SIRD #103
SOCIAL INVESTMENT ROUNDTABLE DISCUSSION

Social Investment Indonesia

FREE

DAPATKAN GIVEAWAY !

Kupas Tuntas Laporan IFRS S1-S2

Narasumber:



Retnia Wulandari, SE, MSc, CertSF
Manajer, Direktorat Keuangan Berkelanjutan
Otoritas Jasa Keuangan (OJK)



Fitria Leli
ESG Risk and Reporting Manager
PT PLN (Persero)



Prof. Juniati Gunawan, M.Si., Ph.D.
Head of Trisakti Sustainability Center



Jalal
Chairperson of Advisory Board
Social Investment Indonesia

Host:



Nur Astri Mufthia S.
Associate
Social Investment Indonesia

Jumat, 28 Agustus 2026

15.00 - 17.00 WIB

socialinvestment.id

0813-8808-511

Via zoom @SocialInvestment_Id

SIRD #103
SOCIAL INVESTMENT ROUNDTABLE DISCUSSION
Social Investment Indonesia

Kupas Tuntas Laporan IFRS S1-S2



Professional Experience

- *Head of Trisakti Sustainability Center*
- *Guru Besar Ilmu Ekonomi Fakultas Ekonomi dan Bisnis Universtitas Trisakti*
- *Mengampu mata kuliah Communication CSR dan Laporan Keberlanjutan serta ESG Investment and Reporting*
- *Meraih penghargaan Australia Award for Sustainable Finance: Transforming Challenges into Opportunities short course di Australia Tahun 2024, Winner of Emerald Literacy Awards tahun 2018 – Outstanding Author Contributions, Indonesian CSR Awards tahun 2020*

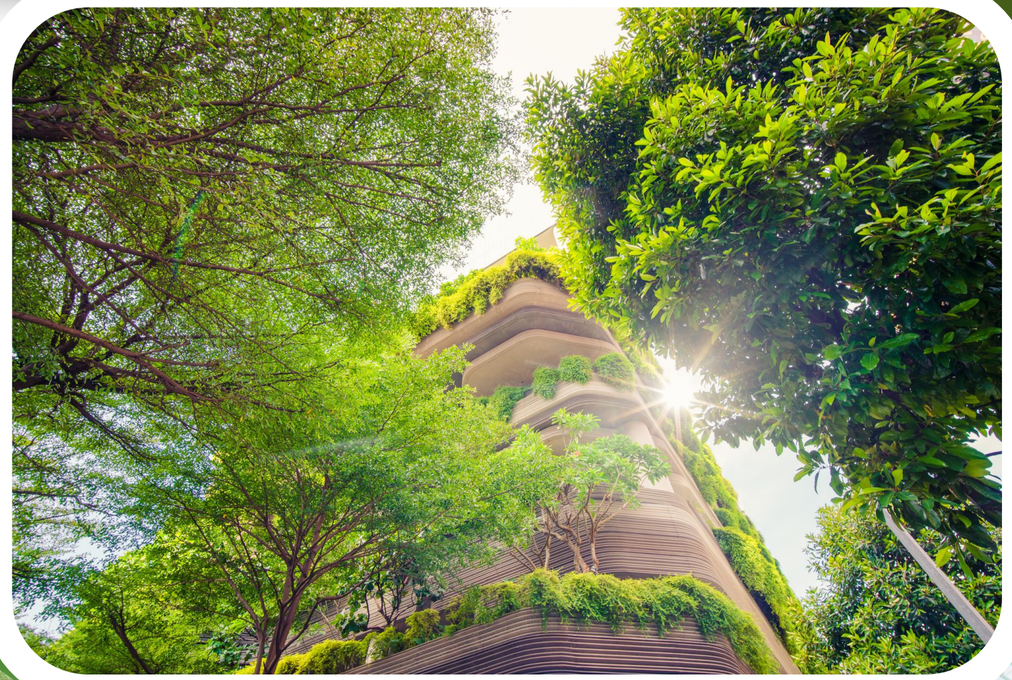
Educational Experience

- *S1 - Bidang Ekonomi Fakultas Ekonomi dan Bisnis Universitas Trisakti*
- *S2 - Bidang Ilmu Akutansi Jalur Profesi Universitas Indonesia (2000)*
- *S3 - Bidang Ilmu Akutansi Universitas Edith Cowan University Australia (2009)*

TSC
Trisakti Sustainability Center

Kupas Tuntas Laporan berbasis IFRS S1-s2

Social Investment Roundtable Discussion (SIRD) seri #103





28 Agustus 2026

Prof. Juniati Gunawan, PhD
Trisakti Sustainability Center - Universitas Trisakti

Our Expertise

One Stop Solution for Sustainability Needs

Management Assistance

1. Blueprint Sustainability
2. Climate Change Strategy, Carbon Calculation, LCA
3. Sustainable Finance
4. Assisting on ESG Indexes, GCG
5. ISO – ESG Certification

Impact Assessment

1. ISO 26000 Assessment
2. Community Development Assessment
3. Social & Stakeholders Mapping
4. Social Return On Investment (SROI)
5. PROPER (Gold & Green)

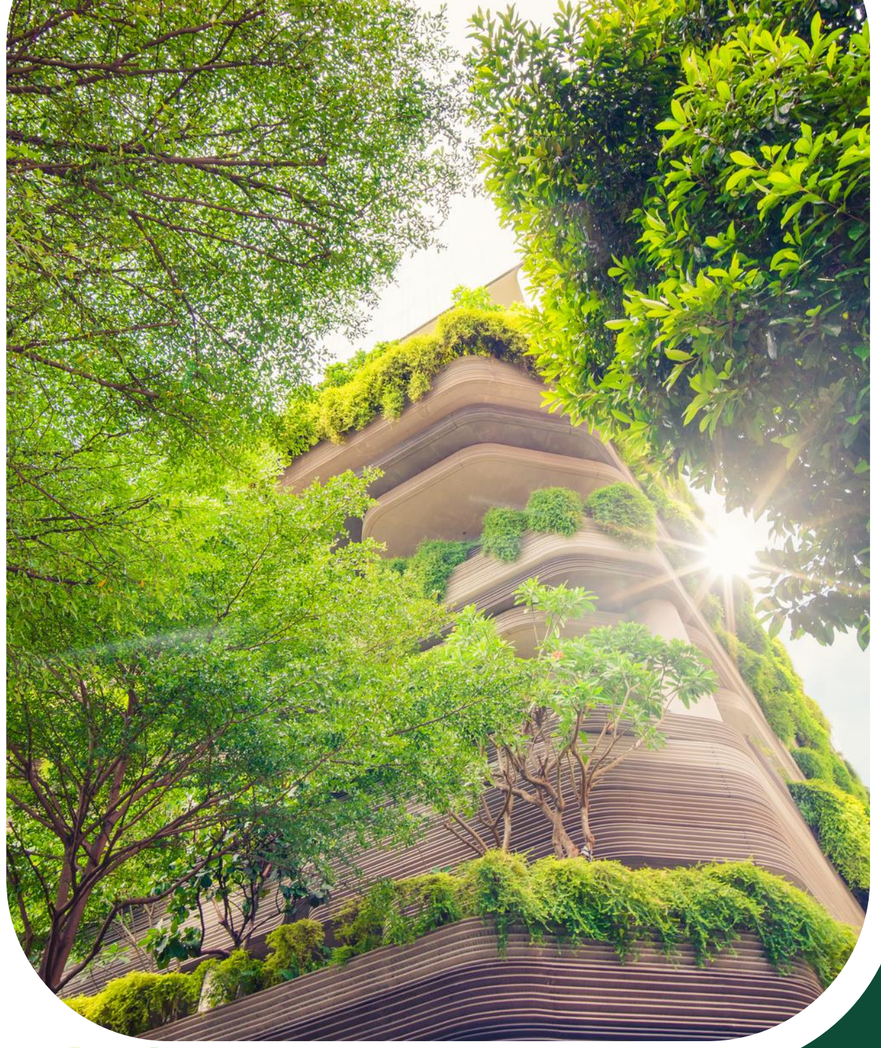
Reporting & Publication

1. Annual Report
2. Sustainability Report
3. Comprehensive Report
4. CSR Book
5. Environmental Book
6. Impact Report
7. Academic Journal

Sustainability Data Management System

Website-based reporting system

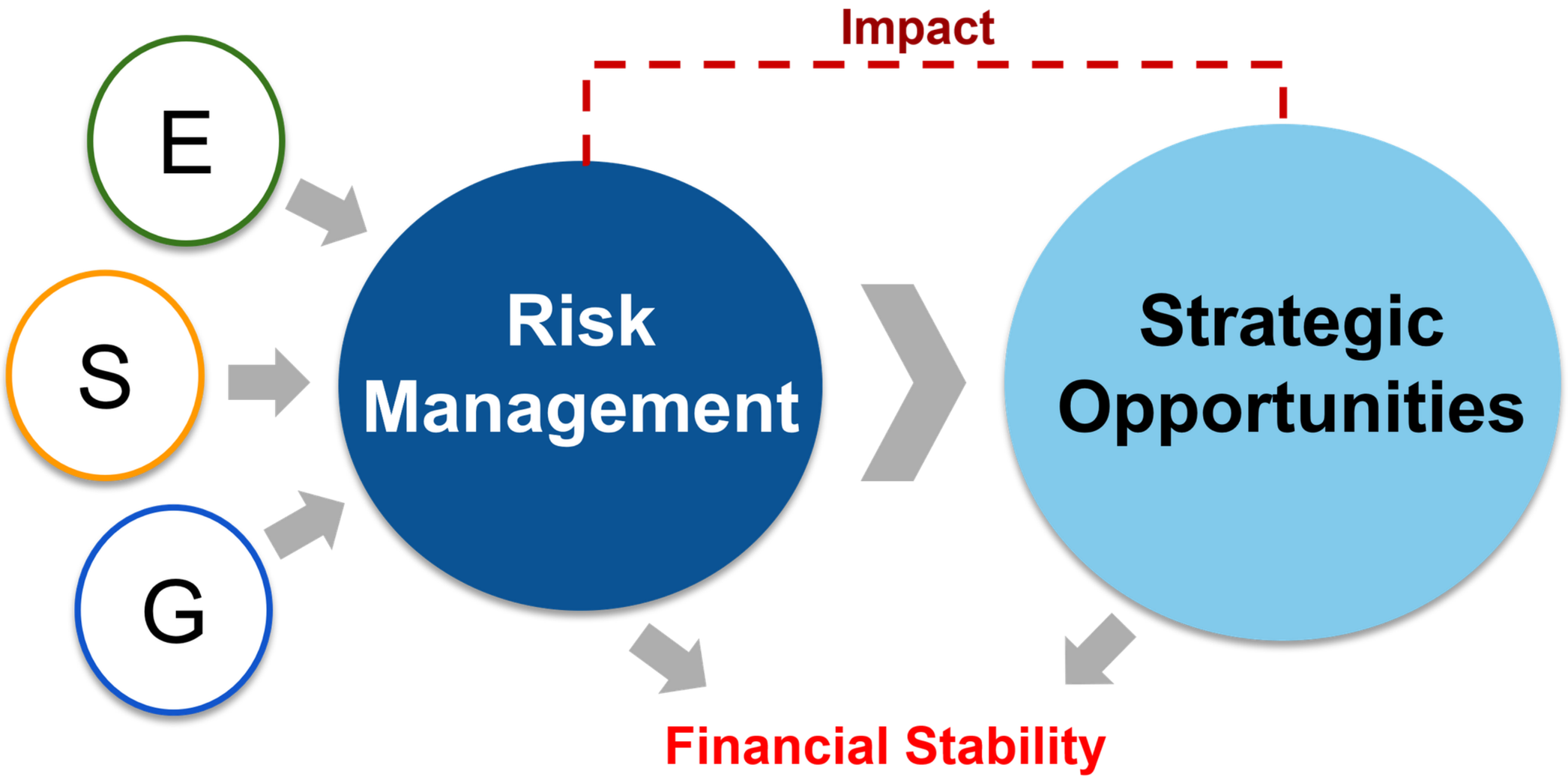




TSC
Trisakti Sustainability Center

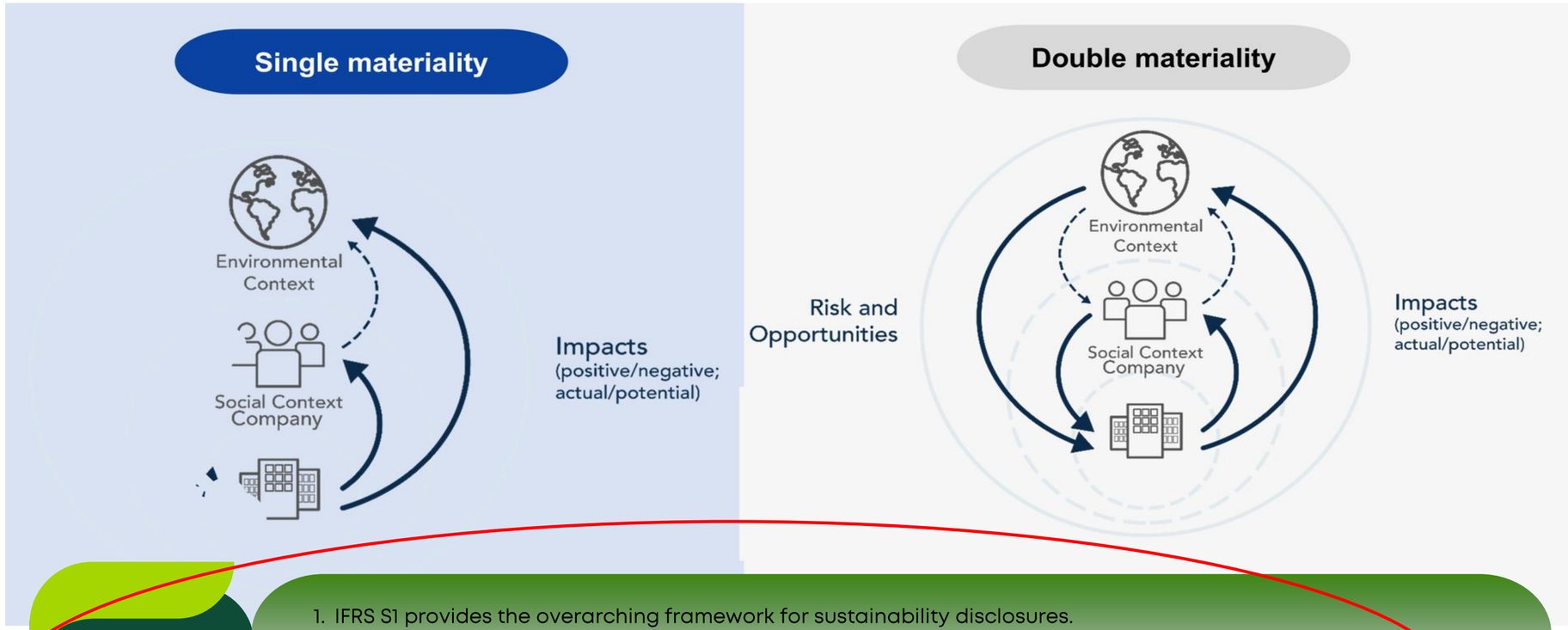
IMPLIKASI PRAKTIS
IFRS S1 & S2 (PSPK 1 & 2)

ESG as a Driver of Strategy and Risk Management



What is Double Materiality and Why?

Double materiality means considering both the impacts of the company's activities on people and the environment **(impact materiality)**, and the financial risks and opportunities sustainability matters pose to the company **(financial materiality).**
ESRS 1, Article 2 of CSRD



WHY DOES THE IFRS S1 AND S2 IS ONE WHOLE PACKAGE ?

1. IFRS S1 provides the overarching framework for sustainability disclosures.
2. Establishes key concepts, materiality assessment, and disclosure principles.
3. Defines reporting requirements, including reporting entity, timing, and reporting location.
4. Ensures climate-related disclosures under IFRS S2 are consistent, relevant, and decision-useful for investors.

The Guidelines of IFRS S1 & S2 Core Content

IFRS S1

Governance
The governance processes, controls, and procedures the company uses to **monitor, manage, and oversee sustainability-related risks and opportunities**.

Strategy
The approach for **managing sustainability-related risks and opportunities** that could affect the company's prospects, business model, and value chain.

Risk Management
The processes the company uses to **identify, assess, prioritize, and monitor sustainability-related risks and opportunities**.

Metrics and Targets
Information used to **measure and monitor the company's performance in relation to sustainability-related risks and opportunities**, including progress towards any company-set and mandated targets.

IFRS S2

Governance
Requires disclosure of material information about the governance processes, controls, and procedures a company uses **to monitor, manage, and oversee climate-related risks and opportunities**.

Strategy
Requires a company to disclose material information about the company's strategy for **managing climate-related risks and opportunities**. IFRS S2 also requires a company to use climate-related scenario analysis to inform its disclosures about its resilience to climate change.

Risk Management
Requires a company to disclose material information about the processes the company uses to **identify, assess, prioritize, and monitor climate-related risks and opportunities**.

Metrics and Targets
Requires a company to disclose metrics and targets to enable investors to **understand the company's performance in relation to its material climate-related risks and opportunities**. These metrics and targets include disclosure of a company's absolute GHG emissions, expressed as CO2e and calculated using the GHG Protocol Corporate Standard.

IFRS (PSPK) Disclosures

Governance

S1

Disclose how the governing body oversees sustainability-related risks and opportunities.

- Oversight structure and responsibilities
- Skills and competencies
- Information flow
- Integration in decision-making
- Monitoring target achievement and remuneration linkage

S2

Disclose how the governing body oversees climate-related risks and opportunities.

- Oversight structure and responsibilities
- Skills and competencies
- Information flow
- Integration in decision-making
- Monitoring target achievement and remuneration linkage

Strategy

S1

Disclose the actual and potential impacts of sustainability-related risks and opportunities on the entity.

(a) Impact on entity's prospects
(b) Impact on business model and value chain
(c) Impact on strategy and decision-making
(d) Impact on financial position, financial performance, cash flows, access to finance, etc.
(e) Resilience of strategy and business model

S2

Disclose the actual and potential impacts of climate-related risks and opportunities on the entity.

(a) Impact on entity's prospects
(b) Impact on business model and value chain
(c) Impact on strategy and decision-making, incl. transition plan
(d) Impact on financial position, financial performance, cash flows, access to finance, etc.
(e) Resilience of strategy and business model to climate change

Risk Management

S1

Disclose how the entity identifies, assesses, prioritizes, and monitors sustainability-related risks.

(i) Inputs and parameters used
(ii) Use of scenario analysis
(iii) Assessment of risk characteristics and magnitude
(iv) Prioritization of sustainability-related risks

S2

Disclose how the entity identifies, assesses, prioritizes, and monitors climate-related risks.

(i) Inputs and parameters used
(ii) Use of climate scenario analysis
(iii) Assessment of risk characteristics and magnitude
(iv) Prioritization of climate-related risks

Metrics and Targets

S1

Disclose the metrics and targets used to assess and manage relevant sustainability-related risks and opportunities.

(a) Metrics required by the applicable PSPK
(b) Entity-specific metrics used to measure and monitor:
  (i) Risks and opportunities
  (ii) Progress toward targets

S2

Disclose the greenhouse gas emissions.
(1) Scope 1 greenhouse gas emissions
(2) Scope 2 greenhouse gas emissions
(3) Scope 3 greenhouse gas emissions

Measure emissions in accordance with the GHG Protocol: A Corporate Accounting and Reporting Standard (2004), unless required otherwise by regulation or jurisdiction.

Example of Disclosure



Hyundai E&C

MATERIAL TOPIC

ESRS-E1 IFRS-S2

Climate Change

Hyundai E&C is striving to address the rapidly intensifying climate change. We face transition risks stemming from stricter greenhouse gas regulations, such as inclusion in the Emissions Trading Scheme (ETS), declining demand for high-carbon projects, and rising prices of carbon-intensive raw materials, as well as acute and chronic physical risks caused by typhoons, floods, heavy rainfall, and rising average temperatures at construction sites. To manage these challenges, Hyundai E&C is undertaking a wide range of response measures across our business operations and value chain. Concurrently, we are working to turn these challenges into opportunities by exploring new eco-friendly business areas such as Zero-Energy Buildings, offshore wind power, SMRs, CCUS, and electricity brokerage trading. Hyundai E&C is committed to achieving carbon neutrality across our value chain by 2045 in line with our SBTi Near-term certification.

Governance

Decision-Making Body on Climate Risks and Opportunities

The Corporate Governance and Communication Committee (CGCC) is the decision-making body responsible for overseeing climate-related risks and opportunities. As a subcommittee composed of directors appointed by the Board of Directors, one of its key roles is to review and approve major non-financial management issues, including those related to environment, social, and governance (ESG). These responsibilities are defined in the committee's operating regulations, under which it performs deliberations and decides on significant climate-related matters to manage and supervise associated risks and opportunities. Hyundai E&C's Nominating Committee for independent directors evaluates candidates' capabilities, including expertise in sustainability issues such as climate change. The CGCC possesses the capacity to supervise the company's strategic responses to climate-related risks and opportunities. For more information on the board composition and competencies, refer to "Corporate Governance" (p.97).

Reporting Methods and Frequency for the Decision-Making Body's Oversight of Risks and Opportunities

The CGCC receives information necessary for effective oversight of climate-related risks and opportunities from the Sustainability Steering Committee, which reports at least twice a year on non-financial matters related to ESG, such as the establishment and revision of environmental policies, performance of the Sustainability Management Team's initiatives including climate action, and the results of materiality assessments. These reports help the committee monitor the company's response to climate-related risks and opportunities. On February 21, 2024, the CGCC was briefed on the company's sustainability performance in 2023, the action plan for 2024 including climate-related issues, and the establishment of ESG KPIs and materiality assessments for 2024. On July 19, 2024, it received a report on the main contents of the 2024 Sustainability Report. The CGCC may also request the attendance of relevant employees or external experts at meetings as well as the submission of materials or statements, as needed. Additionally, external advisors with specialized knowledge may be appointed to provide further support.

Decision-Making Body's Consideration of Risks and Opportunities in Major Corporate Decisions and Oversight Activities

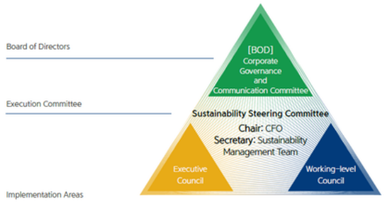
Climate change risks are comprehensively considered in Hyundai E&C's major decision-making processes, including key transactions and strategic planning by the company's decision-making body. We define climate-related risks and opportunities based on the risk classification framework recommended by the TCFD and categorize their potential financial and non-financial impacts in detail. Each risk and opportunity is assessed based on ① likelihood of occurrence, ② magnitude of impact, and ③ financial implications. Among the identified risks and opportunities, those deemed to have significant impact on the company are classified separately and utilized in relevant decision-making and oversight processes.

Oversight of Goal Setting and Monitoring of Progress by the Decision-Making Body

Hyundai E&C's climate-related goal of achieving carbon neutrality by 2045 was reviewed and approved by the CGCC on October 26, 2022. The committee monitors the progress of this goal by receiving annual reports from the Sustainability Steering Committee. These reports include quantitative and qualitative performance metrics, as well as implementation status and key achievements related to the 2045 carbon neutrality target.

Oversight of Goal Setting and Monitoring of Progress by the Decision-Making Body

The Sustainability Steering Committee, led by the CFO and established by the Corporate Governance and Communication Committee under the Board, is responsible for monitoring and managing climate-related risks and opportunities. The committee addresses these matters at the company-wide level, regularly discussing key ESG issues, including climate change, safety and health, and fair trade, to supervise and respond to risks and opportunities related to climate change.



Business Division	Procurement Division	Technology Research Center	Sustainability Management Team	Environmental Management Team
Operation of carbon reduction measures	Sustainability due diligence for the supply chain	Development of low-carbon technologies	Management of carbon neutrality targets	Site-level environmental management
Low-carbon construction methods and materials	Procurement of eco-friendly materials	Research on eco-friendly materials	Climate risk identification	Aggregation and management of carbon emissions
Promotion of energy transition projects			Scenario analysis	

Controls and Procedures for Executive Oversight of Risks and Opportunities

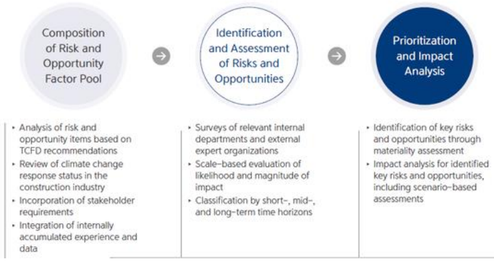
Departments under the CFO-led Sustainability Steering Committee oversee risks and opportunities by incorporating ESG improvement tasks, including those related to climate change, into their departmental KPIs each year. The ESG performance of these departments is reported quarterly, and climate-related issues are communicated to the committee by department executives and division heads. In addition, departmental performance goals are integrated into KPIs for employees.

Risk Management

Climate Risk and Opportunity Management Processes and Policies

Hyundai E&C prioritizes the management of climate risks by conducting climate materiality assessments to identify risks and opportunities that are deemed to have a significant impact on the company each year, and by establishing and operating an impact assessment process that includes scenario analysis for key climate risk factors. In 2025, in line with the process for climate risk and opportunity management outlined in the TCFD recommendations, we categorized climate-related risks and opportunities and developed corresponding issue pools. This process considered documents such as construction and engineering industry reports, and the requirements of stakeholders including clients, financial institutions, and NGOs. Based on this, we formed an issue pool comprising 11 issues related to climate-related risk and opportunity factors across our domestic and international operations along the entire value chain including both upstream and downstream. A comprehensive evaluation of the likelihood and potential impact scope of these factors was conducted through surveys with internal stakeholders and external experts. To reflect how each risk and opportunity may affect the business, time horizons were categorized as short-term (~ 2026), mid-term (~ 2030), and long-term (~ 2045). The results of this materiality assessment led to the selection of climate-related risks and opportunities deemed most impactful to Hyundai E&C. These key factors were further analyzed in detail through a scenario analysis. Other issues were also considered in terms of their potential strategic impact, using both quantitative and qualitative approaches.

▲ Climate Risk and Opportunity Management Processes



▲ Scenario Analysis Parameters

Input Variables and Parameters	Business Scope	Data Sources
Type of Physical Asset	Controlling Entity	S&P Climanomics® Asset Type
Physical Asset Location Data	Controlling Entity	Latitude and longitude coordinates
Workable Days Based on WBGT	Controlling Entity	Climate indicators from the Korea Meteorological Administration
Market Outlook	Controlling Entity	Industry trend analysis reports from external research institutions
Greenhouse Gas Emission Factors	Controlling Entity	Ministry of Environment's guidelines on emissions reporting and verification under the ETS, IEA, etc.
Greenhouse Gas Emissions	Controlling Entity	Specifications based on the Ministry of Environment's guidelines for ETS reporting and verification
Exchange Rate	-	Woori Bank's Periodic Average Exchange Rate Data
Carbon Credit Price	Controlling Entity	Ministry of Environment, IEA., etc.

Climate Risk Monitoring and Management

Hyundai E&C operates a climate risk management process that reviews climate-related risks and opportunities proactively and integrates them appropriately into the company's business decision-making framework. Based on this process, we annually identify and assess climate-related risks and opportunities that could have a material impact on the company. Quantitative assessment results of key risks and opportunities are reported to the management through the Sustainability Steering Committee and are reflected in company-wide strategic planning.
The risk management process is implemented at the business and project levels, taking into account the unique characteristics of the construction industry. Climate risks are managed through the steps of identification, assessment, and response. At the project level, risk management is conducted in two phases: pre-award and post-award. Prior to project acquisition, the Construction RM Team identifies potential direct and indirect risks, such as delays in schedule caused by regional, seasonal, or climate-specific factors, and convenes the Pre-contract Review Committee (PRC) to evaluate potential financial losses. After project award, the Environmental Management Team identifies potential climate risks during project execution and monitors GHG reduction performance through the Integrated Risk Management System. Risks identified at the project level are integrated into enterprise-level risk and opportunity management through the Sustainability Steering Committee.

Changes in Risk Management Process from the Previous Year

There were no changes to Hyundai E&C's climate-related risk management process compared to the previous year.

Strategy

Business Model and Value Chain

Identifying and Assessing Risks and Opportunities

In line with the TCFD[1] recommendations, Hyundai E&C has classified climate-related risks and opportunities that may affect the company's outlook and established issue pools by referring to documents such as the IPCC[2] Sixth Assessment Report, construction and engineering industry reports, and the requirements of stakeholders including clients, financial institutions, and NGOs. Based on this, we formed 11 pools of climate-related risk and opportunity factors that are expected to impact our domestic and international operations across the entire value chain including both upstream and downstream. The expected time horizon of occurrence has also been determined for each factor[3].

1) TCFD: Task Force on Climate-related Financial Disclosure
2) IPCC: Intergovernmental Panel on Climate Change
3) Time horizons are defined as short-term (~2025), mid-term (~2030), long-term (~2045), in alignment with Hyundai E&C's 2045 Net-Zero target and related strategies

Impacts of Risks and Opportunities

Hyundai E&C assesses how each climate-related risk and opportunity factor affects its business model (strategy, operations, and revenue structure) or value chain (supply chain and partner network), and distinguishes whether the impact is already occurring or is expected to occur in the medium to long term. Due to the nature of the construction industry, which primarily involves outdoor sites, physical risks from climate change tend to have a widespread impact across operations. At the same time, transition risks are growing in response to evolving Legal Risks(policies) and Regulations aimed at addressing climate change. On the other hand, market shifts toward energy transition and the adoption of low-carbon construction technologies are presenting new business opportunities, which are expected to have a positive influence on the company's future revenue structure and technological competitiveness.

Climate-related Risks and Opportunities					Current and Expected Impacts on Business Model and Value Chain			
Category			Description	Time Horizon*	Category			Description
Physical Risks[3]	Acute[3]	P1	Increasing severity of extreme weather events such as typhoons, floods, and heavy rainfall	Short-term	Business model	Current	Decreased revenue and rising preventive costs due to increased frequency and intensity of climate disasters such as typhoons, floods, and heavy rainfall ※ Project delays caused by fewer workable days and restoration efforts result in liquidated damages, recovery costs, reduced revenue due to rework, and increased prevention costs.
		P2	Increase in the number of extreme heat days	Mid-term	Business model	Current	Decline in worker productivity and health risks among workers leading to revenue loss and compensation costs ※ Reduced labor efficiency and restricted workdays cause construction schedule delays.
	Chronic[4]	P3	Rise in average temperatures	Short-term	Business model	Current	Higher energy costs and energy consumption, and elevated GHG emissions due to increased use of cooling equipment prompted by rising average temperatures
Transition Risks[4]	Legal Risks and Regulations	T1	Inclusion in the Emissions Trading Scheme (ETS) and Strengthened Regulations	Mid-term	Business model	Emerging	(Current regulation) Increased compliance costs from inclusion in the Emissions Trading Scheme (ETS) ※ Emission quota exceedance, expansion of paid allocation, and rising carbon credit prices lead to increased costs for emission allowance purchases.
		T2	Mandatory disclosure of climate-related information	Mid-term	Business model	Emerging	(Emerging regulation) Need for enhanced climate response capabilities and heightened legal risk due to mandatory climate disclosures (e.g., CSRD, SEC) ※ Increased costs related to additional disclosures beyond financial indicators and corporate activities for climate change, as well as potential legal liabilities from non-disclosure or false or discrepant climate-related information
	Market	T3	Rising prices of carbon-intensive raw materials	Mid-term	Value chain	Current	Rising costs due to price increases in carbon-intensive raw materials (e.g., steel, cement) caused by strengthened GHG regulations ※ Higher production costs of raw materials may lead to reduced output, resulting in supply instability and greater price volatility.
	Technology	T4	Costs associated with the transition to electrification and high-efficiency equipment	Mid-term	Value chain	Emerging	Cost increases associated with adopting low-carbon construction technologies and high-efficiency or electrified equipment
	Reputation	T5	Reputational damage from inadequate climate response	Long-term	Business model	Emerging	Decline in corporate credibility and reduced capital access due to insufficient climate action or low ESG ratings
Opportunities[4]	Products /Services	O1	Growing demand for energy transition projects	Mid-term	Business model	Emerging	Revenue growth from increased orders for energy transition projects, including nuclear (SMRs), offshore wind, hydrogen/ammonia, solar, and CCUS
		O2	Increasing demand for Zero-Energy buildings	Mid-term	Business model	Emerging	Increased sales of zero-energy buildings driven by stronger building energy efficiency policies and mandatory zero-energy building regulations
	Technology	O3	Growing demand for low-carbon construction technologies	Mid-term	Business model	Current	Expansion of market and enhancement of technological competitiveness through increased R&D of low-carbon construction technologies (e.g., materials and methods)

1) Physical risks: Risks arising from the physical impacts of climate change, including short-term events such as heatwaves, floods, droughts, and typhoons, and long-term changes such as rising sea levels and increasing average temperatures
2) Acute: High-intensity, short-term climate-related physical risks such as extreme heat, typhoons, and torrential rainfall
3) Chronic: Long-term, gradual physical impacts of climate change with cumulative and structural effects, including rising sea levels, sustained temperature increases, and ongoing shifts in precipitation patterns
4) Transition risks: Risks that may arise from changes in policy, regulation, technology, or market conditions as the transition of the global economy to a low-carbon model.
5) Opportunities: Business opportunities that may emerge from efforts to address and adapt to climate change, such as improving resource efficiency and cost savings, adopting low-carbon energy sources, developing new products and services, accessing new markets, and building resilient supply chains

Metrics and Targets

Metrics

Total Greenhouse Gas Emissions

Category		Unit	2021	2022	2023	2024[1]	Base Year (2019/2020)
Direct/Indirect GHG Emissions (Scope 1&2)[2]		tCO_2e	296,841	384,836	363,374	250,681	596,140
	Direct GHG Emissions(Scope 1)	tCO_2e	174,227	309,762	270,467	137,450	417,904
	Domestic	tCO_2e	13,102	22,411	18,905	16,986	15,536
	Overseas	tCO_2e	161,125	287,351	251,562	120,464	402,368
	Indirect GHG Emissions (Scope 2)[3]	tCO_2e	122,614	75,074	92,907	113,234	178,236
	Domestic	tCO_2e	65,075	57,556	68,947	69,323	58,090
	Overseas	tCO_2e	57,539	17,518	23,960	43,911	120,146
Other Indirect GHG Emissions (Scope 3)		tCO_2e	9,281,746	6,658,746	5,765,722	5,198,461	9,484,466
Total GHG Emissions		tCO_2e	9,578,587	7,043,582	6,129,096	5,449,142	10,080,606

1) GHG emissions reduced due to a change in the calculation method during third-party verification in 2024.
2) The total amount of direct and indirect greenhouse gas emissions is calculated by truncating decimal values at each site, which may result in discrepancies to the sum of emissions by type.
3) Region-based emissions

Energy Consumption

Category		Unit	2021	2022[1]	2023	2024	Base Year (2019)
Non-renewable Energy Consumption		MWh	948,503	1,368,223	1,187,177	778,234	1,959,569
	Electricity Consumption	MWh	238,714	151,868	189,386	235,594	281,196
	Domestic	MWh	137,672	123,606	148,912	150,119	121,877
	Overseas	MWh	101,043	28,262	40,474	85,475	159,319
	Fuel Consumption	MWh	701,271	1,212,771	995,296	540,979	1,668,420
	Domestic	MWh	58,325	94,517	78,646	71,791	67,493
	Overseas	MWh	642,946	1,118,253	916,650	469,188	1,600,927
	Other (Steam, etc.)	MWh	8,517	3,584	2,495	1,661	9,953
	Domestic	MWh	8,517	3,584	2,495	1,661	9,953
	Overseas	MWh	-	-	-	-	-
Renewable Energy Consumption[2]		MWh	38	61	66	123	-
	Solar Power Generation (Domestic)	MWh	38	61	66	123	-
Renewable Energy Usage Rate		%	0.004	0.004	0.006	0.016	0

* Renewable energy usage was restated to accommodate changes in energy usage calculation methods for 2021-2022
1) Energy usage increased in 2022 as other curing fuels were added to the scope of calculation.
2) Renewable energy usage data was restated as charcoal was excluded for 2021-2022.

Targets

The current targets and performance data for Hyundai E&C's Scope 1 & 2 and Scope 3 GHG emissions are as follows. For more detailed information on Hyundai E&C's long-term climate goal of achieving net-zero emissions by 2045, please refer to the "Climate Transition Plan and Achievement Roadmap" section under Strategy.



* Refer to energy consumption on p.138

Source : Hyundai Engineering & Construction 2025 Sustainability Report

PT CIPUTRA DEVELOPMENT

GOVERNANSI
GOVERNANCE

PERAN PENGAWASAN DEWAN KOMISARIS TERHADAP RISIKO DAN PELUANG TERKAIT IKLIM [TCFD GOV.a]
THE SUPERVISORY ROLE OF THE BOARD OF COMMISSIONERS REGARDING CLIMATE-RELATED RISKS AND OPPORTUNITIES

Dewan Komisaris menjalankan fungsi pengawasan atas risiko dan peluang yang berkaitan dengan perubahan iklim sebagai bagian dari tanggung jawabnya dalam mengarahkan strategi jangka panjang Perseroan. Tanggung jawab tersebut telah tercermin dalam uraian peran dan governansi yang berlaku di tingkat Dewan Komisaris [S1.27a] [S1.27a.1] [S2.6a3] [S2.6a] [S2.6a1]

Dalam rapat gabungan bersama Direksi, risiko dan peluang terkait dengan iklim menjadi bagian dari pembahasan strategis, termasuk perkembangan kebijakan emisi karbon, inovasi teknologi, perubahan preferensi pasar, serta risiko fisik seperti bencana alam, kenaikan permukaan air laut, dan perubahan pola cuaca. Selain itu, pembahasan juga mencakup pemantauan atas perkembangan inisiatif seperti penerapan energi terbarukan dan sertifikasi bangunan hijau sebagai bagian dari upaya pengelolaan risiko dan peluang terkait iklim. [S1.27a.3] [S1.27a.4] [S2.6b1]

Melalui pembahasan tersebut, Dewan Komisaris memperoleh pemahaman mengenai implikasi risiko dan peluang terkait iklim terhadap keberlanjutan usaha, ketahanan proyek, serta arah pengembangan bisnis ke depan. Pertimbangan ini mendukung penguatan kebijakan manajemen risiko dan strategi jangka panjang yang lebih responsif terhadap isu lingkungan. [S1.27b] [S2.6a4]

The Board of Commissioners performs a supervisory function regarding climate-related risks and opportunities as part of its responsibility to guide the Company's long-term strategy. This responsibility is reflected in the role descriptions and governance framework applicable for the Board of Commissioners.

In joint meetings with the Board of Directors, climate-related risks and opportunities were incorporated into strategic discussions, including developments of carbon emission policies, technological innovations, shifts in market preferences, and the physical risk such as natural disasters, sea-level rise, and changing weather patterns. Additionally, this discussion also covered the monitoring of initiatives progress such as the adoption of renewable energy and green building certification as part of efforts to manage climate-related risks and opportunities.

Through these discussions, the Board of Commissioners obtains understanding of the implications of climate-related risks and opportunities on business sustainability, project resilience, and direction for future business development. These considerations support the reinforcement of risk management policies and long-term strategies that are more responsive to environmental issues.

MANAJEMEN RISIKO
RISK MANAGEMENT

KERANGKA MANAJEMEN RISIKO [TCFD RISK.a]
RISK MANAGEMENT FRAMEWORK

Dalam menghadapi tantangan yang semakin kompleks, termasuk risiko yang timbul akibat perubahan iklim dan ketidakpastian pasar, Perseroan menerapkan pendekatan manajemen risiko yang sistematis dan terstruktur untuk mengidentifikasi, menilai, dan mengelola risiko yang dapat memengaruhi kelangsungan operasional dan prospek usaha.

Pengelolaan risiko iklim terintegrasi dalam sistem manajemen risiko korporasi secara keseluruhan. Prosesnya mengikuti kebijakan manajemen risiko yang berlaku, termasuk mekanisme identifikasi risiko, penilaian berbasis dampak dan probabilitas, serta pelaporan melalui jalur pengawasan manajemen. Kerangka tersebut memungkinkan Perseroan untuk menilai profil risiko secara menyeluruh, termasuk eksposur terhadap risiko fisik dan transisi, serta implikasinya terhadap nilai aset, struktur biaya, dan ketahanan model bisnis. [S1.43a] [S1.43b] [S2.25a] [S2.25c]

In navigating the increasingly complex challenges, including risks arising from climate change and market uncertainty, the Company implements a systematic and structured risk management approach to identify, assess, and manage risks that could affect operational continuity and business prospects.

Climate risk management is integrated into the overall corporate risk management system. The process complies with the applicable risk management policies, including risk identification mechanisms, impact-based and probability-based assessments, and reporting through management oversight channels. This framework enables the Company to assess risk profile comprehensively, including exposure to physical and transition risks, as well as the implications for asset value, cost structure, and business model resilience.

STRATEGI
STRATEGY

IMPLIKASI FINANSIAL DAN RISIKO SERTA PELUANG LAIN AKIBAT DARI PERUBAHAN IKLIM [TCFD STRA.a] [GRI 201-2]
FINANCIAL IMPLICATIONS, RISKS, AND OTHER OPPORTUNITIES ARISING FROM CLIMATE CHANGE

Risiko dan peluang terkait perubahan iklim berpotensi menyebabkan berbagai dampak bagi industri properti, termasuk bagi Ciputra. Perubahan iklim dapat menimbulkan risiko signifikan, seperti kerusakan properti akibat cuaca ekstrem, peningkatan biaya operasional untuk pengelolaan sumber daya, dan ketatnya regulasi lingkungan. Kondisi tersebut berpotensi memengaruhi nilai properti, meningkatkan biaya asuransi dan pemeliharaan, serta berdampak pada arus kas dalam jangka pendek hingga panjang. Selain itu, peraturan yang semakin ketat terkait lingkungan memaksa pengembang untuk melakukan

Risks and opportunities related to climate change have a potential to drive various impacts on the real estate industry, including Ciputra. Climate change may present significant risks, such as property damage due to extreme weather, increased operational costs for resource management, and strict environmental regulations. These conditions have the potential to affect property values, increase insurance and maintenance costs, and impact cash flow in the short to long term. Additionally, the increasingly stringent regulations regarding environment are forcing developers to make adjustments in design and construction activities, which may

Jenis Risiko Type of Risk	Dampak terhadap Ciputra Impact on Ciputra	Mitigasi Mitigation	Peluang Opportunity
Risiko Fisik **Physical Risks**			
Kenaikan Suhu dan Kekeringan Berkepanjangan	Kenaikan suhu ekstrem dapat menurunkan kenyamanan penghuni, meningkatkan kebutuhan pendingin udara, dan menaikkan biaya operasional bangunan.	Desain bangunan dengan efisiensi energi, penggunaan material tahan panas, dan integrasi teknologi pendingin pasif.	Permintaan meningkat untuk properti ramah lingkungan dan hemat energi.
Rising Temperatures and Prolonged Drought	Extreme temperature increases can reduce residents' comfort, increase air conditioning needs, and raise building operational costs.	Building designs with energy efficiency, use of heat-resistant materials, and integration of passive cooling technologies.	Increasing demand for environmentally friendly and energy-efficient properties.
Risiko Transisi **Transition Risk**			
Perubahan Regulasi Lingkungan/Karbon	Kewajiban sertifikasi bangunan hijau dan pengurangan emisi dapat menambah biaya konstruksi dan operasional.	Penyesuaian desain bangunan sesuai standar bangunan hijau, penggunaan sumber energi terbarukan, dan pemantauan jejak karbon.	Daya tarik investor dan pelanggan meningkat untuk proyek berkelanjutan.
Changes in Environmental/Carbon Regulations	Mandatory green building certification and emission reduction may increase construction and operational costs.	Adjusting building designs to meet green building standards, utilizing renewable energy sources, and monitoring carbon footprint.	Increased appeal to investors and customers for sustainable projects.

The disclosure links each climate-related risk to its potential impact, mitigation actions, and associated opportunities within a single table.

METRIK DAN TARGET [TCFD MET.a] [TCFD MET.c]
METRICS AND TARGETS

Ciputra menggunakan metrik kuantitatif untuk mengukur dan memantau risiko serta peluang terkait perubahan iklim sejalan dengan strategi dan proses manajemen risiko Perseroan. Metrik utama yang saat ini digunakan adalah emisi Gas Rumah Kaca (GRK) yang terdiri dari Cakupan 1 (satu) dan Cakupan 2 (dua), serta perluasan pengukuran Cakupan 3 (tiga) secara bertahap. Perhitungan emisi GRK dilakukan dengan mengacu pada pedoman GHG *Protocol Standard for Corporation*. Kinerja terhadap metrik yang digunakan telah diungkapkan dalam Bab "Pembangunan yang Bertanggung Jawab", termasuk tren emisi dibandingkan tahun sebelumnya, sebagai dasar evaluasi efektivitas pengelolaan risiko dan peluang terkait iklim. [S1.46b] [S2.29a]

Ciputra uses quantitative metrics to measure and monitor risks and opportunities related to climate change in line with the Company's risk management process and strategy. The primary metrics currently used are Greenhouse Gas (GHG) emissions, which include Scope 1 (one) and Scope 2 (two), as well as the gradual expansion of Scope 3 (three) measurements. GHG emissions are calculated in accordance with the GHG Protocol Standard for Corporations. Performance against these metrics is disclosed in the "Responsible Development" Section, including emission trends compared to the previous year, as a basis for evaluating the effectiveness of managing climate-related risks and opportunities.

Source : PT Ciputra Development 2025 Sustainability Report

Governance

Governance Overview

Climate Risk Shapes the Future, Decisions Define the Outcome

Climate change has generated increasingly tangible physical impacts on a global scale, including glacier melt, rising sea levels, and the growing frequency and intensity of extreme weather events. These impacts not only disrupt ecosystem balance and increase risks to biodiversity but also create significant implications for economic stability and social well-being. The IPCC Sixth Assessment Report (AR6) notes that climate-related impacts have already occurred across various regions and are projected to intensify in line with rising global temperatures. The magnitude of future risks will depend substantially on actions taken today, including mitigation and adaptation policies, as well as the transition toward a low-carbon economy.

In this context, governance plays a critical role. A robust climate governance framework functions not only as a supervisory mechanism but also as a foundation to ensure that climate-related risks and opportunities are identified, managed, and consistently integrated into strategy, risk management, and long-term decision-making processes.

As a financial institution operating within the national economy, BRI recognizes its role in responding to climate change alongside other stakeholders. In line with the Government of Indonesia's commitment to achieving Net-Zero Emissions by 2060 or earlier, as outlined in the Enhanced Nationally Determined Contribution (NDC), BRI supports national climate objectives through the implementation of structured climate governance. BRI has established a climate governance framework involving the Board of Commissioners and management across the organization, supported by clearly defined roles and responsibilities. This structure enables the Bank to manage climate-related risks and opportunities in a structured manner, integrate sustainability considerations into business models and decision-making processes, and strengthen long-term resilience while supporting sustainable value creation.

6.a.i.



Role of the Board of Commissioners and Board of Directors [OJK E.1] [GRI 2-12]

Roles and Responsibilities

Climate governance at BRI is led by the Board of Commissioners and the Board of Directors as the highest strategic decision-making bodies. The Board of Commissioners and the Board of Directors establish the direction of sustainability policies and strategies, including climate-related targets, and oversee their implementation and progress in an integrated manner within the Company's risk management framework and business strategies. The ESG Committee and the Risk Management Committee, as committees under the Board of Directors, perform their respective roles in addressing climate change in accordance with their mandated responsibilities.

Within the context of climate-related risks and opportunities, the ESG Committee is responsible for approving and directing the management of climate-related risks and opportunities, including the Net-Zero Emissions commitment and decarbonization initiatives. Meanwhile, the Risk Management Committee receives reports on the results of Climate Scenario Analysis, which outline the impacts of climate change on the Bank's inherent risks, and determines financing policies that consider climate-related risks and opportunities. Further details regarding the mandates and responsibilities of each committee are available in the Corporate Sustainability section.

BRI recognizes that climate change risk is not a standalone risk but an inherent component of banking risks that may affect the Bank's risk profile, financial performance, and long-term business sustainability. Accordingly, competencies in understanding and managing climate-related risks have become an integral part of management capability requirements and oversight functions, including for officials serving on the ESG Committee and the Risk Management Committee. In line with this approach, strengthening competencies related to climate-related risks and opportunities has been integrated into the Bank's risk management capability development framework, including through the Risk Management Certification Alignment Program (SMR). This program delivers dedicated materials on climate change risks to members of the Board of Commissioners, the Board of Directors, and Senior Executive Vice Presidents (SEVP), ensuring that discussions and decision-making processes at the committee level are conducted on an informed basis, integrated across functions, and aligned with the Bank's enterprise risk management framework.

6.a.ii.

Source: BRI Laporan Keberlanjutan 2025

Integration of Climate-Related Risks and Opportunities into Strategy and Decision-Making

6.a.iv.

BRI integrates climate-related risks and opportunities into strategic planning, key decision-making processes, and the establishment of risk appetite, in alignment with its governance and risk management framework. In this context, the Risk Management Committee and the ESG Committee serve as primary forums for strategic discussion and direction-setting, performing complementary roles in accordance with their respective mandates to ensure that climate risk management is reflected in financing policies, exposure management, and the Bank's risk appetite. BRI's climate-related strategy forms an integral part of its broader corporate strategy, designed to strengthen business resilience, preserve portfolio quality, and capture sustainable growth opportunities in support of the transition toward a low-carbon economy.

Risk Response Strategy

BRI's climate risk response strategy is directed toward mitigating potential impacts on the Bank's risk profile, asset quality, and portfolio resilience. This strategic direction is informed by the results of Climate Scenario Analysis, which assesses portfolio exposure to physical and transition risks across multiple time horizons. BRI ensures that climate-related risks are managed systematically as an inherent component of banking risks and are integrated into the enterprise risk management framework, financing policies, risk appetite setting, and strategic decision-making processes, thereby supporting medium- and long-term performance stability.

Opportunity Response Strategy

Beyond representing a source of risk, climate change is also viewed by BRI as a strategic opportunity to drive sustainable growth and long-term value creation. BRI directs portfolio development toward financing solutions that support the transition to a low-carbon economy, including the expansion of sustainable financing activities and the strengthening of emissions reduction initiatives. This approach enables BRI to capture measurable opportunities while maintaining an appropriate balance between business expansion, portfolio quality, and prudent risk management.

Looking ahead, BRI will continue to enhance its financial impact analysis models to quantify the effects of climate-related risks and opportunities and actively leverage these insights in strategic decision-making.

Reporting

BRI implements a structured climate-related reporting and escalation mechanism as part of its sustainability governance framework. Climate-related reports are submitted to the Board of Commissioners on a periodic basis, at least semi-annually, as part of the Board's oversight function over the effectiveness of climate-related risk and opportunity management and alignment with BRI's strategic direction in supporting the transition toward a low-carbon economy. These reports include developments in climate-related risk exposure, the results of Climate Scenario Analysis, sustainability performance, and matters requiring further attention or direction from the Board of Commissioners. In line with this mechanism, the ESG Committee and the Risk Management Committee hold meetings on a regular basis, at least twice a year, to discuss developments in climate-related risks and opportunities. Committee deliberations are supported by technical analysis, risk assessments, and relevant data. The outcomes of committee discussions and decisions are documented in the form of recommendations, which serve as guidance for management in determining and refining strategies, policies, and implementation measures related to climate change within BRI. Through this structured reporting and escalation process, BRI ensures that climate-related information is communicated in a timely, structured, and analysis-based manner, and is effectively utilized in strategic decision-making and oversight processes.

6.a.iii.

Oversight of Climate Targets and Integration into Performance Evaluation

BRI has established a structured mechanism to oversee climate-related targets by integrating sustainability and climate indicators into performance evaluation systems at the Board of Directors and management levels. This approach is intended to ensure that climate commitments are not only established as strategic policies but are also continuously monitored and translated into measurable performance outcomes. At the Board of Directors level, oversight of climate-related performance is reflected in Key Performance Indicators (KPIs) that include sustainable financing targets. These indicators serve as benchmarks for assessing the effectiveness of the Board in steering sustainability strategy, integrating ESG considerations into key decision-making, and ensuring the management of climate-related risks and opportunities across BRI.

6.a.v.

At the management level, BRI has defined performance indicators focused on the implementation of climate strategies, particularly through sustainable financing targets and greenhouse gas emission reductions. These indicators reflect management accountability in executing the strategic direction set by the Board of Directors through operational programs and decarbonization initiatives across business units. Through the linkage of sustainability performance indicators with performance evaluation, BRI promotes consistent oversight of climate target achievement while reinforcing the integration of sustainability metrics into the broader performance management framework. This approach supports the incorporation of climate-related risks and opportunities into governance, strategy, and operational activities in alignment with sound governance practices.

Source: BRI Laporan Keberlanjutan 2025

Governance

Management's Role

Roles and Responsibilities

BRI delegates defined roles and responsibilities to management for the implementation of its climate strategy, ensuring alignment with the strategic direction, policies, and targets established by the Board of Directors. Within this framework, the management of climate-related matters and the implementation of the sustainability agenda are coordinated by the ESG Group under the Legal and Compliance Directorate, supporting the integration of climate-related policies, processes, and initiatives across business units. This management approach is carried out collaboratively and in an integrated manner through the involvement of the Risk Management Unit, the Business and Strategy Unit, and the Operational Unit, ensuring that climate-related risks and opportunities are consistently identified, managed, and monitored across BRI's business and operational activities.

ESG Group

The ESG Group is responsible for developing and enhancing frameworks, policies, strategies, and sustainability initiatives, including those related to the management of climate-related risks and opportunities. The Group conducts periodic evaluations of existing policies and practices to ensure alignment with BRI standards, international practices, evolving regulations, and global benchmarks. In addition, the ESG Group facilitates the implementation of climate policies and sustainability strategies, including support for the Bank's Net Zero Emissions target by 2050, ensuring that emissions reduction measures are integrated into performance indicators. The ESG Group also identifies critical climate-related aspects for integration into governance structures and ensures the availability of mechanisms for monitoring and reporting climate performance to the Board of Directors on a regular basis.

Operational Unit

The Operational Unit is responsible for identifying and responding to climate-related risks and opportunities relevant to operational activities. This includes supporting budget formulation and execution to advance climate management initiatives and operational decarbonization efforts across the Bank, in line with established policies and strategies.

Risk Management Unit

The Risk Management Unit plays a role in integrating climate-related risks into the Bank's enterprise risk management framework, in collaboration with the ESG Group for risk mapping and assessment, including the identification of physical and transition risks. The Unitconducts climate scenario analysis to evaluate the potential impacts on operational activities and portfolio resilience, thereby supporting risk-informed business decision-making.

Business and Strategy Unit

The Business and Strategy Unit integrates climate-related risks and opportunities into the Bank's investment and financing activities. The Unit maintains policies governing financed emissions and manages the financing portfolio to support emissions reduction targets and the expansion of sustainable financing.

6.b.i & 6.b.ii.

Source: BRI Laporan Keberlanjutan 2025

10.a. & 10.b

Climate Risk Classification and Drivers

BRI classifies climate-related risks in accordance with the Task Force on Climate-related Financial Disclosures (TCFD) framework, which categorizes climate risk into two primary types: transition risk and physical risk. Transition risk refers to risks arising from policy and regulatory changes, technological developments, market dynamics, as well as legal and reputational considerations associated with the transition toward a low-carbon economy. Physical risk reflects the direct impacts of climate change on assets and economic activities and is categorized into acute risks resulting from extreme weather events and chronic risks associated with long-term climate shifts. In assessing climate-related risks, BRI evaluates the potential impacts on operational activities as well as its financing and investment portfolios. The assessment considers the characteristics of banking activities and relevant exposures that may influence the Bank's overall risk profile. Climate risk impact evaluations are conducted using both quantitative and qualitative approaches. The quantitative approach includes analysis of potential impacts on financial performance, financing portfolio exposure, and credit risk. Complementing this, the qualitative assessment considers implications for BRI's reputation, the sustainability of customer relationships, and stakeholder perceptions. This approach supports the comprehensive management of climate-related risks and ensures their integration into the Bank's enterprise risk management framework.

No	Category	Risk Factors	Impact on the Financial Business and the Company	Potential Financial Impact	Level of Impact	Short Term	Medium Term	Long Term
Transition Risk								
1	Technology Risk	Increasing demand for low-carbon technologies	Rising R&D and technology investment costs	Increased research, development, and technology adoption expenses	Low		✓	✓
2	Policy and Legal Risk	• Carbon pricing • National decarbonization strategy • Climate-related disclosure requirements	• Higher compliance costs • Transition costs (e.g., electric vehicles, alternative energy)	• Increased operational expenses • Decline in asset values within carbon-intensive sectors • Litigation costs and climate compliance expenditures	High	✓	✓	✓
3	Market Risk	• Growing renewable energy adoption • Rising demand for environmentally friendly products • Changes in customer behavior • Market demand for green finance	• Need to develop green financial products • Increased non-performing loans in carbon-intensive sectors • Reduced investor demand and confidence	Increase in credit losses within carbon-intensive portfolios, potentially affecting the Bank's Capital Adequacy Ratio (CAR)	High		✓	✓
4	Reputational Risk	Risk of losing investor confidence and trust	• Decline in institutional reputation with investors and debt holders • Loss of confidence due to inadequate climate response	• Higher business strategy costs to rebuild reputation • Decline in investment and sales • Reduction in brand value	Low	✓	✓	✓
Physical Risk								
5	Acute Physical Risk	• Heatwaves • Flooding • Tropical cyclones • Wildfires	• Operational disruptions • Damage to facilities and supply chains • Service interruptions affecting customers	• Liquidity risk driven by fund withdrawals • Asset and infrastructure recovery costs	Medium	✓	✓	✓
6	Chronic Physical Risk	• Rising temperatures • Sea level rise • Water stress	• Long-term asset value deterioration • Asset relocation or write-off requirements	• Asset value impairment • Decline in long-term portfolio value	Low		✓	✓

10.c.

Overview of BRI's Strategy [GRI 3-3]

Managing Climate Risk, Capturing Strategic Opportunity

Climate change has resulted in increasingly tangible physical risks globally, including glacier melt, rising sea levels, and the growing frequency and intensity of extreme weather events. These developments give rise to material risks to financial institutions, particularly in sectors exposed to transition risk as the economy shifts toward a low-carbon pathway. In this context, climate risk is not viewed solely as a source of uncertainty, but also as a strategic factor that, when managed appropriately, can support innovation, business resilience, and sustainable growth.

BRI recognizes that maintaining long-term resilience requires a structured and forward-looking approach to managing climate-related risks while optimizing opportunities arising from transition dynamics and adaptation efforts. In line with this commitment, BRI consistently identifies, measures, and evaluates climate-related risks and opportunities with reference to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), aligned with the global IFRS S2 standard, and adopts practices in developing transition plans as reflected in the Transition Plan Taskforce (TPT) framework.

Time Horizon

BRI categorizes climate-related risks and opportunities into short-term (up to one year), medium-term (one to five years), and long-term (more than five years) time horizons. These time horizons are aligned with the Bank's strategic planning and decision-making processes and serve as a basis for setting priorities and defining medium- and long-term strategic targets. This structured approach enables BRI to assess and manage climate-related risks and opportunities progressively and in a measurable manner, while ensuring that strategic responses remain relevant to evolving risk dynamics, regulatory developments, and long-term sustainability objectives.

Risk Level	Description
High	Risks classified as high refer to risks that are expected to generate long-term adverse impacts on BRI's operations and business strategy, potentially requiring changes to the Bank's strategic direction or business model.
Medium	Risks classified as medium refer to risks that may generate long-term impacts on BRI's operations and business strategy and require response measures that can be implemented within the existing operational and strategic framework.
Low	Risks classified as low refer to risks that are expected to generate short-term impacts on BRI's operations and may require one-off actions to adapt within the existing operating model or ongoing risk monitoring.

10.d.

Source: BRI Laporan Keberlanjutan 2025

Examples

Pengelolaan Risiko dan Peluang Perubahan Iklim

PGE telah mengidentifikasi 10 risiko dan 5 peluang perubahan iklim melalui penerapan skenario kualitatif, guna menilai potensi dampak dari berbagai dinamika lingkungan di masa depan sebagai dasar penyusunan strategi dan langkah mitigasi yang lebih terarah. Selain itu, Perseroan juga melakukan analisis skenario kuantitatif terhadap risiko bencana alam seperti longsor dan gempa bumi yang mencakup kantor pusat di Jakarta serta enam fasilitas operasional di Sibayak, Lumut Balai, Ulubelu, Kamojang, Karaha, dan Lahendong. Adapun untuk jangka waktu yang dipakai mengikuti peta jalan dari PT Pertamina (Persero), yakni:

25a.i

1. **Jangka pendek**, meliputi periode 1-2 tahun (2024-2026);
2. **Jangka menengah**, meliputi periode 3-6 tahun (2027-2030);
3. **Jangka panjang**, meliputi periode 7 tahun dan seterusnya (2031 dan seterusnya).

PGE menerapkan analisis skenario perubahan iklim dengan mengombinasikan *Representative Concentration Pathways* (RCP) untuk menilai risiko fisik serta *Shared Socioeconomic Pathways* (SSP) untuk mengevaluasi risiko transisi (kebijakan, pasar, sosial-ekonomi, dan reputasi), yang disesuaikan dengan konteks Indonesia. Pendekatan ini fleksibel mengikuti perkembangan eksternal dan mengacu pada proyeksi pemanasan *global* Intergovernmental Panel on Climate Change (IPCC) hingga 2100.

Climate Change Risk and Opportunity Management

PGE has identified 10 risks and 5 opportunities related to climate change through the application of qualitative scenarios to assess the potential impacts of various future environmental dynamics and inform the development of more targeted strategies and mitigation measures. In addition, the Company also conducted a quantitative scenario analysis of natural disaster risks such as landslides and earthquakes covering its head office in Jakarta and six operational facilities in Sibayak, Lumut Balai, Ulubelu, Kamojang, Karaha, and Lahendong. The time frame used follows the road map of PT Pertamina (Persero), namely:

1. **Short term**, covering a period of 1-2 years (2024-2026);
2. **Medium term**, covering a period of 3-6 years (2027-2030);
3. **Long term**, covering a period of 7 years and beyond (2031 and beyond).

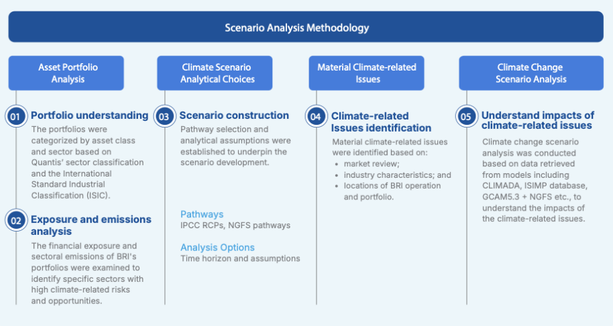
PGE applies climate change scenario analysis by combining Representative Concentration Pathways (RCP) to assess physical risks and Shared Socioeconomic Pathways (SSP) to evaluate transition risks (policy, market, socioeconomic, and reputation), tailored to the Indonesian context. This approach is flexible in response to external developments and is based on the Intergovernmental Panel on Climate Change (IPCC) global warming projections until 2100.

Source: Sustainability Report PGE 2025

BRI's Approach to Climate Change Scenarios Analysis

Source: Sustainability Report BRI 2025

BRI conducts climate change scenario analysis to assess the potential impacts of climate change on its financing portfolio, operational activities, assets, and financial performance. The analysis is developed in collaboration with external parties and refers to relevant national and international best practices and guidelines, including the Climate Risk Management and Scenario Analysis (CRMS) guide issued by the Financial Services Authority (OJK), as well as international references such as the Network for Greening the Financial System (NGFS) and the Intergovernmental Panel on Climate Change (IPCC), while being tailored to the Company's portfolio characteristics. Through this scenario analysis, the Company aims to strengthen its understanding of business resilience and the readiness of its strategies in responding to various potential transition pathways and physical climate risks.



Climate Change Scenarios Chosen by BRI

Aspect	Risiko Transisi	Risiko Fisik
Time horizon used	Long-term impact analysis covering an approximate 25-year period, from the end of 2025 through 2050.	
Asset scope subject to analysis	BRI's entire financing portfolio (100%) across all economic sectors based on the 2025 financial year.	Collateral for agricultural and mortgage (KPR) financing, as well as BRI's operational locations.
Scenarios applied	NGFS Scenario: • Current Policies • Delayed Transition • Net Zero 2050	RCP Scenario: • RCP2.6/SSP1-2.6 • RCP4.5/SSP2-4.5 • RCP8.5/SSP5-8.5

25a.i

25a.ii

Source: Source: Unilever Annual Report and Accounts 2025

In line with leading practice, we conducted scenario analyses to assess and understand the resilience of our strategy and business model under a range of possible futures. These scenarios align with the Shared Socioeconomic Pathways (SSPs) as defined in the Intergovernmental Panel on Climate Change (IPCC's) Sixth Assessment report. We selected climate scenarios based on their relevance, usefulness and data availability, and included a <2°C-aligned pathway (SSP1-2.6), <3°C-aligned pathway (SSP2-4.5) and >4°C-aligned pathway (SSP5-8.5). The selected nature scenarios align with the climate scenarios based on their temperature goals and policy ambitions.

25a.ii

Last year, we disclosed results against a specific 1.5°C-aligned pathway. This year, we have disclosed a <2°C scenario based on updated research, such as the United Nations Environment Programme (UNEP) Emissions Gap Report 2025:

- For our transition risks, our models reference external scenario datasets with the most stringent emissions pathways aligned with a 1.5°C scenario, such as the Network for Greening the Financial System (NGFS) 'Net Zero 2050' and International Energy Agencies (IEA) 'Net Zero Emissions by 2050' scenarios.
- For our modelled physical risks, there is less data availability for SSP1-1.9 so we have used SSP1-2.6 as a suitable proxy given that the 'very likely range' of temperatures for this pathway is 1.3-2.4°C. We will revisit this decision in the future once sufficient data becomes available for SSP1-1.9 to allow for detailed financial risk modelling.

Topic	Scenario	Scenario Description
Climate	<2°C (SSP1-2.6)	Global temperatures increase until approximately 2070 before decreasing to remain below 2°C by 2100, in line with the Paris Agreement of limiting warming to below 2°C. This is achieved through globally coordinated climate policies and technological innovation. Net zero CO_2e achieved by approximately 2070.
	<3°C (SSP2-4.5)	Global temperatures increase but are limited to less than 3°C by 2100. Global development and climate action progress unevenly; some sustainability measures are adopted, but fossil fuel use continues and mitigation efforts are moderate. Net zero is not reached by 2100, although CO_2e levels decline from approximately 2040.
	>4°C (SSP5-8.5)	Global temperatures continue to increase and exceed 4°C by 2100. There is no globally coordinated climate policy and irreversible tipping points are at increasing risk of being crossed. CO_2e levels continue to rise throughout the 21st century.
Nature	High Nature Preservation	Aligned with the Taskforce on Nature-related Financial Disclosures (TNFD) 'Ahead of the Game' scenario and utilising the Food and Agriculture Organization (FAO) 'Towards Sustainability' data, this scenario focuses on high transition risks and the implications of a resilient economy transitioning to a world with lower ecosystem degradation. It assumes strong COP15-aligned policies and coordinated global climate efforts limiting warming to well below 2°C, reducing biodiversity loss and ecosystem degradation.
	Delayed Nature Action	Utilising FAO 'Stratified Societies' data, this scenario assumes acute disruptions to ecosystem services, such as water scarcity, pollination collapse or soil degradation, which results in impacts to operations, supply chains and resource availability. This triggers rapid and coordinated responses from governments, markets and civil society, including urgent policy shifts, consumer behaviour changes and financial reallocation toward nature-positive solutions.
	High Nature Degradation	Aligned with the TNFD 'Sand in the Gears' scenario and utilising FAO 'Business as Usual' data, this scenario assesses business resilience to high ecosystem service degradation and the physical and systemic risks associated with continued environmental decline. It assumes fragmented global efforts and insufficient climate policies drive temperatures above 2°C by 2050, worsening biodiversity loss and environmental decline, and escalating risks for businesses and communities.

Examples

Manajemen Risiko Dampak **Perubahan Iklim** [OJK E.3][GRI 2-25]

Climate Change Impact Risk Management

Perseroan mengimplementasikan kerangka kerja pengelolaan risiko *Enterprise Risk Management* (ERM) yang mencakup proses identifikasi, pengukuran, pemantauan dan pengendalian risiko dari dampak negatif terhadap aspek LST, termasuk mengenai perubahan iklim. Penerapan kerangka kerja pengelolaan risiko dijalankan sesuai Pedoman Manajemen Risiko yang mengacu ISO 31000:2018 dan tertuang dalam Traktat Manajemen Risiko, Komitmen Manajemen Risiko dan Sistem Kerja Manajemen Risiko.

The company implements an Enterprise Risk Management (ERM) framework that covers the process of identifying, measuring, monitoring, and controlling risks from negative impacts on ESG aspects, including climate change. The implementation of the risk management framework is carried out in accordance with the Risk Management Guidelines that refer to ISO 31000:2018 and are outlined in the Risk Management Treaty, Risk Management Commitment, and Risk Management Work System.

25a.iii

Risiko terkait Iklim [GRI 201-2]
Climate-Related Risks

25a.iii

Risiko Fisik | Physical Risks

Jenis Risiko Risk Type	Perubahan pola hujan Changes in rainfall patterns	Kategori dan Periode Risiko Risk Category and Period	• Kronis • Jangka Pendek (2024-2026) • Chronic • Short-term (2024-2026)
Dampak Risiko Risk Impact	Pola hujan yang tidak menentu mengakibatkan longsor, banjir, maupun kekeringan yang dapat memengaruhi proses operasional termasuk *Engineering, Procurement, Construction, and Commissioning* (EPCC). Hal ini dapat menunda penyelesaian proyek serta berpotensi meningkatkan biaya operasional. Unpredictable rainfall patterns can cause landslides, flooding, and droughts, which can affect operational processes, including Engineering, Procurement, Construction, and Commissioning (EPCC). This can delay project completion and potentially increase operational costs.	Inisiatif 2025 2025 Initiative	1. Monitoring curah hujan dan konsultasi di bidang klimatologi setiap bulan dengan bekerja sama dengan Badan Meteorologi, Klimatologi, dan Geofisika (BMKG). 2. *Monitoring geohazard* di setiap area rawan setiap enam bulan sekali. 3. *Monitoring Early Warning System* (EWS) bahaya longsor. 4. Perkuatan lereng dan perawatan saluran drainase ketika terdapat *red flag* dari EWS. 1. Monitoring rainfall and consulting on climatology every month in collaboration with the Meteorology, Climatology, and Geophysics Agency (BMKG). 2. Monitoring geohazards in each vulnerable area every six months. 3. Monitoring the Early Warning System (EWS) for landslide hazards. 4. Slope reinforcement and drainage channel maintenance if there is a red flag from EWS.
Jenis Risiko Risk Type	Kekeringan Drought	Kategori dan Periode Risiko Risk Category and Period	• Kronis • Jangka Menengah (2027-2030) • Chronic • Medium-term (2027-2030)
Dampak Risiko Risk Impact	Menghambat proses pengeboran karena kurangnya pasokan air dapat mengakibatkan gangguan operasional dan penundaan penyelesaian proyek. Interruptions in the drilling process due to insufficient water supply can result in operational disruptions and delays in project completion.	Inisiatif 2025 2025 Initiative	1. Melakukan kegiatan pengeboran di musim hujan, terutama di Area Karaha. 2. Melakukan kegiatan-kegiatan efisiensi air dalam kegiatan operasional. 3. Pemetaan *water stress* area tahunan menggunakan *Aqueduct Water Risk Atlas*. 4. Melakukan pencatatan konsumsi air. 5. Melakukan audit air tahunan pada Area Kamojang, Area Ulubelu, Area Lahendong, dan Area Karaha. 6. Melakukan penanaman 13.435 pohon pada area operasional perusahaan, lahan kritis dan daerah aliran sungai. 1. Conducting drilling activities during the rainy season, especially in the Karaha Area. 2. Implement water efficiency measures across operational activities. 3. Mapping water stress areas annually using the Aqueduct Water Risk Atlas. 4. Record water consumption. 5. Conduct water audits annually in the Kamojang, Ulubelu, Lahendong, and Karaha areas. 6. Plant 13,435 trees in the Company's operational areas, critical land, and river basins.

25a.iii

Risiko Transisi | Transition Risks

Jenis Risiko Risk Type	Tantangan pembebasan lahan dan perolehan izin Challenges in land acquisition and permit acquisition	Kategori dan Periode Risiko Risk Category and Period	• Kebijakan dan hukum • Jangka Panjang (2031-2060) • Policies and laws • Long-term (2031-2060)
Dampak Risiko Risk Impact	• Target peningkatan kapasitas tidak tercapai. • Target pendapatan tidak tercapai. • Peningkatan beban biaya karena penundaan proyek. • Capacity increase targets not achieved. • Revenue targets not achieved. • Increased costs due to project delays.	Inisiatif 2025 2025 Initiative	Berpartisipasi aktif melalui APBI sebagai mitra Pemerintah dalam perumusan kebijakan. Active participation through APBI as a partner of the Government in policy formulation.
Jenis Risiko Risk Type	Kebijakan Pemerintah dalam bauran energi Government policy on energy mix	Kategori dan Periode Risiko Risk Category and Period	• Kebijakan dan hukum • Jangka Menengah (2027-2030) • Policy and legislation • Medium-term (2027-2030)
Dampak Risiko Risk Impact	• Turunnya penjualan listrik dapat memengaruhi pendapatan Perseroan. • Adanya kekhawatiran akan nilai komersial dalam jangka panjang yang membuat PGE sulit menarik investor, yang dapat berdampak kepada pembiayaan proyek dan operasional di masa depan. • A decline in electricity sales could affect the Company's revenue. • Concerns about long-term commercial value make it difficult for PGE to attract investors, potentially affecting future project financing and operations.	Inisiatif 2025 2025 Initiative	1. Konsisten menjaga rencana pengembangan bisnis perusahaan pada pengembangan panas bumi dan produk turunannya sesuai dengan Rencana Jangka Panjang Perusahaan (RJPP). 2. Melakukan komunikasi kepada pihak eksternal terkait rencana bisnis perusahaan dan keunggulan energi panas bumi, baik melalui publikasi media massa maupun media sosial Perseroan. 3. Melakukan penilaian keberlanjutan perusahaan melalui ESG *Rating* dan CDP. 1. Consistently maintain the Company's business development plans for geothermal energy and its derivative products in accordance with the Company's Long-Term Plan (RJPP). 2. Communicate with external parties regarding the Company's business plans and the advantages of geothermal energy, both through mass media publications and the Company's social media. 3. Assess the Company's sustainability using ESG Ratings and the CDP.

25a.iii

Peluang terkait Iklim
Climate-related Opportunities

	Jenis Peluang Types of Opportunities	Kategori dan Periode Peluang Opportunity Categories and Periods	Deskripsi dan Dampak Keuangan Peluang Opportunity Descriptions and Financial Impact	Inisiatif 2025 2025 Initiatives
	Bahan bakar pengganti untuk pengeboran Alternative fuel for drilling	• Ketahanan • Jangka Pendek-Panjang (2025-2045) • Resilience • Short-Long Term (2025-2045)	Mengganti bahan bakar solar konvensional menjadi *biodiesel* yang lebih ramah lingkungan pada proses pengeboran. Replacing conventional diesel fuel with more environmentally friendly biodiesel in the drilling process. **Dampak Keuangan:** Belanja operasional **Financial Impact:** Operational expenditure	100% subsitusi penggunaan bahan bakar B35. Full (100%) substitution with B35 fuel.
	Bahan bakar pengganti untuk kendaraan Alternative fuel for vehicles	• Ketahanan • Jangka Pendek-Panjang (2025-2060) • Resilience • Short-Long Term (2025-2060)	Mengganti kendaraan konvensional dengan kendaraan berbasis listrik yang memiliki tingkat emisi lebih rendah. Replacing conventional vehicles with electric vehicles that have lower emission levels. **Dampak Keuangan:** Belanja operasional **Financial Impact:** Operational expenditure	Substitusi penggunaan kendaraan operasional dengan kendaraan listrik dan *hybrid*. Substituting the use of operational vehicles with electric and hybrid vehicles.
	Tenaga panas bumi yang digunakan sendiri Self-generated geothermal power	• Sumber energi • Jangka Pendek-Panjang (2024-2060) • Energy sources • Short-Long Term (2024-2060)	Mengganti listrik dari PLN dengan listrik dari tenaga panas bumi yang dihasilkan sendiri akan mengurangi ketergantungan listrik terhadap PLN, serta mengurangi emisi cakupan 2 Perseroan. Replacing electricity from PLN with electricity from self-generated geothermal energy reduces dependence on PLN for electricity and reduce the Company's scope 2 emissions. **Dampak Keuangan:** Belanja operasional **Financial Impact:** Operational expenditure	Menggunakan pembangkitan listrik mandiri melalui panas bumi sebesar 168.122,41 MWh. Using independent electricity generation through geothermal energy of 168,122.41 MWh.
	Efisiensi sumber daya alam Efisiensi sumber daya alam	• Teknologi *Brine to Power* • Jangka Pendek-Panjang (2024-2060) • Brine to Power technology • Short-Long term (2024-2060)	Teknologi *Brine to Power* yang menghasilkan listrik dari fluida geotermal dapat mengurangi konsumsi listrik dari PLN. Brine to Power technology, which generates electricity from geothermal fluids, can reduce electricity purchased from PLN. **Dampak Keuangan:** Belanja operasional **Financial impact:** Operational expenditure	Menggunakan PLTP dengan skala 500 kW untuk menghidupkan pompa reinjeksi *Brine to Power*. Using a 500 kW geothermal power plant (PLTP) to operate the Brine to Power reinjection pump.
	Solusi berbasis alam Nature-based solutions	• Teknologi *Brine to Power* • Jangka Menengah-Panjang (2027-2060) • Brine to Power technology • Medium-Long Term (2027-2060)	Dengan menerapkan solusi berbasis alam atau *nature-based solution* (NBS), PGE dapat mengolah sumber daya hutan sebagai *carbon offset* untuk mencapai *net zero emission* (NZE) pada 2060. By implementing nature-based solutions (NBS), PGE can process forest resources as carbon offsets to achieve net zero emission (NZE) by 2060. **Dampak Keuangan**: Belanja operasional **Financial Impact**: Operational expenditure	Melakukan penanaman 13.435 pohon. Planting 13,435 trees.

Source: Sustainability Report PGE 2025

Examples

Table 3: Financial effects of climate-related physical risks [1]

Physical hazards	Percentage of assets with risk exposure level "high" or above [2]	Percentage of financially material assets with risk exposure level "high" or above [2, 3]	Financial effects in 2025	Anticipated financial effects (2026-2030)
Extreme wind and storms	35%	33%	HK$85 million [4]	HK$284 million [5]
			CLP incurs capital expenditure and operating expenses for measures including reinforcing energy infrastructure and managing vegetation near overhead power lines.	
Flooding	27%	22%	In 2025, CLP incurred capital expenditure and operating expenses totalling HK$11 million [4] to implement a range of measures to strengthen flood prevention, including enhancements to facilities inspection practices, drainage system cleaning, and the completion of a programme to install over 200 flood gates or protective devices at higher-risk substations in Hong Kong.	Flooding enhancement measures are part of operational and maintenance activities and the anticipated financial effects are not separately identifiable. [5, 6]

25a.iii

25a.iv

Table 2: Financial effects of climate-related transition opportunities [1]

Transition opportunities	Relevance to CLP	Financial effects		
		Financial effects in 2025	Anticipated financial effects (2026-2030)	Details
Increased demand in low-carbon electricity	All CLP markets	Revenue from non-carbon generation assets, transmission, distribution and retail operations: HK$49,982 million Also see Chart 5 on page 35.	Percentage of total planned capital investment in non-carbon generation assets, transmission, distribution and retail operations: 77% Also see Chart 4 on page 35.	Revenue generated by assets and services related to the respective transition opportunities contributes to the associated financial effects. Other financial effects may include changes in capital expenditure and operating expenses. Due to commercial sensitivity, only the percentages of total planned capital investment over the next five years, rather than absolute figures, are disclosed. [2]
Demand for energy storage	All CLP markets	Revenue from energy storage, energy services, oil, other businesses outside of power generation, transmission, distribution and retail, as well as corporate or enterprise items: HK$5,144 million	Percentage of total planned capital investment in energy storage: 2%	
Demand for electrification of the transportation and industrial sectors	Hong Kong and Australia		Percentage of total planned capital investment in energy services: 8%	
Energy services and energy efficiency offerings	All CLP markets			

25a.iii

Source: Annual Report CLP Holdings 2025



25a.iv

Source: Unilever Annual Report and Accounts 2025

Examples

Proses Manajemen Risiko Perubahan Iklim

Pengelolaan risiko perubahan iklim dilakukan melalui sistem ERM dengan pendekatan Model Tiga Lini, didukung oleh dua fungsi tata kelola manajemen risiko di tingkat korporasi dan area. Dalam model ini, seluruh lini bekerja secara selaras melalui komunikasi dan kolaborasi untuk memastikan keandalan, keterkaitan, dan transparansi informasi dalam mendukung pengambilan keputusan berbasis risiko serta penciptaan dan perlindungan nilai.

Fungsi dan peran masing-masing lini dalam model tiga lini adalah sebagai berikut:

a. Lini pertama sebagai unit Pemilik Risiko merupakan unit yang langsung mengidentifikasi dan mengelola risiko dalam proses bisnis.

b. Lini kedua sebagai Fungsi Manajemen Risiko dan kepatuhan independen merupakan unit yang mengukur, memantau, dan memperlakukan risiko secara agregat, mengembangkan metodologi dan Kebijakan Manajemen Risiko Perusahaan.

c. Lini ketiga sebagai Fungsi Internal Audit merupakan unit yang memastikan dan menguji tata kelola dan pengendalian risiko diterapkan secara efektif oleh Perseroan, serta melaporkan temuannya kepada manajemen untuk mendorong dan memfasilitasi pengembangan berkelanjutan.

Climate Change Risk Management Process

Climate change risk management is carried out through an ERM system using a Three Lines Model approach, supported by two risk management governance functions at the corporate and regional levels. In this model, all lines work in harmony through communication and collaboration to ensure the reliability, relevance, and transparency of information in supporting risk-based decision making and the creation and protection of value.

The functions and roles of each line in the three-line model are as follows:

a. The first line, as the Risk Owner unit, is the unit that directly identifies and manages risks in the business process.

b. The second line, as the independent Risk Management and, Compliance Function, is the unit that measures, monitors, and treats risks in aggregate, develops methodologies and Company Risk Management Policies.

c. The third line, as the Internal Audit Function, is the unit that ensures and tests that risk governance and controls are effectively implemented by the Company, and reports its findings to management to encourage and facilitate continuous development.

25a.v

Source: Sustainability Report PGE 2025

Examples

7.2.2 Organisational reporting boundary and GHG emissions methodologies

This Sustainability Report includes all Scope 1 and Scope 2 emissions (location- and market-based) from operations and entities over which BHP has operational control[1]. Operational control was selected as it is the organisational boundary for our operational GHG emissions medium-term target and net zero goal. It was also the organisational boundary approach used historically by BHP for consolidating our Scope 1 and Scope 2 emissions. BHP has aligned our Scope 3 emissions reporting to operational control as well, as required under AASB S2. We also include GHG emissions for BMA (Scopes 1, 2 and 3 emissions) in this Sustainability Report on a 100 per cent basis (except where expressly stated otherwise), as explained in 7.2.3 *Treatment of BMA* on page 87. GHG emissions generated in the Company value chain are reported as Scope 3 emissions, being emissions from sources not controlled by the Company. Refer to section 5 *Metrics and targets* on page 76 for information about the boundaries for our operational and value chain GHG emissions targets and goals. We measure GHG emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) (GHG Protocol) and the Scope 3 measurement framework within AASB S2.

For Scope 1 and Scope 2 emissions and to the extent it is not inconsistent with the requirements of AASB S2 and the GHG Protocol:

- we use the calculation methodologies specified in the Australian National Greenhouse and Energy Reporting (Measurement) Determination 2008, the Chilean Green Tax legislation, and the Canadian Greenhouse Gas Reporting Program (GHGRP), as applicable
- the measurement of Scope 2 GHG market-based emissions has been informed by the additional guidance in the GHG Protocol Scope 2 Guidance (An amendment to the GHG Protocol Corporate Standard) (Scope 2 Guidance).

29a.ii

To the extent it is not inconsistent with the requirements of AASB S2 measurement framework for Scope 3 emissions, the measurement of Scope 3 emissions in accordance with that framework has been informed by the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011) (Scope 3 Standard) and the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (Scope 3 Guidance).

For more information on the methodologies we apply refer to **7.6 Methodology for calculating Scopes 1, 2 and 3 GHG emissions** on page 89

Table 6 – Scope 1, Scope 2 and Scope 3 emissions

Unadjusted GHG emissions inventory – operational control boundary ($MtCO_2$-e)[1]

	FY2026	FY2025
Scope 1 emissions	7.6	7.3
Scope 2 emissions (market-based)	1.7	1.3
Total operational GHG emissions	9.4	8.7
Scope 1 emissions	7.6	7.3
– Consolidated accounting group[2]	6.2	6.1
– Other investees[2]	1.4	1.2
Scope 2 emissions (location-based)	3.3	3.1
– Consolidated accounting group[2]	3.0	2.8
– Other investees[2]	0.3	0.3
Scope 3 emissions		
Category 1[3]	9.7	10.9
Category 3	2.1	2.6
Category 4	4.6	4.6
Category 6	0.1	0.1
Category 7	0.3	0.3
Category 9	1.8	2.0
Category 10[4]	367.2	363.8
Category 11[4]	42.5	38.7
Category 15	0.7	0.7
Total Scope 3 GHG emissions[4]	**429.0**	**423.7**

29a.i

Source: BHP Annual Report 2026

Examples

Internal carbon pricing (E1-8)

Repsol has internal mechanisms to promote the allocation of capital to low-carbon investments, such as the internal carbon price and the investment qualification methodology for their alignment with the energy transition.

The Company has established an internal carbon price for investment decisions for new projects. This mechanism is included in the Company's economic bases for investment evaluation and is applied in the investment decisions of all projects.

The internal carbon price applies to the analysis of new investments on the potential impact of the Company's Scope 1 and 2 emissions even where there is no regulated carbon price. It acts as a shadow price by incentivizing emissions reductions and investment in low-carbon technologies, so that a higher carbon price promotes projects with lower emissions over the rest.

29f.i

The internal carbon price in the scope of EU operations is established based on the current price and future forecasts for the European Union Emissions Trading Scheme (EU ETS), which is currently set at around $92 /t in 2026 and $110/t in 2030 in nominal terms. This price is aligned with the EU ETS price path used by the Company in its financial statements to perform the asset impairment test. See *Note 3.5.1 Estimate of the recoverable value of assets* and *Note 6 on asset impairment* of the Consolidated Financial Statements.

For the rest of the world, in countries without more stringent specific regulation, an internal carbon price of $60/tCO2e is applied in the period 2026-2030. This price applies mainly to Upstream projects and, when it refers to methane emission reduction and routine flaring projects, it especially facilitates investment, since the real cost of abatement is often less than $60/t$CO_2$e.

29f.ii

Whenever an investment decision is made, the new project is analyzed with respect to the effect it could have on the Company's direct emissions perimeter. To this end, the internal carbon price is used in the valuation of any investment that may have an impact on the Company's Scope 1 and 2 (which currently corresponds to a volume of 13.9 MtCO_2e).

Linking Shell's emissions targets to remuneration
We have established remuneration structures to support us in reducing our operational emissions and to support customers in reducing their emissions. The majority of employees participate in the discretionary annual bonus arrangements, which are based on the Group scorecard. Our annual bonus scorecard and Performance Share Awards (PSA) include "Shell's journey in the energy transition" performance metrics, which are designed to align with Shell's Operating Plan and longer-term strategic ambitions.

PSA will be awarded to Executive Directors and around 3,000 other employees across the Group.

See "Directors' Remuneration Report" on pages 176-182.

Energy transition performance condition and the vesting of the 2023 LTIP and PSP awards
For 2023 share awards, assessment of performance is based on Net Carbon Intensity (NCI) reduction against the 2016 base year and supporting strategic themes of reducing Scope 1 and 2 emissions; building a renewable power business; growing new low-carbon energy offerings; and developing emission sinks and offsets. Overall, it was determined that the energy transition performance condition (accounting for 25% of the LTIP award and 12.5% of the PSP award) should vest at 120% of target. See "2023 share award energy transition performance condition: outcome" on pages 189-191 for more information.

See "Annual Report on Remuneration" on pages 183-199.

Energy transition performance condition in the 2025 PSA
For the 2025 PSA, the Shell's journey in the energy transition performance condition had a weighting of 25%. Determination of the extent to which awards will vest will be based on its holistic assessment of progress towards reducing emissions from our operations and supporting our customers to reduce their emissions.

Energy transition performance condition for 2026 PSA
For the 2026 PSA, the Shell's journey in the energy transition performance condition has a weighting of 20% and retains the same performance assessment framework as for 2025. The REMCO's determination of the vesting outcome will be based on its holistic assessment of progress towards reducing emissions from our operations and supporting our customers to reduce their emissions. This will be based on our climate-related targets for our own operations as follows:

- halving Scope 1 and 2 emissions by 2030 under operational control on a net basis (2016 baseline); and
- maintaining methane emissions intensity below 0.2% and achieving near-zero methane emissions intensity by 2030.

The REMCO will also take account of progress in developments that support the energy transition to 2030 and beyond, such as the development of our Power business (including renewables), lower carbon intensity LNG production using, for example, CCS and renewable power, and low-carbon solutions, such as biofuels, electric vehicle charging, hydrogen and CCS. The REMCO will take into account progress towards achieving a 15-20% reduction in NCI by 2030 (2016 baseline), a 15-20% reduction in customer emissions from the use of our oil products by 2030 (2021 baseline) [A], as well as Shell's wider performance in accelerating the energy transition, e.g. demonstrating leadership and advocacy in standard setting, alongside any other factors that the REMCO considers relevant.

[A] This ambition was set in March 2024. Customer emissions from the use of our oil products (Scope 3, Category 11) were 517 million tonnes CO_2e in 2023 and 569 million tonnes CO_2e in 2021.

See "Annual Report on Remuneration" on page 198 for more information on the proposed performance framework.

Climate-related targets in the annual bonus scorecard
Delivering on our climate-related targets and ambition is part of the annual bonus scorecard, which helps determine annual performance bonus outcomes for senior management and the majority of Shell's employees.

The measures included in the annual bonus scorecard are shown in the table below.

29g.i

2025 scorecard: Shell's journey in the energy transition

		2025 Target	2025 Performance	2025 Status
LNG volumes [A]	million tonnes per annum	27.5	28.4	Above target
Reducing operational emissions	thousand tonnes of CO_2e	1,050	1,238	Above target
Supporting customer decarbonisation [B]	Number of EV charge points	80,000	83,493	Above target

[A] Equity liquefaction.
[B] For the purpose of the scorecard, the number of electric vehicle (EV) charge points in the supporting customer decarbonisation metric was adjusted to exclude 4,407 electric vehicle charge points divested effective January 2, 2026

The Shell's journey in the energy transition metric reflects progress on our longer-term strategic ambitions. The overall score was above target for the year.

LNG volumes [B]: Performance is measured based on liquefaction volumes. Our score for LNG liquefaction volumes in 2025 reflects strong operational performance across most Integrated Gas assets and a maintenance programme with no major delays.

[B] Equity liquefaction.

Reducing operational emissions: We achieved a significant reduction in operational emissions from abatement, renewable energy, and permanent shutdowns or conversions ("right-sizing"). The main contributors were multiple transformation projects in Rheinland in Germany (Chemicals and Products), compressor electrification in Canada (Integrated Gas) and catalyst improvements in Qatar (Integrated Gas).

Supporting customer decarbonisation: We have continued to expand our network of electric vehicle charge points, mainly driven by growth in China and Ubitricity's portfolio. The business is focused on building a leaner, more profitable e-Mobility network to deliver long-term success.

2026 scorecard: Shell's journey in the energy transition
Given the evolution of the business, and the shift in focus to value over volume, the supporting customer decarbonisation metric will move from assessing the number of electric vehicle charge points to electric vehicle charging gross margin growth.

See "Annual Report on Remuneration" on page 187.

Performance framework
The REMCO reflected on how to measure the leadership ask for the performance opportunity ahead. At CMD25, we extended our normalised FCF per share growth target out to 2030 to measure intrinsic value creation. The REMCO intends to strengthen the performance framework with the addition of this metric as a performance condition to the PSA. The 2026 performance conditions and link to strategy are as follows:

	Performance condition	Weighting	Purpose and link to strategy
Relative	**Total shareholder return**	20%	◦ Create value for our shareholders. ◦ Generate returns for shareholders that exceed those of our peers.
Relative	**Competitive capital allocation** (measured by CFFO divided by average capital employed)	20%	◦ Generate competitive cash flows relative to the long-term funding of the business. ◦ Proxy for ROACE; generate returns that exceed those of our peers.
Absolute	**Cash generation** (measured by organic FCF)	20%	◦ Generate cash from the core ongoing operations of the portfolio, to fund growth, service and reduce debt and deliver shareholder returns.
Absolute	**Intrinsic value creation** (measured by normalised FCF per share growth, based on organic FCF before working capital and derivatives)	20%	◦ Create and grow intrinsic value independently of external market fluctuations or short-term investor sentiment. ◦ Optimise portfolio in line with strategy.
	Shell's journey in the energy transition	20%	◦ Reduce emissions from our operations and support our customers to reduce their emissions.

29g.ii

Source: Sustainability Report Repsol 2025

Examples

Repsol's decarbonization targets

Strategic target	Metric	Base value[1]	2025[2]	2025	2030	2040	2050
Emissions from own operations (Scopes 1 and 2)							
Reduce emissions from operations - Scopes 1 and 2	% reduction	25.4 $MtCO_2e$ (2016)	**-45.2% (13.9 $MtCO_2e$)**		**-55%**		**NZE[3]**
Reduce methane emissions intensity	% intensity	1.34% (m^3/m^3) (2017)	**0.12% (m^3/m^3)**	**0.2% (m^3/m^3)**	**Near Zero[4]**		
Remove routine flaring	% reduction	344 $ktCO_2e$ (2018)	**-86.3% (47.2 $ktCO_2e$)**	**-50%**	**Zero**		
Value chain and total emissions (Scope 3 / Global)							
Reduce Carbon Intensity Indicator (CII)	% reduction	76,8 gCO_2e/MJ (2016)	**-15.1% (65.2 g CO_2e/MJ)**	**-15%**	**-25% ±1[5]**	**-55%**	**NZE**
Reduce absolute Scope 1, 2 and 3 emissions	% reduction	223.6 $MtCO_2e$ (2018)	**-17.4% (184.7 $MtCO_2e$)**		**-20%**		**NZE**

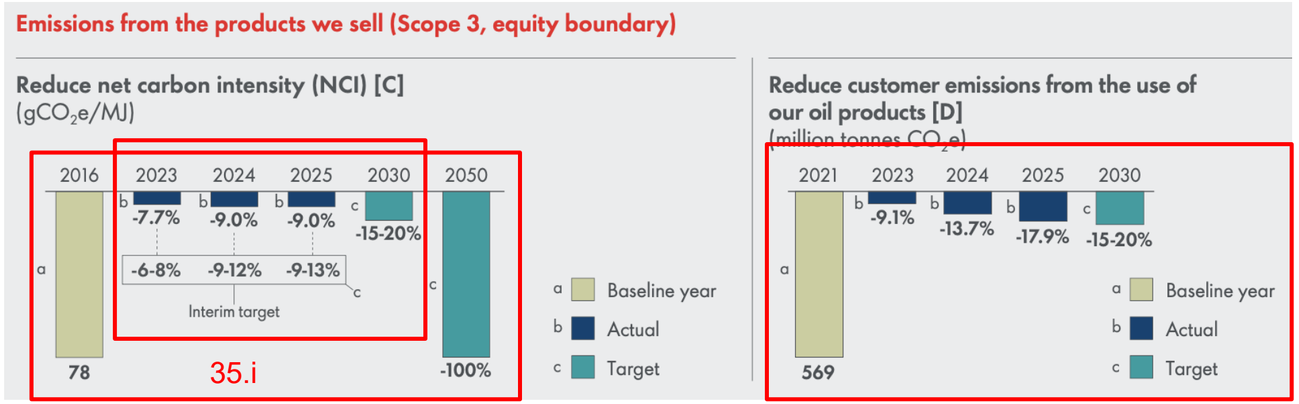
36a

36b.i
36b.ii
36b.iii

[1] Base year
[2] Current milestone
[3] Net zero emissions
[4] "Near Zero" methane intensity is defined as below 0.2%, according to the formulation identified by OGCI.
[5] The CII reduction target for 2030 has been updated from 28% to 25% ±1 due to the update of the 2026-2028 projections.

35.i

Source: Consolidated Management Report Repsol Group 2025



35.ii

35.ii

Source: Annual Report and Accounts Shell Global 2025

Thank You

Phone
0812 3450 0085 - Gandi
0812 9309 3439 - Bella

Email
gsmahatmo@tsc.id
bellahartinidaulay11@gmail.com

