C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

MedcoEnergi is a leading Southeast Asian energy and natural resources company listed on the Indonesia Stock Exchange (MEDC-IDX) and focused on three key business segments, Oil & Gas, Clean Power and Copper Mining. MedcoEnergi produces oil & gas primarily in Indonesia with an increasing international presence. The Group operates gas, solar PV, geothermal and hydro power plants in Indonesia through Medco Power and owns a non-consolidated interest in a large Indonesian copper and gold mine, Amman Mineral Nusa Tenggara (AMNT).

MedcoEnergi has interests in 14 oil & gas properties in Indonesia, 12 of which are producing. The Company also has interests in 11 international oil & gas properties. MedcoEnergi retains key producing assets in Oman, Vietnam, Thailand and Yemen and additional development assets in Libya and Tanzania. In 2022, oil & gas production was 163 MBOEPD, with a composition of 79% gas and 21% liquids.

In March 2022, MedcoEnergi acquired ConocoPhillips' Indonesian assets, comprising a 54% working interest in Corridor PSC and a 35% interest in the Transasia Pipeline Company Pvt. Ltd. Corridor contributed 70.2 MBOEPD in 2022 and its direct operating efficiency was 99.6%. The assets have been smoothly integrated into MedcoEnergi and bring with them many opportunities for growth.

MedcoEnergi, through its wholly owned subsidiary Medco Power Indonesia, promotes clean energy via its operated gas, solar PV, geothermal and hydro power plants in Indonesia. The Company is now the largest producer of solar PV in Indonesia. Medco Power 275 MW combined-cycle plant in Riau reached commercial operation in February 2022. Medco Power owns and operates 11 small to medium-sized IPPs and provides operational and maintenance services to its own and third-party power plants. Power sales were 3,993 GWh in 2022, 21% from renewable sources and 79% from gas-fired facilities.

MedcoEnergi's Climate Change Strategy

In 2021, we established our **climate change strategy** and announced our **net zero greenhouse gas (GHG) emissions for Scope 1 & 2 by 2050 and Scope 3 by 2060**. The Strategy was developed in line with our vision and mission, the framework of our sustainability aspirations, the Paris Agreement and the Nationally Determined Contribution (NDC) of the countries of our operations. In implementing our Climate Change Strategy, we aim to tackle the issue of climate change, address climate-related risks and opportunities for our business and stakeholders, and secure affordable and sustainable energy and natural resources where we operate.

After the announcement of our Net Zero climate aspirations, **we issued our interim targets in 2022**. Our climate interim targets are **to reduce Scope 1 and Scope 2 GHG emissions by 20% and 30%, and methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 respectively, from the base year 2019**. We selected 2019 as our base year since it reflected our pre-pandemic operations and was the most appropriate point of reference. We also intend **to provide 26% of our installed capacity from renewable energy in 2025 and 30% in 2030 in our power business**.

Also in 2022, we **revisited our materiality assessment to address the increasing sustainability and climate expectations of our stakeholders**. We conducted a double materiality assessment to identify key risks, opportunities and impacts relevant to our oil & gas and power businesses. Supported by the Business for Social Responsibility (BSR), we utilized numerous data sources and references, including the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) reporting standards to develop a list of material issues for MedcoEnergi. To prioritize these issues, input was gathered from key

internal and external stakeholders. These included C-level management and senior leadership, representatives from government bodies, banks, investors, associations, business partners, universities, and civil society/non-governmental organizations (NGOs). We identified a total of 27 material issues, categorised

into Tier 1 and Tier 2, based on their significance. This categorization is determined based on the likelihood and severity of the impact on our enterprise value, society, and the environment. We have developed 5-year mitigation plan for Climate Risk and Resilience, Climate Mitigation and Climate Adaptation, which are among the Tier 1 issues. We conduct the monitoring of our Key Performance Indicators for these issues, which include capacity building, strengthening the governance and engagement, implementing the reduction initiatives, exploring the CCS/CCUS opportunities, developing renewable energy and the just transition plan.

Financial, reserves and resources information is based on our financial statements and so includes our entire asset portfolio. The CDP submission is**based on the operational control** of the Company's assets in oil & gas and power generation in Indonesia, Thailand, Oman, Malaysia and Singapore.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 2 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 3 emissions data for
Not providing past emissions data for Scope 3

C0.3

(C0.3) Select the countries/areas in which you operate.
Indonesia
Malaysia
Oman
Singapore
Thailand

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.
USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.
Operational control

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain
Upstream

Other divisions

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	MEDC

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board Chair	MedcoEnergi follows a Good Corporate Governance structure that has a segregation of duties between the General Meeting of Shareholders, and a two-tier Board system: the Board of Commissioners (BOC - headed by the Chairwoman) and the Board of Directors (BOD), in line with applicable regulations in Indonesia and the Articles of Association. The BOC supervises the BOD and provides advice pursuant to the Articles of Association, including the oversight of the climate related issues across the organization. The BOD oversees the integration of climate-related issues, risks, and opportunities into strategic planning and decision-making; monitor the climate-related risk management process; and review climate-related corporate goals, incentives, targets, and key performance indicators (KPIs).
Director on board	The BoD is responsible for establishing, reviewing and implementing MedcoEnergi's Climate Change Strategy and ensuring that climate-related issues, risks and opportunities are integrated within the Company's overall business strategy and objectives. In addressing climate-related risks, the BoD is tasked in formulating and implementing climate-related Work Programs and Budget, as well as in overseeing the climate risk management process. The MedcoEnergi Board of Directors (BoD) consists of the President Director, the Chief Executive Officer (CEO), the Chief Financial Officer (CFO), the Chief Operating Officer (COO) and the Chief Administrative Officer (CAO). Their responsibilities in integrating climate-related risks and opportunities are listed below: • President Director: responsible for climate-related strategic key stakeholder engagement; • CEO: responsible for developing, reviewing and implementing the Climate Change Strategy and overseeing the corporate level coordination and implementation of climate-related risk management; • CFO: responsible for the financial aspects, business planning and investor relations in implementing the Climate Change Strategy; • COO: responsible for the climate-related operational aspects of our oil & gas business and ensuring progress towards our greenhouse gas emission (GHG) targets; • CAO: responsible for overseeing the corporate-level coordination and implementation of the Climate Change Strategy. The BoD was involved in overseeing the climate-related risk and opportunity assessment and in developing, approving and establishing MedcoEnergi's Climate Change Strategy. The Strategy aims to support MedcoEnergi's climate aspiration to achieve net zero of Scope 1 and 2 emissions by 2050 and Scope 3 emissions by 2060. Since the last report, we conducted climate interim target-setting process in 2022. It was a collaborative effort that incorporated the input from top-down and bottom-up approaches and proactive engagements in corporate functions at all levels, including the BoD. Each year, Team Performance Contracts (TPC) are established from board-level executive leadership to individual employees. These TPCs include sustainability- and climate-related KPIs, which are monitored and evaluated each quarter. The results are reviewed to determine whether our targets have been achieved, and to assess appropriate performance incentives including salary reviews.
Other C-Suite Officer	The CEO of Medco Power Indonesia (MPI), a MedcoEnergi subsidiary, is responsible in leading the expansion of the Company's renewable energy portfolio to support the regional and global trend in energy transition. As an example of a climate-related decision made by the C-Suite Officer, the CEO of MPI signed a power purchase agreement (PPA) with the State-owned Electricity Company (Perusahaan Listrik Negara/PLN) to supply geothermal generated power through the Medco Cahaya Geothermal entity over a 30-year period. This decision aims to support PLN's commitment to achieve a 23% share of renewable energy in the national energy mix by 2025, as stated in PLN's Electricity Business Plan (Rencana Usaha Penyediaan Tenaga Listrik/RUPTL) and Indonesia's Nationally Determined Contribution (NDC). In 2022, the CEO of MPI signed an MOU with Sembcorp to explore opportunities in utilising green hydrogen as an energy source and an MOU with Telkom to supply sustainable energy from gas and renewable energy sources to power Telkom's data centre in Batam, Indonesia. This data centre has a capacity of 72 MW. Note: Sembcorp is a Singapore based developer, owner and operator of energy facilities with a total gross capacity of around 18.5GW megawatts. Telkom is an Indonesian multinational telecommunications conglomerate. The government of Indonesia owns over half of Telkom's shares outstanding.
Board-level committee	The Sustainability & Risk Management Committee (SRMC) provides assistance to the Board of Commissioners (BoC) in fulfilling its corporate governance oversight responsibilities related to sustainability and climate-related risk management. This responsibility includes addressing climate-related risks and opportunities pertaining to the implementation of MedcoEnergi's Climate Change Strategy.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	Climate change is an overarching issue that interacts with every category of the risk universe within MedcoEnergi's Enterprise Risk Management (ERM). This is because we recognize that climate-related risks and opportunities inherently impact businesses and operations. Ultimately, climate-related issues are a scheduled-agenda item in the Board of Directors (BoD) weekly meetings, monthly performance reviews, quarterly performance reviews, and the project gate review meetings. During these meetings, risk registers and climate-related performance are reported by the operating businesses and divisions. By coordinating with these different divisions, the Corporate Sustainability & Risk Management (CSRM) division is tasked with assisting the BoD in creating the required infrastructure and in implementing the Board's agenda for sustainability and climate-related risk management. The BoD then reviews, guides and approves necessary climate-related action plans based on the information given. In addition to the above, BOD was involved in the establishment of our Climate Change Strategy. In line with our climate aspirations, we are managing both climate-related physical and transition risks and opportunities. Two main working groups were formalised in 2022 to implement initiatives aimed at addressing these risks, namely the Climate Change Working Group and the Energy Transition Working Group. The Climate Change Working Group is responsible for overseeing and implementing greenhouse gas (GHG) emissions reductions and managing physical climate risks. The Energy Transition Working Group is responsible for managing the transition to low-carbon energy by growing MedcoEnergi's natural gas, as the transition energy source, and renewable energy portfolio. Both working groups have weekly meetings, in addition to Climate Change Governance monthly meeting with the Board.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Ensuring that members of the Board of Directors (BoD) are equipped with the necessary knowledge and tools to address climate-related risks is key in the implementation of the Company's Climate Change Strategy. We recognize this as we highlighted that "Governance" is a key enabler in our Strategy. Following the establishment of Climate Changa Strategy, two members of MedcoEnergi's BoD completed the Climate Designation Program by Competent Boards and received a Climate Competent Boards Certification. The objective of the Program is to equip Boards insights and tools for Board members to provide oversight on the latest climate-related issues and deliver practical strategies to drive their company towards a net zero economy. The Program covered strategic topics that include net zero transitions, reporting and regulatory trends, climate responsible investment and insurance, board-level accountability and strategic implementation. Certifications from established programs, such as the Climate Designation Program above, are used to assess board members' competence in dealing with climate-related issues. In 2022, our Chief Executive Officer (CEO) and Chief Operating Officer (COO) participated in the Bloomberg New Energy Finance (BNEF) Leadership Academy Indonesia, Fast-track Executive Program on Net Zero and the Energy Transition for Indonesia's leading CEOs and top executives, as part of our climate-governance capability development. The engagement included the BloombergNEF Net Zero Summit ahead of the B20 and G20 Summits in Bali in 2022. Our Chief Administrative Officer (CAO) participated in 2022 United Nations Climate Change Conference or Conference of the Parties of the UNFCCC (COP27) in Sharm El Sheikh, Egypt. At the moment, 4 out of 5 Board's members have the formal competence on climate-related issues. Furthermore, in strengthening our internal capacity on climate change issues, we worked in collaboration with an external consultant in developing and delivering an in-house climate change capacity building program in 2022. The program covered various aspects and issues of climate change and involved the participation of our people across various levels from our Board of Directors to our asset-level staff.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (Board of Commissioners (BoC))

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The CEO updates the BoC on the climate-related responsibilities through Sustainability and Risk Management Committee (SRMC) quarterly meeting and on other opportunities as deemed necessary.

Position or committee
President

Climate-related responsibilities of this position
Integrating climate-related issues into the strategy

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (Board of Commissioners)

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The President together with the Board of Director (BoD) members, including the CEO, update the BoC on the climate-related responsibilities through Sustainability and Risk Management Committee (SRMC) quarterly meeting and on other opportunities as deemed necessary.

Position or committee
Other C-Suite Officer, please specify (Sustainability and Risk Management Committee (SRMC))

Climate-related responsibilities of this position
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (Board of Commissioners (BoC))

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The SRMC supports the BoC in providing oversight and guidance to on risk management for all businesses, including sustainability and climate-related risks and opportunities. Sustainability and climate-related issues and our progress in achieving these aspirations are scheduled agenda items in the SRMC meeting.

Position or committee
Chief Financial Officer (CFO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
All of the Board of Director (BoD) members, including the CFO, update the BoC on the climate-related responsibilities through Sustainability and Risk Management Committee (SRMC) quarterly meeting and on other opportunities as deemed necessary.

Position or committee
Chief Operating Officer (COO)

Climate-related responsibilities of this position
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
All of the Board of Director (BoD) members, including the COO, update the BoC on the climate-related responsibilities through Sustainability and Risk Management Committee (SRMC) quarterly meeting and on other opportunities as deemed necessary.

Position or committee
Other C-Suite Officer, please specify (Chief Administrative Officer (CAO))

Climate-related responsibilities of this position
Providing climate-related employee incentives
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
All of the Board of Director (BoD) members, including the CAO, update the BoC on the climate-related responsibilities through Sustainability and Risk Management Committee (SRMC) quarterly meeting and on other opportunities as deemed necessary.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	MedcoEnergi implements incentive pay policies linked to sustainability and climate action performance, specifically regarding GHG and methane emissions reduction and the increase in renewable installed capacity. Each year, Team Performance Contracts (TPC) are established from board-level executive leadership to individual employees. These TPCs include sustainability- and climate-related KPIs, which are monitored and evaluated each quarter. Each year, results are reviewed to determine whether our targets have been achieved, and to assess appropriate performance incentives including salary reviews.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Board/Executive board

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Shares

Performance indicator(s)
Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
The monetary reward (bonus and shares) is included in the total remuneration, which is based on the achievement of the overall Board's performance including performance in sustainability, climate change and energy transition and HSE (Health Safety & Environment).

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
MedcoEnergi's sustainability performance (including climate change) is considered when determining the remuneration for each member of the BoD and BoC. The Nomination & Remuneration Committee considers the Company's annual sustainability and climate change performance, scope of work, duties and responsibilities, as well as industry best practices. The Committee prepares proposals for remuneration, which are then presented by the BoC at the AGMS to be approved by shareholders.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	2	Our short-term time horizon is one to two years, during which we can complete our committed projects. Within this short-term horizon we develop detailed operational and financial projections and use them to manage performance and expectations and the projections are annually reviewed and shared within the Boards. Our GHG forecasting and financial planning processes are used to determine risks and opportunities that could have a material financial impact for that period. Our short-term climate-related risks are generally government policy-related and managed at the asset level through policy and technology to reduce emissions. In addition to regulatory policies, our climate-related qualitative risk assessment indicated that climate-related physical risks are on-going and present across all time horizons.
Medium-term	2	5	Our medium-term time horizon is two to five years, during which we identify future risks and opportunities and revise our portfolio significantly if required. Based on our climate-related risks and opportunities assessment, we identified that the medium-term horizon is where we start to see a greater stakeholder pressure to shift the business towards a low-carbon future. Medium-term risks take longer to impact our business and may include emerging policies pertaining to stringent mandates for GHG emissions and carbon pricing. Our annual business planning exercise spans across the short and medium term time horizon. Our GHG forecasting and financial planning processes are used to determine the risks and opportunities that could have a material financial impact for that period. These risks are managed by the asset, but if significant, may also be managed by corporate strategies and company-wide risk assessments. Other medium-term risks and opportunities that we have identified include the advancement of renewable energy, the deployment of Carbon Capture, Utilization and Storage (CCUS) within the region as well as the decrease in oil demand in the transport sector.
Long-term	5	20	Our long-term horizon is 5 years and beyond, which can extend as far as 20 years forward depending on the type and nature of the risk (or opportunity). For this time horizon, it is expected that our current portfolio to go through changes and evolution with the energy transition. Based on our climate-related transition risks and opportunities assessment, technologies such as renewable energy, green hydrogen and CCUS will be deployed at a much greater scale within the region. Generally long-term risks and opportunities are managed by our scenario analysis, as they include long-term government policy, technology trends and consumer preferences that affect supply and demand. Furthermore, the long-term horizon is where we foresee that the chronic physical risks we identified (such as extreme heat and water scarcity) during our climate-related risks assessment will manifest. In 2023-2024, we intend to improve the granularity of our risks assessment to have a greater understanding of the impacts of such risks in the long-term horizon. From the findings, we will be able to develop response measures accordingly and involve the asset team and appropriate corporate functions such as Corporate Planning and Corporate HSE team.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

PT Medco Energi Internasional, Tbk (MedcoEnergi) and its subsidiaries have implemented a holistic and integrated Enterprise Risk Management (ERM) framework that follows ISO 31000:2018 on Risk Management. MedcoEnergi identifies a risk or an opportunity if it has a significant probability that it could influence or impact the Company's project portfolio and value chain, business strategy, operational performance and the Company's ability to generate value to its stakeholders. Risks are identified across 8 risks category: strategic, financial, operations, people and organization, IT and business support, regulatory and legal, health safety environment and security, and social and community. Through this framework, climate change is an overarching topic that profoundly interacts with every category of this risk universe. Please refer to 2022 MedcoEnergi Sustainability Report Chapter 5, sub-Chapter Risk Management, page 44 on the illustration of MedcoEnergi's risk universe.

In assessing the consequence of a risk, MedcoEnergi considers financial and non-financial types of impact, including: (1) Financial, (2) Environment, (3) Health & Safety, (4) Community, (5) Reputation and (6) Legal. The severity of impact is categorized into five levels, as shown below:

- Slight (impact < USD 10M);
- Minor (USD 10M < impact < USD 30M);
- Moderate (USD 30M < impact < USD 80M);
- Major (USD 80M < impact < USD 200M); and
- Extreme (impact > USD 200M).

We define a risk as having substantive financial or strategic impact, if the identified risk has impact of "4 – Major" in one of our impact category. Risks that fall into this category are those that have a significant influence in achieving the Company's vision and mission and MedcoEnergi's ability to deliver stakeholder value from its existing and planned businesses and operations. These risks are prioritized and reviewed by the senior-level management quarterly and the Sustainability & Risk Management Committee (SRMC) at least twice per year. MedcoEnergi considers major financial impact or higher of approximately USD 80 million of our net present value (NPV) and above as having substantive financial impact.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
MedcoEnergi and its subsidiaries implement a holistic, integrated and consistent Enterprise Risk Management (ERM) framework to identify, assess and respond to any risks that could have an impact to our business' objective and sustainability. Through the ERM framework, we acknowledge that climate change is an overarching topic that profoundly interacts with every category of this risk universe.

The respective functions, assets and subsidiaries may set their own requirements and/or criteria on top of the baseline standards and processes to support the effective management of their risks.

The Corporate Sustainability and Risk Management (CSRM) division facilitates the risk management process by coordinating with each risk owner from the functions and assets to monitor and ensure progress towards our sustainability and climate targets.

With regards to identifying and integrating climate-related risks, we have carried out the following processes:

Risk identification and assessment
We initiated our climate risk identification in 2021, with a preliminary qualitative climate-related risk physical and transitions risks assessment, covering all our business including our direct operations and upstream. For our physical climate-related risks assessment, we used two scenarios, RCP 4.5 and RCP 8.5, for baseline and 2050 projections; and for our transition scenarios, we used IEA's STEPS and SDS for 2030 and 2040 projections. In identifying climate-related risks and opportunities that have a substantive financial or strategic impact, we utilise the following categorization, which encompasses both our direct operations and upstream business:
• Slight (impact < USD 10M);
• Minor (USD 10M < impact < USD 30M);
• Moderate (USD 30M < impact < USD 80M);
• Major (USD 80M < impact < USD 200M); and
• Extreme (impact > USD 200M).
The categorization above is based on our corporate-level risk matrix, which we implement to all other business risks other than climate-related risks.

Across our direct operations and upstream business, we use the same time horizons to categorize our risks. Our short-term risks cover one-to-two-year time horizons, and they are accounted for in our current projects' operational and financial projections which we use to manage our performance and expectations. Our medium-term risks cover two to five years; these risks are identified based on our climate-related risks and opportunities assessment and are managed by our business units. Our long-term risks are those that may impact the company in 5 years and beyond, identified by our scenario analysis, and are managed by the relevant corporate functions.

The findings of the assessment were concluded based on a combination of desktop-based analysis and engagement of various functions within MedcoEnergi. The priority climate-related risks and opportunities was then approved by our Board of Directors.

Risk prioritization, adaptation planning and implementation
The risk assessment will be followed by adaptation planning, which includes prioritization of climate-related risks and planning for adaptation measures to either mitigate, transfer, or control those risks.

While there are many climate-related risks, it is critical to prioritize them for the sake of effective risk management. To prioritize identified risks and determine materiality, we engaged with key internal stakeholders, using defined criteria to gauge priorities and perceptions of the importance of each material issue. The results indicate the relative significance of climate-related risks to MedcoEnergi.

Prioritization of climate risks allows us to efficiently direct our resources towards measures that address high-priority risks, such as GHG emissions. Therefore, we have focused our efforts on implementing GHG mitigation and low carbon transition initiatives.

Periodic review and feedback
At MedcoEnergi, we require operational functions to register any risk occurrence and report them during the Quarterly Performance Review (QPR), facilitated by the CSRM. The same principle applies to climate-related risk management. Furthermore, as per the ISO 31000:2018 standard on Risk Management, continual improvement is a key process in maintaining and improving the suitability, adequacy, and effectiveness of our risk management framework.
As part of the continual improvement, in 2023-2024, we will be conducting quantitative risk assessment utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs) and International Energy Agency (IEA). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Current climate-related and sectoral-specific regulations are followed closely by the relevant corporate functions within MedcoEnergi. This is to ensure that the Company continues to remain compliant with the existing regulations pertaining to our business and operations. In line with our Enterprise Risk Management Policy, we consider current regulation risks in our climate-related risk assessments. We assess the current regulatory risk aspects, including risks related to the existing regulatory requirements and reporting obligations. Specific examples include regulation concerning greenhouse gas (GHG) emissions and inventory, and the Nationally Determined Contributions (NDCs) under the Paris Agreement for Indonesia and the relevant countries in which MedcoEnergi operates or invest such as Thailand, Oman, etc. Such regulations would strategically and financially impact our Company as we would be required to align to the reduction targets set by host governments. As a result, this may increase our investments in developing and deploying GHG reduction initiatives (CAPEX and OPEX) across our operations. For instance, Indonesia's enhanced NDC issued in 2022 targets a GHG reduction of 31.89% unconditionally and 43.2% with international support by 2030, against business-as-usual (BAU) scenarios of 834 Mt CO2e and 1,185 Mt CO2e. Furthermore, the country has pledged to become Net Zero by 2060 or sooner, highlighting the energy sector as one of the five key sectors of focus. As a publicly listed energy and natural resources company in the country, MedcoEnergi is expected to align its climate targets and reduction initiatives to support this NDC. Another regulatory updates in 2022: (1) Ministry of Environment & Forestry (MOEF) Regulation 21/2022 concerning Carbon Economics Implementation (Administrative Procedure for the Application of Carbon Economic Value) which provides reference for carbon trading, result based payment for GHG emission reduction initiatives, carbon tax, (2) Ministry of Energy & Mineral Resources (MEMR) Regulation 16/2022 concerning Carbon Economics Implementation for Power subsector: impacting Coal Power subsector and at the moment, not yet impacting MedcoEnergi, (3) MEMR Regulation 2/2023 concerning CCS & CCUS implementation by upstream oil and gas sector: impacting MedcoEnergi's CCS & CCUS plans as this regulation supports the Upstream Oil & Gas CCS & CCUS implementation and enables CCS/CCUS cost to be part of field development plan.
Emerging regulation	Relevant, always included	To keep in line with the Paris Agreement, MedcoEnergi recognizes that governments are increasingly introducing stringent regulations on climate and greenhouse gas (GHG) emissions. As per our Enterprise Risk Management (ERM) framework, we consider risks from emerging regulation across all our countries of operations in our climate-related risk assessments. We assess the emerging regulatory risk aspects, including risks related to enhanced requirements and reporting obligations. In Indonesia, the following climate-related regulations have been introduced: • The Indonesia Government's Law 7/2021 on Harmonization of Tax Regulation, aimed at introducing a domestic carbon tax in the near future. Although this has been established, carbon tax has yet to be implemented and the implementing regulations should be enacted; • Indonesian Financial Services Authority's Circular Letter No. 16/2021 concerning the Annual and Sustainability Reporting which may give way for a more stringent regulation on sustainability and environmental impact reporting; and • Presidential Regulation No. 98/2021 on the Economic Value of Carbon, which sets a domestic carbon price of approximately USD2.06/tCO2e. The regulation will be implemented mid-2022 for the coal-mining sector, but could potentially affect the energy and power sector in the near future (2025 for other industries). Furthermore, there is a possibility of higher carbon price to be introduced depending on the industry it will be applied to. In Thailand, there is a draft Climate Change Law, which aims to reach the target of carbon neutrality in the energy and transport sector by 2070, whereby the country will commit to reducing annual greenhouse gases emission by 20–25 per cent by 2030. Once the regulations listed above are implemented to our industry, they will impact our operational and investment strategy moving forward. For instance, our Corp HSE would need to ensure that we deploy initiatives to reduce and minimise our operational carbon footprint. On the other hand, Corp Planning would need to consider the price of carbon to ensure our projects and/or investments' financial viability. Furthermore, there is a growing need to ensure transparency in the Company's climate journey, especially with the recently released Indonesian Financial Services Circular Letter No. 16/2021 concerning the disclosure and reporting requirements regarding climate data.
Technology	Relevant, always included	We consider technology risks in our climate-related risk assessments and as part of our Enterprise Risk Management (ERM) framework. Among the technological risks we identified is the large-scale deployment of renewable energy in the region as well as the adoption of Carbon Capture, (Utilization), and Storage (CCS/CCUS) and hydrogen technologies. Large-scale deployment and accessibility to renewable and low carbon energy may impact our business should it become the preferred and cheaper option as opposed to the traditional fuels by customers. With regards to hydrogen and CCS/CCUS technologies, in Indonesia, their adoption and deployment are still very limited. Therefore, CCS/CCUS may potentially require a high CAPEX for its R&D and high OPEX for large-scale deployment within MedcoEnergi's operations. To date, we spent USD 75K in 2022 for CCS study in West Natuna area and have budgeted USD 1M in 2023 for CCS study. The application of technology in renewables will play an important role for MedcoEnergi to develop its renewable portfolio. We continue to conduct the study and develop partnership to explore the renewable technology application.
Legal	Relevant, always included	In line with our Enterprise Risk Management Policy, we consider legal risks in our climate-related risk assessments. We assess the regulatory and legal risks, including the risks related to changes to or non-compliance with the regulatory environment, or political uncertainty. With the increasing climate-related pledges and regulations in our host governments, we aim to continue to monitor national regulations relevant to our business to prevent any forms of non-compliance. Legal risks related to non-compliance would negatively impact MedcoEnergi's business, stakeholder confidence and reputation as a key player in the energy resources industry in Southeast Asia. In turn, this would impact our access to potential investors and business partners. To prevent this from occurring, we have managed a data collection, management and reporting process and we engage a third party to assure our climate-related data.
Market	Relevant, always included	With our host countries committing to climate targets, we recognize that there are, and will be, risks related to the shift or market demand for carbon-based commodities and services. For instance, with the recent developments at COP26 and host governments' updated NDCs, there is a greater demand for low-carbon products and energy sources. This trend negatively impacts MedcoEnergi's oil business but, on the other hand, increases the demand for our gas; and hence, moving forward, we aim to expand our natural portfolio to meet this regional demand. Furthermore, renewable energy has taken a spotlight in terms of potential energy sources for a low-carbon future. We recognise that Indonesia is still exploring the technological feasibility and infrastructure for the technologies such as Carbon Capture and Storage (CCS), and Carbon Capture, Utilization and Storage (CCUS). Research and development (R&D) on other low-emission technologies may also require high capital expenditures (CAPEX). Meanwhile, renewable energy (RE) within the region is still a nascent industry, especially when compared to regions like North America and Europe.
Reputation	Relevant, always included	We acknowledge the importance of a consistent and transparent disclosure of the Company's climate performance and journey. In line with our Enterprise Risk Management Policy, we consider reputation risks in our climate-related risk assessments. We assess the reputation risks, which could impact to demand of our products, our social license to operate and our share price. Furthermore, reputation-related issues could result in declining stakeholder trust and our access to investors. This could impact MedcoEnergi's valuation, earnings, and funding.
Acute physical	Relevant, always included	At MedcoEnergi, we recognize that the physical impacts of climate change put our entire business and operations at risk. Therefore, we consider acute physical risks in our climate-related risk assessments in line with our Enterprise Risk Management (ERM) policy. We already conducted a qualitative climate-related physical risk assessment on selected assets in Indonesia, Thailand and Oman. From the assessment, three key acute physical hazards were identified: coastal floods, inland floods and cyclones and winds. The increased frequency and severity of natural hazard events (such as floods and cyclones) can damage our asset infrastructure, compromise the safety of our employees, and increase costs related to asset damage and insurance. We address these risks through climate adaptation and climate design (integrating climate risk assessment into future engineering designs). In 2023-2024, we will be conducting quantitative risk assessment utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91, for further detail.
Chronic physical	Relevant, always included	Changes and extreme fluctuations in the physical climate parameters could impact our business and operations in the long-run. We consider chronic physical risks in our climate-related risk assessments in line with our Enterprise Risk Management (ERM) policy. We already conducted a qualitative climate-related physical risk assessment on selected assets in Indonesia, Thailand and Oman. From the assessment, two key chronic physical hazards were identified: extreme heat and water scarcity. They may impact our operations, our equipment, and the safety and efficiency of our workforce. They may also affect our reputation in the long term if our adaptive measures are insufficient to mitigate their impacts. In accounting for this risk, MedcoEnergi aims to continue to monitor climate trends and explore opportunities to maintain asset operation and the safety of our employees. In 2023-2024, we will be conducting quantitative risk assessment utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91, for further detail.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The governments of the countries where we operate (Indonesia, Thailand, Oman, Singapore), have started to lay the groundwork in establishing a carbon pricing mechanism.

The Indonesian Presidential Regulation 98/2021 on the Economic Value of Carbon promises to establish a domestic carbon market that involves carbon trading and results-based payment. The Indonesian Law 7/2021 indicated carbon tax for the amount of USD 2.06/tCO2e with the note that the initial stage of carbon tax implementation is limited to only the coal power plant in 2022 and all other sectors in 2025. There is also the Ministry of Environment & Forestry Regulation 21/2022 concerning Carbon Economics Implementation that provides reference for carbon trading & carbon tax, however the implementing guideline for oil & gas sector has not been in place.

In Thailand, the 'National Reform Plan (2018)' mandates the government to develop an economic instrument, such as a cap-and-trade program, to incentivize the private sector to reduce emissions. Since 2013, the Thai GHG Management Organization has developed a Monitoring, Reporting and Verification (MRV) system as well as a voluntary trading mechanism under the Thai Voluntary Emissions Reduction Program (T-VER). More recently, in August 2021, the National Energy Plan stated that the country aims to reach the target of carbon neutrality in the energy and transport sector by 2070, in which the carbon market will play a critical role in realizing this target.

Singapore has implemented a carbon tax since January 2019. The tax has been applied to GHG emissions from the industrial and power sectors (annual GHG emissions of 25 ktCO2e or more). In the latest regulation, the carbon tax level was set at S$5/tCO2e for the first five years from 2019-2023 to provide a transitional period for emitters to adjust. To support its net zero target, the carbon tax will be raised to S$25/tCO2e in 2024-2025, and S$45/tCO2e in 2026-2027, with a view to reaching S$50-80/tCO2e by 2030.

Carbon pricing will result in higher operational costs, reduced cash flow and profitability of MedcoEnergi's assets in the countries. To account for this risk, we are continuously exploring opportunities to reduce our GHG emissions in our operational assets. Furthermore, we are exploring the potential of introducing an internal carbon price to prepare our business for future regulations.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
11600000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We use single figure estimate to explain the potential financial impact. The figure is obtained from the total Indonesia's GHG emission Scope 1 multiplied with Indonesian carbon price (USD 2.06/tCO2e, reference: Indonesian Law 7/2021). The initial stage of carbon tax implementation is limited to only the coal power plant, and it will be extended to all sectors in 2025 depending on the readiness of each sector. For now, after further assessment, we assume that carbon tax in Singapore will have no impact to MedcoEnergi because we do not generate annual GHG emissions equal to or more than 25 ktCO2e, and the tax will be applied to the power plants in Singapore. MedcoEnergi does not have any power plant in Singapore. Furthermore, Thailand and Oman have not yet provided more details regarding carbon tax.

Therefore, the potential financial impact is as follows:
= 5,630,550.33 tCO 2 e x USD 2.06/tCO 2 e = USD 11,598,934 (rounding up USD 11,600,000).

Cost of response to risk
110000

Description of response and explanation of cost calculation
The introduction of carbon pricing mechanisms falls under our climate-related transition risks. With the support of an external sustainability and climate change consultant, we conducted a high-level climate-related qualitative risks assessment, utilising IPCC and International Energy Agency (IEA) scenarios, and updated our GHG inventory and calculation tool, encompassing our Scope 1, 2 and 3 emissions. In 2023-2024, we will be conducting quantitative risk assessment utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs) and IEA. Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91, for further detail. To strengthen our internal capacity for climate adaptation, we would be more equipped in understanding

the impact of this risk into our overall business.

The cost of response stated here is based on the costs of hiring an external consultant firm in carrying out the climate change quantitative risk assessment/the scenario analysis. The number, however, excludes the cost of implementing GHG reduction actions by the assets. The cost is estimated as per the following:
• Assumed time taken for the project: 6,000 hours.
• Assumed cost for hiring the consultancy firm: 20 USD/hour.
• Assumed cost for internal capacity building: 50,000 USD.
• Total assumed cost: (3,000 hours * 20 USD/hour)+50,000 USD = 110,000 USD in year 2023.

Additionally, we are also implementing the GHG emission reduction initiatives that will result in lowered emissions. Further information on the initiatives can be found in our responses in C2.4a Opportunity 4 and C4.3b.

Comment
We will be evaluating the financial implications of material transition drivers on MedcoEnergi's oil and gas and power business, such as quantification of financial impact from the climate physical risks to our assets in two scenarios across the time horizon. For the transition risks, we will be reviewing, among others, the assumption on how many % of emissions would be covered for carbon tax, either the high end or the low end. The % coverage is meant to be an assumption on the sectors that the carbon pricing regulation would cover. If the government imposes the regulation on power plants, for instance, but not oil and gas, then the emissions taxed would only be from our power subsidiaries - and this would be reflected in the chosen % coverage in the assumption. Or in the case that the regulation only covers certain gases.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Other, please specify (Increased severity and frequency of extreme weather events such as cyclones and floods)

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
We already conducted an initial qualitative climate-related physical risk assessment (hotspot analysis) on selected material assets in Indonesia, Thailand and Oman. This exercise proved to be an important first step in helping us understand the potential impact of physical risks on our assets against two climate change projections.

The assessment concluded that the increased severity and frequency of acute physical events such as extreme tropical storms, wildfires, cyclones and wind, have the potential to impact the company's direct operations. An example is the delayed schedule in drilling or project execution and disruption to operational activities in Sumatra, Kalimantan and East Java due to extreme weather event. Furthermore, such events will pose damage to our buildings and infrastructure, compromise the safety of our employees as well as result in the increased cost of replacement and repair for damaged infrastructure.

In mitigating the impacts of such risks, we intend to make our physical risk assessments more robust within our business and operational assets to improve their climate adaptation and resilience. In 2023-2024, we intend to expand this assessment by including more assets within the Company as well as by performing a quantitative assessment to fully understand the risks' financial impact to the Company utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91, for further detail.

We will continue to comply with national and/or international best practices for monitoring mechanisms and develop a response mechanism to our operations to reduce impacts.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The increased severity and frequency of extreme tropical storms and wildfires have the potential financial impact to the company's direct operations, such as delayed schedule in drilling or project execution and disruption to operational activities. We are currently assessing the potential financial impact.

Cost of response to risk
110000

Description of response and explanation of cost calculation
In 2023-2024, we will be conducting quantitative risk assessment utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91, for further detail. To strengthen our internal capacity for climate adaptation, we would be more equipped in understanding the impact of this risk into our overall business.

The cost of response stated here is based on the costs of hiring an external consultant firm in carrying out the climate change quantitative risk assessment/the scenario analysis. The number, however, excludes the cost of implementing GHG reduction actions by the assets. The cost is estimated as per the following:
• Assumed time taken for the project: 6,000 hours.
• Assumed cost for hiring the consultancy firm: 20 USD/hour.
• Assumed cost for internal capacity building: 50,000 USD.
• Total assumed cost: (3,000 hours * 20 USD/hour)+50,000 USD = 110,000 USD in year 2023.

Comment
We will be evaluating the financial implications of material transition drivers on MedcoEnergi's oil and gas and power business, such as quantification of financial impact from the climate physical risks to our assets in two scenarios across the time horizon. Upon the assessment, we will have site-specific physical risk management recommendations for the assets.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
In the shift towards a low-carbon future, investors, customers and key stakeholders are increasingly choosing a low-carbon alternative to fuel. As a result, oil & gas would play a much smaller role in supplying the energy demand after 2030. Furthermore, with the increasing global interest towards the deployment of renewable and low-carbon technologies, customers will eventually have a greater pool of renewable energy (RE) choices to supply their demand. This trend could impact our oil & gas business, particularly if RE will be heavily subsidized and/or the cost of RE will significantly decrease.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are currently assessing the potential financial impact.

Cost of response to risk
0

Description of response and explanation of cost calculation
We are currently assessing the potential financial impact.

Comment
We are currently assessing the potential financial impact.

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
With stringent regulations and mandates on greenhouse gas (GHG) emissions, we would need to increase our investments in utilizing the best available technologies (BAT) as well as practices in our operations to minimize the GHG emissions. We recognise that Indonesia is still exploring the technological feasibility and infrastructure for its

deployment, and therefore, this could potentially lead to high capital expenditures especially when it concerns utilizing technologies such as Carbon Capture and Storage/Carbon Capture, Utilization and Storage (CCS/CCUS). MedcoEnergi is also joining this effort by performing several prefeasibility studies on potential CCS/CCUS in MedcoEnergi working area.

Furthermore, renewable energy (RE) within the region is still a nascent industry, especially when compared to regions like North America and Europe. For instance, Indonesia is one of the countries facing the most challenging environment for sourcing renewables due to factors such as regulatory uncertainty, market entry barriers such as subsidies for fossil fuels and low renewable manufacturing capacity. MedcoEnergi could potentially face financial feasibility challenges in expanding its RE deployment due to the limited choices in the country.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
MedcoEnergi recognizes that both our oil and gas and power business will be heavily impacted by emerging regulations, particularly those pertaining to stringent regulations regarding GHG emissions. We already conducted a climate-related transition risks assessment where we mapped 2040 scenario indicators against IEA STEPS and IEA SDS scenarios. The following presents indicators related to emerging regulations that have the potential to impact our business:
• Carbon pricing – By 2040, IEA STEPS foresee that the carbon price would be as high as 20-25 USD/t for the ASEAN region. IEA SDS calculates an even greater value for the region in 2040 at 125 USD/t;
• Low demand for oil due to mandates and regulations for existing products and services – by 2040, IEA STEPS calculates that oil demand would be 7.1 Mb/day whereas IEA SDS foresees 4.5 Mb/day.
• CCUS/CCS – IEA scenarios foresee large scale global development and deployment of CCUS/CCS technology to support hard-to-abate sectors which will drive energy and power companies to integrate the technology. IEA STEPS foresee 41 times increase of its usage whereas IEA SDS sees a 140 time increase by 2040.

In 2023-2024, we intend to expand this assessment by including more assets within the Company as well as by performing a quantitative assessment to fully understand the risks' financial impact to the Company utilizing the latest climate scenarios issued by the International Energy Agency (IEA). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91, for further detail.

Based on the indicators listed above, for our oil and gas business, emerging regulations on existing products fall under the "Minor" impact category by 2030 and the "Moderate" impact category by 2040. On the other hand, the impact for our power business differs where the risk falls under the "Moderate" impact category by 2030 and "Major" impact category by 2040.

Cost of response to risk
1000000

Description of response and explanation of cost calculation
With regard to CCS, we spent USD 75K for the study of West Natuna area in 2022. We have budget for further CCS pre-feasibility study USD 1 million in 2023.

Comment
We are currently assessing the potential financial impact.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Other, please specify (Use of lower-emission sources of energy)

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
In the shift towards a low-carbon future, countries are increasingly making ambitious commitments in increasing their renewable energy generation in the national energy mix. These commitments aim to support their GHG emissions reduction targets in their Nationally Determined Contribution (NDCs). For instance, Indonesia has pledged to generate 23% of renewable energy in its national energy mix by 2030. MedcoEnergi recognizes this as an opportunity to expand our renewable energy portfolio. We are continuously evaluating opportunities to generate renewable energy that we can then use to reduce costs as well as emissions to our assets.

With Indonesia's ambitious renewable energy target, the demand for renewables will inevitably increase, paving the way for its mature infrastructure and accessibility to the general population. For instance, the Indonesian renewable energy market is expected to record a compound annual growth rate (CAGR) of 21.44% during 2022-2027, with an expected installed capacity of 34.71 GW by 2027, a significant increase from 10.82 GW in 2021 and just below 13GW in 2023. We also foresee that more and more companies will aim to source their power from renewable sources due to the country's targets.

In our Medco Power Indonesia (MPI) subsidiary, we are increasing our investment in renewable energy sources from 5% of total MedcoEnergi consolidated CAPEX in 2023 to 27% of total MedcoEnergi consolidated CAPEX in 2027. We aim to increase renewable installed capacity to 26% by 2025 and to 30% by 2030 as described in MedcoEnergi climate interim targets, above the Government of Indonesia's renewable targets.

Source: https://www.mordorintelligence.com/industry-reports/indonesia-renewable-energy-market

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In our Medco Power subsidiaries:
• Our Sumbawa PV operation is Indonesia's largest ground-mounted utility-scale solar PV, developed by Medco Power Indonesia (MPI) and Amman Mineral Nusa Tenggara (AMNT). Sumbawa PV has started its operation in June 2022 and successfully reduced AMNT's operational electricity costs. Furthermore, the operation also reduces CO2 emission of nearly 40,000 tonnes per annum (tpa).
• Final Investment Decision in 2023 for Energi Listrik Batam (ELB) Add-on Project in Batam, Indonesia: This project converts an existing simple cycle IPP to a combined cycle IPP, increasing the existing capacity from 70 MW to 109 MW through utilization of existing exhaust waste heat as fuel for additional steam turbine generator.
• In progress of development for Ijen Geothermal project, Solar PV in East and West Bali, and Pulau Bulan Solar PV for future renewable growth of Medco Power business.

The opportunities (Sumbawa PV and ELB) were already realised and we will report the potential financial impact for new opportunities in the use of lower-emission sources of energy as they arise.

Cost to realize opportunity
10000000

Strategy to realize opportunity and explanation of cost calculation
The actual investment to realize geothermal and renewable opportunities in 2022 is US$10,000,000.

Comment
N/A

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Other, please specify (Implementation of Carbon Capture (Utilization) and Storage (CCS/CCUS))

Primary potential financial impact
Increased access to capital

Company-specific description
We are performing several prefeasibility studies on CCS/CCUS potential in MedcoEnergi working area.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are still assessing the financial impact figure as we are progressing with our prefeasibility study for CCS/CCUS.

Cost to realize opportunity
1000000

Strategy to realize opportunity and explanation of cost calculation
With regard to CCS, we spent USD 75K for the study of West Natuna area in 2022. We have budget for further CCS prefeasibility study USD 1 million in 2023.

Comment
We are currently assessing the potential financial impact.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Our climate interim targets are to reduce Scope 1 and Scope 2 GHG emissions by 20% and 30%, and methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 respectively, from the base year 2019. In order to achieve these targets, we are implementing the GHG emission reduction initiatives that will result in lowered emissions and reduce the operating costs due to operational improvement.

Additionally, implementing the GHG emission reduction initiatives and achieving the target set by the company will meet the expectations of government, banks, lenders, financial institutions, rating agencies, and consequently it will facilitate the access to capital.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are still assessing the financial impact from this opportunity.

Cost to realize opportunity
1879029

Strategy to realize opportunity and explanation of cost calculation
The cost to realize the opportunity is calculated based on the total cost to implement the GHG emissions reduction initiatives (operational improvement/resource efficiency and low carbon electrification).

Comment
It is expected that the implementation of GHG emission reduction initiatives will mitigate the climate change risks and meet the stakeholders' expectations. This will in turn facilitate our access to capital.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Publicly available climate transition plan

<Not Applicable>

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

<Not Applicable>

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

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

<Not Applicable>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

MedcoEnergi already initiated a qualitative climate-related physical and transition risks assessment at the corporate-level, covering selected key assets in Indonesia, Thailand and Oman. The findings of this assessment were utilized to develop the Company's Climate Change Strategy, which we publicly issued in 2021, alongside our climate aspirations of achieving net zero emissions of Scope 1 and Scope 2 by 2050 and Scope 3 by 2060.

MedcoEnergi recognizes that integrating climate-related risks and opportunities into our business and operations is a continuous journey. Moving forward, we aim to improve the sophistication and granularity of our climate-related risk assessments and Climate Change Strategy, where transitioning towards a natural gas and renewable energy-focused company forms our key strategy. In doing so, we aim to align our business strategy with the shift towards a low-carbon future. Upon the double materiality assessment in 2022, we have established verifiable and quantifiable key performance indicators (KPIs) in short-, medium- and long-term to improve the transparency and accountability of our climate journey. We have developed the targets based on the international sectoral good practice and the Nationally Determined Contribution (NDCs) of the countries where we operate. Our climate interim targets are to reduce Scope 1 and Scope 2 GHG emissions by 20% and 30%, and methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 respectively, from the base year 2019. We selected 2019 as our base year since it reflected our pre-pandemic operations and was the most appropriate point of reference. We also intend to provide 26% of our installed capacity from renewable energy by 2025 and 30% by 2030 in our power business.

As part of the climate transition plan development, in 2023-2024, we will be conducting a quantitative climate-related physical and transition risks assessment utilizing the latest climate scenarios issued by the IPCC, the Shared Socioeconomic Pathways (SSPs) and International Energy Agency (IEA). Please refer to 2022 MedcoEnergi Sustainability Report, Chapter 7 sub-Chapter Assessing Our Climate-related Risks and Opportunities, page 91.

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative, but we plan to add quantitative in the next two years	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios: IEA STEPS (previously IEA NPS)	Company-wide	<Not Applicable>	For our transition scenario analysis, we conducted the assessment based on two International Energy Agency (IEA) scenarios: IEA STEPS and IEA SDS. The IEA Stated Policies Scenario (or "STEPS"), a pathway that takes into account announced climate-related policies (such as the current Paris Agreement and Nationally Determined Contributions), but does not forcefully pursue decarbonisation. The IEA Sustainable Development Scenario (or "SDS"), a pathway towards reducing global CO2 emissions and achieving other, non-climate-related, sustainable development goals.
Transition scenarios: IEA SDS	Company-wide	<Not Applicable>	For our transition scenario analysis, we conducted the assessment based on two International Energy Agency (IEA) scenarios: IEA STEPS and IEA SDS. The IEA Stated Policies Scenario (or "STEPS"), a pathway that takes into account announced climate-related policies (such as the current Paris Agreement and Nationally Determined Contributions), but does not forcefully pursue decarbonisation. The IEA Sustainable Development Scenario (or "SDS"), a pathway towards reducing global CO2 emissions and achieving other, non-climate-related, sustainable development goals.
Physical climate scenarios: RCP 4.5	Company-wide	<Not Applicable>	MedcoEnergi conducted an qualitative climate-related transition and physical risk assessment. The assessment considered the guidelines set out by the Task Force on Climate-related Financial Disclosures (TCFD) to to understand how climate change can potentially impact our business and operations. Scope of MedcoEnergi's scenario analysis includes 19 on-shore material assets; 15 in Indonesia, 2 in Oman and 2 in Thailand. For the physical climate scenario, we conducted climate change projections using two Representative Concentration Pathway (RCP) scenarios: RCP 4.5 and RCP 8.5. RCP 4.5 represents the "Middle Path" of the global climate change projection. It corresponds to a 1.8 degrees Celsius rise by the end of the century due to moderate efforts to reduce emissions. This pathway is used to represent the current global climactic trajectory. On the other hand, RCP 8.5 represents "Business as Usual", it corresponds to a 3.7 degrees Celsius rise by the end of the century due to low or no effort to reduce emissions.
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	MedcoEnergi conducted an qualitative climate-related transition and physical risk assessment. The assessment considered the guidelines set out by the Task Force on Climate-related Financial Disclosures (TCFD) to to understand how climate change can potentially impact our business and operations. Scope of MedcoEnergi's scenario analysis includes 19 on-shore material assets; 15 in Indonesia, 2 in Oman and 2 in Thailand. For the physical climate scenario, we conducted climate change projections using two Representative Concentration Pathway (RCP) scenarios: RCP 4.5 and RCP 8.5. RCP 4.5 represents the "Middle Path" of the global climate change projection. It corresponds to a 1.8 degrees Celsius rise by the end of the century due to moderate efforts to reduce emissions. This pathway is used to represent the current global climactic trajectory. On the other hand, RCP 8.5 represents "Business as Usual", it corresponds to a 3.7 degrees Celsius rise by the end of the century due to low or no effort to reduce emissions.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

How would acute and chronic climate-related physical risks affect our Company's business and operations?
How would climate-related transition risk affect our Company's business portfolio?

Results of the climate-related scenario analysis with respect to the focal questions

Key impacts of acute and physical risks:
Our climate-related physical assessment encompasses 19 onshore material assets; 15 in Indonesia, 2 in Oman and 2 in Thailand. Based on our qualitative assessment, our key findings concluded that:
• Our Oman assets and hydropower plants in Indonesia indicate a high hazard towards water scarcity across all climate scenarios;
• All our asset locations indicate a high flood hazard (inland floods) under all climate change scenarios, except for our Muscat office where the inland flood hazard is evaluated to be a medium;
• All our asset locations indicate a high extreme heat hazard under all climate change scenarios, expect for our Jakarta office building and hydropower plants in Indonesia and our warehouse in Thailand, where the hazard is categorised as medium; and
• Our hydropower plant assets in Indonesia indicate a high cyclone/wind hazard under the RCP 8.5 scenario.

Overall, the increased frequency and severity of acute physical risks events (such as floods and cyclones) have the potential to damage MedcoEnergi's asset infrastructure, compromise the safety of our employees, and increase costs related to asset damage and insurance. Furthermore, chronic physical risks, such as water scarcity and extreme heat, may impact our operations, our equipment, and the safety and efficiency of our workforce. They may also affect our reputation in the long term if the Company's adaptive measures are insufficient to mitigate their impacts.

Key impacts of transition risks:
For our transition risks assessment, we utilized key market, technology and regulatory trends at the regional-level based on the selected IEA scenarios and its subsequent impact to our oil and gas and power business at the corporate-level. We concluded that, with the increasingly stringent regulations and mandates on GHG emissions, this could potentially increase compliance costs for high-emission operations such as exploration and production of MedcoEnergi's oil and gas, and gas-based power plants. Additionally, with the growing trend towards a low carbon economy transition, stakeholder pressures to improve our climate journey and manage our environmental footprint are increasingly impacting our business and operations. Reputation-related issues could result in declining stakeholder trust and our access to investors. This could impact the Company's valuation, earnings, and funding.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	MedcoEnergi aims to be an energy and natural resources company that sees the global transition to a low carbon economy as an opportunity for the business. We aim to grow our business to support energy transition whilst simultaneously helping countries within the region to meet their increasing domestic demand for energy. Within our Climate Change Strategy, growing natural gas as a transition energy source and expanding our renewable portfolio are key focus areas that will help the Company transition to low carbon energy. Our Strategy aims to support our climate aspiration of achieving net zero for Scope 1 and Scope 2 emissions by 2050 and Scope 3 emissions by 2060. Key initiatives and action plans covered in the Strategy covers MedcoEnergi's short, medium and long-term time horizons. In 2018, we sold our coal mining company and have transitioned our oil and gas-producing portfolio to be 60% gas in 2018 and become 79% gas in 2022 portfolio. In our Medco Power Indonesia (MPI) subsidiary, we are increasing our investment in renewable energy sources. We issued our interim target in 2022 that our renewable installed capacity would be 26% by 2025 and 30% by 2030. Our commitment on this expansion have presented a potential opportunity for the Company to develop a solar power import project, in consortium with two partner organizations, located on Bulan Island in Riau Islands Province. The project will potentially extend our service to provide 100 MW of non-intermittent electricity to Singapore.
Supply chain and/or value chain	Evaluation in progress	In working towards a low-carbon future, there is a growing expectation to key players within the energy and natural resources landscape to involve, engage and manage their supply chains. Therefore, our climate commitment includes a net zero climate aspiration for Scope 3 emissions by 2060. This commitment ensures that our Climate Change Strategy has a holistic approach. At MedcoEnergi, we conduct an annual campaign and communication event attended by various participants and companies throughout our value chain called Vendor Day. We announced our Climate Change Strategy and interim targets to our value chain and introduced key initiatives that we intend to develop and implement under the Strategy. Moving forward, we intend to communicate to our stakeholders and supply chain on climate-related risks and opportunities relevant to the business. We have also conducted a preliminary assessment of our Scope 3 emissions based on the 15 categories outlined by the GHG Protocol's Corporate Value Chain (Scope 3) Standard. The assessment highlights our initial efforts to identify our Scope 3 emissions and to evaluate potential opportunities for supply chain management. Based on our assessment, we concluded four significant categories for our oil & gas assets and three for our power business. We are currently assessing opportunities to develop and implement climate-related requirements when engaging with our supply chains. Moving forward, we will also focus on improving the sophistication and disclosure of our Scope 3 emissions, which we aim to report in addition to Scope 1 and Scope 2 in our sustainability report in the future. This strategy encompasses our short, medium and long-term time horizons.
Investment in R&D	No	For a company of our size and limited resources, we will be an adopter of proven technologies.
Operations	Yes	Based on our climate risk assessment, across all three time horizons, we foresee that there will be increasingly stringent regulations and mandates for GHG emissions being introduced. Furthermore, the increasing frequency and severity of climate-related risks requires us to take action in minimizing our environmental footprint. To account for these findings, we already announced our Climate Change Strategy of achieving net zero emissions of Scope 1 and Scope 2 by 2050 and Scope 3 by 2060. Our climate interim targets, which were issued in 2022, are to reduce Scope 1 and Scope 2 GHG emissions by 20% and 30%, and methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 respectively, from the base year 2019. We selected 2019 as our base year since it reflected our pre-pandemic operations and was the most appropriate point of reference. At MedcoEnergi, we continuously monitor and evaluate GHG emissions in our oil & gas and power business units and have deployed various initiatives aimed at reducing emissions for our current and future assets and acquisitions. For example, in South Natuna Block B, the stationary combustion accounts for almost 89% of emissions, with our Hang Tuah field contributing 13% in 2022. To address emissions at Hang Tuah field, we have implemented initiatives to optimise operations and reduce fuel gas consumption, resulting in an estimated reduction of 6,700 tCO2e annually. We are currently exploring opportunities to expand these initiatives to our other facilities at South Natuna Block B. We also implemented emission reduction and energy efficiency initiatives in other assets such as piloting the use of solar PVs at our Matak Base and substituting the gas engine generator (GEG) for energy supplied from PLN at our Grati Onshore Processing Facility. Based on our calculations on the Grati Onshore Processing Facility, we calculated that we are reducing GHG emissions by 9,419 tCO2e/year from 2020 to 2021 as a result of the GEG substitution. Over 2023-2024, the solar PV capacity will be expanded for full power system redundancy. For the development of our new offshore platforms, we have adapted our platform designs to include solar panels. Based on our 2022 calculation, we estimated a reduction of 102,000 tCO2e from our GHG emission reduction initiatives in Corridor asset since 2019.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Capital expenditures Acquisitions and divestments Assets	MedcoEnergi acknowledges that there is a growing demand for clean energy as we move towards a low carbon future. Across the countries of our operations, increasing the renewable energy (RE) portion within the national primary energy mix is a common target. For instance, Indonesia has an ambitious RE target of 23% by 2025 and 31% by 2050 in its energy supply mix. This national target aligns with MedcoEnergi's commitment to expand its RE portfolio as part of the Company's Climate Change Strategy, encompassing our priority focus across all three time horizons, from short to long-term. Amidst the growing trend towards a low carbon future, securing affordable and sustainable energy and natural resources presents itself as a critical issue, especially in Southeast Asia where we are facing a growing domestic demand. With this in mind, MedcoEnergi aims to balance its mission in expanding the Company's RE portfolio whilst simultaneously continuing to capitalize on natural gas as a transition fuel as our short to long-term business strategy. We believe that the latter is a necessary step to support regional economic growth and the increasing domestic demand for energy. As a case study, our initiative to expand our natural gas portfolio has impacted our financial planning, particularly on our acquisitions and divestments. Recently, we acquired ConocoPhillips Indonesia Assets, Corridor PSC, which resulted in an increase Medco's gas portfolio from 60% to 79% in 2022. The acquisition aims to equip MedcoEnergi with the resources to meet national and regional energy demand.

C3.5

(C3.5) 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	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
No, and we do not anticipate setting one in the next two years

Target ambition
<Not Applicable>

Year target was set
2022

Target coverage
Other, please specify (Upstream Oil & Gas)

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2019

Base year Scope 1 emissions covered by target (metric tons CO2e)
5419585.82

Base year Scope 2 emissions covered by target (metric tons CO2e)
587.62

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
5420173.43

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
99.99

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
0.01

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2025

Targeted reduction from base year (%)
20

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
4336138.744

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
4345147.09

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
24390.27

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
4369537.35

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

96.9190463708096

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
We are in progress achieving our 20% GHG Scope 1 & 2 emission reduction in 2025 from base year 2019 emission. Further, we have also set target 30% GHG Scope 1 & 2 emission reduction in 2030 from 2019 base year. Target coverage is all upstream oil and gas operated asset, no exclusion.

Plan for achieving target, and progress made to the end of the reporting year
Our plan and progress for GHG emission reduction initiatives in more detail can be found in the response to the questionnaire C4.3.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Abs 2

Is this a science-based target?
No, and we do not anticipate setting one in the next two years

Target ambition
<Not Applicable>

Year target was set
2022

Target coverage
Other, please specify (Upstream Oil & Gas)

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2019

Base year Scope 1 emissions covered by target (metric tons CO2e)
5419585.82

Base year Scope 2 emissions covered by target (metric tons CO2e)
587.62

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
5420173.43

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
99.99

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
0.01

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
30

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
3794121.401

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
4345147.09

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
24390.27

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
4369537.35

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
64.6126975805397

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
We are in progress achieving our 30% GHG Scope 1 & 2 emission reduction in 2030 from base year 2019 emission. Target coverage is all upstream oil and gas operated asset, no exclusion.

Plan for achieving target, and progress made to the end of the reporting year
Our plan and progress for GHG emission reduction initiatives in more detail can be found in the response to the questionnaire C4.3.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to reduce methane emissions
Net-zero target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2022

Target coverage
Other, please specify (Upstream Oil & Gas)

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Total methane emissions in CO2e

Target denominator (intensity targets only)
<Not Applicable>

Base year
2019

Figure or percentage in base year
163595.22

Target year
2025

Figure or percentage in target year
122696.41

Figure or percentage in reporting year
134408.39

% of target achieved relative to base year [auto-calculated]
71.3635188896694

Target status in reporting year
Underway

Is this target part of an emissions target?
Yes, we are in progress achieving our 25% methane emission reduction in 2025 from base year 2019 emission. Further, we have also set target 37% methane emission reduction in 2030 from 2019 base year.

Is this target part of an overarching initiative?
Other, please specify (Interim Target of Company's Net Zero Emission Target for GHG Emission Scope 1 and Scope 2 by 2050)

Please explain target coverage and identify any exclusions
We are in progress achieving our 25% methane emission reduction in 2025 from base year 2019 emission. Further, we have also set target 37% methane emission reduction in 2030 from 2019 base year. Target coverage is all upstream oil and gas operated asset, no exclusion.

Plan for achieving target, and progress made to the end of the reporting year
Our plan and progress for GHG & Methane emission reduction initiatives in more detail can be found in the response to the questionnaire C4.3.

List the actions which contributed most to achieving this target
<Not Applicable>

Target reference number
Oth 2

Year target was set
2022

Target coverage
Other, please specify (Upstream Oil & Gas)

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Total methane emissions in CO2e

Target denominator (intensity targets only)
<Not Applicable>

Base year
2019

Figure or percentage in base year
163595.22

Target year
2030

Figure or percentage in target year
103064.99

Figure or percentage in reporting year
134408.39

% of target achieved relative to base year [auto-calculated]
48.2186008544821

Target status in reporting year
Underway

Is this target part of an emissions target?
Yes, we are in progress achieving our 37% methane emission reduction in 2030 from base year 2019 emission.

Is this target part of an overarching initiative?
Other, please specify (Interim Target of Company's Net Zero Emission Target for GHG Emission Scope 1 and Scope 2 by 2050)

Please explain target coverage and identify any exclusions
We are in progress achieving our 37% methane emission reduction in 2030 from base year 2019 emission. Target coverage is all upstream oil and gas operated asset, no exclusion.

Plan for achieving target, and progress made to the end of the reporting year
Our plan and progress for GHG & Methane emission reduction initiatives in more detail can be found in the response to the questionnaire C4.3.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1

Target year for achieving net zero
2050

Is this a science-based target?
No, but we are reporting another target that is science-based

Please explain target coverage and identify any exclusions
Net zero greenhouse gas (GHG) emissions for Scope 1 & 2 by 2050 and Scope 3 by 2060. Target coverage is company-wide, no exclusion.

In formulating these targets, we conducted a strategic review and analysis of our host government's Nationally Determined Contributions (NDCs), utilised our internal Long-Term Planning (LTP) data and conducted a peer benchmarking exercise. In addition, we assessed our climate-related risks and opportunities and considered our past and on-going emissions reductions and energy efficiency programmes. We also considered existing and emerging regulatory trends and frameworks of the host governments in the countries in which we operate. Our interim target-setting process in 2022 was a collaborative effort that incorporated both top-down and bottom-up approaches and proactive engagements in corporate functions at all levels.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
In 2021, MedcoEnergi committed, in its Climate Change Strategy, to reach net zero greenhouse gas (GHG) emissions for Scope 1 and 2 by 2050 and Scope 3 by 2060. In 2022, the Company set interim targets for 2025 and 2030 for Scope 1 and 2 reductions, as well as for cuts in methane emissions and increases in renewable capacity.

Planned actions to mitigate emissions beyond your value chain (optional)
N/A

C4.3

(C4.3) 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.

Yes

C4.3a

(C4.3a) 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 (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	3	745
Implemented*	28	96551
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
20880

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3195823

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Routed flare gas from associated gas to fuel gas in Matra SSB (Onshore) which was able to reduce flaring by 1.2 MMSCF.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
17400

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Reduced 1 MMSCFD flaring from associated gas through optimization of produced well strategy in Matra SSB (Onshore).

Initiative category & Initiative type

Non-energy industrial process emissions reductions	Process material efficiency

Estimated annual CO2e savings (metric tonnes CO2e)
7768

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
228000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
16-20 years

Comment
Reduced methane slip to permeate gas with a more effective membrane type in Grissik (Corridor)

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
7612

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
585000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment
Flare reduction during Suban 24 well clean up and testing in Suban (Corridor). One time reduction gain in 2022.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
6703

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
755000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Fuel gas optimization in Hang Tuah (Offshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
6524

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
502000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment
Flare reduction during Suban 5 well clean up and testing in Suban (Corridor). One time reduction gain in 2022.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
5046

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
711750

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Optimization fuel gas to steam boiler in Block A (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
3600

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
569400

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Reduced acid gas to flare in Block A (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
3500

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
408800

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
16-20 years

Comment
Utilization flare gas from M12 using Very Low Pressure Compressor in Tarakan (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
3262

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
251000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment
Reduced flaring during Suban 3 well clean up and testing. One time reduction gain in 2022.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
3027

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
345000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
16-20 years

Comment
Optimization of operating strategy of thermal oxidizer (TOX) in Grissik Corridor.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
2610

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
328500

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
3-5 years

Comment
Reduce methane loss to thermal oxidizer (TOX) in Lematang (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
2000

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
204400

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Optimization power generation in Jene (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
1756

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
16-20 years

Comment
Mothballing equipment in Rimau Onshore.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
1500

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
143080

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
16-20 years

Comment
Optimization gas lift compressor in Kaji satellite Rimau (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
1044

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
585000

Investment required (unit currency – as specified in C0.4)
300000

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Installation spar buoys to reduce fuel consumption in Belanak and Belida (Offshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
476

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
63000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Optimization Export Gas Compressor Air Cooler in North Belut (Offshore).

Initiative category & Initiative type

Energy efficiency in production processes	Electrification

Estimated annual CO2e savings (metric tonnes CO2e)
373

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
60417

Investment required (unit currency – as specified in C0.4)
10000

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Conversion power generation to PLN in Serdang Onshore.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
238

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
320000

Investment required (unit currency – as specified in C0.4)
450000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Installation of 7 kWp of solar PV on the Malong platform Belida (Offshore).

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
238

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
320000

Investment required (unit currency – as specified in C0.4)
450000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Installation of 7 kWp of solar PV on the Belida North East platform Offshore.

Initiative category & Initiative type

Energy efficiency in production processes	Electrification

Estimated annual CO2e savings (metric tonnes CO2e)
237

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
55490

Investment required (unit currency – as specified in C0.4)
28900

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Conversion power generation to PLN in Luwe Hulu Bangkanai (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
174

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
21900

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
3-5 years

Comment
Reduced fuel gas to H2S stripper in Lematang (Onshore).

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
160

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Mothballing equipment in SSB (Onshore).

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
149

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
129600

Investment required (unit currency – as specified in C0.4)
580000

Payback period
4-10 years

Estimated lifetime of the initiative
3-5 years

Comment
Instrument air system improvement in Oyong East Java (Offshore).

Initiative category & Initiative type

Energy efficiency in production processes	Fuel switch

Estimated annual CO2e savings (metric tonnes CO2e)
105

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
147973

Investment required (unit currency – as specified in C0.4)
33570

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Conversion diesel engine to gas engine in Ibul SSB (Onshore).

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Compliance with Host Government regulatory requirements
Dedicated budget for energy efficiency	Driven by our Operational Excellence framework in operating efficiency and cost management
Marginal abatement cost curve	Prioritization based on the results of MACC
Dedicated budget for other emissions reduction activities	In alignment with HSE Policy & Sustainability Policy

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other	Other, please specify (Electric Charging Infrastructure)

Description of product(s) or service(s)
Medco Power launched the Electric Vehicle Ecosystem in early 2021, as part of business expansion in the EV sector. Since signing a Memorandum of Understanding (MOU) with PLN, Grab Indonesia and Bank Mandiri in 2021, Medco Power has supplied charging infrastructure for electric vehicles to support operations in the cities of Jakarta, Pekanbaru and Batam in Indonesia.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
0

Level of aggregation
Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon
Other, please specify (Mini Hydro Power)

Type of product(s) or service(s)

Other	Other, please specify (Mini Hydro Power)

Description of product(s) or service(s)
Our subsidiary, PT Medco Hidro Indonesia, is operating two mini hydropower plants in Cianjur, West Java, Cibalapulang, and Pusaka Parahiangan, with a total output of 18 MW.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
0

Level of aggregation
Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Power	Solar PV

Description of product(s) or service(s)
We have expanded our solar photovoltaic (PV) portfolio in recent years in our MPI subsidiaries:
- Operational phase: Sumbawa PV (26 MWp), Solar Rooftops at ELB (33 kWp) and MRPR (47 kWp) site offices

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
0

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

For our oil & gas upstream operations, we set our interim targets to reduce methane emissions by 25% in 2025 and 37% in 2030. We implemented methane emissions reduction efforts in 2022 as follows:
- Reduced South Sumatra Block flaring by compressing associated gas to sales gas, which was then sold and utilised as fuel gas and top-up gas lift; calculated reduction of 20,880 tCO2e/year by reducing flared gas of 1.2 mmscfd.
- Reduced North Belut Field flaring with estimated reduction of approximately 3,800 tCO2e/year.
- Reduced flaring in Corridor asset by directly flowing gas during well clean up and testing with estimated reduction of 17,000 tCO2e.

For our electricity generation businesses, 99% of greenhouse gas (GHG) emissions come from feedstock combustion (gas-fired). Note that in properly tuned boilers, nearly all of the fuel carbon (99.9 percent) in natural gas is converted to CO2 during the combustion process, according to the U.S. Environmental Protection Agency (U.S. EPA), Therefore, methane emission is not a key parameter for our electricity generation businesses. This can also be observed from our emissions breakdown by GHG type. Methane only account for around 0.045% of our total emissions in tCO2e for the electricity generation businesses in 2019.

C-OG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?
Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Medco has established **an LDAR program** for each of its oil and gas production facilities in Offshore Asset, Onshore Asset, and Corridor Asset. The guideline, procedure, and system are available to support the implementation. The leak detection surveys are conducted to reduce the likelihood of leak escalation that could lead to major incidents, to reduce the likelihood of unplanned shutdowns, to assure compliance with environmental regulations, and to support the GHG emission reduction program. The surveys consist of **two inspection programs: routine inspections and non-routine inspections.** Routine inspections are conducted every 3 months up to 12 months while the non-routine inspections are typically performed after a plant shuts down, a unit shuts down with major repair or modification activities, significant mechanical joint modification or replacement, the start-up of a new facility, after an earthquake, or any indications of hydrocarbon release. Medco uses **three tools to identify the leak: an optical gas imaging camera (FLIR) for a large area, a soap test for a very small leak and pin-point confirmations, and a gas detector to measure the LEL and determine the criticality.**

The result of the inspection survey will be **recorded and reported in a video and report that specifies the area of the facilities, leak object, tag number, and survey date.** In case any leak is found during the survey, the field inspector will inform and report it to the site management, who will then coordinate with the team to follow up on the finding. The leak finding that requires further repair or replacement will be **recorded in the company maintenance system (BPM) and monitored until it's closed**.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Managing emissions from flaring is one of the key actions to achieve Company's interim target of decreasing methane emissions by 25 percent by 2025 and 37 percent by 2030. Government of Indonesia had also set goal of eliminating routine flaring by 2030 (this one is only relevant for Indonesia). In order to achieve that target, Medco is **actively evaluating and implementing technologies and operational improvements that potentially reduce the amount of flaring.** There are **seven flaring reduction initiatives completed in 2022**: Block A Acid Gas to Flare Reduction (reduction: 3,600 tCO2e/year), Matra Production Well Strategy Optimization (reduction: 17,400 tCO2e/year), Matra Flare Gas as Fuel Gas Utilization (reduction: 20,800 tCO2e/year), M12 Station Flare Gas Utilization using a Very Low Compressor (reduction: 3,500 tCO2e/year), and flare reduction during well clean-up and testing for Suban-3, Suban-5, and Suban-24 (total reduction: 17,300 tCO2e).

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) 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?

Row 1

Has there been a structural change?
Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with
In March 2022, MedcoEnergi have acquired Corridor, as Sumatera-based PSC with 7 producing gas fields, and 2 producing oil fields.

Details of structural change(s), including completion dates
In March 2022, MedcoEnergi have acquired Corridor, as Sumatera-based PSC with 7 producing gas fields, and 2 producing oil fields.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	We have improved our GHG emissions calculation methodology in several emission sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. The improvement of GHG emissions calculation in the above mentioned assets covers inclusion of some more accurate quantification methods in several emissions sources for venting, stationary combustion, thermal oxidizer and sulphur recovery unit. We also established the 2019 GHG emissions data as the base year emissions. In order to have a more thorough and comparative year on year emissions figure, we have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021. The effect of the restatement after the Corridor acquisition and improvement of calculation methodology resulted in an increase of 220%, 237%, and 222% GHG emissions in 2019, 2020, and 2021, respectively, compared to the previously reported total Scope 1 and Scope 2 GHG emissions for Oil & Gas.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based	We have improved our GHG emissions calculation methodology in several emission sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. The improvement of GHG emissions calculation in the above mentioned assets covers inclusion of some more accurate quantification methods in several emissions sources for venting, stationary combustion, thermal oxidizer and sulphur recovery unit. We also established the 2019 GHG emissions data as the base year emissions. In order to have a more thorough and comparative year on year emissions figure, we have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021. The effect of the restatement after the Corridor acquisition and improvement of calculation methodology resulted in an increase of 220%, 237%, and 222% GHG emissions in 2019, 2020, and 2021, respectively, compared to the previously reported total Scope 1 and Scope 2 GHG emissions for Oil & Gas.	Yes

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
5419585.82

Comment
MedcoEnergi has selected 2019 as our base year as the data is the best representation of MedcoEnergi's normal operations and production before the pandemic

Scope 2 (location-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
587.62

Comment
MedcoEnergi has selected 2019 as our base year as the data is the best representation of MedcoEnergi's normal operations and production before the pandemic

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
5710288.21

Start date
January 1 2022

End date
December 31 2022

Comment
The gross global Scope 1 emissions include emissions from our oil & gas operations (4,345,147.09 tCO2e) and power operations (1,365,141.13 tCO2e)

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
5463278.07

Start date
January 1 2021

End date
December 31 2021

Comment
The gross global Scope 1 emissions include emissions from our oil & gas operations (4,605,470.28 tCO2e) and power operations (857,807.80 tCO2e)

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
5540347.43

Start date
January 1 2020

End date
December 31 2020

Comment
The gross global Scope 1 emissions include emissions from our oil & gas operations (4,760,974.85 tCO2e) and power operations (779,372.59 tCO2e)

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
6338173.43

Start date
January 1 2019

End date
December 31 2019

Comment
The gross global Scope 1 emissions include emissions from our oil & gas operations (5,419,585.82 tCO2e) and power operations (918,587.61 tCO2e)

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
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

Comment
Our scope 2 emission source is from the purchase of electricity directly and entirely from the national grid, therefore there is no supplier-specific emission factor to report a scope 2 market-based figure. No residual emissions factor is available in Asia either.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
26150.74

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2022

End date
December 31 2022

Comment
The gross global Scope 2 emissions include emissions from our oil & gas operations (24,390.27 tCO2e) and power operations (1,760.47 tCO2e)

Past year 1

Scope 2, location-based
18528.2

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2021

End date
December 31 2021

Comment
The gross global Scope 2 emissions include emissions from our oil & gas operations (17,709.67 tCO2e) and power operations (818.53 tCO2e)

Past year 2

Scope 2, location-based
11461.57

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2020

End date
December 31 2020

Comment
The gross global Scope 2 emissions include emissions from our oil & gas operations (11,405.06 tCO2e) and power operations (56.51 tCO2e)

Past year 3

Scope 2, location-based
1523.23

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2019

End date
December 31 2019

Comment
The gross global Scope 2 emissions include emissions from our oil & gas operations (587.62 tCO2e) and power operations (935.62 tCO2e)

C6.4

(C6.4) 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?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Capital goods

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Waste generated in operations

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Business travel

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Employee commuting

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Upstream leased assets

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Processing of sold products

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Use of sold products

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As Oil & Gas Company, most of MedcoEnergi's product are fuels, fuels are combusted and are not disposed as waste

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not have downstream leased assets

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No franchises activity

Investments

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Evaluating the applicability of the scope 3 criteria

Other (upstream)

Evaluation status
Not evaluated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not evaluated due to not included in 15 categories of GHG emission Scope-3 as per GHG Protocol

Other (downstream)

Evaluation status
Not evaluated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not evaluated due to not included in 15 categories of GHG emission Scope-3 as per GHG Protocol

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	7939.9	Emission sources : from biodiesel fuel.

C6.10

(C6.10) 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.

Intensity figure
0.00095

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
4369537.35

Metric denominator
unit total revenue

Metric denominator: Unit total
4593666000

Scope 2 figure used
Location-based

% change from previous year
10.6

Direction of change
Decreased

Reason(s) for change
Change in output

Please explain
Lower GHG intensity in 2022 compared to 2021 due to lower GHG emission align with the decline of high CO2 fields (Corridor), various GHG reduction efforts in Assets, and higher Oil & Gas Price in 2022.

Notes:

Emission intensity with the basis of production (BOE for oil and gas and MWh for electricity generation) is more relevant for oil & gas exploration & production sector and power sector.

We have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021 to include Corridor acquisition and improvement of calculation methodology. The restated 2019, 2020 & 2021 numbers are available in our 2022 Sustainability Report and GRI 305.

In March 2022, we have acquired Corridor, a Sumatra-based PSC with 7 producing gas fields, and 2 producing oil fields. We have also improved our GHG emissions calculation methodology in several emissions sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. The improvement of GHG emissions calculation in the above mentioned assets covers inclusion of some more accurate quantification methods in several emissions sources for venting, stationary combustion, thermal oxidizer and sulphur recovery unit.

Intensity figure
0.043

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
4369537.35

Metric denominator
barrel of oil equivalent (BOE)

Metric denominator: Unit total
102711972.95

Scope 2 figure used
Location-based

% change from previous year
0.4

Direction of change
Decreased

Reason(s) for change
Change in output

Please explain
Lower GHG intensity in 2022 compared to 2021 due to lower GHG emission align with the decline of high CO2 fields (Corridor) and various GHG reduction efforts in Assets.

Notes:
Emission intensity with the basis of production (BOE for oil and gas and MWh for electricity generation) is more relevant for oil & gas exploration & production sector and power sector.

We have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021 to include Corridor acquisition and improvement of calculation methodology. The restated 2019, 2020 & 2021 numbers are available in our 2022 Sustainability Report and GRI 305.

In March 2022, we have acquired Corridor, a Sumatra-based PSC with 7 producing gas fields, and 2 producing oil fields. We have also improved our GHG emissions calculation methodology in several emissions sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. The improvement of GHG emissions calculation in the above mentioned assets covers inclusion of some more accurate quantification methods in several emissions sources for venting, stationary combustion, thermal oxidizer and sulphur recovery unit.

Intensity figure
0.5

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
1366901.6

Metric denominator
megawatt hour generated (MWh)

Metric denominator: Unit total
2761019.3

Scope 2 figure used
Location-based

% change from previous year
8

Direction of change
Decreased

Reason(s) for change
Other, please specify (Start operations of new Power Plant)

Please explain
Start operations of new Power Plant (Medco Ratch Power Riau, 275 MW) in Q1 2022 which has relatively low intensity figure (combine cycle power plant). This helps reduce the overall Medco Power intensity figure in 2022.

Notes:
Emission intensity with the basis of production (BOE for oil and gas and MWh for electricity generation) is more relevant for oil & gas exploration & production sector and power sector.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)
Other, please specify (barrel of oil equivalent (BOE))

Metric tons CO2e from hydrocarbon category per unit specified
0.04

% change from previous year
1

Direction of change
Decreased

Reason for change
Lower GHG Scope 1 intensity in 2022 compared to 2021 due to lower GHG emission align with the decline of high CO2 fields (Corridor) and various GHG reduction efforts in Assets.

Notes:
We have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021 to include Corridor acquisition and improvement of calculation methodology. The restated 2019, 2020 & 2021 numbers are available in our 2022 Sustainability Report and GRI 305.

In March 2022, we have acquired Corridor, a Sumatra-based PSC with 7 producing gas fields, and 2 producing oil fields. We have also improved our GHG emissions calculation methodology in several emissions sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. The improvement of GHG emissions calculation in the above mentioned assets covers inclusion of some more accurate quantification methods in several emissions sources for venting, stationary combustion, thermal oxidizer and sulphur recovery unit.

Comment
No additional comment

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division
Upstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division
0.04

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division
0.04

Details of methodology
Methane emissions as percentages of natural gas and hydrocarbon production, in unit ton CH4 / TOE natural gas production ; and ton CH4/TOE hydrocarbon production.
Scope 1 Methane emissions: 5,376.34 ton CH4
Total Natural Gas Production : 12,490,217.39 TOE
Total Hydrocarbon Production : 15,012,131.54 TOE

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	5570646.39	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	135018.59	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	2724.23	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	1899.01	IPCC Fourth Assessment Report (AR4 - 100 year)

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Emissions category
Combustion (excluding flaring)
Flaring
Venting
Fugitives
Process (feedstock) emissions

Value chain
Upstream

Product
Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)
4206843.58

Gross Scope 1 methane emissions (metric tons CH4)
5376.34

Total gross Scope 1 emissions (metric tons CO2e)
4345147.09

Comment
Total gross Scope 1 emissions number includes N2O 1,996.11 metric tons CO2e and HFC 1,899.01 metric tons CO2e.

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Indonesia	5630550.33
Malaysia	0
Oman	2865.34
Singapore	0
Thailand	76872.54

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.
By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Stationary Combustion	3344703.23
Mobile Combustion	46813.97
Flare	340562.46
Dehydration Unit	1439.19
Fugitive Emissions	69385.62
Vent	31308.86
Thermal Oxidizer & Incinerator	1876074.89
Sulfur Recovery Unit	0

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	4345147.09	<Not Applicable>	Upstream Oil & Gas (E&P)
Oil and gas production activities (midstream)	0	<Not Applicable>	No midstream activity
Oil and gas production activities (downstream)	0	<Not Applicable>	No downstream activity
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Indonesia	8189.09	
Thailand	100.86	
Oman	17846.03	
Singapore	0.76	
Malaysia	14	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Purchase electricity	26150.74	

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name

Onshore Indonesia

Primary activity

Oil & gas extraction

Select the unique identifier(s) you are able to provide for this subsidiary

Please select

ISIN code – bond

<Not Applicable>

ISIN code – equity

<Not Applicable>

CUSIP number

<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
899455.31

Scope 2, location-based emissions (metric tons CO2e)
237.13

Scope 2, market-based emissions (metric tons CO2e)

Comment

Subsidiary name
Offshore Indonesia

Primary activity
Oil & gas extraction

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
797530.73

Scope 2, location-based emissions (metric tons CO2e)
2188.59

Scope 2, market-based emissions (metric tons CO2e)

Comment

Subsidiary name
Corridor Indonesia

Primary activity
Oil & gas extraction

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
2568163.19

Scope 2, location-based emissions (metric tons CO2e)
1543.2

Scope 2, market-based emissions (metric tons CO2e)

Comment

Subsidiary name
International

Primary activity
Oil & gas extraction

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
79737.88

Scope 2, location-based emissions (metric tons CO2e)
17946.89

Scope 2, market-based emissions (metric tons CO2e)

Comment
Oman and Thailand Assets

Subsidiary name
Medco Power Indonesia (MPI) - Combined Cycle Gas Turbine Power Generation

Primary activity
CCGT generation

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
1058088.95

Scope 2, location-based emissions (metric tons CO2e)
1403.3

Scope 2, market-based emissions (metric tons CO2e)

Comment
Emissions from Mitra Energi Batam, Dalle Energi Batam, Medco Ratch Power Riau, MPI Head Office

Subsidiary name
Medco Power Indonesia (MPI) - Non Combined Cycle Gas Turbine Power Generation

Primary activity
Non-CCGT generation

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
307013.78

Scope 2, location-based emissions (metric tons CO2e)
343.01

Scope 2, market-based emissions (metric tons CO2e)

Comment
Emissions from Multidaya Prima Elektrindo, Energi Prima Elektrika, Energi Listrik Batam

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Subsidiary name
Medco Power Indonesia (MPI) - Hydropower

Primary activity
Hydro generation

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
38.39

Scope 2, location-based emissions (metric tons CO2e)
14.16

Scope 2, market-based emissions (metric tons CO2e)

Comment
Emissions from Pembangkitan Pusaka Parahiangan, Bio Jatropha Indonesia

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Subsidiary name
Office

Primary activity
Oil & gas extraction

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
259.97

Scope 2, location-based emissions (metric tons CO2e)
2474.46

Scope 2, market-based emissions (metric tons CO2e)

Comment
Emission from Jakarta Office, Singapore Office, and Malaysia Office

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	24390.27		Upstream Oil & Gas (E&P)
Oil and gas production activities (midstream)	0		No midstream activity
Oil and gas production activities (downstream)	0		No downstream activity
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Increased

C7.9a

(C7.9a) 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 emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	4214.98	Decreased	0.1	Higher Renewable Energy Consumption due to increasing usage of Biodiesel B30 in diesel generators and transportations in Offshore and Onshore.
Other emissions reduction activities	96550.98	Decreased	2	Total emission reduction from 28 implemented GHG Reduction Projects in 2022
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	355398.64	Increased	6	Formula of % Emission Value: {[2022 Gross Scope 1 emissions (C6.1) + Gross Scope 2 emissions (C6.3)] - [2021 Gross Scope 1 emissions (C6.1) + Gross Scope 2 emissions (C6.3)] - (Renewable energy consumption + Other emissions reduction activities) / [2021 Gross Scope 1 emissions (C6.1) + Gross Scope 2 emissions (C6.3)]} Lower GHG emission align with the decline of high CO2 fields (Corridor). However, it is offset by increase GHG emission mainly due to additional asset (MRPR) in Medco Power Indonesia.
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) 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)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	29993.66	16962488.83	16992482.49
Consumption of purchased or acquired electricity	<Not Applicable>	0	47113.31	47113.31
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	29993.66	17009602.14	17039595.8

C8.2b

(C8.2b) 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	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
We categorized our energy consumption from renewable and non-renewable sources.
We did not segregate the sources based on the biomass type.

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
We categorized our energy consumption from renewable and non-renewable sources.
We did not segregate the sources based on the biomass type.

Other renewable fuels (e.g. renewable hydrogen)

Heating value
LHV

Total fuel MWh consumed by the organization
29993.66

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Total fuel consumption from renewable sources for both Oil & Gas Operations (E&P) and Power Operations (Medco Power Indonesia)
- Gasohol 91/95 (E10)
- Gasohol (E20)
- Biodiesel B20 (Biosolar B20 and PTT Hyforce)
- Biodiesel (B30)
- Solar Energy

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
We do not use coal for our energy consumption

Oil

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
We categorized our energy consumption from renewable and non-renewable sources.
We did not segregate the sources based on the fuel (oil/gas) type.

Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
We categorized our energy consumption from renewable and non-renewable sources.
We did not segregate the sources based on the fuel (oil/gas) type.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
LHV

Total fuel MWh consumed by the organization
16962488.83

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Total fuel consumption from non-renewable sources for both Oil & Gas Operations (E&P) and Power Operations (Medco Power Indonesia)
- CNG
- Natural gas
- Gasoline
- Aviation gasoline
- Jet fuel (kerosene)
- Diesel
- Fuel oil
- Crude oil

Total fuel

Heating value
LHV

Total fuel MWh consumed by the organization
16992482.49

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Total fuel consumption from non-renewable and renewable sources for both Oil & Gas Operations (E&P) and Power Operations (Medco Power Indonesia)

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Indonesia

Consumption of purchased electricity (MWh)
9613.21

Consumption of self-generated electricity (MWh)
138.94

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
9752.15

Country/area
Malaysia

Consumption of purchased electricity (MWh)
25.4

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
25.4

Country/area
Oman

Consumption of purchased electricity (MWh)
37256.84

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
37256.84

Country/area
Singapore

Consumption of purchased electricity (MWh)
1.88

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1.88

Country/area
Thailand

Consumption of purchased electricity (MWh)
215.98

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
215.98

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Energy usage

Metric value
51416902.49

Metric numerator
Gigajoule

Metric denominator (intensity metric only)

% change from previous year
11

Direction of change
Increased

Please explain
The total energy consumption is increase in 2022 compared to 2021 due to additional asset (MRPR, 275 MW) in Medco Power Indonesia.

Notes:
We have recalculated and restated the Oil & Gas GRI 302 Energy disclosures for the years 2019, 2020, and 2021 to include Corridor acquisition. The restated 2019, 2020, 2021 numbers are available in 2022 Sustainability Report and GRI 302.

In March 2022, we have acquired Corridor, a Sumatra-based PSC with 7 producing gas fields, and 2 producing oil fields.

C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment
Crude oil and condensate, million barrels	12227	Production is calculated on Net Working Interest, taking into account percentage of MedcoEnergi's ownership on each asset.
Natural gas liquids, million barrels		
Oil sands, million barrels (includes bitumen and synthetic crude)		
Natural gas, billion cubic feet	257	Production is calculated on Net Working Interest, taking into account percentage of MedcoEnergi's ownership on each asset.

C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries/areas, please explain this.

As a listed company in Indonesia Stock Exchange (IDX), MedcoEnergi is required to report reserves as part of our Supplementary Financial Statements published on a quarterly basis.

C-OG9.2c

(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1	481	481	1522	Reserves are calculated on Net Working Interest, taking into account percentage of MedcoEnergi's ownership on each asset. Our Company Reserves disclosure is up to 2P (proved plus probable) and Contingent Resources.

C-OG9.2d

(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil/ condensate/ natural gas liquids	30	30	17	We only disclose up to 2P in 2022 MedcoEnergi Annual Report, which is accessible from www.medcoenergi.com.
Natural gas	70	70	83	We only disclose up to 2P in 2022 MedcoEnergi Annual Report, which is accessible from www.medcoenergi.com.
Oil sands (includes bitumen and synthetic crude)	0	0	0	

C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

Development type
Onshore

In-year net production (%)
80

Net proved reserves (1P) (%)
90

Net proved + probable reserves (2P) (%)
86

Net proved + probable + possible reserves (3P) (%)
86

Net total resource base (%)
58

Comment
We only disclose up to 2P in 2022 MedcoEnergi Annual Report, which is accessible from www.medcoenergi.com.

Development type
Shallow-water

In-year net production (%)
20

Net proved reserves (1P) (%)
10

Net proved + probable reserves (2P) (%)
14

Net proved + probable + possible reserves (3P) (%)
14

Net total resource base (%)
8

Comment
We only disclose up to 2P in 2022 MedcoEnergi Annual Report, which is accessible from www.medcoenergi.com.

Development type
Deepwater

In-year net production (%)
0

Net proved reserves (1P) (%)
0

Net proved + probable reserves (2P) (%)
0

Net proved + probable + possible reserves (3P) (%)

Net total resource base (%)
34

Comment
We only disclose up to 2P in 2022 MedcoEnergi Annual Report, which is accessible from www.medcoenergi.com.

C-OG9.5a/C-CO9.5a

(C-OG9.5a/C-CO9.5a) Break down, by fossil fuel expansion activity, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

	CAPEX in the reporting year for this expansion activity (unit currency as selected in C0.4)	CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year	CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years	Explain your CAPEX calculations, including any assumptions
Exploration of new oil fields	0	0	0	No capex for exploration and construction of new oil fields.
Exploration of new natural gas fields	0	0	5	CAPEX is associated with the exploration and construction of new natural gas fields. Total Capex = Total Capex from Oil & Gas and Power subsidiaries.
Expansion of existing oil fields	103	32	8	CAPEX is associated with the expansion/ extension of existing oil fields. Total Capex = Total Capex from Oil & Gas and Power subsidiaries.
Expansion of existing natural gas fields	167	52	57	CAPEX is associated with the expansion/ extension of existing natural gas fields. Total Capex = Total Capex from Oil & Gas and Power subsidiaries.
Development of new coal mines	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Expansion of existing coal mines	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	No	We currently have no investment in low-carbon R&D. For a company of our size and limited resources, we will be an adopter of proven technologies.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.

18.6

2022 Corp Planning proposal: The opex cash cost is still US$10.0/BOE and 5-year-average of F&DA cost (1P) is increased to US$8.6/BOE in 2022 due to Corridor acquisition.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No emissions data provided

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
A1.1.1 SAM344GL Independent Limited Assurance Statement English-MedcoSR2022_Released.pdf

Page/ section reference
Independent Limited Assurance Statement in relation to the Subject Matter included in the Sustainability Report of PT Medco Energi Internasional Tbk for the year 2022 for GRI 305 Emission page 12-16.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
A1.1.1 SAM344GL Independent Limited Assurance Statement English-MedcoSR2022_Released.pdf

Page/ section reference
Independent Limited Assurance Statement in relation to the Subject Matter included in the Sustainability Report of PT Medco Energi Internasional Tbk for the year 2022 for GRI 305 Emission page 12-16.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISAE 3000	Independent Limited Assurance Statement in relation to the Subject Matter included in the Sustainability Report of PT Medco Energi Internasional Tbk for the year 2022 page 10-12. The limited assurance applies for indicators in GRI 302 Energy: GRI 302-1: Energy Consumption within the organization. GRI 302-3: Energy Intensity. A1.1.1 SAM344GL Independent Limited Assurance Statement English-MedcoSR2022_Released.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Carbon pricing has been considered by the Government of Indonesia for several years. In October 2021, the Government of Indonesia introduced its long-anticipated carbon tax through Law No. 7 of 2021, as the Harmonisation of Tax Regulations (*Harmonisasi Peraturan Perpajakan*/HPP) Bill was signed by the President (the HPP Law). In the meantime, the President Regulation No. 98 of 2021 on the 'Implementation of Carbon Economic Value to Achieve Nationally Determined Contribution Targets and Control over Greenhouse Gas Emissions in Relation to National Development' (Regulation No. 98) was issued. Although the carbon tax will only be applied to the coal-fired power sector at the initial stage, full implementation of a carbon trading mechanism and the expansion of carbon taxation are expected to be carried out in stages from 2025 onwards.

As part of our strategy for complying with the systems, we have a Sustainability Policy that includes our commitments to reduce emissions and has started our journey towards alignment with TCFD recommendations since 2018.

- We calculated and reported Scope 1 for all assets starting 2018.
- In 2019-2020, we standardized our methodology and emission calculations, and we are reporting Scope 1 and Scope 2 in 2020 Sustainability Report.
- In 2021, we are identifying opportunities for GHG emission reduction and energy efficiency, initiate strategy formulation and engage CDP to disclose our climate-related data.
- In 2022, we set interim targets for 2025-2030 for Scope 1 and 2 reductions, as well as for cuts in methane emissions and increases in renewable capacity.
- We reported our emissions to relevant government agencies on an annual basis and also disclosed them in our Sustainability Report.
- We implement Environmental Management System in alignment with ISO 14001 to manage our environmental risks and impacts, including the emissions.
- We are developing compliance strategy for the upcoming climate change related regulation.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change

% of suppliers by number
80

% total procurement spend (direct and indirect)
80

% of supplier-related Scope 3 emissions as reported in C6.5
0

Rationale for the coverage of your engagement
We believe that awareness raising is crucial to the success of our engagement strategy, given that sustainability and climate change have not been sufficiently recognized and understood by businesses in the countries we operate. Therefore, we invite all suppliers to our annual Vendor Day, which account for approximately 80% of our active vendors and 80% of total procurement spent.

Impact of engagement, including measures of success
We are working to assess our engagement with supply chain partners. We are also looking to use the supplier engagement as an opportunity.
We will measure the impact of engagement including measure of success.

Comment
No additional comment.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

MedcoEnergi considers government agencies, associations, non-governmental organizations, financial institutions, universities, etc. as other partners in the value chain. We engaged with them on various climate change and energy transition topics and worked with them to build our internal capability, build trust, and contribute to the increase of awareness and education of the wider society.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Complying with regulatory requirements

Description of this climate related requirement
We require all our business partners to comply with our Code of Conduct, which provides detailed expectations in the Code of Supplier section, and mandates compliance with all applicable laws and regulations, including but not limited to climate-related regulations.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
100

Mechanisms for monitoring compliance with this climate-related requirement
Other, please specify (In the CoC, it already has a mechanism for monitoring and communication channel for any incompliance.)

Response to supplier non-compliance with this climate-related requirement
Other, please specify (The CoC already has response mechanism.)

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

MedcoEnergi's Climate Change Strategy, which is attached here and accessible in our website:
https://www.medcoenergi.com/files/Sustainability_Reports/MedcoEnergi%20Climate%20Change%20Strategy_ENG_AUG2022_v2.pdf
MedcoEnergi Climate Change Strategy_ENG_AUG2022_v2.pdf

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

• We have Sustainability Policy and HSE Policy that are accessible in our website. These policies include our commitments to reduce emissions and have started our journey towards alignment with TCFD recommendations since 2018.
• We calculated and reported Scope 1 for all assets starting 2018.
• In 2019-2020, we standardized our methodology and emission calculations and we are reporting Scope 1 and Scope 2 in 2020 Sustainability Report.
• In 2021, we are identifying opportunities for GHG emission reduction and energy efficiency, initiate strategy formulation and engage CDP to disclose our climate-related data.
• In 2022, we set up our climate interim target and established 2019 as our base year. Our climate interim targets are to reduce Scope 1 and Scope 2 GHG emissions by 20% and 30%, and methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 respectively, from the base year 2019. We also intend to provide 26% of our installed capacity from renewable energy in 2025 and 30% in 2030 in our power business.
• We reported our emissions to relevant government agencies on an annual basis and also disclosed them in our Sustainability Report.
• We implement Environmental Management System in alignment with ISO 14001 to manage our environmental risks and impacts, including the emissions.
• We have included climate change assessment in project review and sanction as part of sustainability assessment.

All information here is available in our website:
• Sustainability Policy
• HSE Policy
• Climate Change Strategy
• Sustainability Report
• TCFD Report

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

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

The regulations on which our organization is engaging with policy makers are the regulations concerning Carbon Economic Values. The Indonesian government is preparing to launch a cap-and tax scheme for each sector, and we are closely following up with the progress. The first phase of regulation, which issued in 2022, is for coal power generation.

Category of policy, law, or regulation that may impact the climate

Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate

Carbon taxes
Emissions trading schemes
Carbon offsets
Subsidies for renewable energy projects

Policy, law, or regulation geographic coverage

National

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

Indonesia

Your organization's position on the policy, law, or regulation

Neutral

Description of engagement with policy makers

Monitor the progress of the development of regulation and provide input/feedback through business and/or sector association.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

<Not Applicable>

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

The regulations concerning Carbon Capture (and Utilization) Storage.

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Emissions – CO2
International agreement related to climate change mitigation

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
Indonesia

Your organization's position on the policy, law, or regulation
Neutral

Description of engagement with policy makers
Monitor the progress of the development of regulation and provide input/feedback through business and/or sector association.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
<Not Applicable>

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Ministry of Energy & Mineral Resources (MEMR) Regulation No. 17/2021 concerning Flaring Management. This is in line with zero routine flaring by 2030, which is a World Bank initiative that the Indonesian government has endorsed.

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Emissions – CO2

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
Indonesia

Your organization's position on the policy, law, or regulation
Neutral

Description of engagement with policy makers
Together with the Indonesian Petroleum Association (IPA), we supported zero routine flaring initiative. We proposed to achieve zero flaring in several reduction stages. These stages were proposed to make the program more implementable. MEMR accommodated the association feedback and decreased the threshold of routine flaring volumetric flowrate gradually in the Ministry of Energy & Mineral Resources (MEMR) Regulation No. 17/2021.

This Regulation defines 7 types of flaring management and routine flaring management is one of them. The engagement with the policy makers will be continued and in line with the government roadmap to achieve zero flaring by 2030.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
<Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (Indonesian Chamber of Commerce (KADIN))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
We support our Government of Indonesia in climate change actions, same with the position of the trade's association.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
0

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
medc_2022 sustainability report.pdf

Page/Section reference
MedcoEnergi 2022 Sustainability Report Chapter 7 Realising Our Climate Aspirations, page 83-102.
The Report is available in MedcoEnergi website: https://www.medcoenergi.com/en/subpagelist/view/36

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Our 2022 MedcoEnergi Sustainability Report includes the progress of TCFD recommended disclosures since the publication of our first TCFD Report, which is accessible in our website: https://www.medcoenergi.com/en/page/view/3531

Publication
In voluntary communications

Status
Complete

Attach the document
Climate Change Vendor Day 15Dec2022_CDP.pdf

Page/Section reference
All slides are related.

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
We host a Vendor Day on an annual basis to communicate the Company's policies, systems, and expectations to our business partners. We conducted a virtual Vendor Day for Medco Oil & Gas, with over 700 participants, in December 2022. During the event, we highlighted key initiatives under our Sustainability and Climate Change Strategy, including the initiative for Scope 3 greenhouse gas emissions, to raise awareness of our climate aspirations with our business partners.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD) World Business Council for Sustainable Development (WBCSD)	PT Medco Energi Internasional, Tbk is TCFD's supporter since August 2022 (https://www.fsb-tcfd.org/supporters/) PT Medco Energi Internasional, Tbk is a member of Indonesian chapter of WBCSD (IBCSD) and Medco Power Indonesia is one of the founder members of IBCSD (https://ibcsd.or.id/about-the-indonesia-business-council-for-sustainable-development/)

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	Protecting our environment in the areas where we operate is one of our key priorities, as stated in our Health, Safety and Environment (HSE) policy. In fostering a strong HSE culture and drive sustainable growth, our HSE policy explicitly requires our employees and contractors to manage domestic & hazardous waste, air emissions and the utilization of energy and resources in order to minimize the impact on the environment and to protect its ecosystem and biodiversity. In the implementation of this policy, our Board of Directors (BoD) and executive management has the oversight and responsibility in ensuring its implementation in MedcoEnergi's business. Our commitment to safeguarding the environment is outlined in our Sustainability Policy. We acknowledge the importance of supporting biodiversity conservation and we have implemented several programs across our operations. Our main activities focus on replanting trees, as part of permit requirements and going beyond regulatory requirements. An overall summary of our replanting activities and the investment can be found in MedcoEnergi 2022 Sustainability Report http://www.medcoenergi.com/en/subpagelist/view/36	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Other, please specify (Commitment in minimizing any impact to the environment and protect ecosystem and biodiversity)	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
Other, please specify (Government of Indonesia's Environmental Impact Assessment (AMDAL or UKL/UPL))

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
Prior to obtaining a license to operate, we shall conduct an Environmental (and Social) Impact Assessment, which includes the establishment of Environmental (and Social) Management and Monitoring Plan. Biodiversity is one of the aspect that shall be assessed. Once the project moves to the operation phase, the operator carries the obligation to implement the Environmental (and Social) Management and Monitoring Plan, including for biodiversity.

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
Other, please specify (Government of Indonesia's Environmental Impact Assessment (AMDAL or UKL/UPL))

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
Prior to obtaining a license to operate, we shall conduct an Environmental (and Social) Impact Assessment, which includes the establishment of Environmental (and Social) Management and Monitoring Plan. Biodiversity is one of the aspect that shall be assessed. Once the project moves to the operation phase, the operator carries the obligation to implement the Environmental (and Social) Management and Monitoring Plan, including for biodiversity.

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Yes

C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area
Other biodiversity sensitive area, please specify (Wildlife Reserve)

Country/area
Indonesia

Name of the biodiversity-sensitive area
Nearby Suaka Margawatwa Dangku

Proximity
Up to 25 km

Briefly describe your organization's activities in the reporting year located in or near to the selected area
Pipeline ROW maintenance nearby Suaka Margasatwa Dangku.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity
Yes, but mitigation measures have been implemented

Mitigation measures implemented within the selected area
Physical controls
Operational controls
Biodiversity offsets

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
Corridor's Pipeline ROW which located near Suaka Margasatwa Dangku could potentially affect animal walkways. Biodiversity impact assessment is conducted during the development of Environmental Permits. Several mitigation efforts have been implemented such as installing all pipeline underground, ensuring our facility location is out of "daerah jelajah satwa" (fauna home range), wildlife encounter mitigation and collaboration with Government for wildlife monitoring and preservation. Regular monitoring and evaluation are implemented as part of permit compliance.

Classification of biodiversity -sensitive area
Other biodiversity sensitive area, please specify (Wildlidfe Reserve)

Country/area
Indonesia

Name of the biodiversity-sensitive area
Nearby Sembilang National Park

Proximity
Up to 25 km

Briefly describe your organization's activities in the reporting year located in or near to the selected area
Liquid transportation in Dawas River using Barging from Ramba, Jati to Corridor Storage Tanker (CST) in Bangka Strait nearby Sembilang National Park.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity
Yes, but mitigation measures have been implemented

Mitigation measures implemented within the selected area
Physical controls
Operational controls
Biodiversity offsets

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
The impact assessment for biodiversity Sembilang National Park was conducted during the development of Environmental Permits, as the locations is nearby our liquid transportation vessels route. Several mitigation efforts have been implemented, (i) double hull vessel and radar for traffic control and monitoring, and (ii) Established communication and journey management protocol among river users as coordinated by Government. We also have OSCP (Oil Spill Contingency Plan) in place, exercised regularly, and approved by Government.

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Education & awareness Law & policy Livelihood, economic & other incentives

C15.6

(C15.6) 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
Row 1	Yes, we use indicators	Response indicators Other, please specify (We continuously monitor our biodiversity-related initiatives and performance against the UN Sustainable Development Goals (SDGs).)

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Please select	MedcoEnergi's Health, Safety and Environment (HSE) Policy: https://www.medcoenergi.com/files/2021/2021%20MedcoEnergi%20HSE%20Policy%20Signed.pdf MedcoEnergi Sustainability Report: https://www.medcoenergi.com/en/subpagelist/view/36 2021-Medco HSE Policy-A3-PRINT (Signed).pdf medc_2022 sustainability report.pdf

C16. Signoff

C-FI

(C-FI) 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.

N/A

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms