan Principles (GLP). The taxonomy is a structured classification system mapping the Company's economic activities to sustainable development objectives. It consists of 16 thematic areas (Level 1), 61 impacts (Level 2), and 84 activities (Level 3). Among these, renewable energy initiatives include specific activities such as the development and operation of geothermal power plants.

(5.4.2.28) Substantial contribution criteria met

Select from:

☑ Yes

(5.4.2.29) Details of substantial contribution criteria analysis

The activity qualifies under the eligible criteria for geothermal facilities with life cycle GHG emissions below 100 g CO_2e/kWh. Use of Proceeds Financing Instruments will (re)finance eligible asset categories, comprising: - Green categories: Renewable energy, green hydrogen, transmission and distribution networks for renewable and low-carbon gases, green buildings, clean transportation, low-carbon fuels, and sustainable management of natural resources and land use. - Transition categories: Emission reduction and transition in shipping. Product- and service-related use of proceeds contribute to SDG 7, SDG 13, and SDG 15, while process-related categories enhance the Issuer's operational performance and mitigate sectoral externalities linked to SDG 7, SDG 11, SDG 13, and SDG 14. For certain activities under emission reduction and shipping transition, no direct evidence of environmental contribution or mitigation of externalities has been identified; however, associated environmental and social risks are actively managed."

(5.4.2.30) Do no significant harm requirements met

Select from:

☑ Yes

(5.4.2.31) Details of do no significant harm analysis

At present, Pertamina has not established a phase-out plan for activities or products deemed incompatible with its climate transition strategy specifically those considered significantly harmful or misaligned with science-based GHG reduction pathways.

(5.4.2.32) Minimum safeguards compliance requirements met

Select from:

☑ Yes

(5.4.2.33) Attach any supporting evidence

Sustainable Finance Framework and Second Party Opinion.pdf
[Add row]

(5.4.3) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

(5.4.3.1) Details of minimum safeguards analysis

Pertamina has policies in place to systematically ensure that assets financed under this framework provide for high labor standards for its own employees and volunteers. Pertamina confirmed that it has joined UN Global Compact and Indonesia has ratified to most of the International Labour Organization Fundamental Conventions. In addition, Pertamina has certified for the ISO 37001:2016 Anti-Bribery Management system in order to minimize the risks of the bribery.

(5.4.3.2) Additional contextual information relevant to your taxonomy accounting

In accordance with the Taxonomy for Sustainability Budget's development, the Company has created Pertamina's Sustainability Taxonomy (Sustainability Taxonomy). It can be explained that the preparation of the taxonomy was made with the assistance of independent consultants who have referred to 5 main references, namely two national references namely: Indonesia Green Taxonomy, Indonesia SDGs Securities Framework; three international references: EU Taxonomy, SDG Finance Taxonomy China, ICMA Principles. Pertamina classifies economic activities based on 16 thematic areas (level 1), 61 impacts (level 2), and 84 activities (level 3). The selection of thematic areas, impacts, and activities by default will be tagged to Sustainable Development Goals (SDGs) sustainability category, Bappenas Development Pillar, Climate Change Action Type, Pertamina Sustainability Focus, and Sustainable Finance Category options.

(5.4.3.3) Indicate whether you will be providing verification/assurance information relevant to your taxonomy alignment in question 13.1

Select from:
☑ Yes
[Fixed row]

(5.9) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

(5.9.1) Water-related CAPEX (+/- % change)

14

(5.9.2) Anticipated forward trend for CAPEX (+/- % change)

14

(5.9.3) Water-related OPEX (+/- % change)

270

(5.9.4) Anticipated forward trend for OPEX (+/- % change)

865

(5.9.5) Please explain

Pertamina aligns water-related CAPEX and OPEX with SDG 6 under its Sustainability Taxonomy. In 2024, OPEX rose sharply due to a strategic water supply and management system for a Dedicated Residential Area, initiated in 2022. Additional investments included wastewater treatment plant projects at two major facilities valued at USD 16.954 million and USD 11.930 million. These initiatives strengthen compliance, improve effluent quality, and reflect projected costs into 2025, underscoring Pertamina’s long-term commitment to sustainable water management.
[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

(5.10.1) Use of internal pricing of environmental externalities

Select from:
☑ No, but we plan to in the next two years

(5.10.3) Primary reason for not pricing environmental externalities

Select from:

☑ No standardized procedure

(5.10.4) Explain why your organization does not price environmental externalities

Currently, there are no official regulations on internal carbon pricing. However, Pertamina Power (NRE), a Pertamina subsidiary, has developed a Carbon Business Management Guideline that defines carbon credit pricing based on domestic and international market references. In the absence of a domestic pricing mechanism, Pertamina acting as the first carbon credit seller indirectly serves as a price maker. This benchmark is used within the Pertamina Group when subsidiaries purchase carbon credits from Pertamina Power, unless other contractual arrangements are in place. At the Group level, Pertamina Holding is drafting formal pricing policies and has issued interim guidelines directing subsidiaries to purchase and develop carbon credits through Pertamina Power in support of the Company's Net Zero Emissions (NZE) targets.
[Fixed row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Customers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Investors and shareholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Other value chain stakeholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

Climate change

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Contribution to supplier-related Scope 3 emissions

☑ Impact on pollution levels

(5.11.1.3) % Tier 1 suppliers assessed

Select from:

☑ 100%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

Pertamina evaluates key partners through the Contractor Safety Management System (CSMS), which assesses suppliers based on environmental and occupational health and safety risk levels classified as high, medium, or low. Priority is given to suppliers with significant environmental impacts or dependencies, particularly those categorized as high risk.

(5.11.1.5) % Tier 1 suppliers meeting the threshold for substantive dependencies and/or impacts on the environment

Select from:

☑ 26-50%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

6739

Water

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Impact on water availability

☑ Impact on pollution levels

☑ Other, please specify :Impact on water quality

(5.11.1.3) % Tier 1 suppliers assessed

Select from:

☑ 100%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

Pertamina evaluates key partners through the Contractor Safety Management System (CSMS), which assesses suppliers based on environmental and occupational health and safety risk levels classified as high, medium, or low. Priority is given to suppliers with significant environmental impacts or dependencies, particularly those categorized as high risk.

(5.11.1.5) % Tier 1 suppliers meeting the threshold for substantive dependencies and/or impacts on the environment

Select from:
☑ 26-50%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

6739
[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:
☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply
☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to climate change

☑ Product safety and compliance
☑ Regulatory compliance
☑ Strategic status of suppliers
☑ Supplier performance improvement

(5.11.2.4) Please explain

Pertamina enforces a green procurement policy requiring suppliers, contractors, and business partners to comply with sustainability principles and environmental standards. This includes preventing leakage and emissions, ensuring efficient resource use, and minimizing energy consumption and greenhouse gas emissions. High-risk contractors and suppliers must obtain a Contractor Safety Management System (CSMS) certificate and hold external HSSE certifications such as ISO 45001 and ISO 14001. Contractors are assessed through multiple phases of the CSMS cycle Prequalification, Pre-Job Activity (PJA), Work in Progress (WIP), and Final Evaluation (FE) with evaluations based on product safety, regulatory compliance, HSSE Plan alignment, and performance improvement. Key focus areas include waste management (including hazardous plastics), air emissions, energy and water consumption, hazardous chemical management, and biodiversity impacts. To strengthen the capabilities of local contractors and suppliers, Pertamina also provides coaching and clinics on health, safety, security, and environmental practices, enabling effective participation in high-risk supply chain activities.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:
☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply
☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to water
☑ Product safety and compliance
☑ Regulatory compliance
☑ Strategic status of suppliers
☑ Supplier performance improvement

(5.11.2.4) Please explain

Pertamina enforces a green procurement policy requiring suppliers, contractors, and business partners to comply with sustainability principles and environmental standards. This includes measures to prevent leakage and emissions, ensure efficient use of natural resources, and minimize energy consumption and GHG emissions. For high-risk suppliers and contractors, Pertamina mandates certification under the Contractor Safety Management System (CSMS) and external HSSE standards such as ISO 45001 and ISO 14001. Contractors undergo the full CSMS cycle Prequalification, Pre-Job Activity (PJA), Work in Progress (WIP), and Final Evaluation (FE) and are assessed on product safety, regulatory compliance, HSSE Plan alignment, and performance improvement. Evaluation covers waste management (including hazardous plastics), air emissions, energy and water consumption, hazardous chemicals, and biodiversity impacts. To strengthen local capacity, Pertamina provides coaching and clinics for contractors, suppliers, and third parties, equipping them with the skills needed in health, safety, security, and environmental management to participate effectively in high-risk supply chain activities.
[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization’s purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Pertamina has established comprehensive sustainability and also health, safety, security and environmental (HSSE) policies, including measures to address climate change risks. In line with the Contractor Safety Management System (CSMS) and Green Procurement Policy, all suppliers are required to comply with environmental responsibility principles and regulations. This includes preventing leakage and emissions, using natural resources efficiently, and minimizing energy consumption and GHG emissions. High-risk contractors and suppliers must obtain CSMS certification and hold external HSSE certifications such as ISO 45001 and ISO 14001. Contractors are assessed through the CSMS cycle Prequalification, Pre-Job Activity (PJA), Work in Progress (WIP), and Final Evaluation (FE) with evaluations covering product safety, regulatory compliance, HSSE Plan alignment, and performance improvement. Focus areas include waste management (including hazardous plastics), air emissions, energy and water use, hazardous chemical handling, and biodiversity impacts. Pertamina also provides training to strengthen contractors’ and suppliers’ HSSE capabilities. Non-compliance is taken seriously, with potential sanctions or blacklisting applied to vendors that fail to meet the required standards.

Water

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Pertamina has established policies on sustainability and also health, safety, security and environmental (HSSE) protection, including measures to mitigate climate change risks. In line with the Contractor Safety Management System (CSMS) and Green Procurement Policy, all suppliers are required to comply with environmental responsibility principles and regulations. This includes preventing leakage and emissions, ensuring efficient resource use, and minimizing energy consumption and GHG emissions. High-risk contractors and suppliers must undergo a CSMS assessment and obtain certification, while all third parties are required to hold HSSE certifications such as ISO 45001 and ISO 14001. Contractors follow the full CSMS cycle from Prequalification, Pre-Job Activity (PJA), Work in Progress (WIP), and Final Evaluation (FE) with evaluations covering product safety, regulatory compliance, HSSE Plan alignment, and performance improvement. Assessment areas include waste management (including hazardous plastics), air emissions, energy and water use, hazardous chemicals, and biodiversity impacts. To strengthen compliance, Pertamina provides training and capacity building for suppliers and contractors. Non-compliance is subject to strict enforcement, including sanctions or blacklisting of vendors.
[Fixed row]

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

Select from:

☑ Compliance with an environmental certification, please specify :ISO 14001 Environmental Management System

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Fines and penalties

☑ Grievance mechanism/ Whistleblowing hotline

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

Select from:

☑ None

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

Select from:

☑ None

(5.11.6.12) Comment

Pertamina's procurement procedures integrate environmental considerations alongside occupational health and safety (HSSE) requirements, implemented through the Contractor Safety Management System (CSMS) cycle: 1. CSMS Prequalification Partners are evaluated on their ability to implement an HSSE management system and manage related risks. This stage includes water-related compliance, such as adherence to water management regulations and certifications like ISO 14001. Based on the assessment, partners are classified into Low (R), Medium (M), or High (T) risk categories. 2. Pre-Job Activity (PJA) / Work in Progress (WIP) / Final Evaluation (FE) Partners must prepare an HSSE Plan as the basis for managing HSSE risks, including environmental impacts. Pertamina monitors progress against the plan throughout the project and conducts a final evaluation at completion. To strengthen compliance, Pertamina provides training and capacity building for third parties to meet HSSE standards. Non-compliance is subject to strict measures, including sanctions or blacklisting.

Water

(5.11.6.1) Environmental requirement

Select from:

☑ Compliance with an environmental certification, please specify :ISO 14001 Environmental Management System

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Fines and penalties

☑ Grievance mechanism/ Whistleblowing hotline

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.5) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue required to comply with this environmental requirement

Select from:

☑ 26-50%

(5.11.6.6) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue that are in compliance with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.12) Comment

Pertamina's procurement procedures integrate environmental considerations alongside occupational health and safety (HSSE) requirements, implemented through the Contractor Safety Management System (CSMS) cycle: 1. CSMS Prequalification Partners are evaluated on their ability to implement an HSSE management system and manage related risks. This stage includes water-related compliance, such as adherence to water management regulations and certifications like ISO 14001. Based on the assessment, partners are classified into Low (R), Medium (M), or High (T) risk categories. 2. Pre-Job Activity (PJA) / Work in Progress (WIP) / Final Evaluation (FE) Partners must prepare an HSSE Plan as the basis for managing HSSE risks, including environmental impacts. Pertamina monitors progress against the plan throughout the project and conducts a final evaluation at completion. To strengthen compliance, Pertamina provides training and capacity building for third parties to meet HSSE standards. Non-compliance is subject to strict measures, including sanctions or blacklisting.

Climate change

(5.11.6.1) Environmental requirement

Select from:

☑ Regular environmental risk assessments (at least once annually)

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Fines and penalties

☑ Grievance mechanism/ Whistleblowing hotline
☑ Supplier scorecard or rating
☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:
☑ 76-99%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:
☑ 100%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

Select from:
☑ None

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

Select from:
☑ None

(5.11.6.12) Comment

Pertamina's procurement procedures integrate environmental considerations alongside occupational health and safety (HSSE) requirements, implemented through the Contractor Safety Management System (CSMS) cycle: 1. CSMS Prequalification Partners are evaluated on their ability to implement an HSSE management system and manage related risks. This stage includes water-related compliance, such as adherence to water management regulations and certifications like ISO 14001. Based on the assessment, partners are classified into Low (R), Medium (M), or High (T) risk categories. 2. Pre-Job Activity (PJA) / Work in Progress (WIP) / Final Evaluation (FE) Partners must prepare an HSSE Plan as the basis for managing HSSE risks, including environmental impacts. Pertamina monitors progress against the plan throughout the project and conducts a final evaluation at completion. To strengthen compliance, Pertamina provides training and capacity building for third parties to meet HSSE standards. Non-compliance is subject to strict measures, including sanctions or blacklisting.

Water

(5.11.6.1) Environmental requirement

Select from:

☑ Regular environmental risk assessments (at least once annually)

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Fines and penalties

☑ Grievance mechanism/ Whistleblowing hotline

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.5) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue required to comply with this environmental requirement

Select from:

☑ 26-50%

(5.11.6.6) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue that are in compliance with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.12) Comment

Pertamina's procurement procedures integrate environmental considerations alongside occupational health and safety (HSSE) requirements, implemented through the Contractor Safety Management System (CSMS) cycle: 1. CSMS Prequalification Partners are evaluated on their ability to implement an HSSE management system and manage related risks. This stage includes water-related compliance, such as adherence to water management regulations and certifications like ISO 14001. Based on the assessment, partners are classified into Low (R), Medium (M), or High (T) risk categories. 2. Pre-Job Activity (PJA) / Work in Progress (WIP) / Final Evaluation (FE) Partners must prepare an HSSE Plan as the basis for managing HSSE risks, including environmental impacts. Pertamina monitors progress against the plan throughout the project and conducts a final evaluation at completion. To strengthen compliance, Pertamina provides training and capacity building for third parties to meet HSSE standards. Non-compliance is subject to strict measures, including sanctions or blacklisting.

Water

(5.11.6.1) Environmental requirement

Select from:

☑ Setting and monitoring water pollution-related targets

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Fines and penalties

☑ Grievance mechanism/ Whistleblowing hotline

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:
☑ 100%

(5.11.6.5) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue required to comply with this environmental requirement

Select from:
☑ 26-50%

(5.11.6.6) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue that are in compliance with this environmental requirement

Select from:
☑ 76-99%

(5.11.6.12) Comment

"Pertamina's procurement procedures integrate environmental considerations alongside occupational health and safety requirements, implemented through the Contractor Safety Management System (CSMS) cycle: 1. CSMS Prequalification Partners are evaluated on their ability to implement an HSSE management system and manage related risks. This stage includes water-related compliance, such as adherence to water management regulations and certifications like ISO 14001. Based on the assessment, partners are classified into Low (R), Medium (M), or High (T) risk categories. 2. Pre-Job Activity (PJA) / Work in Progress (WIP) / Final Evaluation (FE) Partners must prepare an HSSE Plan as the basis for managing HSSE risks, including environmental impacts. Pertamina monitors progress against the plan throughout the project and conducts a final evaluation at completion. To strengthen compliance, Pertamina provides training and capacity building for third parties to meet HSSE standards. Non-compliance is subject to strict measures, including sanctions or blacklisting."
[Add row]

(5.11.7) Provide further details of your organization's supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Adaptation to climate change

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to mitigate environmental impact

Information collection

☑ Collect targets information at least annually from suppliers

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 76-99%

(5.11.7.6) % of tier 1 supplier-related scope 3 emissions covered by engagement

Select from:

☑ None

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Pertamina integrates sustainability into its supply chain through the Green Procurement Policy and the Contractor Safety Management System (CSMS). All suppliers and contractors are required to prevent leakage and emissions in their facilities, reduce both GHG and non-GHG emissions, and utilize resources responsibly with a strong emphasis on energy efficiency and recycling. Vendors must also comply with internationally recognized standards, including ISO 14001, ISO 50001, ISO 9001, ISO 45001, and ISO 17025, or conduct a gap analysis if full certification has not yet been achieved. These requirements have been consistently communicated to all

vendors, who are also expected to report their progress toward the targets at least annually. Supplier engagement is delivered through multiple channels, including official correspondence, digital platforms, knowledge-sharing sessions, and targeted coaching clinics. These initiatives are particularly designed to strengthen the capacity of local vendors engaged in high-risk activities, ensuring that sustainability and HSSE practices are embedded across the supply chain. Through this structured approach, Pertamina ensures that suppliers adopt emission control and energy efficiency measures, thereby contributing to Scope 3 emission reductions and reinforcing the Company's alignment with its Net Zero Emission 2060 roadmap and global disclosure frameworks.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement :Constructing facilities to prevent leakage and emissions, utilizing natural resources efficiently, and minimizing energy consumption and greenhouse gas emissions.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Yes

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Circular economy

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to mitigate environmental impact

Information collection

☑ Collect targets information at least annually from suppliers

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 76-99%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Suppliers are also engaged through CSMS evaluations and the Green Procurement Policy, with a specific focus on water management and conservation. Therefore, the supplier requires to - Implement proper wastewater treatment and liquid waste management in line with regulatory requirements - Adopt operational practices that conserve water resources, especially in water-stressed areas - Support Pertamina's adoption of Pertamina Water Tools for rapid assessments of water systems across business units - Ensure water-related risks are minimized in projects, in line with Pertamina's Water Management and Conservation Policy. These requirements have been consistently communicated to all vendors, who are also expected to report their progress toward the targets at least annually. Engagement is conducted through multiple channels such as correspondence, digital platforms, knowledge sharing, and coaching clinics to build supplier capacity, particularly for local vendors in high-risk activities. The combined enforcement of CSMS and Green Procurement ensures that suppliers integrate water stewardship into their operations. This reduces risks of water scarcity, pollution, and community conflicts, while supporting Pertamina's ambition to achieve Net Positive Water Impact (NPWI). As a result, contractors play an active role in conserving water, minimizing liquid waste discharge, and protecting local ecosystems, aligning their operations with Pertamina's sustainability strategy and regulatory obligations.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement :Constructing facilities to prevent leakage and emissions, utilizing natural resources efficiently, complying with an environmental certification, minimizing environmental risk, and monitoring and minimizing resource consumption and GHG emissions.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Yes

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Secure Free, Prior and Informed Consent (FPIC) of Indigenous Peoples and local communities

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to mitigate environmental impact

Information collection

☑ Collect targets information at least annually from suppliers

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 76-99%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Suppliers are also engaged through CSMS evaluations and the Green Procurement Policy, with a specific focus on water management and conservation. Therefore, the supplier requires to - Implement proper wastewater treatment and liquid waste management in line with regulatory requirements - Adopt operational practices that conserve water resources, especially in water-stressed areas - Support Pertamina's adoption of Pertamina Water Tools for rapid assessments of water systems across business units - Ensure water-related risks are minimized in projects, in line with Pertamina's Water Management and Conservation Policy. These requirements have been consistently communicated to all vendors, who are also expected to report their progress toward the targets at least annually. Engagement is conducted through multiple channels such as correspondence, digital platforms, knowledge sharing, and coaching clinics to build supplier capacity, particularly for local vendors in high-risk activities. The combined enforcement of CSMS and Green Procurement ensures that suppliers integrate water stewardship into their operations. This reduces risks of water scarcity, pollution, and community conflicts, while supporting Pertamina's ambition to achieve Net Positive Water Impact (NPWI). As a result, contractors play an active role in conserving water, minimizing liquid waste discharge, and protecting local ecosystems, aligning their operations with Pertamina's sustainability strategy and regulatory obligations.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement :Constructing facilities to prevent leakage and emissions, utilizing natural resources efficiently, complying with an environmental certification, minimizing environmental risk, and monitoring and minimizing resource consumption and GHG emissions.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Yes

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Other, please specify :water quality

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to mitigate environmental impact

Information collection

☑ Collect targets information at least annually from suppliers

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 76-99%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Suppliers are also engaged through CSMS evaluations and the Green Procurement Policy, with a specific focus on water management and conservation. Therefore, the supplier requires to - Implement proper wastewater treatment and liquid waste management in line with regulatory requirements - Adopt operational practices that conserve water resources, especially in water-stressed areas - Support Pertamina's adoption of Pertamina Water Tools for rapid assessments of water systems across business units - Ensure water-related risks are minimized in projects, in line with Pertamina's Water Management and Conservation Policy. These requirements have been consistently communicated to all vendors, who are also expected to report their progress toward the targets at least annually. Engagement is conducted through multiple channels such as correspondence, digital platforms, knowledge sharing, and coaching clinics to build supplier capacity, particularly for local vendors in high-risk activities. The combined enforcement of CSMS and Green Procurement ensures that suppliers integrate water stewardship into their operations. This reduces risks of water scarcity, pollution, and community conflicts, while supporting Pertamina's ambition to achieve Net Positive Water Impact (NPWI). As a result, contractors play an active role in conserving water, minimizing liquid waste discharge, and protecting local ecosystems, aligning their operations with Pertamina's sustainability strategy and regulatory obligations.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement :Constructing facilities to prevent leakage and emissions, utilizing natural resources efficiently, and minimizing energy consumption and greenhouse gas emissions.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Yes

[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 26-50%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ None

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Investors and shareholders are a priority stakeholder group for Pertamina. In the 2024 cycle, Pertamina convened Pertamina Investor Day 2024 alongside three earnings-call sessions, delivered in a hybrid format (in-person and virtual). Invitations were extended to 1,068 targeted participants including bondholders, equity investors, banks, lenders, credit-rating agencies, business partners, and prospective partners with 496 confirmed attendees (46% of total targeted participants) recorded in one of the event reports.

(5.11.9.6) Effect of engagement and measures of success

Pertamina Investor Day is a structured platform for two-way engagement with investors and business partners. We will engage with partners and investors in our business sectors to enhance our capabilities, while showcasing the company's dedication to development and continuous efforts to create opportunities for mutually beneficial collaboration. On this year, the questions were circulation about Operations (e.g., CCS/CCUS, oil & gas production, geothermal, digitalization, and sub-holding project updates), followed by ESG/Sustainability (green financing and green bonds, NZE roadmap and low-carbon business development, energy-transition projects), Financial (compensation and subsidies), Investment (CAPEX allocation and funding outlook), and Corporate Actions (IPO/bond issuance), plus requests for presentation materials.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 26-50%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Investors and shareholders are a priority stakeholder group for Pertamina. In the 2024 cycle, Pertamina convened Pertamina Investor Day 2024 alongside three earnings-call sessions, delivered in a hybrid format (in-person and virtual). Invitations were extended to 1,068 targeted participants including bondholders, equity investors, banks, lenders, credit-rating agencies, business partners, and prospective partners with 496 confirmed attendees (46% of total targeted participants) recorded in one of the event reports.

(5.11.9.6) Effect of engagement and measures of success

Pertamina Investor Day is a structured platform for two-way engagement with investors and business partners. We will engage with partners and investors in our business sectors to enhance our capabilities, while showcasing the company's dedication to development and continuous efforts to create opportunities for mutually beneficial collaboration. On this year, the questions were circulation about Operations (e.g., CCS/CCUS, oil & gas production, geothermal, digitalization, and sub-holding project updates), followed by ESG/Sustainability (green financing and green bonds, NZE roadmap and low-carbon business development, energy-transition projects), Financial (compensation and subsidies), Investment (CAPEX allocation and funding outlook), and Corporate Actions (IPO/bond issuance), plus requests for presentation materials.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Innovation and collaboration

☑ Align your organization’s goals to support customers’ targets and ambitions

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 51-75%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ None

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Through the Energy Self-Sufficient Village (Desa Energi Berdikari) Program, Pertamina advances the use of solar, micro-hydro, hybrid solar, wind power, biogas, and methane to strengthen local energy independence. This initiative has delivered measurable socio-economic and environmental value, with 48% of total beneficiaries under Pertamina's Environmental Pillar Priority Programs (35,746 people). Key impacts include: - 35,746 beneficiary households, - Rp3.6 billion per year in economic value creation, - 15,762.6 tons per year of rice production, - 40 individuals certified by the Ministry of Energy and Mineral Resources, and - An annual carbon emission reduction of 729,662 tons of CO_2e. Complementing this effort, the Hutan Lestari Program strengthens ecological resilience through social forestry and tree-planting initiatives, reaching 6% of total Environmental Pillar Priority Program beneficiaries (4,783 people). Achievements to date include: - Establishing 13 social forestry sites with 338,000 productive trees across 68 hectares, - Planting more than 8.9 million trees, including mangroves and terrestrial species, across 891 hectares, - Engaging 3,795 forest farmers in sustainable management, with the capacity to produce 70 tons/year of organic fertilizer, and - Generating a collective income of Rp3 billion per year for 4,783 community beneficiaries. Taken together, the Desa Energi Berdikari and Hutan Lestari programs account for 54% of total beneficiaries under Pertamina's Environmental Pillar Priority Programs, benefiting 73,892 people and reinforcing the company's role in delivering both low-carbon energy solutions and nature-based community empowerment.

(5.11.9.6) Effect of engagement and measures of success

As of 2024, Pertamina is committed to advancing sustainable community development through flagship initiatives that combine access to renewable energy and forest conservation.Together, these programs reinforce Pertamina's role in accelerating the energy transition, carbon emission reduction, and nature-based solutions, while empowering communities with inclusive socio-economic opportunities.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Innovation and collaboration

☑ Align your organization's goals to support customers' targets and ambitions

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 26-50%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Pertamina has reinforced its commitment to clean water as a fundamental human need through the implementation of clean water access programs across Indonesia. These initiatives include the completion of 2,664 drilled wells and the construction of clean water facilities in 20 locations across 6 provinces. To date, the program has benefited approximately 33,633 people, supporting community welfare by enabling agricultural irrigation and strengthening local economic activity. In total, the Clean Water Supply Program accounts for 46% of the beneficiaries under Pertamina's Environmental Pillar Priority Programs, representing 73,892 people who have gained improved access to clean water and enhanced living conditions.

(5.11.9.6) Effect of engagement and measures of success

Pertamina has strengthened its commitment to clean water as a basic human necessity through the implementation of comprehensive clean water access programs across Indonesia. This program currently benefits and enabling improved community welfare such as supporting agricultural irrigation and enhancing local economic activity. With continued expansion, the number of households gaining access to clean water is expected to steadily increase, ensuring long-term benefits for surrounding communities.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Other value chain stakeholder, please specify :employees

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ None

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Pertamina recognizes that employee competence and engagement are essential to achieving business sustainability and the Net Zero Emission (NZE) 2060 roadmap. This commitment is embedded in the Pertamina Standard SUPREME (Sustainability Pertamina Expectations for Management Excellence), which mandates training and development across operational and supporting functions. For HSSE employees, structured competencies include certification training such as Water Pollution Control, Air Pollution Control, Hazardous Waste Management, Wastewater and Air Operations, Life Cycle Assessment (LCA), Energy Manager, and Energy Auditor. Non-certification training covers biodiversity conservation, waste management, environmental audits, energy conservation fundamentals, and ISO 14001 internal auditing. These programs strengthen employees' ability to manage water responsibly, mitigate emissions, and address climate risks. Engagement and awareness are reinforced through internal broadcasts, webinars, handbooks, sharing sessions, and environmental competitions. In 2024, the Pertamina Learning Festival (PLF) provided a collaborative platform through webinars, Training & Certification Week, and Expert Sharing Sessions. Environmental and climate-related issues, including water stewardship and renewable energy, were prioritized to align competencies with corporate strategy. Through these initiatives, Pertamina ensures employees contribute actively to water and climate goals, embedding sustainability into daily operations while strengthening resilience and compliance with international disclosure frameworks.

(5.11.9.6) Effect of engagement and measures of success

Pertamina engages employees through structured training, awareness programs, and internal campaigns to strengthen competencies in water and climate management. HSSE staff are equipped with certifications in water and air pollution control, hazardous waste management, energy auditing, and life cycle assessment, while non-certification training and knowledge-sharing expand awareness across the workforce. Internal broadcasts, webinars, competitions, and the Pertamina Learning Festival (PLF) foster continuous engagement and collaboration on sustainability. This engagement has contributed directly to Pertamina Group's ESG achievements. In 2024, the Company reduced 1,711,306 tCO_2e, an improvement over 1,135,099 tCO_2e in 2023. In addition, Pertamina Environmental performance was recognized with 36 Gold, 93 Green, and 60 Blue PROPER awards, supported by CSR programs benefiting 384,982 people. Internationally, Pertamina reflecting effective medium-level ESG risk management. Therefore, Employee competence and commitment were central to the success of these initiative. Through these efforts, Pertamina ensures employees are active drivers of climate and water-related action, embedding sustainability into daily operations and strengthening alignment with its Net Zero Emission 2060 roadmap.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Other value chain stakeholder, please specify :employees

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Pertamina recognizes that employee competence and engagement are essential to achieving business sustainability and the Net Zero Emission (NZE) 2060 roadmap. This commitment is embedded in the Pertamina Standard SUPREME (Sustainability Pertamina Expectations for Management Excellence), which mandates training and development across operational and supporting functions. For HSSE employees, structured competencies include certification training such as Water Pollution Control, Air Pollution Control, Hazardous Waste Management, Wastewater and Air Operations, Life Cycle Assessment (LCA), Energy Manager, and Energy Auditor. Non-certification training covers biodiversity conservation, waste management, environmental audits, energy conservation fundamentals, and ISO 14001 internal auditing. These programs strengthen employees' ability to manage water responsibly, mitigate emissions, and address climate risks. Engagement and awareness are reinforced through internal broadcasts, webinars, handbooks, sharing sessions, and environmental competitions. In 2024, the Pertamina Learning Festival (PLF) provided a collaborative platform through webinars, Training & Certification Week, and Expert Sharing Sessions. Environmental and climate-related issues, including water stewardship and renewable energy, were prioritized to align competencies with corporate strategy. Through these initiatives, Pertamina ensures employees contribute actively to water and climate goals, embedding sustainability into daily operations while strengthening resilience and compliance with international disclosure frameworks.

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Pertamina engages employees through structured training, awareness programs, and internal campaigns to strengthen competencies in water and climate management. HSSE staff are equipped with certifications in water and air pollution control, hazardous waste management, energy auditing, and life cycle assessment, while non-certification training and knowledge-sharing expand awareness across the workforce. Internal broadcasts, webinars, competitions, and the

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[Add row]

(5.12) Indicate any mutually beneficial environmental initiatives you could collaborate on with specific CDP Supply Chain members.

	Requesting member	Environmental issues the initiative relates to
Row 1	*Select from:*	*Select all that apply* ☑ Climate change

[Add row]

(5.13) Has your organization already implemented any mutually beneficial environmental initiatives due to CDP Supply Chain member engagement?

	Environmental initiatives implemented due to CDP Supply Chain member engagement
	Select from: ☑ No, but we plan to within the next two years

[Fixed row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

Climate change

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

This report outlines the disclosed environmental performance and impacts associated with Pertamina and its subsidiary's operational areas. Pertamina exercises operational control over its subsidiaries' activities. Pertamina possesses the complete authority to establish and execute its operational policies at the site. Pertamina is responsible for all emissions, water usage, and other environmental factors related to its operations under its control.

Water

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

This report outlines the disclosed environmental performance and impacts associated with Pertamina and its subsidiary's operational areas. Pertamina exercises operational control over its subsidiaries' activities. Pertamina possesses the complete authority to establish and execute its operational policies at the site. Pertamina is responsible for all emissions, water usage, and other environmental factors related to its operations under its control.

Plastics

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

This report outlines the disclosed environmental performance and impacts associated with Pertamina and its subsidiary's operational areas. Pertamina exercises operational control over its subsidiaries' activities. Pertamina possesses the complete authority to establish and execute its operational policies at the site. Pertamina is responsible for all emissions, water usage, and other environmental factors related to its operations under its control.

Biodiversity

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

This report outlines the disclosed environmental performance and impacts associated with Pertamina and its subsidiary's operational areas. Pertamina exercises operational control over its subsidiaries' activities. Pertamina possesses the complete authority to establish and execute its operational policies at the site. Pertamina is responsible for all emissions, water usage, and other environmental factors related to its operations under its control.
[Fixed row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:
☑ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

	Has there been a structural change?
	Select all that apply ☑ No

[Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

(7.1.2.1) Change(s) in methodology, boundary, and/or reporting year definition?

Select all that apply
☑ Yes, a change in boundary

(7.1.2.2) Details of methodology, boundary, and/or reporting year definition change(s)

In the FY 2024 emissions reporting, Pertamina adjusted its organizational boundary in alignment with the GHG Protocol Standard. As part of this adjustment, non-operated and non-leased assets were excluded to ensure consistency and accuracy in reporting. At the same time, several new internal operational facilities were included, which contributed to an increase in reported emissions intensity. In addition, a restatement of information was conducted due to the readjustment of the scope of the calculation of purchased energy. This restatement ensures that historical data is comparable, transparent, and aligned with the refined reporting boundary. Through these boundary updates and restatements, Pertamina reinforces the integrity of its GHG reporting, ensuring alignment with the GHG Protocol and enhancing the reliability of climate-related disclosures
[Fixed row]

(7.1.3) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in 7.1.1 and/or 7.1.2?

(7.1.3.1) Base year recalculation

Select from:
☑ No, because the operations acquired or divested did not exist in the base year

(7.1.3.3) Base year emissions recalculation policy, including significance threshold

In 2020, Pertamina did a recalculation baseline due to the development of business dynamics, such as the acquisition of new working areas, additional scope calculations, and additional emission sources. Due to the boundary changes, emissions from 2019-2022 were recalculated in order to increase the accuracy and reliability of our emissions calculation. The emissions recalculation is in accordance with the GHG Protocol standard. Moving forward, regular reviews will be conducted. Rebaselining will also continue to be carried out whenever significant changes occur.

(7.1.3.4) Past years' recalculation

Select from:
☑ Yes
[Fixed row]

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Select all that apply

☑ ISO 14064-1

☑ The Greenhouse Gas Protocol: Scope 2 Guidance

☑ The Greenhouse Gas Protocol: Public Sector Standard

☑ The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

☑ 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories

☑ IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011

☑ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

☑ American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009

☑ Other, please specify :Indonesia Regulation of Minister of Environment No.12 of 2012 on Guidelines for Calculating Emission Load for Oil and Gas Industry Activities

(7.3) Describe your organization's approach to reporting Scope 2 emissions.

(7.3.1) Scope 2, location-based

Select from:

☑ We are reporting a Scope 2, location-based figure

(7.3.2) Scope 2, market-based

Select from:

☑ We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

(7.3.3) Comment

We are in the initial stage of disclosing Scope 2, market-based emissions, which include market-based calculations from PT Rokan's operations through renewable energy activities (Solar Power Plant).
[Fixed row]

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:
☑ Yes

(7.4.1) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Row 1

(7.4.1.1) Source of excluded emissions

Subsidiaries Services/Portfolio

(7.4.1.2) Scope(s) or Scope 3 category(ies)

Select all that apply
☑ Scope 1
☑ Scope 2 (location-based)
☑ Scope 3: Purchased goods and services
☑ Scope 3: Capital goods

(7.4.1.3) Relevance of Scope 1 emissions from this source

Select from:
☑ Emissions are relevant but not yet calculated

(7.4.1.4) Relevance of location-based Scope 2 emissions from this source

Select from:
☑ Emissions are relevant but not yet calculated

(7.4.1.6) Relevance of Scope 3 emissions from this source

Select from:

☑ Emissions are relevant but not yet calculated

(7.4.1.8) Estimated percentage of total Scope 1+2 emissions this excluded source represents

0.9

(7.4.1.9) Estimated percentage of total Scope 3 emissions this excluded source represents

0.9

(7.4.1.10) Explain why this source is excluded

Business activities are excluded as they do not align with Pertamina's core operations as an oil and gas company. This group comprises subsidiaries in insurance, trading, hospitality, property, catering, aviation, health services, and training and consulting sectors

(7.4.1.11) Explain how you estimated the percentage of emissions this excluded source represents

The emission percentage provided is an estimate derived from the revenue contribution of this business area to Pertamina's overall revenue

Row 2

(7.4.1.1) Source of excluded emissions

Some of the emission scope 3 categories from 6 subsidiaries, which are upstream, refining & petrochemicals, commercial & trading, power & NRE, gas, and integrated marine logistic sub-holding.

(7.4.1.2) Scope(s) or Scope 3 category(ies)

Select all that apply

☑ Scope 3: Franchises

☑ Scope 3: Investments

☑ Scope 3: Capital goods

☑ Scope 3: Other (downstream)

☑ Scope 3: Employee commuting

☑ Scope 3: Upstream leased assets

☑ Scope 3: Business travel
☑ Scope 3: Other (upstream)
☑ Scope 3: Waste generated in operations
☑ Scope 3: End-of-life treatment of sold products
☑ Scope 3: Upstream transportation and distribution
☑ Scope 3: Downstream transportation and distribution
☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
☑ Scope 3: Downstream leased assets
☑ Scope 3: Processing of sold products

(7.4.1.6) Relevance of Scope 3 emissions from this source

Select from:
☑ Emissions are relevant and calculated, but not disclosed

(7.4.1.9) Estimated percentage of total Scope 3 emissions this excluded source represents

3.8

(7.4.1.10) Explain why this source is excluded

Scope 3 calculations for categories 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, and 15 are not disclosed, as their emissions are not significant relative to the data from categories 1 and 11.

(7.4.1.11) Explain how you estimated the percentage of emissions this excluded source represents

The estimated percentage of emissions generated comes from the scope 3 emissions estimation data calculated by Pertamina for scope 3 of categories 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, and 16, which is then compared to Pertamina's total scope 3 emissions for all categories. The percentage of the total scope 3 emissions from these categories to the overall total scope 3 emissions is 3.78%.
[Add row]

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/30/2010

(7.5.2) Base year emissions (metric tons CO2e)

25078000

(7.5.3) Methodological details

The year 2010 was determined as the baseline for the measurement of GHG emission reduction. This calculation was carried out by Pertamina internally, and the results of this calculation have been verified by third-party independence assurance.

Scope 2 (location-based)

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

439510

(7.5.3) Methodological details

This calculation was carried out by Pertamina internally, and the results of this calculation have been verified by third-party independence assurance. This value is rounded to the nearest 10 metric tonnes.

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

1509997

(7.5.3) Methodological details

Pertamina has not yet calculated the baseline of Scope 3. However, Pertamina has calculated emissions from Scope 3 - Purchased Goods and Services. This calculation was carried out by Pertamina internally and the results of this calculation have been verified by third-party independence assurance. This value is rounded to the nearest 10000 metric tonnes.

Scope 3 category 2: Capital goods

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Capital goods in reporting scope.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Fuel-and-energy-related activities (not included in Scope 1 or 2) in reporting scope.

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Upstream transportation and distribution in reporting scope.

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Waste generated in operations in reporting scope.

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Business travel in reporting scope.

Scope 3 category 7: Employee commuting

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Employee commuting in reporting scope.

Scope 3 category 8: Upstream leased assets

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no upstream leased assets included in reporting scope.

Scope 3 category 9: Downstream transportation and distribution

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Downstream transportation and distribution included in reporting scope.

Scope 3 category 10: Processing of sold products

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Processing of sold products included in reporting scope.

Scope 3 category 11: Use of sold products

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

144240000

(7.5.3) Methodological details

Pertamina has calculated emissions from Scope 3 - Use of Sold Products. This calculation was carried out by Pertamina internally, and the results of this calculation have been verified by third-party independence assurance. This value is rounded to the nearest 10000 metric tonnes.

Scope 3 category 12: End of life treatment of sold products

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no End of life treatment of sold products included in reporting scope.

Scope 3 category 13: Downstream leased assets

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Downstream leased assets included in reporting scope.

Scope 3 category 14: Franchises

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Downstream leased assets included in reporting scope.

Scope 3 category 15: Investments

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Investments included in reporting scope.

Scope 3: Other (upstream)

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Other (upstream) included in reporting scope.

Scope 3: Other (downstream)

(7.5.1) Base year end

12/30/2020

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Pertamina has no Other (downstream) in reporting scope.
[Fixed row]

(7.6) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

24377447.01

(7.6.3) Methodological details

In calculating Scope 1 emissions, we incorporated methodologies from the GHG protocol and the American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. Additionally, we adopted guidelines from IPIECA’s Petroleum Industry Guidelines for reporting GHG emissions and we referred to the Minister of Environment Regulation (Permen LH) Number 12 of 2012 on the Guidelines for Calculating Emission Loads for Oil and Gas Industry Activities. The calculation results are presented as total Scope 1 GHG emissions, including those from facilities/units operated collectively and energy sales, and none from oil sands production activities.

Past year 1

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

24884157.7

(7.6.2) End date

12/30/2023

(7.6.3) Methodological details

In the FY 2024 emissions reporting, there are changes in the boundary. The boundary adjustment was made by excluding non-operated and non-leased assets in accordance with the GHG Protocol standard. In addition, the inclusion of several internal operational facilities has resulted in an increase in intensity.

Past year 2

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

24836167.53

(7.6.2) End date

12/30/2022

(7.6.3) Methodological details

In the FY 2024 emissions reporting, there are changes in the boundary. The boundary adjustment was made by excluding non-operated and non-leased assets in accordance with the GHG Protocol standard. In addition, the inclusion of several internal operational facilities has resulted in an increase in intensity.
[Fixed row]

(7.7) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

2784370

(7.7.4) Methodological details

In the FY 2024 emissions reporting, Pertamina adjusted its organizational boundary in alignment with the GHG Protocol Standard. As part of this adjustment, non-operated and non-leased assets were excluded to ensure consistency and accuracy in reporting. At the same time, several new internal operational facilities were included, which contributed to an increase in reported emissions intensity. In addition, a restatement of information was conducted due to the readjustment of the scope of the calculation of purchased energy. This value is rounded to the nearest 10 metric tonnes. The market-based calculations are calculated from PT Rokan's operations through renewable energy activities (Solar Power Plant).

Past year 1

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

2207330

(7.7.3) End date

12/30/2023

(7.7.4) Methodological details

In the FY 2024 emissions reporting, Pertamina adjusted its organizational boundary in alignment with the GHG Protocol Standard. As part of this adjustment, non-operated and non-leased assets were excluded to ensure consistency and accuracy in reporting. At the same time, several new internal operational facilities were included, which contributed to an increase in reported emissions intensity. In addition, a restatement of information was conducted due to the readjustment of the scope of the calculation of purchased energy. This value is rounded to the nearest 10 metric tonnes. The market-based calculations are calculated from PT Rokan's operations through renewable energy activities (Solar Power Plant).

Past year 2

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

2015070

(7.7.3) End date

12/30/2022

(7.7.4) Methodological details

In the FY 2024 emissions reporting, Pertamina adjusted its organizational boundary in alignment with the GHG Protocol Standard. As part of this adjustment, non-operated and non-leased assets were excluded to ensure consistency and accuracy in reporting. At the same time, several new internal operational facilities were included, which contributed to an increase in reported emissions intensity. In addition, a restatement of information was conducted due to the readjustment of the scope of the calculation of purchased energy. This value is rounded to the nearest 10 metric tonnes. The market-based calculations are calculated from PT Rokan's operations through renewable energy activities (Solar Power Plant).
[Fixed row]

(7.8) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

23729153.78

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Methodology for direct use phase emissions, please specify :Methodology for direct use phase emissions from combusted fuels and feedstocks (GHG Protocol Scope 3).

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

Based on the inventory analysis estimation, the Scope 3 emission from the purchased goods and services was calculated by incorporating company data from crude oil and fuel products purchased from outside in fiscal year 2024 and emission factor data referring to the local fuel products sold in Indonesia. This calculation refers to the methodology for direct-use phase emissions from combusted fuels and feedstocks by GHG Protocol scope 3.

Capital goods

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from capital goods represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from capital goods is considered not significant compared to emissions associated with the use of sold products

Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from fuel- and energy-related activities (not included in Scope 1 or 2) represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from fuel- and energy-related activities is considered not significant compared to emissions associated with the use of sold products.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from Upstream transportation and distribution represent less than 2% of total emissions. Therefore, the percentage of Scope 3 emissions fromUpstream transportation and distribution is considered not significant compared to emissions associated with the use of sold products.

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from Waste generated in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from Waste generated in operations is considered not significant compared to emissions associated with the use of sold products.

Business travel

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from business travel in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from business travel is considered not significant compared to emissions associated with the use of sold products.

Employee commuting

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from employee commuting in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from employee commuting is considered not significant compared to emissions associated with the use of sold products.

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from upstream leased in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from upstream leased is considered not significant compared to emissions associated with the use of sold products.

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from downstream transportation and distribution in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from downstream transportation and distribution is considered not significant compared to emissions associated with the use of sold products.

Processing of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from processing of sold products in operations represent less than 2% of total emissions. Therefore, the percentage of Scope 3 emissions from processing of sold products is considered not significant compared to emissions associated with the use of sold products.

Use of sold products

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

174675001.79

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Methodology for direct use phase emissions, please specify :Combustion of fuels and feedstocks (GHG Protocol Scope 3)

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

Based on the inventory analysis estimation, the Scope 3 emission from the use of sold products was calculated by incorporating company data from fuel products sold in fiscal year 2024 and emission factor data referring to the local fuel products sold in Indonesia. This calculation refers to the methodology for direct-use phase emissions from combusted fuels and feedstocks. The non-fuel products used by customers are not factored in this calculation.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from end of life treatment of sold products in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from end of life treatment of sold products is considered not significant compared to emissions associated with the use of sold products.

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from downstream leased assets products in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from downstream leased assets is considered not significant compared to emissions associated with the use of sold products.

Franchises

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from franchises in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from franchises is considered not significant compared to emissions associated with the use of sold products.

Investments

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from invesments in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from invesments is considered not significant compared to emissions associated with the use of sold products.

Other (upstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from other (upstream) in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from other (upstream) is considered not significant compared to emissions associated with the use of sold products.

Other (downstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on the inventory analysis estimation, emissions from other (downstream) in operations represent less than 1% of total emissions. Therefore, the percentage of Scope 3 emissions from other (downstream) is considered not significant compared to emissions associated with the use of sold products.

[Fixed row]

(7.8.1) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

(7.8.1.1) End date

12/29/2023

(7.8.1.2) Scope 3: Purchased goods and services (metric tons CO2e)

22625697.43

(7.8.1.3) Scope 3: Capital goods (metric tons CO2e)

0

(7.8.1.4) Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

0

(7.8.1.5) Scope 3: Upstream transportation and distribution (metric tons CO2e)

0

(7.8.1.6) Scope 3: Waste generated in operations (metric tons CO2e)

0

(7.8.1.7) Scope 3: Business travel (metric tons CO2e)

0

(7.8.1.8) Scope 3: Employee commuting (metric tons CO2e)

0

(7.8.1.9) Scope 3: Upstream leased assets (metric tons CO2e)

0

(7.8.1.10) Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

(7.8.1.11) Scope 3: Processing of sold products (metric tons CO2e)

0

(7.8.1.12) Scope 3: Use of sold products (metric tons CO2e)

181211514.76

(7.8.1.13) Scope 3: End of life treatment of sold products (metric tons CO2e)

0

(7.8.1.14) Scope 3: Downstream leased assets (metric tons CO2e)

0

(7.8.1.15) Scope 3: Franchises (metric tons CO2e)

0

(7.8.1.16) Scope 3: Investments (metric tons CO2e)

0

(7.8.1.17) Scope 3: Other (upstream) (metric tons CO2e)

0

(7.8.1.18) Scope 3: Other (downstream) (metric tons CO2e)

0

(7.8.1.19) Comment

Restatement of Scope 3 in reporting year 2024: Purchased goods and services and Use of sold product information due to a change in the emission factor used, which previously used the US EPA factor to be changed to the local emission factor from Lemigas testing to improve accuracy.

Past year 2

(7.8.1.1) End date

12/30/2022

(7.8.1.2) Scope 3: Purchased goods and services (metric tons CO2e)

21303262.59

(7.8.1.3) Scope 3: Capital goods (metric tons CO2e)

0

(7.8.1.4) Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

0

(7.8.1.5) Scope 3: Upstream transportation and distribution (metric tons CO2e)

0

(7.8.1.6) Scope 3: Waste generated in operations (metric tons CO2e)

0

(7.8.1.7) Scope 3: Business travel (metric tons CO2e)

0

(7.8.1.8) Scope 3: Employee commuting (metric tons CO2e)

0

(7.8.1.9) Scope 3: Upstream leased assets (metric tons CO2e)

0

(7.8.1.10) Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

(7.8.1.11) Scope 3: Processing of sold products (metric tons CO2e)

0

(7.8.1.12) Scope 3: Use of sold products (metric tons CO2e)

168055598.67

(7.8.1.13) Scope 3: End of life treatment of sold products (metric tons CO2e)

0

(7.8.1.14) Scope 3: Downstream leased assets (metric tons CO2e)

0

(7.8.1.15) Scope 3: Franchises (metric tons CO2e)

0

(7.8.1.16) Scope 3: Investments (metric tons CO2e)

0

(7.8.1.17) Scope 3: Other (upstream) (metric tons CO2e)

0

(7.8.1.18) Scope 3: Other (downstream) (metric tons CO2e)

0

(7.8.1.19) Comment

Restatement of Scope 3 in reporting year 2024: Purchased goods and services and Use of sold product information due to a change in the emission factor used, which previously used the US EPA factor to be changed to the local emission factor from Lemigas testing to improve accuracy.
[Fixed row]

(7.9) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	*Select from:* ☑ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	*Select from:* ☑ Third-party verification or assurance process in place
Scope 3	*Select from:* ☑ Third-party verification or assurance process in place

[Fixed row]

(7.9.1) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:
☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:
☑ Moderate assurance

(7.9.1.4) Attach the statement

Assurance Statement_2024.pdf,Sustainability Report 2024.pdf

(7.9.1.5) Page/section reference

Sustainability Report 2024 page 253-256. Assurance type 2 (moderate assurance) AA1000AS

(7.9.1.6) Relevant standard

Select from:
☑ AA1000AS

(7.9.1.7) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.2) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Row 1

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Moderate assurance

(7.9.2.5) Attach the statement

Assurance Statement_2024.pdf,Sustainability Report 2024.pdf

(7.9.2.6) Page/ section reference

Sustainability Report 2024 page 253-256. Assurance type 2 (moderate assurance) AA1000AS

(7.9.2.7) Relevant standard

Select from:
☑ AA1000AS

(7.9.2.8) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.3) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Row 1

(7.9.3.1) Scope 3 category

Select all that apply
☑ Scope 3: Purchased goods and services
☑ Scope 3: Use of sold products

(7.9.3.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:
☑ Moderate assurance

(7.9.3.5) Attach the statement

Assurance Statement_2024.pdf,Sustainability Report 2024.pdf

(7.9.3.6) Page/section reference

Sustainability Report 2024 page 253-256. Assurance type 2 (moderate assurance) AA1000AS

(7.9.3.7) Relevant standard

Select from:
☑ AA1000AS

(7.9.3.8) Proportion of reported emissions verified (%)

100
[Add row]

(7.10) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Select from:
☑ Increased

(7.10.1) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

70329.31

(7.10.1.2) Direction of change in emissions

Select from:

☑ Increased

(7.10.1.3) Emissions value (percentage)

0.26

(7.10.1.4) Please explain calculation

The emissions change of 70,329.31 metric tons CO_2e was caused by a change in boundary. This includes the shift of some emission sources from Scope 1 to Scope 2 along with increased production intensity. The transition from direct fuel consumption to electricity also contributed to the change. The direction of emissions is recorded as increased, with a growth of 0.26% compared to the previous year. The percentage was calculated by dividing the difference in total emissions of the current year by the previous year's total.
[Fixed row]

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Select from:

☑ Yes

(7.12.1) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

(7.12.1.1) CO2 emissions from biogenic carbon (metric tons CO2)

833973.27

(7.12.1.2) Comment

The calculation of biogenic emissions from the combustion of biofuel (B30) in Subholding Upstream is carried out using an emission factor based approach. Activity data are obtained from the volume of biofuel consumed. Biogenic emission factors, in line with IPCC guidelines and national regulations, are applied to estimate the

amount of CO_2 generated. As B30 consists of a blend of 30% bio-based biodiesel and 70% fossil diesel, only the 30% biodiesel fraction is accounted for as biogenic CO_2 emissions, reported separately from fossil emissions.
[Fixed row]

(7.15) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Select from:
☑ Yes

(7.15.1) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used global warming potential (GWP).

Row 1

(7.15.1.1) Greenhouse gas

Select from:
☑ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

22111428.83

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:
☑ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

2190861

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:
☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

75140.7

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fourth Assessment Report (AR4 - 100 year)
[Add row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Algeria	*199272.22*	*141609.9*	*0*
Indonesia	*24178174.79*	*2642760.1*	*0*

[Fixed row]

(7.17) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

Select all that apply

☑ By business division

☑ By activity

(7.17.1) Break down your total gross global Scope 1 emissions by business division.

	Business division	Scope 1 emissions (metric ton CO2e)
Row 1	*Upstream Subholding*	*13363660.22*
Row 2	*Refinery & Petrochemical (R&P) Subholding*	*9065968.94*
Row 3	*Commercial & Trading (C&T) Subholding*	*211258.51*
Row 4	*Power, New & Renewable Energy (PNRE) Subholding*	*92337.28*
Row 5	*Gas Subholding*	*623788.12*
Row 6	*Integrated Marine Logistics (IML) Subholding*	*1020417.97*

[Add row]

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

	Activity	Scope 1 emissions (metric tons CO2e)
Row 1	*Combustion*	*14244032.07*
Row 2	*Routine Flaring*	*1671128.28*
Row 3	*Non-routine Flaring*	*244559.89*
Row 4	*Safety Flaring*	*436828.57*
Row 5	*Process & Venting*	*7214655.02*
Row 6	*Fugitives*	*566243.18*

[Add row]

(7.20) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

Select all that apply

☑ By business division

(7.20.1) Break down your total gross global Scope 2 emissions by business division.

	Business division	Scope 2, location-based (metric tons CO2e)
Row 1	*Upstream Subholding*	*2484490*
Row 2	*Refinery & Petrochemical (R&P) Subholding*	*160470*

	Business division	Scope 2, location-based (metric tons CO2e)
Row 3	*Commercial & Trading (C&T) Subholding*	*89730*
Row 4	*Power, New & Renewable Energy (PNRE) Subholding*	*2130*
Row 5	*Gas Subholding*	*47550*
Row 6	*Integrated Marine Logistics (IML) Subholding*	*0*

[Add row]

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based emissions (metric tons CO2e)	Please explain
Consolidated accounting group	*24377447.01*	*2784370*	*The GHG emissions account for all Pertamina entities as a consolidated group, including all subholdings and subsidiaries*
All other entities	*0*	*0*	*Not applicable.*

[Fixed row]

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:

☑ Yes

(7.23.1) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Row 1

(7.23.1.1) Subsidiary name

PT Pertamina Hulu Energi

(7.23.1.2) Primary activity

Select from:
☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ LEI number

(7.23.1.9) LEI number

2549003IT1KDHL64C037

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

13363660.22

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

2484490

(7.23.1.15) Comment

Pertamina Hulu Energi (PHE) manages upstream sector business activities. The business activity includes exploration, drilling, as well as development and production of oil and gas.the value of Scope 2 emissions is rounded to the nearest 10 tCO_2.

Row 2

(7.23.1.1) Subsidiary name

PT Kilang Pertamina Internasional

(7.23.1.2) Primary activity

Select from:
☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ LEI number

(7.23.1.9) LEI number

894500B6H2I2WYJIB757

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

9065968.94

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

160470

(7.23.1.15) Comment

Kilang Pertamina Internasional (KPI) activities include conducting oil, gas, new and renewable energy business, whether domestic and overseas, through the construction and development of refineries, both domestic and overseas. the value of Scope 2 emissions is rounded to the nearest 10 tCO_2.

Row 3

(7.23.1.1) Subsidiary name

PT Pertamina Patra Niaga

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas marketing & retailing

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ LEI number

(7.23.1.9) LEI number

894500V7UOKGFVZTE574

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

211258.51

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

89730

(7.23.1.15) Comment

Pertamina Patra Niaga (PPN) business activities include conducting businesses in the services, general trading, and industry sectors through the activities of fuel handling & trading, fleet management, and fuel storage (terminal). The value of Scope 2 emissions is rounded to the nearest 10 tCO_2.

Row 4

(7.23.1.1) Subsidiary name

PT Pertamina Power Indonesia

(7.23.1.2) Primary activity

Select from:

☑ Other renewable generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

92337.28

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

2130

(7.23.1.15) Comment

Pertamina Power Indonesia (PPI) establishes an integrated electric vehicle battery ecosystem from upstream to downstream, including the battery market and electric vehicle ecosystem in Indonesia. PPI also continuously increases its capability and competitiveness in becoming a world-class company, as well as in supporting the development of national electric vehicles. The value of Scope 2 emissions is rounded to the nearest 10 tCO_2.

Row 5

(7.23.1.1) Subsidiary name

PT Perusahaan Gas Negara

(7.23.1.2) Primary activity

Select from:

☑ Gas utilities

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ LEI number

(7.23.1.9) LEI number

549300OX1VFDX7ZPN240

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

623788.12

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

47550

(7.23.1.15) Comment

Perusahaan Gas Negara (PGN) performs downstream business plans, construction, management, and development in the gas sector which include activities of processing, transportation, stockpiling, and commerce. Moreover, PGN also conducts planning, construction, production development, procurement, channeling, and distribution of artificial gas (hydrocarbon gas). Aside from main business activities, PGN conducts other supporting business activities that are directly relevant to and/or supporting the main business activities following prevailing regulatory laws. The value of Scope 2 emissions is rounded to the nearest 10 tCO_2.

Row 6

(7.23.1.1) Subsidiary name

PT Pertamina International Shipping

(7.23.1.2) Primary activity

Select from:

☑ Marine freight

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

1020417.97

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

Pertamina International Shipping (PIS) carries out domestic shipping via sea transport and provides business services relevant to the rental of shipping equipment. The value of Scope 2 emissions is rounded to the nearest 10 tCO_2.
[Add row]

(7.26) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

	Requesting member	Scope of emissions	Allocation level
Row 1	*Select from:*	*Select from:* ☑ Scope 1	*Select from:* ☑ Company wide

[Add row]

(7.27) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Row 1

(7.27.1) Allocation challenges

Select from:

☑ Customer base is too large and diverse to accurately track emissions to the customer level

[Add row]

(7.28) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

	Do you plan to develop your capabilities to allocate emissions to your customers in the future?	Describe how you plan to develop your capabilities
	Select from: ☑ Yes	*We are conducting a scope 3 emission study*

[Fixed row]

(7.29) What percentage of your total operational spend in the reporting year was on energy?

Select from:

☑ More than 75% but less than or equal to 80%

(7.30) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	*Select from:* ☑ Yes
Consumption of purchased or acquired electricity	*Select from:* ☑ Yes
Consumption of purchased or acquired heat	*Select from:* ☑ No
Consumption of purchased or acquired steam	*Select from:* ☑ Yes
Consumption of purchased or acquired cooling	*Select from:* ☑ No
Generation of electricity, heat, steam, or cooling	*Select from:* ☑ Yes

[Fixed row]

(7.30.1) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

3449269

(7.30.1.3) MWh from non-renewable sources

44368746.7

(7.30.1.4) Total (renewable + non-renewable) MWh

47818015.70

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

2219780.93

(7.30.1.3) MWh from non-renewable sources

1918946.44

(7.30.1.4) Total (renewable + non-renewable) MWh

4138727.37

Consumption of purchased or acquired steam

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

75.27

(7.30.1.3) MWh from non-renewable sources

6178100.21

(7.30.1.4) Total (renewable + non-renewable) MWh

6178175.48

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

5041645.86

(7.30.1.4) Total (renewable + non-renewable) MWh

5041645.86

Total energy consumption

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

10710771.06

(7.30.1.3) MWh from non-renewable sources

52465793.35

(7.30.1.4) Total (renewable + non-renewable) MWh

63176564.41
[Fixed row]

(7.30.6) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	*Select from:* ☑ Yes
Consumption of fuel for the generation of heat	*Select from:* ☑ No
Consumption of fuel for the generation of steam	*Select from:* ☑ No
Consumption of fuel for the generation of cooling	*Select from:* ☑ No
Consumption of fuel for co-generation or tri-generation	*Select from:* ☑ No

[Fixed row]

(7.30.7) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

During the reporting year, the Company did not consume any fuels within this category. As a result, there are no associated energy use to be reported for this category

Other biomass

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

3438570.17

(7.30.7.3) MWh fuel consumed for self-generation of electricity

581961.43

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

A total of 3,438,570.17 MWh of other biomass was consumed, of which 581,961.43 MWh was utilized for self-generation of electricity. In Pertamina's context, this category is sourced mainly from biomass from biofuel combustion. This is from the palm oil usage that has not yet been certified

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

During the reporting year, the Company did not consume any fuels within this category. As a result, there are no associated energy use to be reported for this category

Coal

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

During the reporting year, the Company did not consume any fuels within this category. As a result, there are no associated energy use to be reported for this category

Oil

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

44351587.89

(7.30.7.3) MWh fuel consumed for self-generation of electricity

44091851.18

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

A total of 44,351,587.89 MWh of oil was consumed, with approximately 44,091,851.18 MWh used for self-generation of electricity. Within Pertamina, this category is represented by the internal use of refinery fuel oil (FO), diesel, and other petroleum products for captive power plants, refinery boilers, and backup generators across upstream, midstream, and downstream activities.

Gas

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

17158.81

(7.30.7.3) MWh fuel consumed for self-generation of electricity

17058.32

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

A total of 17,158.81 MWh of gas was consumed, almost entirely (17,058.32 MWh) for self-generation of electricity.

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

During the reporting year, the Company did not consume any fuels within this category. As a result, there are no associated energy use to be reported for this category

Total fuel

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

47807316.87

(7.30.7.3) MWh fuel consumed for self-generation of electricity

44690870.93

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.8) Comment

Pertamina’s total fuel consumption reached 47,807,316.87 MWh, largely dominated by oil, followed by biomass and gas. The majority of this energy was utilized for self-generation of electricity.
[Fixed row]

(7.30.9) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

Electricity

(7.30.9.1) Total Gross generation (MWh)

55436908.58

(7.30.9.2) Generation that is consumed by the organization (MWh)

52859661.55

(7.30.9.3) Gross generation from renewable sources (MWh)

11001903.91

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

8490914.86

Heat

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Steam

(7.30.9.1) Total Gross generation (MWh)

2510888.22

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

2510888.22

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Cooling

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0
[Fixed row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Algeria

(7.30.16.1) Consumption of purchased electricity (MWh)

162770

(7.30.16.2) Consumption of self-generated electricity (MWh)

980530.11

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1143300.11

Indonesia

(7.30.16.1) Consumption of purchased electricity (MWh)

3975957.37

(7.30.16.2) Consumption of self-generated electricity (MWh)

51879131.44

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

6178175.48

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

62033264.29
[Fixed row]

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Row 1

(7.45.1) Intensity figure

0.00036

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

27161817.01

(7.45.3) Metric denominator

Select from:
☑ unit total revenue

(7.45.4) Metric denominator: Unit total

75327000000

(7.45.5) Scope 2 figure used

Select from:
☑ Location-based

(7.45.6) % change from previous year

0.87

(7.45.7) Direction of change

Select from:
☑ Increased

(7.45.8) Reasons for change

Select all that apply
☑ Change in boundary

(7.45.9) Please explain

In 2024, the rise in emissions intensity reflects boundary refinements that excluded non-operated and non-leased assets, alongside the addition of several internal operational facilities
[Add row]

(7.52) Provide any additional climate-related metrics relevant to your business.

Row 1

(7.52.1) Description

Select from:
☑ Waste

(7.52.2) Metric value

233108.79

(7.52.3) Metric numerator

Ton waste reused & recycled

(7.52.4) Metric denominator (intensity metric only)

Ton waste generated

(7.52.5) % change from previous year

9.58

(7.52.6) Direction of change

Select from:
☑ Decreased

(7.52.7) Please explain

In 2024, Pertamina generated a total of 233,108.79 tons of hazardous (B3) waste, a decrease compared to 257,818.87 tons in 2023. This reflects a reduction of 24,710.08 tons or 9.58%. The decrease in hazardous waste generation indicates improved waste management practices and efficiency in operational processes. This progress is supported by continuous implementation of waste minimization programs, optimization of raw material usage, and initiatives to reuse and recycle operational waste streams.

Row 2

(7.52.1) Description

Select from:

☑ Energy usage

(7.52.2) Metric value

227435.36

(7.52.3) Metric numerator

Energy use (TJ)

(7.52.4) Metric denominator (intensity metric only)

Oil & gas production (MBOE)

(7.52.5) % change from previous year

3.52

(7.52.6) Direction of change

Select from:

☑ Decreased

(7.52.7) Please explain

This energy use intensity data is retrieved from the Upstream sub-holding. The decrease trend is due to an increase in production.
[Add row]

(7.53) Did you have an emissions target that was active in the reporting year?

Select all that apply
☑ Absolute target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:
☑ Abs 1

(7.53.1.2) Is this a science-based target?

Select from:
☑ No, and we do not anticipate setting one in the next two years

(7.53.1.5) Date target was set

12/31/2009

(7.53.1.6) Target coverage

Select from:
☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)
☑ Methane (CH4)
☑ Nitrous oxide (N2O)

(7.53.1.8) Scopes

Select all that apply
☑ Scope 1

(7.53.1.11) End date of base year

12/30/2010

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

25078000

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

25078000.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2030

(7.53.1.55) Targeted reduction from base year (%)

32

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

17053040.000

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

24377447.01

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

24377447.010

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

8.73

(7.53.1.80) Target status in reporting year

Select from:

☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

This baseline is emission coverage scope 1. The GHG emission reduction targets refer to the Emission Reduction Roadmap, which is based on the 2010 baseline results and the business-as-usual scenario. According to the business-as-usual scenario, it is estimated that our emissions will continue to rise until 2030, reaching

approximately 55 million tonnes of CO2e. Our 32% reduction target refers to this estimation of projected emissions. As a new baseline, PERTAMINA calculated and determined the total CO2eq emission in 2020. The new baseline was established due to the expansion of working areas, the addition of new operating units/subsidiaries, and the reorganization caused by the foundation of Holding and Subholding companies. Prior to 2010, PERTAMINA reported total GHG emissions of 25,078 million tonnes CO2eq, which served as the baseline for measuring the reduction of GHG emissions for Scope 1.

(7.53.1.83) Target objective

This target is aimed to achieve 32% emission reduction by 2030 as an effort to support Nationally Determined Contributions of Indonesia to achieve its Net Zero Emissions target by 2060.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

Pertamina intends to concentrate on the reduction of flare gas utilization, energy efficiency, fuel gasification, application of carbon capture, development of low-carbon technology, transition to new and renewable energy (NRE), and clean and environmentally friendly production in order to reach its 2030 goal. In 2024, PERTAMINA achieved a cumulative GHG emission reduction of 1,711,306 tCO_2e since 2010. Of this total, 98% (1,676,277 tCO_2e) was contributed by Scope 1, while 2% (35,029 tCO_2e) came from Scope 2. Pertamina intends to concentrate on the reduction of flare gas utilization, energy efficiency, fuel gasification, application of carbon capture, development of low-carbon technology, transition to new and renewable energy (NRE), and clean and environmentally friendly production in order to reach its 2030 goal. The emission reduction initiatives that contributed the most to reaching this objective are (1) Optimization of Gas Turbine operation to make gas fuel efficient in OSES, (2) Reduction Flaring with Steam Atomizing Technology, (3) Minimize Flare to Fuel Gas Program, (3) Optimizing AC temperature and optimizing the operational pattern of SH Gas management facilities, (4) The Speed Adjustment of ship operations, (5) The SPBU/GES PLTS (solar PV) initiative has been installed on office roofs at several gas stations

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

Row 2

(7.53.1.1) Target reference number

Select from:

☑ Abs 2

(7.53.1.2) Is this a science-based target?

Select from:

☑ No, and we do not anticipate setting one in the next two years

(7.53.1.5) Date target was set

12/31/2019

(7.53.1.6) Target coverage

Select from:
☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

Select all that apply
☑ Carbon dioxide (CO2)
☑ Methane (CH4)
☑ Nitrous oxide (N2O)

(7.53.1.8) Scopes

Select all that apply
☑ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:
☑ Location-based

(7.53.1.11) End date of base year

12/30/2020

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

439510

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

439510.000

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2030

(7.53.1.55) Targeted reduction from base year (%)

32

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

298866.800

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

2784370

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

2784370.000

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

-1667.24

(7.53.1.80) Target status in reporting year

Select from:

☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

In 2021, PERTAMINA calculated and determined the total CO2eq emission as the new baseline. The new baseline was set due to the business development with additional working areas, new operating units/subsidiaries, and reorganization with the Holding and Subholding companies' formation. Previously, PERTAMINA recorded total GHG emissions of 25,078 million tons CO2eq in 2010, which was determined as the baseline for the measurement of GHG emission reduction for Scope 1. Pertamina determined the new emission base year of scope 1 & 2 in 2020, with total emissions of 21359810 metric tons of CO2e. Pertamina has changed the target to a 32% emission reduction in 2030.

(7.53.1.83) Target objective

This target is aimed to achieve 32% emission reduction by 2030 as an effort to support Nationally Determined Contributions of Indonesia to achieve its Net Zero Emissions target by 2060.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

Pertamina intends to concentrate on the reduction of flare gas utilization, energy efficiency, fuel gasification, application of carbon capture, development of low-carbon technology, transition to new and renewable energy (NRE), and clean and environmentally friendly production in order to reach its 2030 goal. In 2024, PERTAMINA achieved a cumulative GHG emission reduction of 1,711,306 tCO_2e since 2010. Of this total, 98% (1,676,277 tCO_2e) was contributed by Scope 1, while 2% (35,029 tCO_2e) came from Scope 2. Pertamina intends to concentrate on the reduction of flare gas utilization, energy efficiency, fuel gasification, application of carbon capture, development of low-carbon technology, transition to new and renewable energy (NRE), and clean and environmentally friendly production in order to reach its 2030 goal. The emission reduction initiatives that contributed the most to reaching this objective are (1) Optimization of Gas Turbine operation to make gas fuel efficient in OSES, (2) Reduction Flaring with Steam Atomizing Technology, (3) Minimize Flare to Fuel Gas Program, (3) Optimizing AC temperature and optimizing

the operational pattern of SH Gas management facilities, (4) The Speed Adjustment of ship operations, (5) The SPBU/GES PLTS (solar PV) initiative has been installed on office roofs at several gas stations

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

[Add row]

(7.54) Did you have any other climate-related targets that were active in the reporting year?

Select all that apply

☑ Targets to increase or maintain low-carbon energy consumption or production

☑ Targets to reduce methane emissions

☑ Net-zero targets

☑ Other climate-related targets

(7.54.1) Provide details of your targets to increase or maintain low-carbon energy consumption or production.

Row 1

(7.54.1.1) Target reference number

Select from:

☑ Low 3

(7.54.1.2) Date target was set

12/31/2019

(7.54.1.3) Target coverage

Select from:

☑ Organization-wide

(7.54.1.4) Target type: energy carrier

Select from:

☑ Electricity

(7.54.1.5) Target type: activity

Select from:

☑ Production

(7.54.1.6) Target type: energy source

Select from:

☑ Renewable energy source(s) only

(7.54.1.7) End date of base year

12/30/2020

(7.54.1.8) Consumption or production of selected energy carrier in base year (MWh)

4618270

(7.54.1.9) % share of low-carbon or renewable energy in base year

0

(7.54.1.10) End date of target

12/30/2030

(7.54.1.11) % share of low-carbon or renewable energy at end date of target

100

(7.54.1.12) % share of low-carbon or renewable energy in reporting year

80.92

(7.54.1.13) % of target achieved relative to base year

80.92

(7.54.1.14) Target status in reporting year

Select from:

☑ Underway

(7.54.1.16) Is this target part of an emissions target?

No, this is the company's initiative to plan for the energy transition to 2060 and help the country achieve its NDC targets.

(7.54.1.17) Is this target part of an overarching initiative?

Select all that apply

☑ Other, please specify :Indonesia’s Nationally Determined Contribution (“NDC”)

(7.54.1.19) Explain target coverage and identify any exclusions

The target covers the organization-wide electricity generation activities of Pertamina Group done by Power & NRE Subholding. The scope focuses exclusively on renewable and low-carbon energy generation such as geothermal, bioenergy, and solar power. No material exclusions are identified in the coverage of this target, and biogenic emissions are not applicable for this target reporting.

(7.54.1.20) Target objective

This target is aimed to expand the production of renewable energy as an effort to support Nationally Determined Contributions of Indonesia to achieve its Net Zero Emissions target by 2060.

(7.54.1.21) Plan for achieving target, and progress made to the end of the reporting year

Pertamina's plan includes expanding its New and Renewable Energy (NRE) portfolio, diversifying energy sources, and integrating innovations such as green hydrogen development. Expansion efforts focus on geothermal as the backbone, while also scaling solar, bioenergy, and other clean energy initiatives under the Power & NRE Subholding.
[Add row]

(7.54.2) Provide details of any other climate-related targets, including methane reduction targets.

Row 1

(7.54.2.1) Target reference number

Select from:
☑ Oth 1

(7.54.2.2) Date target was set

12/31/2020

(7.54.2.3) Target coverage

Select from:
☑ Organization-wide

(7.54.2.4) Target type: absolute or intensity

Select from:
☑ Absolute

(7.54.2.5) Target type: category & metric (target numerator if reporting an intensity target)

Methane reduction target
☑ Total methane emissions in m3

(7.54.2.7) End date of base year

12/30/2021

(7.54.2.8) Figure or percentage in base year

0

(7.54.2.9) End date of target

12/30/2030

(7.54.2.10) Figure or percentage at end of date of target

40

(7.54.2.11) Figure or percentage in reporting year

9

(7.54.2.12) % of target achieved relative to base year

22.5000000000

(7.54.2.13) Target status in reporting year

Select from:
☑ Underway

(7.54.2.15) Is this target part of an emissions target?

No, this is part of emissions target related to methane emission reduction

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it’s not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

Target coverage includes methane emission from upstream business processes. Sources of emission covered will be from combustion, routine flaring, non-routine flaring, safety flaring, venting and process, dan fugitive.

(7.54.2.19) Target objective

Achieve 40% Methane emission reduction refer to 2021 baseline.

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

Pertamina has established a methane reduction plan as part of its long-term decarbonization pathway. The strategy includes strategy includes achieving absolute methane reduction refering to 2021 baseline. In 2024, Pertamina continued to integrate methane management into operational excellence, supported by the Methane Commitment under OGDC framework. Progress is reflected in reduced methane emission through various strategies in both operational and non-operational.

Row 2

(7.54.2.1) Target reference number

Select from:
☑ Oth 2

(7.54.2.2) Date target was set

12/31/2022

(7.54.2.3) Target coverage

Select from:
☑ Organization-wide

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Absolute

(7.54.2.5) Target type: category & metric (target numerator if reporting an intensity target)

Energy productivity

☑ Other, energy productivity, please specify :MMSCFD

(7.54.2.7) End date of base year

12/30/2023

(7.54.2.8) Figure or percentage in base year

41.1

(7.54.2.9) End date of target

12/30/2030

(7.54.2.10) Figure or percentage at end of date of target

0

(7.54.2.11) Figure or percentage in reporting year

1.67

(7.54.2.12) % of target achieved relative to base year

95.9367396594

(7.54.2.13) Target status in reporting year

Select from:

☑ Underway

(7.54.2.15) Is this target part of an emissions target?

No, this is part of emissions target related to Zero Routine Flaring

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

Target coverage includes achieving zero routine flaring in our operational activity.

(7.54.2.19) Target objective

Achieve 100% Zero Routine Flaring in Operational Activity.

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

Pertamina has established a methane reduction plan as part of its long-term decarbonization pathway. The strategy includes achieving Zero Routine Flaring across 100% of operating areas, reducing venting, optimizing gas capture, and implementing advanced technologies in upstream operations. In 2024, Pertamina Group consistently reduces flare gas from all operational lines of the Company, in line with the Zero Routine Flaring (ZRF) Initiative. In 2024, the total volume of flare gas in operating areas in Indonesia reached 2.35 million tons CO2e, a decrease from 2.96 million tons CO2e in 2023, and accounted for 9.7% of total GHG emissions. During 2024, Pertamina Group conducted a series of zero routine flaring initiatives, including flaring gas utilization and commercialization which successfully reduced flare gas from previous year by 0.61 tons.
[Add row]

(7.54.3) Provide details of your net-zero target(s).

Row 1

(7.54.3.1) Target reference number

Select from:

☑ NZ1

(7.54.3.2) Date target was set

12/31/2019

(7.54.3.3) Target Coverage

Select from:

☑ Organization-wide

(7.54.3.4) Targets linked to this net zero target

Select all that apply

☑ Abs1

☑ Abs2

(7.54.3.5) End date of target for achieving net zero

12/30/2060

(7.54.3.6) Is this a science-based target?

Select from:

☑ No, but we are reporting another target that is science-based

(7.54.3.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.54.3.9) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

(7.54.3.10) Explain target coverage and identify any exclusions

Pertamina has set a target of achieving net zero emission by 2060. In addition to having a target, in 2022 Pertamina has made a Net Zero Emission Roadmap. The scope of Pertamina's net zero emission target includes scope 1 and 2 with a boundary to operational control.

(7.54.3.11) Target objective

This target is aimed as an effort to support Nationally Determined Contributions of Indonesia to achieve its Net Zero Emissions target by 2060.

(7.54.3.12) Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target?

Select from:

☑ Yes

(7.54.3.13) Do you plan to mitigate emissions beyond your value chain?

Select from:

☑ No, but we plan to within the next two years

(7.54.3.14) Do you intend to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation?

Select all that apply

☑ Yes, we plan to purchase and cancel carbon credits for neutralization at the end of the target

(7.54.3.15) Planned milestones and/or near-term investments for neutralization at the end of the target

Pertamina has established planned milestones and made near-term investments in line with its neutralization objectives to achieve climate neutrality. These milestones may include specific goals for reducing greenhouse gas emissions, transitioning to renewable energy sources, and implementing sustainable practices across all operations. Investments with a short-term horizon may involve financing renewable energy initiatives and enhancing energy efficiency. Pertamina intends to invest 2-3 Billion USD until 2030 to decarbonize our business. Moreover, we also plan to invest 15-25 Billion USD from 2031 to 2060 to decarbonize and neutralize our emissions.

(7.54.3.17) Target status in reporting year

Select from:
☑ Underway

(7.54.3.19) Process for reviewing target

The company reviews its target achievement annually through carbon emission reporting and the evaluation of initiatives supporting Net Zero, ensuring progress aligns with strategic objectives.
[Add row]

(7.55) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Select from:
☑ Yes

(7.55.1) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e
Under investigation	*22*	*`Numeric input*
To be implemented	*2*	*56970792*
Implementation commenced	*0*	*0*
Implemented	*3*	*25191.85*
Not to be implemented	*0*	*`Numeric input*

[Fixed row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes
☑ Process optimization

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

22335.23

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in 1.2)

3801244

(7.55.2.6) Investment required (unit currency – as specified in 1.2)

2969580

(7.55.2.7) Payback period

Select from:
☑ 4-10 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ 16-20 years

(7.55.2.9) Comment

PT Perta Arun Gas requires 26 MW of power to support its operational activities. Until 2023, the Company utilized three (3) power generators, each with an installed capacity of 22.5 MW and each unit was only able to deliver 18 MW. Due to declining performance, a revitalization of the relay protection system and load shedding system was carried out. Early 2024, PT Perta Arun Gas has been operating with two (2) power generators equipped with revitalized relay protection and load shedding systems to meet its operational needs.

Row 2

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes

☑ Smart control system

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

440.98

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in 1.2)

140398

(7.55.2.6) Investment required (unit currency – as specified in 1.2)

534633

(7.55.2.7) Payback period

Select from:

☑ 21-25 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ Ongoing

(7.55.2.9) Comment

Optimizing fuel consumption for refueler and dispenser units is carried out through the adoption of a digital application dedicated to aircraft refueling services. This system allows operators to plan and determine the most efficient routes for delivering aviation fuel directly to aircraft, thereby reducing unnecessary mileage and idle time. In addition to lowering fuel use, the initiative enhances operational efficiency, minimizes greenhouse gas emissions, and supports the company's broader commitment to sustainable aviation service practices.

Row 3

(7.55.2.1) Initiative category & Initiative type

Low-carbon energy consumption

☑ Solar PV

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

2415.64

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 2 (location-based)

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in 1.2)

3483

(7.55.2.6) Investment required (unit currency – as specified in 1.2)

201551

(7.55.2.7) Payback period

Select from:

☑ 21-25 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ Ongoing

(7.55.2.9) Comment

The installation of solar power plants (photovoltaic systems) at both operational sites and office buildings provides an alternative source of electricity alongside the supply from PLN. Implemented in collaboration with PT Pertamina Power Indonesia, this initiative reduces dependency on conventional grid electricity, promotes the use of renewable energy, and contributes to lowering operational carbon emissions. Beyond environmental benefits, the program also demonstrates the company's commitment to innovation and sustainable energy transition within its operations.
[Add row]

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

Select from:

☑ Employee engagement

(7.55.3.2) Comment

Pertamina conducts employee engagement with internal campaign programs and socialization meetings. In the meeting, the President Director was involved in discussions related to emission savings. Employee socialization is carried out through email broadcasts email, articles, ESG Insight, websites, and internal events.

Row 2

(7.55.3.1) Method

Select from:

☑ Dedicated budget for low-carbon product R&D

(7.55.3.2) Comment

Research and Development is key to transforming into an integrated energy company for a low-carbon. In 2030, Pertamina has a target to allocate a minimum of 44% of realized investment and operational budget for R&D focus on decarbonization.

Row 3

(7.55.3.1) Method

Select from:

☑ Dedicated budget for other emissions reduction activities

(7.55.3.2) Comment

In other aspects, Pertamina also has budgets related to environmental aspects, such as recycling and reuse of waste and reforestation.

Row 4

(7.55.3.1) Method

Select from:

☑ Dedicated budget for energy efficiency

(7.55.3.2) Comment

The Company reduced energy consumption through conservation and efficiency initiatives. Energy efficiency comes from fuel, electricity, heating, cooling, and steam efficiency, which must meet three criteria, including specific interventions that have reduced energy consumption. Pertamina continues to carry out a series of energy efficiency initiatives in the operating units in each Subholding. Therefore Pertamina dedicated the environmental cost to the prevention and handling of environmental impacts, such as energy efficiency, use of renewable energy, low-carbon product certification, environmental audit activities, management of toxic and hazardous waste (B3), recycling and reuse of waste, management water and other operating expenses. Total energy consumption in 2024 reached 190,800.79 TeraJoule (TJ), a decrease of 4.2% from 198,398.07 TJ in 2023. Total NRE use in 2024 reached 12,946.89 TJ or 6.78% of total energy use, and an increase of 16.12% from 11,143.90 TJ in 2023. Total energy sales in 2024 reached 18,317.29 TJ

Row 5

(7.55.3.1) Method

Select from:

☑ Compliance with regulatory requirements/standards

(7.55.3.2) Comment

Government laws, regulations, policies, commitments, and actions on climate change and the transition to a lower-carbon economy, including the rate of change to any of these factors and the transition rate itself, could impact our business. Some regulation that drives Pertamina to do emission reduction activities are the Company Performance Rating Program in Environmental Management (PROPER) of the Ministry of Environment and Forestry, which is an external evaluation mechanism for environmental management performance, the government's commitment to achieving the GHG emission reduction target of 32 percent by 2030, as well as commitment on planned to increase NRE mix by 2050 aggressively – maximizing the Country's vast potential of renewable sources.

Row 6

(7.55.3.1) Method

Select from:

☑ Partnering with governments on technology development

(7.55.3.2) Comment

Pertamina is collaborating on the development and production of green hydrogen from geothermal for applications in domestic and international markets, Carbon Capture, Utilization, and Storage (CCUS), and Solar Power, which involves Pertamina, the Ministry of Energy and Mineral Resources, and other institutions.

Row 7

(7.55.3.1) Method

Select from:

☑ Marginal abatement cost curve

(7.55.3.2) Comment

Pertamina evaluates all projects with the potential for emission reduction including decarbonization and green business development. This evaluation includes all sub-holdings and is embedded into the Company's long-term strategic plan.
[Add row]

(7.73) Are you providing product level data for your organization’s goods or services?

Select from:

☑ No, I am not providing data

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:

☑ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ The IEA Energy Technology Perspectives Clean Energy Technology Guide

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Solar PV

(7.74.1.4) Description of product(s) or service(s)

The Solar Power Plants (PLTS) managed by PNRE are used to meet the electricity needs of several offtakers. In addition to generating electricity, PLTS plays a crucial role in supporting the development of green energy. In 2024, PNRE Subholding has built over 250 PLTS locations across Indonesia, with a total installed capacity reaching 54,32 MWp.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ No

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.07

Row 2

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ The IEA Energy Technology Perspectives Clean Energy Technology Guide

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Geothermal electricity

(7.74.1.4) Description of product(s) or service(s)

Geothermal power generation is managed by its subsidiary, Pertamina Geothermal Energy (PGE). As of 2024, there were six (6) geothermal working areas operated by PGE: Sibayak, Kamojang, Lahendong, Ulubelu, Karaha, and Lumut Balai. The total installed capacity of these six working areas in 2024 reached 727,50 MW. In 2024, the electricity generation from PGE's six operational areas amounted to 4,827,221 MWh, showing a 1.96% increase (equivalent to 92,654 MWh) compared to the 2023 production of 4,734,568 MWh.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ No

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.31

Row 3

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ The IEA Energy Technology Perspectives Clean Energy Technology Guide

(7.74.1.3) Type of product(s) or service(s)

Biofuels

☑ Anaerobic digestor

(7.74.1.4) Description of product(s) or service(s)

Pertamina sub-holding carried out various initiatives related to the development of renewable energy, including the installation of Biogas power plants in various regions in Indonesia. The biogas power plant (PLTBg) managed by PNRE subholding are utilized to meet the electricity needs of several offtakers. In addition to generating electricity, PLTBg plays an important role in supporting the development of green energy through the utilization of palm oil mill effluent (POME). As of the end of November 2024, PNRE had operated PLTBg with a total installed capacity of 4.4 MWp. Biogas is formed naturally when palm oil liquid waste (POME) is decomposed under anaerobic conditions. Without control, biogas is a major contributor to global climate change. Biogas power plants take advantage of the natural decomposition process to generate electricity. This waste produced during palm oil production is a large energy source that has not been widely used in Indonesia. Turning POME into biogas can produce energy while reducing the impact of global climate change.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ No

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.001

Row 5

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ The IEA Energy Technology Perspectives Clean Energy Technology Guide

(7.74.1.3) Type of product(s) or service(s)

Heat

☑ Geothermal heat management

(7.74.1.4) Description of product(s) or service(s)

Pertamina successfully identified 70 geothermal areas through exploration and exploitation activities, the generated steam can be utilized to generate electricity.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ No

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.21
[Add row]

(7.79) Has your organization retired any project-based carbon credits within the reporting year?

Select from:

☑ Yes

(7.79.1) Provide details of the project-based carbon credits retired by your organization in the reporting year.

Row 1

(7.79.1.1) Project type

Select from:

☑ Geothermal

(7.79.1.2) Type of mitigation activity

Select from:

☑ Emissions reduction

(7.79.1.3) Project description

The Lahendong Geothermal Power Plant Project Units 5 & 6 is a renewable energy development initiative located in the Tompaso Geothermal Area, North Sulawesi Province, Indonesia. Developed and operated by PT Pertamina Geothermal Energy (PGE), a subsidiary of PNRE Subholding, the project covers upstream and downstream activities, including drilling, construction, and operation of two new geothermal power plant units with a total net capacity of 40 MW. The project contributes to Indonesia's national energy supply by utilizing clean, indigenous, and renewable geothermal resources, thereby supporting sustainable growth and reducing dependence on fossil fuels. The project generates approximately 315,360 MWh of renewable electricity per year, which is exported to the Sulutgo grid (North Sulawesi and Gorontalo) via a 150 kV transmission line connected to the Kawangkoan substation, located about 2 km from the site. By displacing fossil fuel-based electricity generation, the project achieves significant greenhouse gas (GHG) emission reductions, calculated using the net electricity generation and the local grid emission factor. Through these mitigation actions, the project directly supports Indonesia's efforts to lower carbon dioxide (CO_2) emissions and contributes to global climate change mitigation.

(7.79.1.4) Credits retired by your organization from this project in the reporting year (metric tons CO2e)

863295

(7.79.1.5) Purpose of retirement

Select from:

☑ Voluntary offsetting

(7.79.1.6) Are you able to report the vintage of the credits at retirement?

Select from:

☑ Yes

(7.79.1.7) Vintage of credits at retirement

2020

(7.79.1.8) Were these credits issued to or purchased by your organization?

Select from:

☑ Issued

(7.79.1.9) Carbon-crediting program by which the credits were issued

Select from:

☑ Other regulatory carbon crediting program, please specify :(National Regystry System for Climate Change Control (Sistem Registri Nasional Pengendalian Perubahan Iklim/SRN PPI)

(7.79.1.10) Method the program uses to assess additionality for this project

Select all that apply

☑ Investment analysis

☑ Barrier analysis

(7.79.1.11) Approaches by which the selected program requires this project to address reversal risk

Select all that apply

☑ No risk of reversal

(7.79.1.12) Potential sources of leakage the selected program requires this project to have assessed

Select all that apply

☑ Not assessed

(7.79.1.13) Provide details of other issues the selected program requires projects to address

PGE's carbon credits were first verified under the CDM using investment and barrier analysis, and later re-verified through Indonesia's National Registry System for Climate Change Control (SRN PPI) for domestic transactions. The SRN PPI, established under Presidential Regulation No. 98/2021, is a national platform that records mitigation and adaptation actions as well as carbon economic value, providing government recognition toward NDC achievement. It also ensures transparency by preventing double counting or claims, enabling transfer tracking, and supporting further policy development. For emission reduction and GHG removal calculations reported in SRN PPI, PGE refers to SK.38/PPI/IGAS/PPI.2/11 of 2020.

(7.79.1.14) Please explain

Carbon credit sales are managed by Pertamina NRE, the Power & New Renewable Energy (PNRE) Subholding, with PGE serving as the carbon supply provider. These transactions generate an additional revenue stream for PGE while contributing to corporate, industrial, and national efforts to reduce GHG emissions and achieve net zero by 2060. On 26 September 2023, with the launch of the Indonesia Carbon Exchange (IDX Carbon), PGE became the first company to supply carbon units to the Exchange. Trading on IDX Carbon is linked to the Lahendong Units 5 and 6 project, developed in collaboration with Pertamina NRE since April 2023. By year-end 2024, PGE sold 863,295 tCO2e Verified Carbon Units (VCUs) through IDX Carbon, out of 864,209 tCO2e VCUs issued.
[Add row]

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:
☑ Yes

(9.1.1) Provide details on these exclusions.

Row 1

(9.1.1.1) Exclusion

Select from:
☑ Specific groups, businesses, or organizations

(9.1.1.2) Description of exclusion

Subsidiaries Services/Portfolio

(9.1.1.3) Reason for exclusion

Select from:
☑ Data is not available

(9.1.1.4) Primary reason why data is not available

Select from:
☑ We are planning to collect the data within the next two years

(9.1.1.7) Percentage of water volume the exclusion represents

Select from:

☑ Less than 1%

(9.1.1.8) Please explain

Activities in the business group are not the core business of Pertamina group, which Pertamina's core business is an oil and gas company. We cannot predict the exact water data from this business activity because the business activities in this group consist of subsidiaries in the insurance, trading, hospitality, property, catering, aviation, healthcare, and training and consulting sectors. Which the contribution of revenues from this subsidiary is 0,92% of Pertamina's total revenues. [Add row]

(9.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:
☑ 76-99

(9.2.2) Frequency of measurement

Select from:
☑ Monthly

(9.2.3) Method of measurement

Using flow meters

(9.2.4) Please explain

We measure water withdrawals through flow meters. Each location records monthly water volumes, which we then combine annually at the corporate level. Although future water usage is expected to be similar, we expect a decrease in freshwater withdrawals from limited resources by 2030.

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Using flow meters

(9.2.4) Please explain

Our sites report water withdrawals by source as measured through flow meters. In 2024, the breakdown of water withdrawal by source is as follows: surface freshwater (49,01%), seawater (47,62%), groundwater (2,45%), third-party sources (0.91%), and harvested rain water (0.02%). This detailed analysis allows Pertamina to determine priority areas for improvement and assess its overall vulnerability to potential dependency on water sources.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Water withdrawal quality is monitored at the site level using water samplers and lab testing. Parameters measured such as TSS, Turbidity, pH, TDS, temperature, as well as inorganic and nutrient substances.

(9.2.4) Please explain

Pertamina closely monitors withdrawal parameters at all sites to ensure compliance with operational requirements and environmental regulations. Water quality analysis is conducted by in house laboratory accredited by the National Accreditation Commitee - ISO 17025.

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

Using flow meters

(9.2.4) Please explain

We measure and monitor water discharge volume on a daily basis, adhering to the specific environmental permit requirements of each operational unit. Considering the diverse nature of Pertamina's business, discharge volumes also vary. However, we consistently ensure strict compliance with regulatory standards, which are subject to specific water discharge limits. In 2024, water discharge was distributed as follows: surface freshwater (23.37%), seawater (74.72%), groundwater (1.18%), and third party (0.74%).

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

Using flow meters

(9.2.4) Please explain

Pertamina measures and monitors water discharges - volume by destination, using the same methodology used for total water discharge measurement, which uses the flow meter and is monitored by daily. The frequency of these measurements is determined by the specific environmental permit requirements of each operational unit, and all discharges are subject to applicable limits. In 2024, the breakdown of discharge volumes by source consisted of surface freshwater (23,37%), sea water (74,72%), groundwater (1,18%), and third party distribution (0,74%).

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☑ Not monitored

(9.2.4) Please explain

We calculate both inlet and outlet volumes of treated water discharges to ensure that the outlet volumes comply with the applicable discharge requirements. This ensures that treated water released from our facilities is properly managed and compliant with regulations.

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Water discharge quality – by standard effluent parameters is monitored at the site level using water samplers and lab testing.

(9.2.4) Please explain

Pertamina conducts monthly monitoring of water quality in discharge waters, focusing on key parameters such as BOD, oil and grease, chemical oxygen demand (COD), sulfide, ammonia, phenol, temperature, pH, total coliform, and total suspended solids (TSS). In 2024, our discharge water quality has consistently met or exceeded the regulatory standards applicable to each operational area. Compliance reports have been reported to the relevant authorities.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☑ Not relevant

(9.2.4) Please explain

Emissions to water (nitrates, phosphates, pesticides, and other priority substances) are not relevant to Pertamina Group's operations. We comply with strict regulations on maximum water discharge limits, and our discharge volumes consistently remain well below the regulatory thresholds. The quality of our discharged water also consistently meets the required standards for substances and pollutants.

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Other, please specify :Monthly & Daily

(9.2.3) Method of measurement

Temperature parameters are monitored at the site level through monthly laboratory testing, and additionally monitored daily using temperature gauges. Temperature is also included as part of the overall water quality analysis.

(9.2.4) Please explain

Daily monitoring is conducted by the in-house laboratory, while monthly monitoring is carried out by an external accredited laboratory.

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Water consumption is calculated using a water balance, considering both water withdrawals and discharges.

(9.2.4) Please explain

Pertamina conducts monthly monitoring of total water consumption volume across all operational areas. The results of this monitoring are submitted to the governance body in compliance with environmental and water permits.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

The measurement method will vary depending on the operation area and recycling initiatives. Some sites use flow meters, some use the assumption of the water reduction from the reduction initiative, and others estimate the amount reused based on the reduction of water withdrawals.

(9.2.4) Please explain

In addition to managing and reducing water consumption, PERTAMINA prioritizes water reuse initiatives. Reuse water utilization is closely monitored on a monthly basis to ensure its alignment with our sustainability objectives. In upstream operations, reuse water specifically refers to produce water that is re-injected for enhanced oil recovery purposes.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Pertamina's medical team conducts monthly inspections, supported by internal and external health and safety audits.These measures help ensure that WASH services are fully functioning, safely managed, and consistently compliant with legal standards, while supporting a safe and healthy workplace for all employees.

(9.2.4) Please explain

Pertamina recognizes the critical role of WASH in ensuring employee health and safety. Aligned with ISO 14001, ISO 45001, and relevant regulations, Pertamina is committed to providing access to safe water, sanitation, and hygiene facilities in the workplace.
[Fixed row]

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

729699.41

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Change in accounting methodology

(9.2.2.4) Five-year forecast

Select from:

☑ About the same

(9.2.2.5) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.2.6) Please explain

Total water withdrawals across Pertamina's operations increased by 9.07% to 729,699.41 megaliters in 2024. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed to the overall increase. From Pertamina Geothermal Energy (PGE), total water extraction in 2024 amounted to 393.23 megaliters, a 32% increase from 2023 due to drilling activities in Kamojang, Karaha, and Lahendong areas, while routine operational and domestic water use remained similar to 2023. In Pertamina's upstream activity, crude oil and gas production increased slightly from 1,043.73 to 1,044.60 thousand barrels (+0.08%), which contributed modestly to additional water demand. In one of Pertamina's business processes, there was an expansion project in the Kilang Pertamina Balikpapan (KPB) refinery in 2024, where facilities were expanded to increase production capacity from 260 thousand to 360 thousand barrels per day. Looking ahead, water withdrawals are projected to remain about the same over the next five years, with any additional increase expected to be less than 5%. Efficiency and water management programs continue to mitigate potential substantive impacts from high water demand, ensuring sustainable water use despite facility expansions and variations in production activities.

Total discharges

(9.2.2.1) Volume (megaliters/year)

475136.54

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.2.4) Five-year forecast

Select from:

☑ About the same

(9.2.2.5) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.2.6) Please explain

Total water discharges across Pertamina's operations increased by approximately 8.59% to 475,136.54 megaliters in 2024. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity and environmental factors also contributed to the overall increase. The higher rainfall in 2024 resulted in increased runoff, which entered exploration drainage systems and contributed to higher effluent volumes. In addition, increased production levels led to greater water use, thereby increasing discharge volumes. Furthermore, in one of Pertamina's business processes, an expansion project in the Kilang Pertamina Balikpapan (KPB) refinery in Kalimantan raised production capacity from 260 thousand to 360 thousand barrels per day, which also contributed to the observed increase in discharges. Looking ahead, water discharges are projected to remain about the same over the next five years, with any additional increase expected to be less than 5%. Pertamina continues to implement efficiency and water management programs to mitigate potential substantive impacts, ensuring sustainable water use despite facility expansions, production growth, and environmental variability.

Total consumption

(9.2.2.1) Volume (megaliters/year)

254215.08

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.2.4) Five-year forecast

Select from:

☑ About the same

(9.2.2.5) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.2.6) Please explain

Total water consumption across Pertamina's operations increased by approximately 9.927%, to 254,215.08 megaliters in 2024. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed to the overall increase. From Pertamina Geothermal Energy (PGE), total water extraction in 2024 amounted to 393.23 megaliters, a 32% increase from 2023 due to drilling activities in Kamojang, Karaha, and Lahendong areas, while routine operational and domestic water use remained similar to 2023. In one of Pertamina's business processes, there was an expansion project in the Kilang Pertamina Balikpapan (KPB) refinery in 2024, where facilities were expanded to increase production capacity from 260 thousand to 360 thousand barrels per day. Looking ahead, water consumption are projected to remain about the same over the next five years, with any additional increase expected to be less than 5%. Efficiency and water management programs continue to mitigate potential substantive impacts from high water demand, ensuring sustainable water use despite facility expansions and variations in production activities.
[Fixed row]

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☑ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

294329.61

(9.2.4.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.4.5) Five-year forecast

Select from:

☑ About the same

(9.2.4.6) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

40.34

(9.2.4.8) Identification tool

Select all that apply

☑ WRI Aqueduct

☑ Other, please specify :Pertamina Water Risk Tool

(9.2.4.9) Please explain

The WRI Aqueduct was the sole method used to identify water-stressed locations in 2023. Beginning in 2024, Pertamina improved its methodology by incorporating the Pertamina Water Risk Tool (PWRT) alongside WRI Aqueduct, which facilitated more thorough assessments. This led to a quantified withdrawal volume of 294,329.61 megaliters, which was higher than the previous year as a result of improved assessment coverage and increased business activity. Several operational

sites were identified as being situated in water-stressed basins as of 2024. In order to reduce risks, Pertamina implements water efficiency initiatives throughout its operations. These initiatives include the optimization of recycled water utilization, the use of lower-quality water when feasible, and the implementation of innovative technologies for water resource management. Despite the fact that expansion projects increase production capacity, efficiency and recycling programs assist in maintaining a balance between long-term resource sustainability and operational needs. With regard to the future, it is anticipated that withdrawals from water-stressed regions will remain relatively consistent over the next five years, with any further increase anticipated to be below 5%. Pertamina has also established a long-term objective to reduce freshwater consumption in water-stressed areas by 6% by 2030, thereby reaffirming its dedication to the proactive management of water-related risks, operational resilience, and sustainable water use.
[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:
☑ Relevant

(9.2.7.2) Volume (megaliters/year)

357595.95

(9.2.7.3) Comparison with previous reporting year

Select from:
☑ Higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:
☑ Change in accounting methodology

(9.2.7.5) Please explain

Total withdrawals of fresh surface water in 2024 were 357,595.95 megaliters, representing a 7.69% increase compared to 2023. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed. At Pertamina Geothermal Energy (PGE), water extraction rose 32% due to drilling in Kamojang, Karaha, and Lahendong, while routine operational and domestic use remained stable. Expansion in SH IML (Integrated Marine Logistics) also added to the total. In upstream operations under Pertamina Hulu Energi (PHE), crude oil and gas production rose slightly from 1,043.73 to 1,044.60 thousand barrels (+0.08%), contributing modestly to water demand. These factors collectively explain the observed increase, while methodological refinements ensured more comprehensive reporting of water use across Pertamina's business units.

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

347467.74

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.7.5) Please explain

Total withdrawals of brackish surface water and seawater in 2024 were 347,467.74 megaliters, a 10.93% increase from 2023. This rise is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed. In Subholding Refining & Petrochemical, seawater use for Residual Fluid Catalytic Cracking (RFCC), cooling water, and other utilities drove higher withdrawals. In upstream operations under Pertamina Hulu Energi (PHE), crude oil and gas production rose slightly from 1,043.73 to 1,044.60 thousand barrels (+0.08%), contributing modestly to additional seawater demand. Internal refinements also ensured inclusion of SH IML (Integrated Marine Logistics) water data at the consolidated level in 2024. Though the contribution is small, this strengthens accuracy and provides a more comprehensive representation of seawater withdrawals.

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

17850.42

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.7.5) Please explain

Certain operational sites remain dependent on renewable groundwater due to their remote locations and specific technical production requirements. However, total withdrawals in 2024 were about the same as the previous year, as efficiency programs offset potential increases. Pertamina has implemented water recycling initiatives and expanded the use of seawater as an alternative for both domestic and production needs, thereby reducing reliance on groundwater and ensuring withdrawals remain stable despite ongoing operational activities.

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

Pertamina does not withdrawn water from non-renewable groundwater sources and has no plans to do so in the future. The company remains committed to sustainable water management practices throughout its value chain.

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

773228.59

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

Produced/entrained water withdrawal is utilized in upstream and geothermal operations to sustain reservoir pressures during exploration activities. In 2024, volumes increased slightly by 2.72% compared to 2023, primarily due to expanded business activities. This variation is considered broadly stable.

Third party sources

(9.2.7.1) Relevance

Select from:
☑ Relevant

(9.2.7.2) Volume (megaliters/year)

6628.54

(9.2.7.3) Comparison with previous reporting year

Select from:
☑ Much higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:
☑ Change in accounting methodology

(9.2.7.5) Please explain

Total withdrawals from third-party sources in 2024 were 6,628.54 megaliters, representing a 16.68% increase compared to 2023. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed to the overall increase. In Pertamina Geothermal Energy (PGE), water extraction increased by 32% due to drilling activities in Kamojang, Karaha, and Lahendong areas, while routine operational and domestic water use remained similar to 2023. In upstream operations under Pertamina Hulu Energi (PHE), crude oil and gas production increased slightly from 1,043.73 to 1,044.60 thousand barrels (+0.08%), which also contributed modestly to additional third-party water demand. In addition, expansion activities in SH IML (Integrated Marine Logistics) supported higher withdrawals from third-party sources.
[Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:
☑ Relevant

(9.2.8.2) Volume (megaliters/year)

111017.55

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.8.5) Please explain

The volume of water discharged to fresh surface water in 2024 was 111,017.55 megaliters, a 2.48% increase from 2023. This rise is mainly due to a change in accounting methodology, following internal adjustments in the calculation and reporting process, while higher operational activity also contributed. In Pertamina Geothermal Energy (PGE), water extraction rose 32% from drilling in Kamojang, Karaha, and Lahendong. In upstream operations, crude oil and gas production increased slightly from 1,043.73 to 1,044.60 thousand barrels (+0.08%), contributing modestly to additional discharges. Internal refinements also ensured inclusion of SH IML (Integrated Marine Logistics) water data in 2024, strengthening consolidated reporting. Meanwhile, some facilities shifted discharges to third-party management, mitigating potential increases and resulting in overall discharges remaining broadly in line with the previous year.

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

355000.09

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.8.5) Please explain

The volume of water discharged to brackish surface water and seawater in 2024 was 355,000.09 megaliters, representing a 10.39% increase compared to 2023. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed to the overall increase. The largest seawater usage occurred in Subholding Refining & Petrochemical, where seawater is utilized for production processes including Residual Fluid Catalytic Cracking (RFCC), cooling water, and other utilities. In upstream operations under Pertamina Hulu Energi (PHE), a slight increase in crude oil and gas production in 2024 also contributed to higher seawater discharges. In addition, internal refinements in data consolidation ensured the inclusion of SH IML (Integrated Marine Logistics) water data in 2024, expanding coverage and providing a more comprehensive representation of seawater discharges.

Groundwater

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

5610.79

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.8.5) Please explain

The volume of water discharged to groundwater in 2024 was 5,610.79 megaliters, representing a 13.53% increase compared to 2023. This increase is primarily attributable to a change in accounting methodology, following internal adjustments in the calculation and reporting process. Meanwhile, higher operational activity also contributed to the overall increase. In Pertamina Geothermal Energy (PGE), water extraction rose by 32% due to drilling activities in Kamojang, Karaha, and Lahendong areas. In upstream operations under Pertamina Hulu Energi (PHE), a slight increase in crude oil and gas production (+0.08%) also contributed to higher groundwater discharges. In addition, internal refinements in data consolidation ensured the inclusion of SH IML (Integrated Marine Logistics) water data in 2024, expanding coverage and strengthening the comprehensiveness of groundwater discharge reporting.

Third-party destinations

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

3508.11

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.8.5) Please explain

The volume of water discharged to third-party sources in 2024 was 3,508.11 megaliters, a 30.02% increase from 2023. This rise is mainly due to a change in accounting methodology, following internal adjustments in the calculation and reporting process, while higher operational activity also contributed. In Pertamina Geothermal Energy (PGE), water extraction rose 32% due to drilling in Kamojang, Karaha, and Lahendong. In upstream operations under Pertamina Hulu Energi (PHE), crude oil and gas production increased slightly (+0.08%), adding modestly to discharges. Internal refinements also ensured the inclusion of SH IML (Integrated Marine Logistics) water data in 2024, expanding coverage and strengthening reporting accuracy. In addition, operational changes contributed, as more facilities shifted discharges to third-party management, leading to the higher recorded volume.
[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:
☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

3

(9.3.3) % of facilities in direct operations that this represents

Select from:
☑ Less than 1%

(9.3.4) Please explain

Pertamina has identified water management risks, particularly in water-stressed regions. By the end of 2024, Pertamina operated in 3 locations classified as facing water stress, as identified through the World Resources Institute's (WRI) Aqueduct Water Risk Atlas and Pertamina Water Risk Tool. According to WRI, these locations fall into the high-risk category (80-90%). While the WRI assessment highlights a high-risk exposure ratio at the facility level, when viewed against the total number of facilities in each subholding, the proportion of facilities exposed to water risk is only around less than 1%. In 2024, Pertamina enhanced its methodology by incorporating the Pertamina Water Risk Tool alongside WRI Aqueduct, which resulted in adjusted quantification values and a significant increase in identified exposure compared to previous years.

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:

☑ No, we have assessed this value chain stage but did not identify any facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.4) Please explain

Pertamina's current focus remains on identifying risks and opportunities associated with water aspects in its operational processes, including the quality of liquid waste, oil spills, and the effects of water stress. The mapping process is currently being conducted by Pertamina. However, the identification of risks and opportunities related to water in Pertamina's Upstream Value Chain remains at an early stage. Consequently, not all locations have been comprehensively assessed for these risks.
[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:

☑ Facility 1

(9.3.1.2) Facility name (optional)

Refinery Unit IV Cilacap

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Indonesia

☑ Other, please specify :Serayu River Basin

(9.3.1.8) Latitude

-7.70296

(9.3.1.9) Longitude

109.005

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

282117.73

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

276493.03

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

235.9

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

5388.8

(9.3.1.21) Total water discharges at this facility (megaliters)

91159.21

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

91159.21

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

190958.52

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Higher

(9.3.1.29) Please explain

Water is a critical resource for Pertamina's refinery operations, supporting cooling systems, steam generation, production facility maintenance, and cleaning activities. Refinery Unit IV (RU IV) in Cilacap is one of Pertamina's major assets, with an annual production of 93,929.8 MMbbl. Refinery Unit IV (RU IV) is among Pertamina's major assets and has a relatively high level of complexity, requiring substantial water volumes to process crude oil into refined products such as LPG, gasoline, diesel, and chemical derivatives. Water is also essential as a cooling medium and as feedstock for utilities and process units. Given its location in a water-stressed basin, RU IV is exposed to potential risks related to water scarcity, which could affect both operational continuity and performance. To address these challenges, the refinery implements water efficiency measures and recycling programs aimed at optimizing consumption, safeguarding operational reliability, and reducing pressure on local water resources.

Row 2

(9.3.1.1) Facility reference number

Select from:

☑ Facility 2

(9.3.1.2) Facility name (optional)

Pertamina EP Field Jatibarang

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Indonesia

☑ Other, please specify :Cimanuk River Basin

(9.3.1.8) Latitude

-6.404167

(9.3.1.9) Longitude

108.192222

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

352.63

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ Higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

352.63

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

246.84

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Lower

(9.3.1.23) Discharges to fresh surface water

246.84

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

105.79

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Higher

(9.3.1.29) Please explain

Pertamina EP Jatibarang uses water to support production activities as part of Pertamina's direct operations. The facility relies on local water sources, making its operations potentially vulnerable to scarcity risks. In 2024, the field recorded notable levels of water withdrawal and discharge in line with expanded business activities. At the same time, water consumption rose due to reduced discharge, reflecting ongoing recycling and efficiency measures designed to optimize resource use. The field contributed around 2.17% of Subholding Upstream's total oil and gas production in 2024, where water availability remains essential to sustaining operational continuity. To mitigate risks associated with operating in a water-stressed basin, the facility continues to apply efficiency initiatives and water recycling programs aimed at maintaining production while supporting long-term resource sustainability.

Row 3

(9.3.1.1) Facility reference number

Select from:

☑ Facility 3

(9.3.1.2) Facility name (optional)

PHE Field Jambi Merang

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Indonesia
☑ Other, please specify :Musi and Banyuasin River Basin

(9.3.1.8) Latitude

2.10344

(9.3.1.9) Longitude

103.79678

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

76.02

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

76.02

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

21.29

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Higher

(9.3.1.23) Discharges to fresh surface water

21.29

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

54.73

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Lower

(9.3.1.29) Please explain

PHE Jambi Merang uses water to support production activities as part of Pertamina's direct operations. The facility relies on local water sources, which may be affected by potential scarcity. In 2024, total water withdrawal was reduced to 54.73 megaliters, representing a 27.34% decrease from the previous year. Water consumption also declined, supported by recycling efforts and the implementation of efficiency measures. The field contributed around 3.78% of Subholding Upstream's total oil and gas production in 2024, with water availability remaining an essential factor for production continuity. To address risks associated with local water availability, the facility continues to implement efficiency initiatives and recycling programs to maintain operational resilience and support sustainable resource management
[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water discharges – total volumes

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate

Water consumption – total volume

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

AA1000 Type 2 Level Moderate
[Fixed row]

(9.4) Could any of your facilities reported in 9.3.1 have an impact on a requesting CDP supply chain member?

Select from:
☑ We do not have this data and have no intentions to collect it

(9.5) Provide a figure for your organization's total water withdrawal efficiency.

(9.5.1) Revenue (currency)

75327000000

(9.5.2) Total water withdrawal efficiency

103230.18

(9.5.3) Anticipated forward trend

In the future, we expect to see a positive trend toward increased water efficiency as we continuously step up our efforts to recycle our water usage. Pertamina implements initiatives like the Interconnection Block program, reducing surface water use by 218,400 m³/year, and Gerbang Biru Ciliwung river management. Collaboration with communities and compliance with discharge standards reduce water stress and enhance sustainable resource use.
[Fixed row]

(9.12) Provide any available water intensity values for your organization’s products or services.

Row 1

(9.12.1) Product name

Overall water intensity

(9.12.2) Water intensity value

9.69

(9.12.3) Numerator: Water aspect

Select from:
☑ Water withdrawn

(9.12.4) Denominator

revenue

(9.12.5) Comment

m3/million USD
[Add row]

(9.13) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances
	Select from: ☑ Yes

[Fixed row]

(9.13.1) What percentage of your company's revenue is associated with products containing substances classified as hazardous by a regulatory authority?

Row 1

(9.13.1.1) Regulatory classification of hazardous substances

Select from:

☑ Other, please specify :Government Regulation No. 74 Year 2001, Minister of Environment Regulation No. 3/2008, NFPA 230, Minister of Industry Regulation No. 23/M- IND/PER/4/2013 concerning Globally Harmonized System of Classification and Labeling of Chemicals

(9.13.1.2) % of revenue associated with products containing substances in this list

Select from:

☑ More than 80%

(9.13.1.3) Please explain

According to the regulations in Indonesia, Pertamina's products fall under the Hazard category (flammable, toxic, etc.) except for geothermal and new & renewable (NRE) products. The products containing substances in that list accounted more than 80% of the company's revenue.
[Add row]

(9.14) Do you classify any of your current products and/or services as low water impact?

(9.14.1) Products and/or services classified as low water impact

Select from:

☑ Yes

(9.14.2) Definition used to classify low water impact

One of our subholding that focuses on renewable energy operates power generation from solar and biogas. Compared to fossil fuel power plants, these two renewable energy sources have a significantly lower impact on water resources.

(9.14.4) Please explain

Solar power plants utilize minimal water for operation since they generate electricity directly from sunlight, eliminating the need for water in cooling or other processes.In addition to this, biogas power plants employ POME as a feedstock. Although this method of power generation consumes more water than solar power, it still utilizes less water compared to fossil fuel power plants. Moreover, the wastewater generated by biogas power generation can be effectively repurposed as a dilution agent, optimizing the condition of the feedstock and thereby increasing electricity production.
[Fixed row]

(9.15) Do you have any water-related targets?

Select from:

☑ Yes

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

Water pollution

(9.15.1.1) Target set in this category

Select from:

☑ Yes

Water withdrawals

(9.15.1.1) Target set in this category

Select from:

☑ No, and we do not plan to within the next two years

(9.15.1.2) Please explain

Pertamina does not have a target related to water withdrawal, but we do have one target related to water consumption. We will evaluate this target based on our operational areas' water conditions and risks. Therefore, for now, we focus on the water consumption target.

Water, Sanitation, and Hygiene (WASH) services

(9.15.1.1) Target set in this category

Select from:

☑ Yes

Other

(9.15.1.1) Target set in this category

Select from:

☑ Yes

[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:

☑ Target 1

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water consumption

☑ Reduction in total water consumption

(9.15.2.4) Date target was set

12/30/2021

(9.15.2.5) End date of base year

12/30/2021

(9.15.2.6) Base year figure

263663.25

(9.15.2.7) End date of target year

12/29/2025

(9.15.2.8) Target year figure

253116.72

(9.15.2.9) Reporting year figure

199052

(9.15.2.10) Target status in reporting year

Select from:

☑ Achieved

(9.15.2.11) % of target achieved relative to base year

613

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

PERTAMINA is committed to reducing freshwater consumption in water stressed areas by 4% by 2025

(9.15.2.15) Actions which contributed most to achieving or maintaining this target

To support the target of reducing freshwater consumption in water-stressed areas by 4% by 2025, Pertamina implemented the Roadmap and Guidelines for Effluent, Water, Waste, and Emissions Management, conducted risk management related to water use, and applied the Pertamina Water Risk Assessment Tools. Water from shared sources is managed sustainably: seawater supports offshore operations, fisheries, and coastal transport, while rivers and reservoirs supply refineries, hydropower, domestic use, and fisheries. Key initiatives include the Interconnection Block program at RU III Plaju, reducing surface water use by 218,400 m³/year, and the Gerbang Biru Ciliwung program, promoting community-led river management, riparian restoration, carbon reduction, greening, and education. These actions enhance efficiency, conserve water resources, and support the achievement of the water-stressed area reduction target.

(9.15.2.16) Further details of target

PERTAMINA is committed to reducing freshwater consumption in water stressed areas 4% by 2025. In 2024, the Company can achieve target due to various water conservation initiatives, including the optimization of recycled water use. To identify and manage water-related risks more effectively, Pertamina has implemented PERTAMINA Water Risk Assessment Tools, which refers to global standards such as GEMI Local Water Tools and Alliance of Water Stewardship (AWS). The implementation has enabled the Company to conduct a comprehensive water risk assessment, especially in Java and southern Sumatra.

Row 2

(9.15.2.1) Target reference number

Select from:

☑ Target 2

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water consumption

☑ Reduction in total water consumption

(9.15.2.4) Date target was set

12/30/2021

(9.15.2.5) End date of base year

12/29/2021

(9.15.2.6) Base year figure

263663.25

(9.15.2.7) End date of target year

12/29/2030

(9.15.2.8) Target year figure

247843.46

(9.15.2.9) Reporting year figure

199052

(9.15.2.10) Target status in reporting year

Select from:

☑ Achieved

(9.15.2.11) % of target achieved relative to base year

408

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

PERTAMINA is committed to reducing freshwater consumption in water stressed areas by 6% by 2030

(9.15.2.15) Actions which contributed most to achieving or maintaining this target

To support the target of reducing freshwater consumption in water-stressed areas by 6% by 2030, Pertamina implemented the Roadmap and Guidelines for Effluent, Water, Waste, and Emissions Management, conducted risk management related to water use, and applied the Pertamina Water Risk Assessment Tools. Water from shared sources is managed sustainably: seawater supports offshore operations, fisheries, and coastal transport, while rivers and reservoirs supply refineries, hydropower, domestic use, and fisheries. Key initiatives include the Interconnection Block program at RU III Plaju, reducing surface water use by 218,400 m³/year, and the Gerbang Biru Ciliwung program, promoting community-led river management, riparian restoration, carbon reduction, greening, and education. These actions enhance efficiency, conserve water resources, and support the achievement of the water-stressed area reduction target.

(9.15.2.16) Further details of target

PERTAMINA is committed to reducing freshwater consumption in water stressed areas 6% by 2030. In 2024, the Company can achieve target due to various water conservation initiatives, including the optimization of recycled water use. To identify and manage water-related risks more effectively, Pertamina has implemented

PERTAMINA Water Risk Assessment Tools, which refers to global standards such as GEMI Local Water Tools and Alliance of Water Stewardship (AWS). The implementation has enabled the Company to conduct a comprehensive water risk assessment, especially in Java and southern Sumatra.
[Add row]

C11. Environmental performance - Biodiversity

(11.2) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

(11.2.1) Actions taken in the reporting period to progress your biodiversity-related commitments

Select from:

☑ Yes, we are taking actions to progress our biodiversity-related commitments

(11.2.2) Type of action taken to progress biodiversity- related commitments

Select all that apply

☑ Land/water management

☑ Species management

☑ Education & awareness

☑ Law & policy

☑ Livelihood, economic & other incentives

[Fixed row]

(11.3) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
	Select from: ☑ Yes, we use indicators	*Select all that apply* ☑ Pressure indicators

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
		☑ Response indicators

[Fixed row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

Legally protected areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Pertamina is committed to protecting biodiversity across its operations, which are located in diverse regions of Indonesia, including areas near conservation zones and key biodiversity sites. All activities are conducted under valid permits from the Ministry of Environment and Forestry (KLHK) and follow environmental risk mitigation principles which are to avoid, minimize, restore, and consider alternatives, where this priciples are to reduce the impacts on biodiversity.

UNESCO World Heritage sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Pertamina is committed to environmental protection and compliance with international regulations governing protected areas, including UNESCO World Heritage Sites. The Company plans its operations to avoid ecological disruption, and as of 2024, none of Pertamina's operational areas are located adjacent to UNESCO World Heritage Natural Sites.

UNESCO Man and the Biosphere Reserves

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Pertamina is committed to environmental protection and compliance with international regulations governing protected areas, including UNESCO Man and the Biosphere Reserves. As of the end of 2024, none of Pertamina's operational areas are located adjacent to these natural sites.

Ramsar sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Pertamina is committed to environmental conservation and compliance with international regulations, including the protection of Ramsar Sites. Based on official data from Ramsar.org and Presidential Regulation No. 120/2020 on the Peat and Mangrove Restoration Agency (BRGM), as of the end of 2024, none of Pertamina's operational areas intersect with or are adjacent to designated Ramsar Sites.

Key Biodiversity Areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Pertamina is committed to conserving biodiversity across its operations, which span diverse regions in Indonesia, including areas near conservation zones and key biodiversity sites. All activities are conducted under valid permits from the Ministry of Environment and Forestry (KLHK) and follow environmental risk mitigation principles which are to avoid, minimize, restore, and consider alternatives, where this priciples are to ensure biodiversity impacts are minimized.

Other areas important for biodiversity

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Pertamina is committed to protecting biodiversity across its operations, which are located in diverse regions of Indonesia, including areas near conservation zones and key biodiversity sites. All activities are conducted under valid permits from the Ministry of Environment and Forestry (KLHK) and follow environmental risk mitigation principles which are to avoid, minimize, restore, and consider alternatives, where this priciples are to reduce the impacts on biodiversity.
[Fixed row]

(11.4.1) Provide details of your organization’s activities in the reporting year located in or near to areas important for biodiversity.

Row 1

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Seribu Islands Marine National Park.

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

PHE ONWJ conducts offshore oil and gas exploration and production activities across an operational area of approximately 8,300 square kilometers. Of this, around 324 square kilometers overlap with the waters of the Seribu Islands Administrative Regency, which form part of the Seribu Islands Marine National Park. In addition, the outermost boundary of its working area lies about 9 kilometers from the Biawak Islands, a designated Regional Marine Conservation Area in Indramayu Regency.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Pertamina recognizes the potential impact of its operations on biodiversity, particularly in or near protected zones. To mitigate these risks, all activities are carried out under permits from the Ministry of Environment and Forestry (KLHK) and follow a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach safeguards endemic species and reduces the Company’s ecological footprint. Prior to operations, Pertamina identifies and protects endangered species, relocating them to unaffected conservation areas where necessary. The Company works closely with the Conservation and Natural Resources Agency (BKSDA) and local environmental authorities throughout all project stages. Pertamina is committed to achieving a net positive impact on biodiversity by avoiding high-biodiversity areas, integrating biodiversity considerations into project planning, and rehabilitating land upon site closure. Through conservation and restoration efforts, the Company seeks to minimize adverse impacts and enhance ecological benefits."

Row 2

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Sembilang National Park area.

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

PHE Jambi Merang's operational area partially overlaps with the Sembilang National Park, with a small section of its northeast region located within the conservation zone. The Company prioritizes activities outside protected areas to minimize environmental impact and, to date, has not conducted any operations within the National Park.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the biodiversity risks of operating in or near protected zones and ensures all activities are carried out with permits from the Ministry of Environment and Forestry (KLHK). The Company applies a mitigation hierarchy which are to avoid, minimize, remediate, and offset, where this mitigation are to protect endemic species and reduce its ecological footprint. Prior to operations, endangered species are identified and, if needed, relocated to safe conservation areas. Pertamina collaborates closely with the Conservation and Natural Resources Agency (BKSDA) and local environmental authorities at every stage of its activities. The Company is committed to achieving a net positive impact on biodiversity by avoiding high-biodiversity areas, integrating biodiversity considerations into project planning, and conducting land rehabilitation upon site closure. Through this approach, Pertamina aims to minimize negative impacts while enhancing ecological value."

Row 3

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Southeast and Way Kambas National Park in the West.

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

PHE OSES operates in the Java Sea, with its outer boundary adjacent to the Seribu Islands National Park in the southeast and Way Kambas National Park in the west. To minimize environmental impact, the Company prioritizes exploration outside conservation areas. An example is the Angel Cluster Exploration Complex, located about 2 kilometers west of Sabira Island in the Seribu Islands.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the biodiversity risks of operating near or within protected zones and mitigates them through permits from the Ministry of Environment and Forestry (KLHK) and a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach safeguards endemic species and reduces the Company’s ecological footprint. Before operations begin, endangered species are identified and, when necessary, relocated to unaffected conservation areas. Pertamina works closely with the Conservation and Natural Resources Agency (BKSDA) and local authorities throughout project execution. The Company is committed to achieving a net positive impact on biodiversity by avoiding high-biodiversity areas, integrating biodiversity into project planning, and rehabilitating land after site closure. By prioritizing conservation and restoration, Pertamina minimizes negative impacts while enhancing ecological value."

Row 4

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Kokolomboi Biodiversity Park.

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

The Donggi Matindok PEP Field, located in the Banggai Islands, Central Sulawesi, lies near the Kokolomboi Biodiversity Park. To safeguard the park, all oil and gas exploration activities are carried out outside its boundaries.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the biodiversity impacts of operating near or within protected zones and mitigates them through permits from the Ministry of Environment and Forestry (KLHK) and a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach is designed to protect endemic species and reduce the Company's ecological footprint. Before operations begin, endangered species are identified and, if necessary, relocated to unaffected conservation areas. Pertamina works closely with the Conservation and Natural Resources Agency (BKSDA) and local authorities throughout all project stages. The Company is committed to achieving a net positive impact on biodiversity by avoiding high-biodiversity areas, embedding biodiversity into project planning, and conducting land rehabilitation after site closure. By prioritizing conservation and restoration, Pertamina seeks to minimize adverse impacts while enhancing ecological benefits."

Row 5

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Bukit Soeharto National Park.

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

The PEP Sangasanga Field in Samboja is located near Bukit Soeharto National Park. To protect the park’s ecosystem, all operational activities are conducted outside its boundaries.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the potential biodiversity impacts of operating near or within protected zones and mitigates them through permits from the Ministry of Environment and Forestry (KLHK) and a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach helps protect endemic species and reduce the Company’s operational footprint. Prior to commencing activities, endangered species are identified and, where necessary, relocated to unaffected conservation areas. Pertamina collaborates with the Conservation and Natural Resources Agency (BKSDA) and local authorities at every stage of operations. The Company is committed to a net positive impact on biodiversity by avoiding high-biodiversity areas, embedding biodiversity into project planning, and rehabilitating land after site closure. By prioritizing conservation and restoration, Pertamina seeks to minimize negative impacts and enhance ecological value."

Row 6

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Kutai National Park area.

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

The PEP Sangatta Field operational area overlaps with the Kutai National Park. While exploration activities take place within the park, the Company works in close coordination with the Kutai National Park Office to optimize land use and mitigate environmental impacts. This collaboration is governed by a formal cooperation agreement effective 2018–2027.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the potential biodiversity impacts of operating near or within protected zones and mitigates them by securing permits from the Ministry of Environment and Forestry (KLHK) and applying a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach helps safeguard endemic species and reduce the Company’s ecological footprint. Before commencing operations, endangered species are identified and, when necessary, relocated to safe conservation areas. Pertamina works closely with the Conservation and Natural Resources Agency (BKSDA) and local authorities throughout all project phases. The Company is committed to achieving a net positive biodiversity impact by avoiding high-biodiversity areas, embedding biodiversity into project planning, and rehabilitating land after site closure. Through conservation and restoration, Pertamina seeks to minimize negative impacts while enhancing ecological value."

Row 7

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Sultan Syarif Hasyim Grand Forest Park

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

PHE Jambi Merang’s operations intersect with several protected areas. The Minas Siak operational area overlaps with the Sultan Syarif Hasyim Grand Forest Park, while the Bekasap Rokan operational area intersects with the Balairaja Wildlife Sanctuary.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the potential biodiversity impacts of operating near or within protected zones and mitigates them by securing permits from the Ministry of Environment and Forestry (KLHK) and applying a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach protects endemic species and limits the Company's ecological footprint. Before commencing operations, endangered species are identified and, where necessary, relocated to unaffected conservation areas. Pertamina works closely with the Conservation and Natural Resources Agency (BKSDA) and local authorities throughout all project phases. The Company is committed to achieving a net positive biodiversity impact by avoiding high-biodiversity areas, integrating biodiversity into project planning, and rehabilitating land after site closure. Through conservation and restoration, Pertamina seeks to minimize negative impacts and enhance ecological value."

Row 8

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Indonesia

(11.4.1.5) Name of the area important for biodiversity

Forest Area.

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.7) Area of overlap (hectares)

576.4

(11.4.1.8) Briefly describe your organization's activities in the reporting year located in or near to the selected area

PGE is a leading player in Indonesia's geothermal energy sector, with operations in protected forest areas including Kamojang (106.54 ha), Lumut Balai (159.32 ha), Karaha (45.18 ha), Hululais (129.31 ha), Bukit Daun (129.41 ha), and Ulubelu (6.64 ha). These figures represent the total area of each operation that overlaps with biodiversity areas, amounting to a combined total of 576.40 ha.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Site selection

☑ Project design

☑ Physical controls

☑ Operational controls

☑ Restoration

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

"Pertamina recognizes the biodiversity impacts of operating near or within protected zones and mitigates them through permits from the Ministry of Environment and Forestry (KLHK) and a mitigation hierarchy of avoid, minimize, remediate, and offset. This approach helps safeguard endemic species and reduce the Company's ecological footprint. Endangered species are identified before operations begin and, when necessary, relocated to unaffected conservation areas. Pertamina collaborates with the Conservation and Natural Resources Agency (BKSDA) and local authorities throughout all project stages. The Company is committed to achieving a net positive impact on biodiversity by avoiding high-biodiversity areas, embedding biodiversity into project planning, and rehabilitating land at site closure. Through conservation and restoration, Pertamina seeks to minimize adverse impacts while enhancing ecological value."
[Add row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party
	Select from: ☑ Yes

[Fixed row]

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

Row 1

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

☑ Water

☑ Plastics

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Introduction

☑ All data points in module 1

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition, moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Second Party Opinion and Sustainability Report 2024.pdf

Row 2

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

☑ Water

☑ Plastics

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Identification, assessment, and management of dependencies, impacts, risks, and opportunities

☑ Identification, assessment, and management processes

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition, moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 3

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

☑ Water

☑ Plastics

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Disclosure of risks and opportunities

☑ Financial effect of environmental opportunities

☑ Financial effect of environmental risks

☑ Other data point in module 3, please specify :water and climate risk and opportunity

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 4

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

☑ Water

☑ Plastics

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Governance

☑ Environmental policies

☑ All data points in module 4

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 5

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

☑ Water

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Business strategy

☑ Scenario analysis

☑ Supplier compliance with environmental requirements

☑ Transition plans

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 6

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

☑ Water

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Consolidation approach

☑ All data points in module 6

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 7

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Climate change

☑ Carbon removals
☑ Fuel consumption
☑ Methane emissions
☑ Product footprint
☑ Base year emissions
☑ Emissions breakdown by business division
☑ Electricity/Steam/Heat/Cooling generation
☑ Electricity/Steam/Heat/Cooling consumption
☑ Emissions reduction initiatives/activities
☑ Renewable Electricity/Steam/Heat/Cooling generation
☑ Progress against targets
☑ Renewable fuel consumption
☑ Target-setting methodology
☑ Project-based carbon credits
☑ Emissions breakdown by country/area
☑ Year on year change in absolute emissions (Scope 3)
☑ Renewable Electricity/Steam/Heat/Cooling consumption
☑ Year on year change in absolute emissions (Scope 1 and 2)
☑ Year on year change in emissions intensity (Scope 1 and 2)

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 8

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security

☑ Water consumption– total volume

☑ Water discharges– total volumes

☑ Water withdrawals– total volumes

☑ Water withdrawals – volumes by source

☑ Water discharges – volumes by destination

☑ Water intensities of products and services

☑ Water discharges – volumes by treatment method

☑ Revenue associated with products containing hazardous substances

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. The verification was conducted in accordance with the AA1000 standard. The verification work uses a moderate assurance level with type 1. In addition moderate assurance level with type 2 is used to verify the chapter Combating Climate Change, Reduce Environmental Footprint, and Occupational Health and Safety (OHS) and Large-Scale Incident Prevention

(13.1.1.5) Attach verification/assurance evidence/report (optional)

Assurance Statement 2024 - SR Pertamina.pdf

Row 9

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Business strategy

☑ Sustainable finance taxonomy aligned spending/revenue

(13.1.1.3) Verification/assurance standard

Climate change-related standards

☑ Other climate change verification standard, please specify :Green Bond as administered by ICMA Green Loan as administered by LMA Climate Transition Finance Handbook as administered by ICMA

(13.1.1.4) Further details of the third-party verification/assurance process

The verification was conducted by an independent third-party organization with a proven track record in sustainability assessment. External Review for this sustainability taxonomy as been done by ISS-Corporate to provide a Second Party Opinion (SPO) on the environmental benefits of Pertamina's Sustainable Finance Framework as well as the alignment to The Principles. The external review has been done with its Use of Proceeds Financing Instruments by assessing four core elements to determine the sustainability quality of the instruments: 1. Pertamina's Sustainable Finance Framework – benchmarked against the International Capital

Market Association's (ICMA) Green Bond Principles (GBP) and Loan Market Association (LMA) Green Loan Principles (GLP). 2. The Eligibility Criteria – whether the project categories contribute positively to the United Nations Sustainable Development Goals (UN SDGs) and how they perform against proprietary issuance-specific key performance indicators (KPIs). 3. Implementation of the ICMA Climate Transition Finance Handbook's (CTFH) recommendations based on the publicly available information. 4. Linking the transaction(s) to Pertamina's overall Environmental, Social, and Governance (ESG) profile – drawing on the issuance-specific Use of Proceeds (UoP) categories

(13.1.1.5) Attach verification/assurance evidence/report (optional)

second party opinion feb 2024.pdf
[Add row]

(13.2) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

(13.2.1) Additional information

As Indonesia's largest state-owned enterprise, Pertamina is committed to advancing water security, climate action, and national energy security. Guided by our vision to be a world-class energy company and our mission to manage an integrated portfolio of oil, gas, and new and renewable energy, we continuously develop strategies, policies, and programs that promote sustainability while ensuring affordable, reliable, and responsible energy. Our efforts align with the Government of Indonesia's priority on energy resilience and the national commitment to Net Zero Emissions by 2060 or earlier. We also participate in global initiatives, including membership in the International Petroleum Industry Environmental Conservation Association (IPIECA), to strengthen collaboration and align with international best practices. To track progress, we combine internal assessments with external benchmarks. Engagement with the CDP enhances transparency and accountability in our climate and water actions, supporting its mission to raise corporate ambition in sustainability. Certain disclosures in this questionnaire are forward-looking statements, based on current plans and assumptions, and may differ from actual results. Narrative responses are illustrative, while quantitative data are sourced from Pertamina's official reports. For comprehensive details, please refer to our Annual Report and Sustainability Report, available on Pertamina's website.

(13.2.2) Attachment (optional)

Sustainability Report PT Pertamina (Persero) 2024.pdf
[Fixed row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

President Director & CEO

(13.3.2) Corresponding job category

Select from:
☑ Chief Executive Officer (CEO)
[Fixed row]

(13.4) Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Select from:
☑ Yes, CDP may share our Disclosure Submission Lead contact details with the Pacific Institute