PERTAMINA
GEOTHERMAL ENERGY

LAPORAN KEBERLANJUTAN **2025** SUSTAINABILITY REPORT

LEADING THE WAY



PT Pertamina Geothermal Energy Tbk



Pernyataan
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Dalam Laporan Keberlanjutan ini, kata 'PGE' dan 'Perseroan', diasosiasikan kepada PT Pertamina Geothermal Energy Tbk. Penulisan 'Pekerja PGE' dan 'Perwira' merujuk kepada pekerja PGE. Laporan Keberlanjutan ini berisi pernyataan-pernyataan, data, dan informasi yang dapat dianggap sebagai pandangan masa depan (*forward-looking statements*) berupa proyeksi, asumsi, dan ekspektasi, yang memiliki faktor risiko dan ketidakpastian yang membuat pernyataan tersebut tidak dapat sepenuhnya terealisasi.

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In this Sustainability Report, the terms "PGE" and the "Company" refer to PT Pertamina Geothermal Energy Tbk. The terms "PGE Workers" and "Perwira" refer to workers of PGE. This Sustainability Report also sets out statements, data, and information that may constitute forward-looking statements, such as projections, assumptions, and expectations, each carrying risks and uncertainties that may cause actual results to differ materially from those expressed or implied.

All numerical figures presented in tables and charts in this report use Indonesian numerical notation, while numerical references in the narrative text follow English and Indonesian language conventions, as appropriate to the context.

Tahun 2025 menjadi momentum penting bagi PT Pertamina Geothermal Energy Tbk dalam memperkuat kepemimpinannya di industri energi panas bumi. Perseroan berhasil mencatatkan kinerja terbaik sepanjang sejarah operasional dengan capaian produksi dan keuangan yang mencapai rekor tertinggi (*all-time high*). Beroperasinya pembangkit listrik tenaga panas bumi (PLTP) Lumut Balai Unit 2 berkapasitas 55 MW menjadi pendorong utama peningkatan produksi listrik hingga mencapai 5.095,49 GWh, sekaligus mendorong pencapaian pendapatan tertinggi Perseroan.

Komitmen untuk terus memimpin juga diwujudkan melalui inovasi produk dan pengembangan teknologi. Perseroan meluncurkan Flow2Max, teknologi pengukuran aliran fluida panas bumi dua fase secara *real-time* yang diperkenalkan ke pasar global sebagai solusi efisiensi bagi industri *geothermal*. Di saat yang sama, Perseroan memperluas *horizon* bisnis *beyond electricity*, ditandai dengan *groundbreaking pilot plant green hydrogen* di Area Ulubelu.

Seluruh pencapaian ini semakin memperkuat posisi Perseroan sebagai salah satu pemimpin dalam industri panas bumi global serta mendukung peran Perseroan sebagai *geothermal center of excellence* dalam pengembangan dan pemanfaatan energi panas bumi secara berkelanjutan.

The year 2025 marked a significant milestone for PT Pertamina Geothermal Energy Tbk in consolidating its leadership within the geothermal energy sector. The Company achieved its strongest operational performance to date, achieving production and financial results at all-time-highs. The commissioning of the 55 MW Lumut Balai Unit 2 geothermal power plant (PLTP) drove electricity output to 5,095.49 GWh and supported the Company's highest-ever revenue.

The Company sustains its leadership through product innovation and technological advancement, exemplified by the launch of Flow2Max, a real-time two-phase geothermal fluid flow measurement technology offered globally as an efficiency solution for the geothermal sector. At the same time, the Company is broadening its business scope beyond electricity with the groundbreaking of a green hydrogen pilot plant in the Ulubelu Area.

All these achievements strengthen the Company's position as one of the leaders in the global geothermal industry and affirm its role as a center of excellence for the sustainable development and utilization of geothermal energy.

2025

LEADING THE WAY



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Ikhtisar **Kinerja Keberlanjutan 2025**

2025 Sustainability Performance Highlights

Kinerja **Ekonomi** [OJK B.1]

Economic Performance

Kuantitas Produksi
Production Quantity

Produksi Uap Setara Listrik untuk Operasi Sendiri
Electricity Equivalent Steam Production for Own Operation

2025	2024	2023
5.095,49	4.827,22	4.734,57

(GWh)

Kredit Karbon yang Diterbitkan
Carbon Credits Issued

2025	2024	2023
200.764	380.183*	483.112

(Ton Co_2e)

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Pendapatan
Revenue

Total Pendapatan
Total Revenue

2025	2024	2023
432.726	407.120	406.288

(Ribuan USD | Thousand USD)

Laba (Rugi)
Profit (Loss)

Laba Tahun Berjalan
Profit for the Year

2025	2024	2023
137.667	160.302	163.570*

(Ribuan USD | Thousand USD)

Pelibatan Pihak Lokal
Local Party Involvement

Jumlah Pemasok Lokal
Total Local Suppliers

2025	2024	2023
257	476	390

(Pemasok | Suppliers)

Jumlah Pemasok
Total Suppliers

2025	2024	2023
280	513	430*

(Pemasok | Suppliers)

Persentase Pelibatan Pemasok Lokal
Local Suppliers Engagement Percentage

2025	2024	2023
91,79	92,79	90,70*

(%)

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Produk Ramah Lingkungan

Produk utama PGE adalah uap panas bumi, yaitu sumber energi terbarukan beremisi rendah. Uap ini kemudian dimanfaatkan untuk menghasilkan listrik melalui Pembangkit Listrik Tenaga Panas Bumi (PLTP).

Environmentally Friendly Products

PGE's core product is geothermal steam, a low-emission renewable energy source. The steam is then used to generate electricity at geothermal power plants (PLTP).

Kinerja **Lingkungan** [OJK B.2]

Environmental Performance

Energi dan Air
Energy and Water

Penghematan Energi
Energy Savings

2025	2024	2023
90.502,28	40.058,77*	41.953,75

(MWh)

Penggunaan Energi Terbarukan
Renewable Energy Usage

2025	2024	2023
94,36	94,24	94,29

(%)

Intensitas Energi
Energy Intensity

2025	2024	2023
0,04	0,04	0,04

(MWh)

Konsumsi Air
Water Consumption

2025	2024	2023
262,24	393,23	291,85

(Megaliter | Megaliters)

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
* Restatement of information due to adjustments in calculation.

Penghindaran dan Reduksi Emisi
Emission Avoidance and Reduction

Intensitas Emisi
Emissions Intensity

2025	2024	2023
41,12	41,09	41,57

(g CO_2e/kWh*)

Penghindaran Emisi
Emissions Avoidance

2025	2024	2023
4.291.102,02	4.051.196,35	3.971.869,92

(t CO_2e)

Reduksi Intensitas Emisi**
Emissions Intensity Reduction**

2025	2024	2023
(6,55)	(6,61)	(5,51)

(%)

Keterangan | Notes:
*Penyajian kembali informasi karena ada perubahan satuan penghitungan. [GRI 2-4]
*Restatement of information due to changes in measurement units.
**Dibandingkan *baseline* tahun 2022 yang sebesar 44 CO_2e/kWh.
**Compared to the 2022 baseline of 44 Co_2e/kWh.

Timbulan Limbah B3
Hazardous Waste Generated

Jumlah Efluen yang Dialirkan ke Badan Air
Volume of Effluent Discharged to Water Bodies

2025	2024	2023
6,80	5,91	8,41*

(Megaliter | Megaliters)

Limbah B3 yang Dikelola 4R
Hazardous Waste Managed through the 4R Approach

2025	2024	2023
70,51	80,66**	66,52**

(%)

Limbah Non-B3 yang Dikelola 4R
Non-Hazardous Waste Managed through the 4R Approach

2025	2024	2023
38,88	61,98	58,40

(%)

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.
**Penyajian kembali informasi karena perubahan pengelompokan limbah B3 yang dikelola 4R.
**Restatement of information due to changes in the classification of hazardous waste managed under the 4R approach.

Konservasi Keanekaragaman Hayati
Biodiversity Conservation

Jumlah Area Konservasi Flora dan Fauna
Number of Flora and Fauna Conservation Areas

2025	2024	2023
18	19	20

(Area | Areas)

Luas Area Konservasi
Total Conservation Area

2025	2024	2023
27,88	27,88	26,65

(Ha)

Jumlah Pohon Ditanam
Number of Trees Planted

2025	2024	2023
13.435	21.257	37.755

(Pohon | Trees)

Jumlah Spesies Fauna Dilindungi di Program Konservasi
Number of Fauna Species Protected under Conservation Programs

2025	2024	2023
266	266	N/A

(Spesies | Species)

Jumlah Spesies Flora Dilindungi di Program Konservasi
Number of Flora Species Protected under Conservation Programs

2025	2024	2023
1.069	1.069	N/A

(Spesies | Species)

Biaya Pengelolaan Lingkungan [OJK F.4]
Environmental Management Costs

2025	2024	2023
10,37	9,90	9,09

(Rp Miliar | Billion Rp)

Kinerja **Sosial** [OJK B.3]

Social Performance

Ketenagakerjaan
Employment

Uraian Description	Satuan Unit	2025	2024	2023
Jumlah Pekerja Number of Workers	Orang People	561	523	502
Tingkat Pergantian Pekerja Worker Turnover Rate	%	0,2	0,4	1,01
Rerata Jam Pelatihan Pekerja Average Training Hours per Worker	Jam/Orang Hours/Workers	73	67	17
Tingkat Kepuasan Pekerja Worker Satisfaction Score	Skor I Score 1-5	4,35	3,92	4,08



Layanan Pelanggan
Customer Services

Tingkat Kepuasan Pelanggan
Customer Satisfaction Level

2025	2024	2023
97,19	96,67	96,42

(Skor | Score 1-100)

Investasi Tanggung Jawab Sosial dan Lingkungan (TJSL)
Corporate Social Responsibility (CSR) Investments

Uraian Description	Satuan Unit	2025	2024	2023
Total Investasi Total Investment	Miliar Rupiah Billion Rupiah	13.038	17.734	15.943
Jumlah Program Number of Programs	Program	82	76	74
Jumlah Penerima Manfaat Number of Beneficiaries	Individu Individuals	31.233	30.382	N/A
Indeks Kepuasan Masyarakat Community Satisfaction Index	Skor | Score 1-4	3,75	3,45	3,87
	Kategori Category	Sangat Baik Very Good	Sangat Baik Very Good	Sangat Baik Very Good

Pengelolaan Keselamatan dan Kesehatan Kerja (K3)
Occupational Health and Safety (OHS) Management

Kumulatif Jam Kerja Aman
Cumulative Safe Working Hours

2025	2024	2023
6.316.295	5.583.707	6.139.303

(Jam | Hours)

Jumlah Kasus
Number of Cases

2025	2024	2023
1	2	4

(Kasus | Cases)

Total Recordable Incident Rate (TRIR)

2025	2024	2023
0,032	0,143	0,49

Lost Time Incident Rate (LTIR)

2025	2024	2023
0	0,036	0

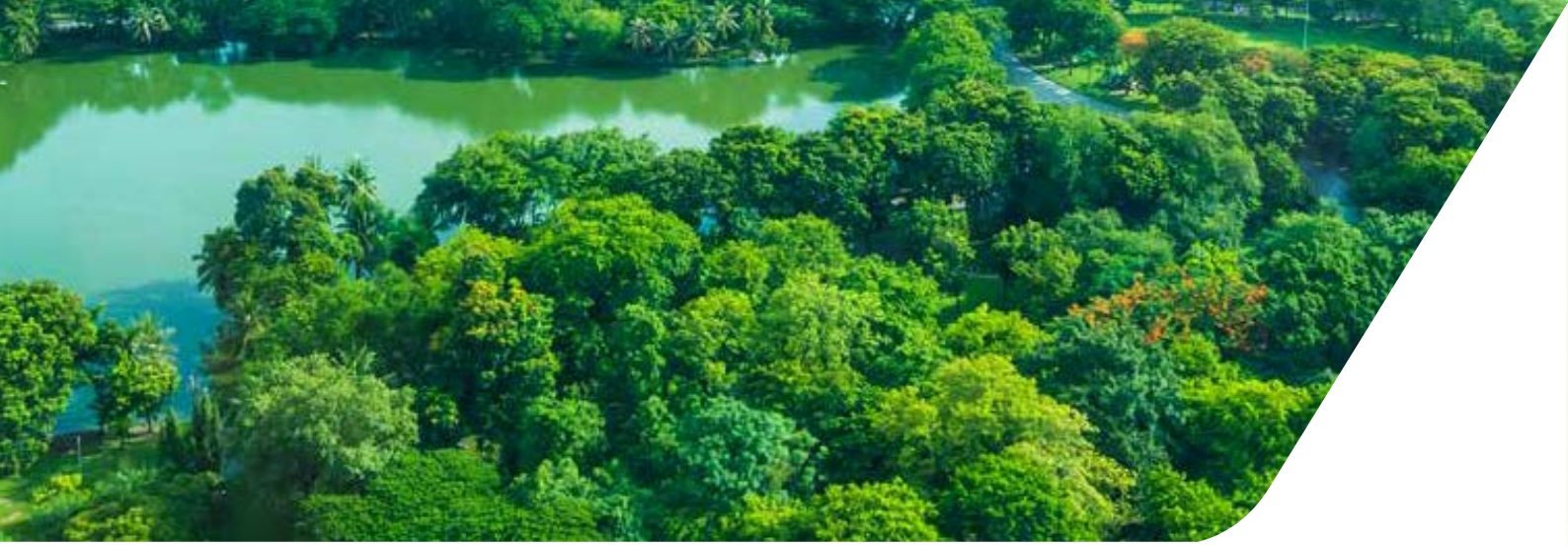
Fatal Accident Rate (FAR)

0,00 2025

0,00 2024

0,00 2023

Keterangan | Notes:
Data statistik kecelakaan pada 2023 dihitung berdasarkan satu juta jam kerja, sementara untuk data 2024 dan 2025 dihitung berdasarkan dua ratus ribu jam kerja.
Accident statistics for 2023 are calculated based on one million working hours, while data for 2024 and 2025 are calculated based on two hundred thousand working hours.



Kinerja **Tata Kelola**

Governance Performance

Kepatuhan
Compliance

Uraian Description	Satuan Unit	2025	2024	2023
Nilai dan Peringkat Risiko ESG ESG Risk Scores and Ratings (Sustainalytics)	Skor | Score	7,1	7,1	8,4
	Tingkat Risiko Risk Rating	Negligible Risk	Negligible Risk	Negligible Risk
ASEAN Corporate Governance Scorecard (ACGS)	Skor (Maksimal 140) Score (Maximum 140)	122,52	121,84	Belum Diterapkan Not yet implemented
	Kategori Category	Leadership in Corporate Governance	Leadership in Corporate Governance	
Penilaian GCG Berdasarkan Parameter BUMN[1] GCG Assessment Based on SOE Parameters	Skor (Maksimal 100) Score (Maximum 100)	93,85	93,85	93,13
Persentase Pelaporan LHKPN[2] Percentage of LHKPN Reporting Compliance	1-100%	100	100	100
PROPER	Emas | Gold	3*	2	3

Keterangan | Notes:
1. Berdasarkan penilaian mandiri yang diverifikasi oleh lembaga independen setiap dua tahun.
   Based on self-assessment verified by an independent agency every two years.
2. Laporan Harta Kekayaan Pegawai Negara untuk level Manajer ke atas.
   State Official's Wealth Report for Manager level and above.

*Per 31 Desember 2025, tiga area PGE menjadi kandidat PROPER Emas, yaitu Area Kamojang, Ulubelu, dan Lahendong, sementara dua area lainnya memperoleh PROPER Hijau, yaitu Area Lumut Balai dan Karaha.
*As of 31 December 2025, three PGE areas are candidates for Gold PROPER namely Kamojang, Ulubelu, and Lahendong Areas, while two other areas have achieved Green PROPER namely Lumut Balai and Karaha Areas.

PGE adalah satu-satunya perusahaan dari Indonesia yang masuk dalam **Global Top 50 ESG** dari sekitar 15.000 perusahaan di 42 negara sesuai daftar 250 ESG *Top-Rated Companies* dari Sustainalytics. PGE masuk dalam *Region Top Rated* dan Industry *Top Rated*, dengan perolehan ***7,1 (Negligible Risk)*** risiko ESG terendah di sektor utilitas dan subsektor energi terbarukan.

PGE is the only Indonesian company included in Sustainalytics' **Global Top 50 ESG** ranking, drawn from 15,000 companies across 42 countries under the Top 250 ESG Top-Rated Companies list. PGE earned both Region Top Rated and Industry Top Rated distinctions, with an ESG Risk Score of **7.1 (negligible risk)**, placing the Company as the lowest ESG-risk name in the utilities sector and the renewable energy sub-sector.

Penjelasan **Direksi** [OJK D.1][GRI 2-22]

Board of Directors' Statement

Para Pemangku Kepentingan yang Terhormat,

Tahun 2025 menjadi fase penguatan fondasi PT Pertamina Geothermal Energy Tbk (PGE) dalam penerapan praktik keberlanjutan berbasis lingkungan, sosial, dan tata kelola (LST) dalam setiap rencana, pengambilan keputusan, dan tindakan. Memasuki 2026, PGE meneruskan penguatan fondasi ini dengan mendorong kebermanfaatan ekonomi panas bumi untuk mewujudkan transisi energi yang inklusif melalui pengelolaan LST yang terintegrasi.

Kebijakan Merespons Tantangan

Pemanfaatan panas bumi di Indonesia telah berlangsung sejak 1926 dan hingga saat ini terus dikembangkan sebagai salah satu sumber energi yang andal dan berkelanjutan. Dalam konteks tersebut, PT Pertamina Geothermal Energy Tbk berperan aktif mengembangkan energi panas bumi untuk pembangkitan listrik rendah emisi, sejalan dengan arah kebijakan transisi energi nasional.

PGE terus memperkuat kepemimpinan dalam pengembangan panas bumi dengan mengintegrasikan kinerja ekonomi dan LST guna mendukung transisi energi yang berkelanjutan menuju *net zero emissions* (NZE).
PGE continues to strengthen its leadership in geothermal development by integrating economic and ESG performance to support a sustainable energy transition toward net zero emissions (NZE).



Ahmad Yani
Direktur Utama
President Director

Dear Valued Stakeholders,

The 2025 was a year of laying the groundwork. Throughout the year, PT Pertamina Geothermal Energy Tbk (PGE) worked to reinforce the foundation of our sustainability practices, embedding environmental, social, and governance (ESG) principles into the way we think, decide, and act. As we step into 2026, we carry that foundation forward with supporting the economic reach of geothermal energy, to accelerate an energy transition, guided by the integrated ESG management.

Policy Responses to Emerging Challenges

Geothermal energy has been part of Indonesia's story since 1926, and nearly a century later, it remains one of the most dependable and sustainable sources of power the nation has. PGE's role within that story is clear: to advance the development of geothermal energy for low-emission electricity generation, in step with the country's national energy transition agenda.

Sejalan dengan pengembangan kapasitas terpasang, PGE menghadapi berbagai tantangan, seperti lokasi WKP di area terpencil yang pada umumnya berada di kawasan hutan konservasi dan hutan lindung dengan proses perizinan yang lebih berjenjang, serta komitmen tinggi terhadap perlindungan dan kelestarian lingkungan. Kami merespons tantangan tersebut dengan menyusun Rencana Aksi Keanekaragaman Hayati (*Biodiversity Action Plan*/BAP) yang ditargetkan mencakup seluruh WKP pada 2030.

Dalam pengelolaan sosial, PGE juga menghadapi tantangan, yaitu sebagian wilayah operasional berada di atau berdekatan dengan masyarakat lokal. Dalam merespons tantangan ini, Perseroan mengedepankan keterlibatan pemangku kepentingan yang transparan dan inklusif, termasuk menerapkan prinsip *free, prior and informed consent* (FPIC) pada kegiatan yang berdampak terhadap masyarakat. Pendekatan ini dilaksanakan untuk memastikan bahwa masyarakat sekitar turut memperoleh manfaat yang signifikan dari pengembangan panas bumi.

Pada aspek tata kelola, tantangan utama terletak pada menjaga konsistensi penerapan prinsip tata kelola perusahaan yang baik (*good corporate governance*/GCG) guna memperkuat kepercayaan pemangku kepentingan dan investor. PGE terus menyesuaikan praktiknya dengan dinamika regulasi serta standar nasional dan global, melanjutkan inisiatif transformasi digital dan inovasi, serta menegaskan komitmen *net zero emissions* (NZE) untuk mendukung agenda dekarbonisasi dan pencapaian Tujuan Pembangunan Berkelanjutan (TPB).

Penerapan dan Capaian Kinerja Keberlanjutan

Selama 2025, PGE mencatat penerapan keberlanjutan yang mencakup pengelolaan aspek ekonomi dan LST dengan baik. Dalam kinerja keuangan, Perseroan membukukan pendapatan sebesar USD433 juta atau 103,3% dari target USD419 juta, sehingga Perseroan tetap sehat dengan fundamental keuangan yang kuat. Adapun perolehan Laba Bersih mencapai USD138 juta atau 89,7% dari target USD153 juta.

Dalam pengelolaan lingkungan, kami melanjutkan berbagai inisiatif untuk mengurangi emisi GRK, meski secara umum terjadi peningkatan emisi GRK yang berbanding lurus dengan peningkatan produksi listrik dan penjualan uap dari operasional PLTP Lumut Balai Unit 2. Berdasarkan hasil penghitungan intensitas emisi GRK, diketahui nilai Intensitas Emisi GRK per produksi listrik dan uap mencapai 41,12 g CO_2e/kWh. Capaian ini berada di bawah ambang batas Taksonomi Eropa dan Taksonomi Keuangan Berkelanjutan Indonesia (TKBI) sebesar 100 g CO_2e/kWh. Demikian pula dengan pengelolaan energi.

Expansion of our installed capacity brings its own set of challenges. PGE's Geothermal Working Areas (WKP) sit in remote locations, with a number of them falling within or adjacent to conservation and protected forest zones. These settings entail more complex regulatory permitting requirements and more stringent environmental protection and conservation obligations. To that end, PGE established a Biodiversity Action Plan (BAP), a structured commitment to the ecosystems we operate within, targeted to cover all WKP by 2030.

In managing social performance, PGE operates in areas where project sites often located or near by local communities. The Company addresses these challenges through transparent and inclusive stakeholder engagement, with Free, Prior, and Informed Consent (FPIC) applied to all activities that carry potential social impacts. This approach is designed so that communities living alongside the operational areas receive meaningful benefits from geothermal development.

Our priority, from a governance standpoint, is to uphold disciplined Good Corporate Governance (GCG) practices that sustain the trust of investors and stakeholders. As regulations and standards continue to evolve, PGE adapts with a pragmatic approach, advances its digital transformation and innovation agenda, and reaffirms its commitment to net zero emissions (NZE) as part of its concrete contribution to decarbonization and the Sustainable Development Goals (SDGs).

Implementation and Sustainability Performance Achievements

PGE, during 2025, delivered sound progress in sustainability across both economic performance and ESG management. The Company generated revenue of USD433 million, reaching 103.3% of its USD419 million target and maintaining solid financial fundamentals. Net profit totaled USD138 million, equivalent to 89.7% of the USD153 million targets.

Environmental management remained a steady priority throughout the year. The Company pressed forward with a range of greenhouse gas (GHG) emission-reduction initiatives, even as total emissions rose in step with increased electricity generation and steam sales from the Lumut Balai Geothermal Power Plant (PLTP) Unit 2. Despite the rise in output, emissions intensity from electricity and steam production was maintained at 41.12 g CO_2e/kWh, keeping performance comfortably below the 100 g CO_2e/kWh threshold set by both the European Union taxonomy for sustainable activities and Indonesia Taxonomy for Sustainable Finance (TKBI). Energy management recorded positive performance as well.

Berdasarkan penghitungan rasio intensitas energi pada 2025 menunjukkan penurunan 10,10% dari 2024 yakni tercatat 0,037 MWh/MWh. Intensitas energi di luar Perseroan pada 2025 sebesar 0,002 MWh/MWh, turun dibandingkan 2024 sebesar 0,009 MWh/MWh.

In 2025, the Company reduced its energy intensity ratio by 10.10% to 0.037 MWh/MWh. Energy intensity outside the organization also improved, declining to 0.002 MWh/MWh from 0.009 MWh/MWh in 2024.

PGE melanjutkan pengelolaan keanekaragaman hayati melalui penghijauan di sekitar wilayah operasional dengan menanam 13.435 bibit pohon pada 2025, serta mendukung program Pinjam Pakai Kawasan Hutan (P2KH) untuk rehabilitasi lahan kritis dan daerah aliran sungai (DAS). Hingga akhir 2025, total luas reboisasi dan rehabilitasi DAS mencapai 677,93 hektar untuk konservasi di beberapa lokasi di Jawa Barat, Lampung, Bengkulu, dan Sumatra Selatan. Perseroan juga menyusun *Biodiversity Action Plan* (BAP) untuk konservasi di Area Lumut Balai, Kamojang, Karaha, serta mengelola 18 area konservasi seluas 27,88 hektar yang mencakup 1.335 spesies, termasuk Pusat Konservasi Elang Kamojang (PKEK) yang menerima penghargaan Menteri Kehutanan atas pelestarian Elang Jawa (*Nisaetus bartelsi*).

PGE continues to manage biodiversity through reforestation activities around its project sites, planting 13,435 tree seedlings while supporting the Borrow-to-Use Forest Area Permit (P2KH) program to restore degraded land and critical watersheds (DAS). By year-end, cumulative reforestation and watershed rehabilitation covered 677.93 hectares across West Java, Lampung, Bengkulu, and South Sumatra. The Company also developed Biodiversity Action Plans (BAP) for conservation in the Lumut Balai, Kamojang, and Karaha Areas, and manages 18 conservation areas covering 27.88 hectares, encompassing 1,335 species. These include the Kamojang Eagle Conservation Center (PKEK), which received recognition from the Ministry of Forestry for its contribution to the conservation of the Javan Hawk-eagle *(Nisaetus bartelsi*).

PGE konsisten mengelola dampak operasi terhadap masyarakat melalui program TJSL yang difokuskan pada pemberdayaan berbasis inovasi panas bumi, seperti *geo-fertilizer*, *geothermal farming*, *geothermal foods*, *geothermal fishery*, dan *geothermal coffee* yang berdampak pada upaya menekan biaya produksi, menutup siklus limbah organik, serta menghasilkan produk bernilai tambah senilai Rp3,09 miliar. Total realisasi biaya TJSL pada 2025 mencapai Rp13,04 miliar atau 103,17% dari target. Di sisi pekerja, PGE memastikan lingkungan kerja aman, mencegah insiden fatal maupun berskala besar, sekaligus membuka lapangan kerja bagi perwira PGE maupun mitra kerja, kontraktor, dan vendor.

PGE affirmed the social footprint of its operations through CSR programs centered on geothermal-based innovation. Initiatives spanning geo-fertilizer, geothermal farming, foods, fisheries, and coffee reduced production costs, advanced organic waste circularity, and created value-added products worth Rp3.09 billion. The CSR expenditure in 2025 totalled Rp13.04 billion, exceeding the target at 103.17%. On the workforce side, PGE ensures a safe working environment, prevents fatal and major incidents, and continues to create employment opportunities for PGE workers as well as partners, contractors, and vendors.

Langkah strategis PGE untuk memperkuat transisi energi bersih diwujudkan melalui pengembangan *beyond electricity*, termasuk *groundbreaking Pilot Project Green Hydrogen* di Area Ulubelu. Upaya ini dibarengi peningkatan pengelolaan LST, tercermin dari skor Sustainalytics ESG *Risk Rating* 7,1 (risiko dapat diabaikan), menempatkan PGE sebagai satu-satunya perusahaan Indonesia dalam Top 50 ESG Global di 42 negara. Perseroan juga memperoleh berbagai penghargaan dan pengakuan, termasuk penetapan tiga area PGE sebagai kandidat PROPER Emas oleh Kementerian Lingkungan Hidup.

PGE's strategic push toward a cleaner energy future took a decisive step forward with the groundbreaking of the Green Hydrogen Pilot Project in the Ulubelu Area, marking an ongoing expansion of the Company's beyond-electricity agenda. This operational progress was in line with stronger ESG performance, reflected in a Sustainalytics ESG Risk Rating of 7.1, categorized as negligible risk. The rating positioned PGE as the only Indonesian company among the Global Top 50 ESG performers across 42 countries. The Company also earned multiple awards and recognitions, including three operational areas that meet the Gold PROPER candidate criteria from the Ministry of Environment.

Strategi Pencapaian Target

Strategi pengembangan bisnis PGE didukung oleh empat pilar keberlanjutan: *Nature*, *Zero Emission*, *People & Socioeconomics*, dan *Transformation Catalyst*. Strategi PGE dalam mengimplementasikan Pilar ini dijalankan melalui pembentukan Komite Keberlanjutan dan Tim Gugus Tugas.

Strategies for Achieving Targets

PGE's business growth rests on four core sustainability pillars: Nature, Zero Emission, People & Socioeconomics, and Transformation Catalyst. The implementation of these pillars is guided by a Sustainability Committee and a dedicated Task Force.

Komite berperan sebagai pengawas dan pengarah pelaksanaan aspek keberlanjutan, sedangkan Tim Gugus Tugas memastikan penerapan LST secara teknis di setiap unit dan fungsi bisnis, termasuk indikator kinerja utama (*key performance indicators*/KPI) perubahan iklim yang menjadi target kinerja Direksi pada 2025.

The Committee provides oversight and strategic direction for the implementation of sustainability aspects, while the Task Force Team ensures the technical implementation of ESG across business units and functions. This includes climate-related key performance indicators (KPIs), which are incorporated into the Board of Directors' performance targets for 2025.

Melalui Pilar *Nature*, Perseroan mengelola lingkungan di setiap proses bisnis, menjaga keanekaragaman hayati di setiap wilayah kerja panas bumi (WKP), serta menjalankan program reduksi emisi GRK melalui efisiensi energi, pengelolaan limbah, dan pemeliharaan sumber daya air. Pilar *Zero Emission* menekankan peran PGE sebagai produsen energi hijau dalam mendukung ketahanan dan swasembada energi nasional, memanfaatkan cadangan panas bumi Indonesia sebesar 23,6 GW yang tahan cuaca dan berkapasitas beban dasar sehingga menjadi andalan dalam transisi energi menuju NZE pada 2060 dan solusi perubahan iklim. Secara bertahap, Perseroan terus menambah kapasitas terpasang dengan potensi sumber daya sebesar 3 GW yang PGE miliki, dengan melakukan akselerasi untuk mewujudkan 1 GW pada 2028 dan realisasi akhir 2025 mencapai 727 MW, yang setara dengan pencegahan emisi GRK sebesar 4,29 juta ton CO_2e per tahun.

Through the Nature Pillar, the Company manages environmental aspects across all business processes, preserves biodiversity within each geothermal working area (WKP), and implements GHG emission reduction initiatives through energy efficiency, waste management, and water resource management. The Zero Emission Pillar highlights PGE's role as a green energy producer in supporting national energy security and self-sufficiency, leveraging Indonesia's geothermal potential of 23.6 GW, which is weather-resilient and provides baseload capacity. This positions geothermal energy as a key enabler in the energy transition toward NZE by 2060 and as part of climate mitigation. The Company also continues to gradually increase its installed capacity, supported by its geothermal resource potential of approximately 3 GW, with an acceleration target of achieving 1 GW by 2028. As of the end of 2025, installed capacity reached 727 MW, equivalent to avoiding approximately 4.29 million tonnes of CO_2e emissions per year.

Pilar *People & Socioeconomics* menegaskan kesungguhan kami untuk menyediakan energi ramah lingkungan secara berkeadilan, memberikan manfaat bagi pekerja, mitra kerja, dan masyarakat, termasuk kelompok rentan seperti perempuan, anak-anak, lansia, dan penyandang disabilitas. Sepanjang 2025, Perseroan melanjutkan pengembangan proyek panas bumi yang membuka lapangan kerja langsung maupun melalui mitra kerja, sekaligus menyelenggarakan program pemberdayaan masyarakat berbasis pemanfaatan tidak langsung panas bumi untuk mendukung ekonomi lokal. Evaluasi berkala melalui *social return on investment* (SROI) menunjukkan hasil 5,10 di Area Kamojang, 3,90 di Area Ulubelu, dan 2,82 di Area Lahendong, menandakan peningkatan dari tahun sebelumnya dan memastikan setiap investasi pemberdayaan menghasilkan manfaat sosial dan ekonomi berlipat ganda.

The People & Socioeconomics Pillar reflects our support for a just eco-friendly energy, one that creates shared value for workers, business partners, and surrounding communities, while empowering vulnerable groups: women, children, the elderly, and persons with disabilities. Throughout 2025, the Company continued the development of geothermal projects, creating employment opportunities both directly and through partners, while also implementing community empowerment programs based on indirect utilization of geothermal energy to support local economic development. Impact measurement, as the periodic social return on investment (SROI) assessments recorded scores of 5.10 in Kamojang Area, 3.90 in Ulubelu Area, and 2.82 in Lahendong Area. These results affirm that each empowerment initiative creates broader social value alongside measurable economic returns.

Pilar *Catalyst Transformation* berfokus pada penguatan tata kelola dan pengelolaan risiko di seluruh lini bisnis sesuai dengan *Geothermal Integrated Management System* (GIMS). Sepanjang 2025, PGE meningkatkan kematangan risiko dengan skor *Risk Maturity Index* (RMI) 3,7 dari 5,0 menurut penilaian independen IRBA, dengan melanjutkan transformasi digital melalui Program *G-Bionic* yang membangun budaya kerja berbasis data dan sistem digital terintegrasi lintas fungsi.

The Catalyst Transformation Pillar focuses on strengthening governance and risk management across all business lines in alignment with the Geothermal Integrated Management System (GIMS). Throughout 2025, PGE enhanced its risk maturity, achieving a Risk Maturity Index (RMI) score of 3.7 out of 5.0 based on an independent IRBA assessment. This was supported by the continued implementation of digital transformation through the G-Bionic Program, which fosters a data-driven work culture and integrated digital systems across functions.

Program ini mempercepat eksplorasi dan pengambilan keputusan investasi, meningkatkan efisiensi biaya pemboran hingga 6%, menambah 100.000 jam kerja produktif, meningkatkan produksi 6%, serta diperkirakan memberikan nilai tambah setara dengan kenaikan *net income* 5–7% per tahun.

The program accelerates exploration and investment decision-making, improves drilling cost efficiency by up to 6%, adds 100,000 productive work hours, and increases production by 6%, with value creation potential equivalent to a 5–7% annual increase in net income.

Apresiasi

Memasuki 2026 dan rentang waktu berikutnya, kami menyadari tantangan yang dihadapi akan semakin kompleks sehingga menuntut PGE untuk terus menyesuaikan strategi pengelolaan LST yang adaptif. Kami mengajak segenap pemangku kepentingan untuk memperkokoh kolaborasi yang sudah terjalin, dan dapat bersama-sama melanjutkan perjalanan keberlanjutan, serta memastikan PGE tetap menjadi pemimpin dalam pengembangan panas bumi.

Izinkan kami mewakili Direksi mengucapkan terima kasih atas dukungan segenap pemangku kepentingan dalam mendukung penerapan keberlanjutan PGE di sepanjang 2025. Dedikasi dan ketulusan yang telah pemangku kepentingan tunjukkan selama ini, menjadi energi tersendiri bagi kami, untuk terus memberikan energi yang berkelanjutan dan berharap pada akhirnya energi tersebut bisa membawa kita pada kehidupan yang lebih baik.

Appreciation

As we step into 2026 and the years ahead, we recognize that the challenges will become increasingly complex, requiring PGE to continuously adapt its ESG management strategies. We encourage all stakeholders to strengthen the existing collaboration, continue advancing the sustainability journey together, and ensure that PGE remains a leader in geothermal development.

On behalf of the Board of Directors, we extend our sincere appreciation for the support of all stakeholders in advancing PGE's sustainability efforts throughout 2025. The dedication and sincerity demonstrated by our stakeholders inspire us to continue delivering sustainable energy, with the hope that it will ultimately contribute to a better quality of life for all.

Jakarta, 30 Maret 2026 | 30 March 2026



Ahmad Yani
Direktur Utama
President Director

SURAT PERNYATAAN TANGGUNG JAWAB

Responsibility Statement Letter

Surat Pernyataan Dewan Komisaris tentang Tanggung Jawab atas Laporan Keberlanjutan PT Pertamina Geothermal Energy Tbk Tahun Buku 2025

The Board of Commissioners' Statement of Responsibility for the 2025 Sustainability Report of PT Pertamina Geothermal Energy Tbk

Kami yang bertanda tangan di bawah ini menyatakan bahwa semua informasi dalam Laporan Keberlanjutan PT Pertamina Geothermal Energy Tbk tahun 2025 telah dimuat secara lengkap dan bertanggung jawab penuh atas kebenaran isi Laporan Keberlanjutan tahun 2025 Perseroan.

Demikian pernyataan ini dibuat dengan sebenarnya.

Jakarta, 30 Maret 2026

We, the undersigned, testify that all information contained in the 2025 Sustainability Report of PT Pertamina Geothermal Energy Tbk has been presented completely. We assume full responsibility for the content accuracy of the Company's 2025 Sustainability Report.

This statement is hereby made in all truthfulness.

Jakarta, 30 March 2026

Dewan Komisaris
Board of Commissioners



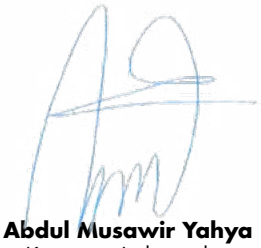
Gigih Udi Atmo
Komisaris Utama
President Commissioner



John Anis
Komisaris
Commissioner



Abdulla Zayed
Komisaris
Commissioner



Abdul Musawir Yahya
Komisaris Independen
Independent Commissioner



Mohammad Firmansyah
Komisaris Independen
Independent Commissioner

Surat Pernyataan Direksi tentang Tanggung Jawab atas Laporan Keberlanjutan PT Pertamina Geothermal Energy Tbk Tahun Buku 2025

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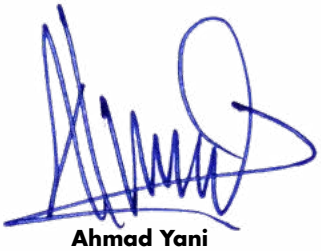
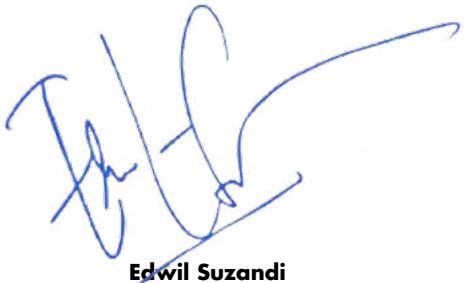
Jakarta, 30 March 2026

Direksi
Board of Directors



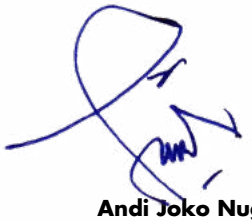
Ahmad Yani
Direktur Utama
President Director



Edwil Suzandi
Direktur Eksplorasi & Pengembangan
Director of Exploration and Development



Yurizki Rio
Direktur Keuangan
Director of Finance



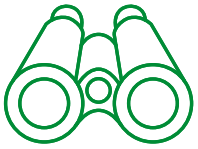
Andi Joko Nugroho
Direktur Operasi
Director of Operations

Profil **Perusahaan**

Company Profile

Visi, Misi, dan **Budaya Perusahaan** [OJK C.1]

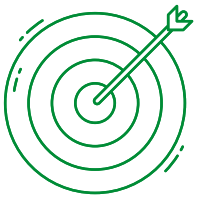
Vision, Mission, and Corporate Culture



Visi

Vision

"World Class Green Energy Company with Largest Geothermal Capacity Globally"



Misi

Mission

1. Menciptakan nilai dengan memaksimalkan pengelolaan *end-to-end* potensi panas bumi beserta produk turunannya.
2. Mendukung dan berpartisipasi dalam agenda dekarbonisasi nasional dan global.

1. To create value by maximizing the end-to-end management of geothermal potential and its derivative products.
2. To support and participate in the national and global decarbonization agenda



Budaya Perusahaan

Corporate Culture

AKHLAK

Implementasi tata nilai AKHLAK melalui *Living Core Values* (LCV) sejak 2022 dengan pencapaian *maturity level "Commitment"* pada 2025.

The implementation of AKHLAK core values through Living Core Values (LCV) since 2022, achieving a 'Commitment' maturity level in 2025.

Informasi lebih lanjut mengenai tata nilai perusahaan dapat dilihat pada Laporan Tahunan PGE 2025.
For more details on corporate values, please refer to the 2025 PGE Annual Report.



Sekilas **Perusahaan** [OJK C.6]

Company Overview

Sejarah PGE berawal pada 1974 ketika Pemerintah Republik Indonesia menugaskan Pertamina untuk melakukan eksplorasi dan eksploitasi panas bumi sebagai sumber energi listrik. Upaya ini ditandai dengan pengoperasian PLTP Kamojang Unit I berkapasitas 30 MW pada 1983, yang kemudian diikuti pengembangan sejumlah PLTP lainnya di Sumatra dan Sulawesi. Seiring berlakunya Undang-Undang No. 22 Tahun 2001, Pertamina mendirikan PT Pertamina Geothermal Energy (PGE) pada 2006 dan mengalihkan 14 WKP kepada PGE pada 2012. Selanjutnya, dalam rangka transformasi Pertamina, PGE menjadi bagian dari Subholding Pertamina New and Renewable Energy (SH PNRE) sejak 2021 dan resmi melantai di Bursa Efek Indonesia (BEI) sebagai PT Pertamina Geothermal Energy Tbk pada 24 Februari 2023 dengan kode saham PGEO.

Hingga akhir 2025, PGE mengelola 15 WKP di Sumatra, Jawa, Bali, dan Sulawesi, dengan kapasitas terpasang sebesar 727 MW dari WKP yang dikelola sendiri dan 1.205 MW melalui Kontrak Operasi Bersama (KOB). Energi panas bumi yang dikelola PGE ditaksir mampu mengurangi emisi karbon hingga 9,7 juta t CO_2e per tahun, dengan penghindaran emisi mencapai 4.291.102,02 t CO_2e di 2025. Kami terus berikhtiar memperluas kontribusi dalam memenuhi kebutuhan energi bersih, sekaligus mendukung transisi energi nasional menuju NZE pada 2060.

PGE's history dates back to 1974, when the Government of the Republic of Indonesia tasked Pertamina with exploring and developing geothermal resources to support electricity generation. This milestone was marked by the start of operations at the 30 MW Kamojang Geothermal Power Plant (Unit I) in 1983, followed by the development of additional geothermal power plants across Sumatra and Sulawesi. After the enactment of Law No. 22 of 2001, Pertamina established PT Pertamina Geothermal Energy (PGE) in 2006 and transferred 14 WKP to PGE in 2012. As part of Pertamina's corporate transformation, PGE has been part of the Pertamina New and Renewable Energy Subholding (SH PNRE) since 2021 and was listed on the Indonesia Stock Exchange (IDX) as PT Pertamina Geothermal Energy Tbk on 24 February 2023 under the ticker symbol PGEO.

As of the end of 2025, PGE manages 15 WKP across Sumatra, Java, Bali, and Sulawesi, with an installed capacity of 727 MW from self-operated WKP and 1,205 MW through Joint Operation Contracts (JOC). The geothermal energy managed by PGE is estimated to reduce carbon emissions by up to 9.7 million t CO_2e annually, with emission avoidance reaching 4,291,102.02 t CO_2e in 2025. PGE remains committed to expanding its contribution to the provision of clean energy while supporting Indonesia's national energy transition toward NZE by 2060.

Informasi Umum dan **Identitas Perusahaan** [GRI 2-1]

General Information and Company Identity

Nama Perusahaan

Company Name

PT Pertamina Geothermal Energy Tbk (PGE)

Tanggal Didirikan

Date of Establishment

12 Desember 2006
12 December 2006

Sifat Kepemilikan dan Bentuk Hukum

Nature of Ownership and Legal Form

PGE merupakan perusahaan afiliasi PT Pertamina (Persero). Bentuk hukum PGE adalah Perseroan Terbatas dengan dasar hukum pendirian Akta Pendirian Perseroan Nomor 10 Tanggal 12 Desember 2006 dan telah mendapat pengesahan Menteri Hukum dan Hak Asasi Manusia Republik Indonesia dengan Surat Keputusan No. W7-00089 HT.01.01-TH.2007, sebagaimana terakhir diubah dengan Akta No. 07 tanggal 13 Januari 2026 dan telah mendapat penerimaan pemberitahuan Menteri Hukum Republik Indonesia (RI) berdasarkan Keputusan No. AHU-AH.01.03-0011320 tanggal 14 Januari 2026.

Pada 2023, PGE berubah status menjadi perusahaan terbuka, dengan melakukan penawaran saham perdana atau *Initial Public Offering* (IPO) sebanyak 10.350.000.000 saham biasa atas nama yang mewakili 25% modal ditempatkan dan disetor Perseroan. Saham Perseroan yang berkode PGEO mulai tercatat dan diperdagangkan di Bursa Efek Indonesia (BEI) pada 24 Februari 2023.

PGE is an affiliate company of PT Pertamina (Persero). PGE is incorporated as a limited liability company, established under the Deed of Establishment of the Company No. 10 dated 12 December 2006, which was approved by the Minister of Law and Human Rights of the Republic of Indonesia pursuant to Decision No. W7-00089 HT.01.01-TH.2007. The deed was last amended by Deed No. 07 dated 13 January 2026, and has received notification from the Minister of Law of the Republic of Indonesia (RI) based on Decree No. AHU-AH.01.03-0011320 dated 14 January 2026.

In 2023, PGE changed its status to a public company by conducting an Initial Public Offering (IPO) of 10,350,000,000 registered ordinary shares, representing 25% of the Company's issued and paid-up capital. The Company's shares, traded under the ticker symbol PGEO, have been listed and traded on the Indonesia Stock Exchange (IDX) since 24 February 2023.

Alamat Kantor Pusat [OJK C.2]

Head Office Address

Grha Pertamina
Tower Pertamax, Lt. 7 | 7th Floor
Jl. Medan Merdeka Timur No. 11-13, Gambir
Jakarta Pusat 10110
Telepon | Phone: (021) 3983 3222

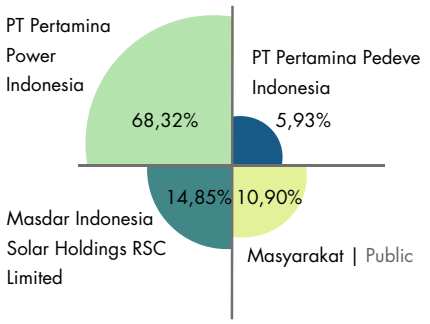
Akses Informasi

Information Access

: 135
: commpge@pertamina.com
: www.pge.pertamina.com
: @pge.pertamina
: Pertamina Geothermal Energy
: pge.pertamina
: PT Pertamina Geothermal Energy Tbk

Kepemilikan Saham [OJK C.3]

Shares Ownership





Skala **Usaha** [OJK C.3][GRI 2-7]

Business Scale

Jumlah Pekerja

Number of Workers

Pekerja Waktu Tidak Tertentu (PWTT)
Permanent Workers

2025	2024	2023
558	521	499

(Orang | People)

Pekerja Waktu Tertentu (PWT)
Non-Permanent Workers

2025	2024	2023
3	2	3

(Orang | People)

Tingkat Produksi

Production Level

Produksi Uap Setara Listrik untuk Operasi Sendiri
Electricity Equivalent Steam Production for Internal Operation

2025	2024	2023
5.095,49	4.827,22	4.734,57

(GWh)

Pendapatan Usaha

Operating Revenue

Total Pendapatan
Total Revenue

2025	2024	2023
432.726	407.120	406.288

(Ribu USD | Thousands USD)

Laba Tahun Berjalan
Profit for the Year

2025	2024	2023
137.667	160.302	163.570

(Ribu USD | Thousands USD)

Total Aset dan Total Kapitalisasi

Total Assets and Total Capitalization

Total Aset
Total Assets

2025	2024	2023
3.043.451	2.997.402	2.964.141

(Ribu USD | Thousands USD)

Total Kapitalisasi
Total Capitalization

Total Liabilitas
Total Liabilities

2025	2024	2023
988.888	988.650	992.885

(Ribu USD | Thousands USD)

Total Ekuitas
Total Equity

2025	2024	2023
2.045.563	2.008.752	1.971.256

(Ribu USD | Thousands USD)

Wilayah Operasi dan **Negara Tempat Beroperasi** [OJK C.3][GRI 2-1]

Operating Areas and Countries of Operation

PGE beroperasi di Indonesia dan tidak memiliki wilayah operasi di negara lain. Per 31 Desember 2025, Perseroan mengelola 15 Wilayah Kerja (WK) yang tersebar di Sumatra, Jawa, Bali dan Sulawesi dan terdiri atas:

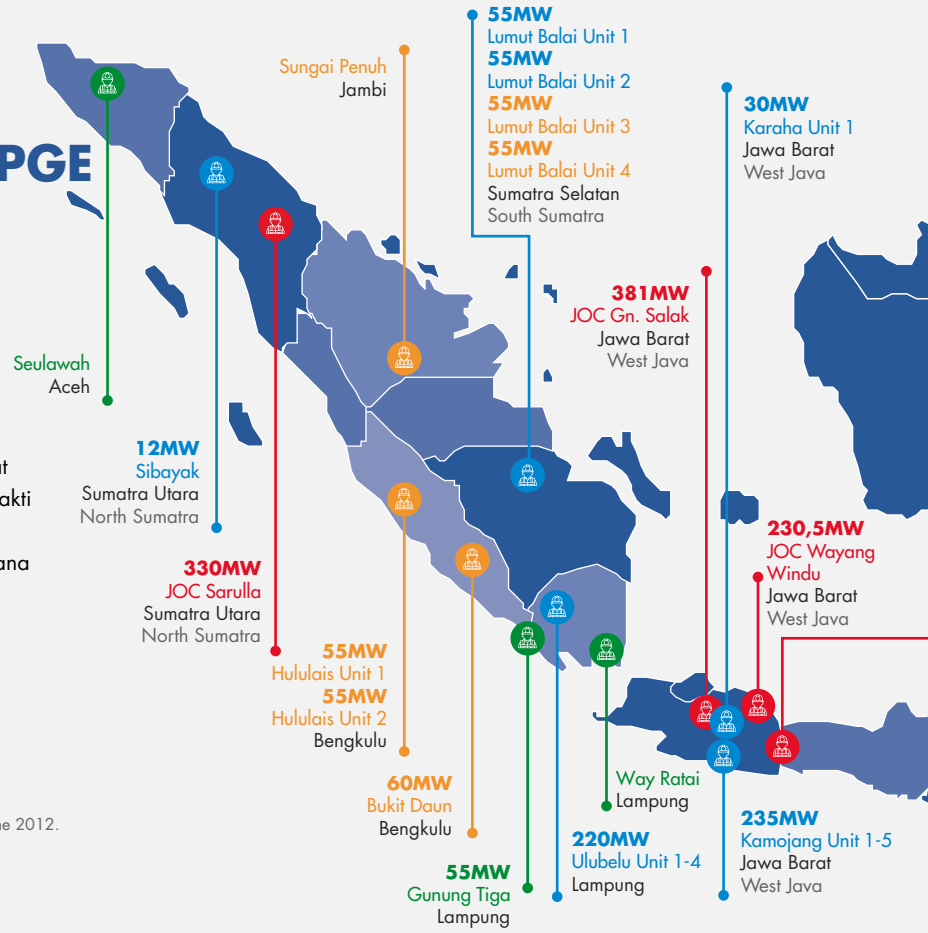
1. 13 Wilayah Kuasa Pengusahaan (WKP) Panas Bumi;
2. 2 WK Izin Panas Bumi (IPB); dan
3. 1 WK IPB dengan Usaha Gabungan (*Joint Venture*).

PGE operates exclusively in Indonesia and has no operating areas outside the country. As of 31 December 2025, the Company manages 15 Working Areas (WK) across Sumatra, Java, Bali, and Sulawesi, as follows:

1. 13 Geothermal Working Areas (WKP);
2. Two Geothermal License Areas (Izin Panas Bumi/IPB); and
3. One IPB Working Area operated through a Joint Venture arrangement.

Peta Wilayah **Operasi PGE**

PGE Operational Area Map



WKP Dikelola Sendiri
Self-Operated Geothermal Working Areas (WKP)

Sumatra
- Gunung Sibayak-Gunung Sinabung
- Gunung Sibual-buali
- Gunung Way Panas
- Sungai Penuh
- Lumut Balai & Margabayar
- Hululais

Jawa
- Kamojang-Darajat
- Cibeureum-Parabakti
- Pangalengan
- Karaha Cakrabuana

Bali
Tabanan

Sulawesi
Lahendong

Kepmen ESDM No. 2067 K/30/MEM/2012 tanggal 18 Juni 2012.
Decree of the Minister of EMR No. 2067 K/30/MEM/2012 dated 18 June 2012.

WKP Berdasarkan Izin Panas Bumi (IPB)
WKP under IPB

Sumatra
Seulawah Agam

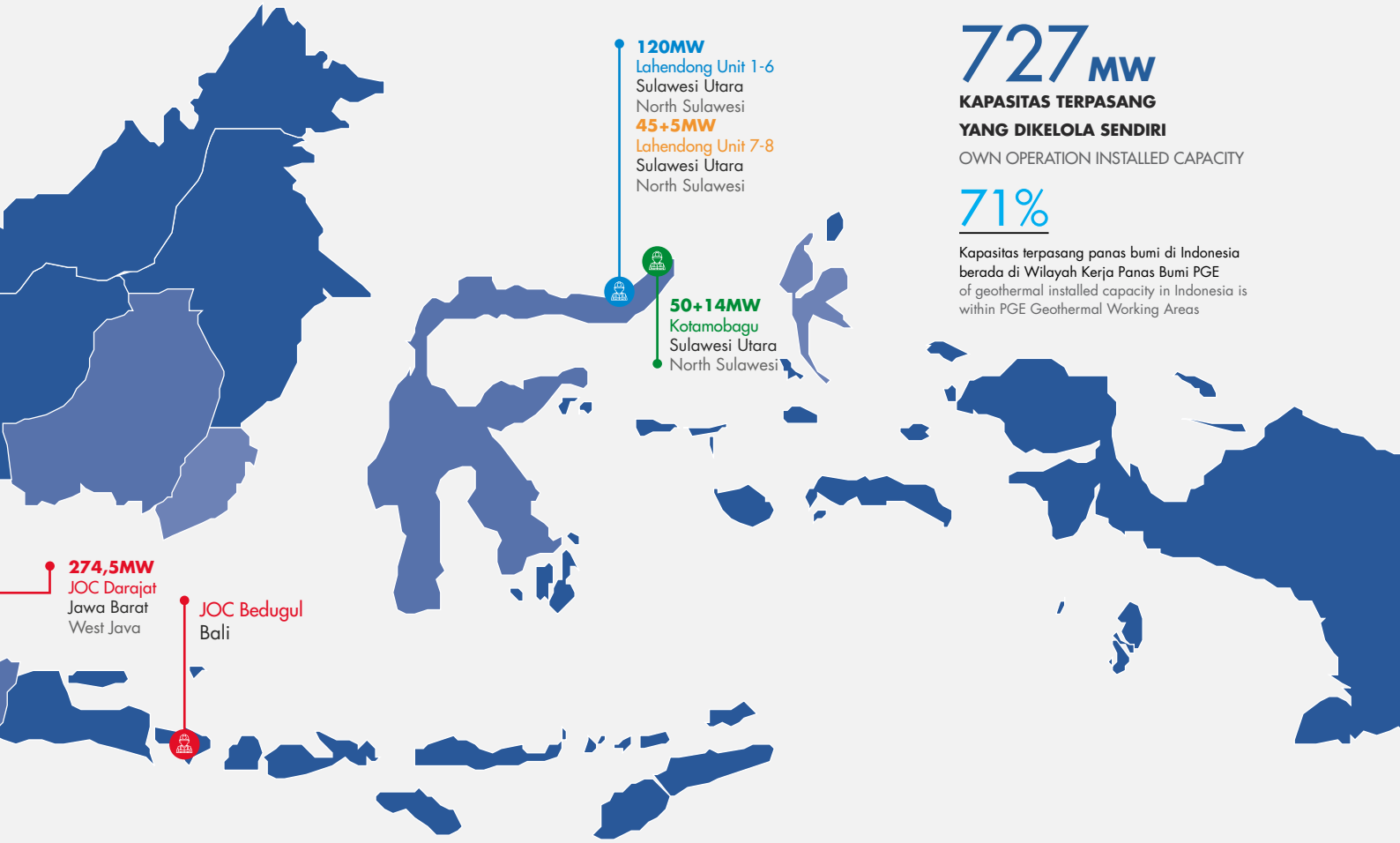
Keputusan Kepala Badan Koordinasi Penanaman Modal No. 1/1/IPB/ PMDN/2018 tanggal 9 April 2018. WKP dikelola oleh PT Geothermal Energi Seulawah selaku perusahaan patungan antara PGE dengan PT Pembangunan Aceh (PEMA).
Decree of the Head of the Investment Coordinating Board No. 1/1/IPB/PMDN/2018 dated 9 April 2018. The WKP is managed by PT Geothermal Energi Seulawah, a joint venture between PGE and PT Pembangunan Aceh (PEMA).

WKP Berdasarkan IPB dan Merupakan Penugasan PT Pertamina (Persero)
WKP under IPB Assigned by PT Pertamina (Persero)

Sulawesi
Kotamobagu

Keputusan Menteri ESDM No.143/K/36/MEM/2020 tanggal 3 Agustus 2020 *juncto* Keputusan Menteri ESDM No.14.K/EK/01/MEM.E/2022 tanggal 20 Januari 2022. WKP dikelola oleh PT Pertamina Geothermal Energy Kotamobagu selaku Anak Perusahaan PGE.
Decree of the Minister of EMR No. 143/K/36/MEM/2020 dated 3 August 2020, juncto Decree of the Minister of EMR No. 14.K/EK/01/MEM.E/2022 dated 20 January 2022. The WKP is managed by PT Pertamina Geothermal Energy Kotamobagu, a subsidiary of PGE.





727 MW

KAPASITAS TERPASANG YANG DIKELOLA SENDIRI

OWN OPERATION INSTALLED CAPACITY

71%

Kapasitas terpasang panas bumi di Indonesia berada di Wilayah Kerja Panas Bumi PGE
of geothermal installed capacity in Indonesia is within PGE Geothermal Working Areas

Wilayah Kerja | Working Areas

- Operasi Sendiri / Own Operation
- Eksplorasi / Exploration
- Pengembangan / Development
- Operasi Bersama / Joint Operation Contract

WKP Berdasarkan IPB dengan Usaha Gabungan
WKP under IPB Operated through a Joint Venture

Sumatra

Way Ratai

PT Cahaya Anagata Energy yang merupakan perusahaan konsorsium antara Perseroan dan Chevron New Energies Holdings Indonesia Ltd. ditetapkan sebagai pemenang pelelangan WKP Way Ratai melalui Keputusan Menteri Energi dan Sumber Daya Mineral Nomor 118.K/EK.01/MEM/2023 tanggal 12 Juni 2023.

PT Cahaya Anagata Energy, a consortium between the Company and Chevron New Energies Holdings Indonesia Ltd., was appointed as the winner of the WKP Way Ratai auction through Decree of the Minister of EMR No. 118.K/EK.01/MEM/2023 dated 12 June 2023.

Wilayah Kerja Panas Bumi (WKP) yang Dikelola Sendiri

WKP yang dikelola sendiri PGE mencakup enam lapangan yang telah beroperasi komersial dengan total kapasitas terpasang 727 MW. Di 2025, PGE mendapatkan tambahan kapasitas terpasang 55 MW dari Lumut Balai Unit 2, yang beroperasi penuh sejak bulan Juni. Dengan demikian, hingga akhir periode pelaporan, lapangan yang beroperasi terdiri atas Kamojang (235 MW), Ulubelu (220 MW), Lahendong (120 MW) serta *binary plant* sebesar 0,5 MW untuk kebutuhan sendiri (*own use*), Sibayak (12 MW), Karaha (30 MW) dan Lumut Balai (110 MW).

Self-Operated Geothermal Working Areas (WKP)

PGE's self-operated Geothermal Working Areas (WKP) cover six fields that are already in commercial operation, with total installed capacity of 727 MW. In 2025, PGE added 55 MW from Lumut Balai Unit 2, which has been fully online since June. As of the end of the reporting period, the operating fields were Kamojang (235 MW), Ulubelu (220 MW), Lahendong (120 MW) along with a 0.5 MW binary plant for own use, Sibayak (12 MW), Karaha (30 MW), and Lumut Balai (110 MW).



Pada 2025, PGE melanjutkan pengembangan beberapa proyek, yakni Lumut Balai 3 (55 MW), Hululais Unit 1 & 2 (110 MW), serta Lahendong Unit 7 & 8 (40 MW). Selain itu, beberapa lapangan dalam tahapan eksplorasi, yakni Gunung Tiga, Tanjung Tiga, Seulawah, Sungai Penuh, Kotamobagu, dan Way Ratai. Kami juga terus menindaklanjuti *Joint Development Agreement* (JDA) dan *Consortium Agreement* dengan PT PLN Indonesia Power, untuk pengembangan pembangkit listrik dengan teknologi *co-generation* yang memiliki kapasitas terpasang 230 MW.

In 2025, PGE continued work on several development projects: Lumut Balai Unit 3 (55 MW), Hululais Units 1 and 2 (110 MW), and Lahendong Units 7 and 8 (40 MW). Several fields also remained at the exploration stage, Gunung Tiga, Tanjung Tiga, Seulawah, Sungai Penuh, Kotamobagu, and Way Ratai. PGE also continued to carry out follow-up under the Joint Development Agreement (JDA) and the Consortium Agreement with PT PLN Indonesia Power to develop co-generation power plants with an installed capacity of 230 MW.

Selama periode pelaporan, tercatat empat proyek strategis panas bumi PGE tercantum dalam *Blue Book* 2025–2029 oleh Kementerian PPN/Bappenas, sehingga berpotensi mendapatkan pendanaan hijau internasional. Penetapan ini menjadi tonggak penting mengembangkan potensi panas bumi sebagai tulang punggung transisi energi nasional. Keempat proyek tersebut adalah Lumut Balai Unit 3, Lumut Balai Unit 4, Gunung Tiga/Ulubelu Extension I, serta Lahendong Unit 7–8 & Binary, dengan proyeksi menambah 215 MW kapasitas listrik rendah emisi yang direncanakan beroperasi mulai 2029 hingga 2032.

During the reporting period, four PGE geothermal strategic projects were listed in the 2025–2029 Blue Book by the Ministry of National Development Planning/Bappenas, making them eligible for international green financing. This designation is an important milestone in developing the potential of geothermal energy as the backbone of the national energy transition. The four projects are Lumut Balai Unit 3, Lumut Balai Unit 4, Gunung Tiga/Ulubelu Extension I, and Lahendong Unit 7–8 & Binary, with a projected addition of 215 MW of low-emission electricity capacity planned to be operational from 2029 to 2032.

WKP yang Dikelola Melalui Kontrak Operasi Bersama (KOB)

Hingga akhir 2025, PGE memiliki WKP yang dikelola melalui KOB sebanyak lima lapangan, dengan total kapasitas terpasang 1.216 MW. Lapangan tersebut adalah Gunung Salak (381 MW), Darajat (274,5 MW), dan Wayang-Windu (230,5 MW), Sarulla (330 MW). Satu lapangan dalam tahap eksplorasi, yaitu di wilayah Bedugul, Bali.

Geothermal Working Areas Managed under Joint Operation Contracts (JOC)

By the end of 2025, PGE managed five geothermal fields under Joint Operation Contracts (JOC), with a total installed capacity of 1,216 MW. The portfolio is Gunung Salak (381 MW), Darajat (274.5 MW), Wayang Windu (230.5 MW), and Sarulla (330 MW). One additional field was still in the exploration phase in Bedugul, Bali.

Informasi lebih lanjut mengenai wilayah operasional dapat dilihat pada Laporan Tahunan PGE 2025.
For more details on PGE's operating areas, please refer to the 2025 PGE Annual Report.

Kegiatan Usaha dan **Produk Dihasilkan** [OJK C.4][GRI 2-6]

Business Activities and Products

Sampai akhir 2025, PGE menjalankan kegiatan usaha di bidang panas bumi dari sisi hulu dan/atau sisi hilir serta kegiatan usaha lain yang terkait atau menunjang kegiatan usaha di bidang panas bumi dengan menerapkan prinsip-prinsip Perseroan. Kegiatan usaha Perseroan yang dijalankan meliputi kegiatan usaha utama dan kegiatan usaha pendukung/penunjang.

As of the end of 2025, PGE carries out geothermal business activities across upstream and/or downstream operations in Indonesia and overseas. It also undertakes other activities that relate to, or support, its geothermal business, guided by the Company's corporate principles. The Company's business activities include main business activities and supporting/ auxiliary business activities.

Kegiatan Usaha Utama

Kegiatan usaha utama berupa pengusahaan panas bumi untuk pemanfaatan tidak langsung, meliputi:

Main Business Activities

The main business activity is geothermal energy exploitation for indirect use, including:



1. **Pengusahaan Tenaga Panas Bumi**
   Menyelenggarakan usaha pencarian dan pengeboran tenaga panas bumi termasuk lokasi di kawasan hutan, dan kegiatan lain yang berhubungan dengan pengusahaan tenaga panas bumi sampai ke tempat pemanfaatannya.

   Geothermal Energy Development
   Carrying out geothermal exploration and drilling, even in forest areas where applicable, along with related work that supports geothermal development through to the point of use.



2. **Pengusahaan Tenaga Listrik**
   Menyelenggarakan usaha memproduksi tenaga listrik melalui pembangkitan tenaga listrik yang menggunakan berbagai jenis sumber energi termasuk sumber energi fosil (batu bara, gas, bahan bakar minyak, dan solar), sumber energi terbarukan (panas bumi, angin, bioenergi, sinar matahari, aliran dan terjunan air, gerakan dan perbedaan suhu lapisan laut), sumber energi hibrida yang menggabungkan sumber energi fosil dengan energi terbarukan, dan energi yang berasal dari teknologi *energy storage*.

   Electric Power Generation
   Operating power generation activities through plants that draw on a wide range of energy sources. These cover fossil fuels (coal, gas, fuel oil, and diesel), renewables (geothermal, wind, bioenergy, solar, hydropower from water flow and waterfalls, as well as ocean movement and thermal gradients), hybrid sources that combine fossil and renewable energy, and energy supported by storage technologies.

Kegiatan Usaha Pendukung/Penunjang

Kegiatan usaha pendukung/penunjang berupa pengusahaan panas bumi untuk pemanfaatan langsung, antara lain menyelenggarakan usaha yang menyediakan tempat dan fasilitas, menyelenggarakan usaha industri kimia, jasa pengujian laboratorium, industri alat uji dalam proses industri, aktivitas keinsinyuran dan konsultasi teknis, serta agrobisnis.

Supporting/Auxiliary Business Activities

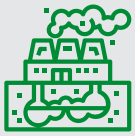
The Company's supporting/auxiliary business activities include, among others, the provision of premises and facilities, chemical industry operations, laboratory testing services, manufacturing testing equipment for industrial processes, engineering and consulting services, and agribusiness.

Produk dan Jasa

Produk dan yang dihasilkan dari kegiatan usaha Perseroan antara lain:

Products and Services

The products and services generated from the Company's business activities are:



1. **Uap (Skema *Upstream Project*)**
   Perseroan berperan sebagai penjual uap panas bumi yang disalurkan ke PLTP milik pembeli, yakni PT Perusahaan Listrik Negara (Persero) atau PLN, PT Indonesia Power, serta produsen listrik independen (*Independent Power Producer* atau IPP).

   Steam (Upstream Project Scheme)
   The Company acts as a seller of geothermal steam supplied to geothermal power plants owned by the off-takers, namely the State Electricity Company (PLN), PT Indonesia Power, and independent power producers (IPPs).



2. **Listrik (Skema *Total Project*)**
   Perseroan berperan sebagai penjual tenaga listrik yang dihasilkan dari PLTP milik Perseroan, untuk disalurkan melalui jaringan transmisi atau distribusi milik PT PLN (Persero) sebagai pembeli.

   Electricity (Total Project Scheme)
   The Company acts as a seller of electricity generated by its geothermal power plants, delivered through the State Electricity Company (PLN) transmission or distribution networks as the off-taker.



3. **Kredit Karbon**
   PGE berperan sebagai penyedia kredit karbon di pasar internasional maupun domestik melalui Bursa Karbon Indonesia (IDXCarbon).

   Carbon Credits
   PGE acts as a provider of carbon credits to both international and domestic markets through the Indonesia Carbon Exchange (IDXCarbon).

Informasi lebih lanjut mengenai kegiatan usaha yang dijalankan dan produk dihasilkan dapat dilihat pada Laporan Tahunan PGE 2025.
For more details on the Company's business activities and products, please refer to the 2025 PGE Annual Report.

Rantai Nilai dan **Relasi Bisnis** [OJK C.4][GRI 2-6]

Value Chain and Business Relationships

Saat ini, PGE mengoperasikan PLTP dengan total kapasitas terpasang sebesar 1.943 MW, setara dengan 12,78% dari total kapasitas terpasang pembangkit energi baru terbarukan (EBT) nasional sebesar 15,2 GW dan 1,82% dari total kapasitas pembangkit nasional sebesar 107 GW, serta berkontribusi lebih dari 80% terhadap total kapasitas panas bumi terpasang di Indonesia. Dalam menciptakan rantai nilai, PGE melakukan penjualan uap dan listrik kepada pembeli melalui skema *upstream project* yang diatur melalui Perjanjian Jual Beli Uap (PJBU) serta skema *total project* bersama PT PLN (Persero) yang diatur melalui Perjanjian Jual Beli Listrik (PJBL).

PGE currently operates geothermal power plants with a total installed capacity of 1,943 MW. This represents 12.78% of Indonesia's installed new and renewable energy capacity of 15.2 GW and 1.82% of the country's total installed generation capacity of 107 GW. It also accounts for more than 80% of Indonesia's installed geothermal capacity. Across its value chain, the Company sells steam and electricity to off-takers through an upstream project scheme governed by Steam Sales and Purchase Agreements (PJBU). It further sells electricity under a total project scheme with the PT PLN (Persero), governed by Power Purchase Agreements (PJBL).



PGE juga membangun rantai nilai dengan mitra kerja, pemasok, dan vendor lokal, dalam hal ini adalah yang beroperasi maupun memiliki kantor pusat di Indonesia, sebagai dukungan pada industri dalam negeri dan Program Peningkatan Penggunaan Produk Dalam Negeri (P3DN), serta upaya menciptakan ekosistem bisnis yang mendukung perekonomian Indonesia. Realisasi TKDN dalam pengadaan barang dan jasa PGE di 2025 mencapai 58,30% dari total nilai pengadaan, atau melebihi target *Key Performance Indicator* (KPI) minimal 40%, berdasarkan penghitungan sesuai Peraturan Menteri Perindustrian Nomor 16/M-IND/PER/2/2011 tentang Ketentuan dan Tata Cara Penghitungan Tingkat Komponen Dalam Negeri dan Peraturan Menteri Energi dan Sumber Daya Mineral Republik Indonesia Nomor 15 Tahun 2023 tentang Penggunaan Produk Dalam Negeri pada Kegiatan Usaha Hulu Minyak dan Gas Bumi. Proses verifikasi dilakukan oleh surveyor independen. [GRI 204-1]

PGE also builds partnerships with local contractors, suppliers, and vendors, in this case those that operate or have their headquarters in Indonesia, to strengthen its value chain, supports domestic industries, and contributes to the Domestic Component Level Enhancement Program (P3DN). This approach helps foster a business ecosystem supporting Indonesia's economy. In 2025, TKDN realization for PGE's procurement of goods and services reached 58.30% of the total procurement value, above the minimum Key Performance Indicator (KPI) target of 40%. The figure was calculated in accordance with Ministry of Industry Regulation No. 16/M-IND/PER/2/2011 on the Provisions and Procedures for Calculating Domestic Component Levels and Ministry of Energy and Mineral Resources Regulation No. 15 of 2023 on the Use of Domestic Products in Upstream Oil and Gas Business Activities. An independent surveyor carried out the verification. [GRI 204-1]

Pekerja **PGE** [OJK C.3][GRI 2-7]

PGE Workers

Seluruh pekerja PGE bekerja penuh waktu, dan PGE tidak mempekerjakan pekerja borongan. Pengungkapan informasi mengenai komposisi pekerja PGE berdasarkan data yang tercatat per 31 Desember 2025 di Fungsi Human Capital. Fluktuasi jumlah pekerja dipengaruhi oleh penugasan dari PT Pertamina (Persero) maupun Subholding Pertamina New and Renewable Energy (SH PNRE), yaitu PT Pertamina PNRE.

Pada 2025, PGE menggunakan jasa 1.092 tenaga alih daya yang tersebar di seluruh fungsi. Penggunaan tenaga alih daya tersebut didasarkan pada kontrak kerja sama dengan perusahaan alih daya. Oleh karena itu, data yang diungkapkan mengacu pada kontrak yang tercatat per 31 Desember 2025, dengan jumlah yang dapat berfluktuasi mengikuti masa berlaku kontrak. PGE memastikan seluruh perusahaan alih daya mematuhi regulasi ketenagakerjaan yang berlaku serta tidak melakukan praktik yang melanggar hak asasi manusia (HAM). [GRI 2-8]

All PGE workers work on a full-time basis, and the Company does not employ workers on contract-piecework basis. The disclosure on PGE's worker composition draws on records maintained by the Human Capital Function as of 31 December 2025. Changes in worker headcount are influenced by assignments from PT Pertamina (Persero) and the Pertamina New and Renewable Energy Subholding (SH PNRE), namely PT Pertamina PNRE.

In 2025, PGE engaged 1,092 outsourced workers across all functions. The use of these outsourced workers is based on cooperation agreements with outsourcing companies. Therefore, the data disclosed refers to contracts recorded as of 31 December 2025, with figures that may fluctuate in line with contract durations. PGE ensures that all outsourcing companies comply with applicable labor regulations and prohibits practices that violate human rights. [GRI 2-8]



Komposisi **Pekerja**
Worker Composition

Komposisi Pekerja Berdasarkan Gender [GRI 405-1]
Worker Composition Based on Gender

	Laki-laki | Male		Perempuan | Female		Jumlah | Total	
	Jumlah | Total	%	Jumlah | Total	%	Jumlah | Total	%
2025	490	87,34	71	12,66	561	100,00
2024	460	87,95	63	12,05	523	100,00
2023	450	89,64	52	10,36	502	100,00

Komposisi Pekerja Berdasarkan Status Kepegawaian dan Gender
Worker Composition by Employment Status and Gender

Pekerja Waktu Tidak Tertentu (PWTT) | Permanent Worker

	Laki-laki | Male	Perempuan | Female	Jumlah | Total
2025	488	70	558
2024	458	63	521
2023	447	52	499

Pekerja Waktu Tertentu (PWT) | Non-Permanent Worker

	Laki-laki | Male	Perempuan | Female	Jumlah | Total
2025	2	1	3
2024	2	0	2
2023	3	0	3

Jumlah | Total

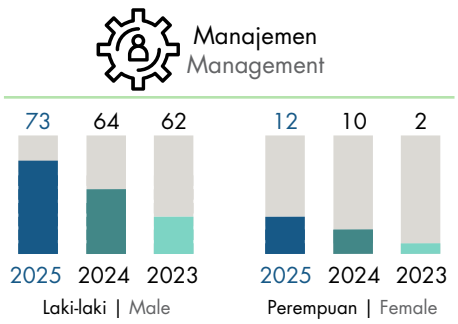
	Laki-laki | Male	Perempuan | Female	Jumlah | Total
2025	490	71	561
2024	460	63	523
2023	450	52	502

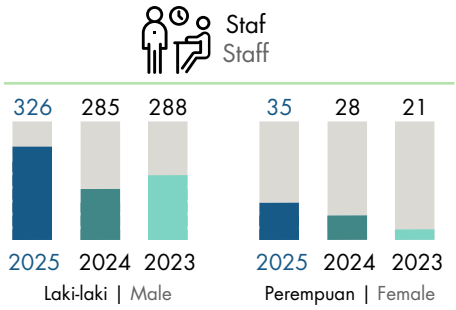
Keterangan I Notes:
PWTT: Pekerja Waktu Tidak Tertentu I Indefinite-Term Workers
PWT: Pekerja Waktu Tertentu I Definite-Term Workers

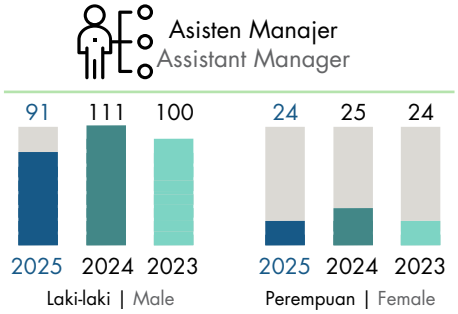
Komposisi Pekerja Berdasarkan Status Kepegawaian dan Area Kerja
Worker Composition by Employment Status and Work Area

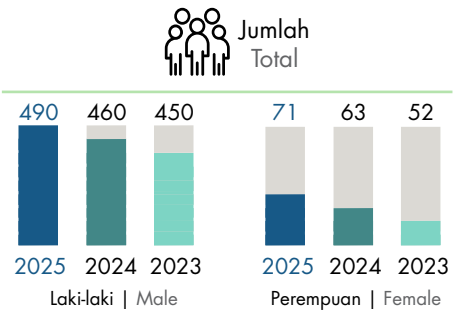
Lokasi Penempatan Placement Location	2025			2024			2023		
	PWTT	PWT	Jumlah Total	PWTT	PWT	Jumlah Total	PWTT	PWT	Jumlah Total
Kantor Pusat Head Office	239	3	242	221	1	222	209	2	211
Area Kamojang Kamojang Area	66	0	66	64	-	64	67	-	67
Area Lahendong Lahendong Area	77	0	77	78	1	79	74	1	75
Area Ulubelu Ulubelu Area	61	0	61	54	-	54	53	-	53
Area Karaha Karaha Area	44	0	44	39	-	39	39	-	39
Area Lumut Balai Lumut Balai Area	59	0	59	56	-	56	54	-	54
Area Sibayak Sibayak Area	3	0	3	3	-	3	3	-	3
Proyek Hululais Hululais Project	5	0	5	6	-	6	6	-	6
Proyek Gunung Tiga Gunung Tiga Project	2	0	2	-	-	-	-	-	-
Proyek Lumut Balai Unit 2 Lumut Balai Unit 2 Project	2	0	2	-	-	-	-	-	-
Jumlah Total	**558**	**3**	**561**	**521**	**2**	**523**	**499**	**3**	**502**

Komposisi Pekerja Berdasarkan Tingkat Jabatan dan Gender
Worker Composition by Position Level and Gender



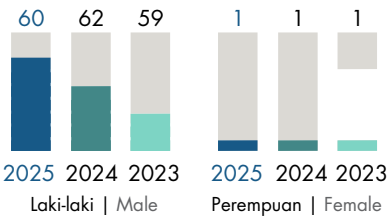




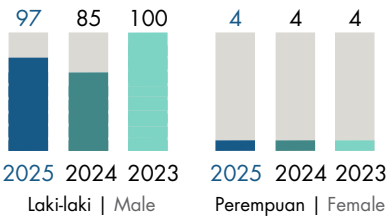


Komposisi Pekerja Berdasarkan Tingkat Pendidikan dan Gender
Worker Composition by Education Level and Gender

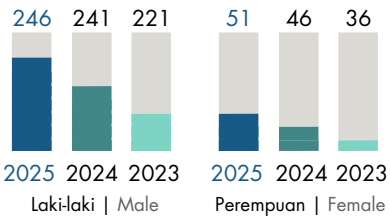
SMA dan Setara
High School/Equivalent



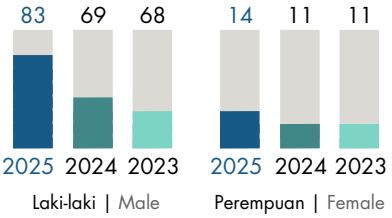
Diploma



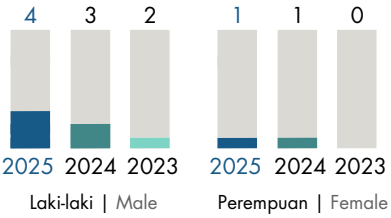
Sarjana (S1)
Bachelor



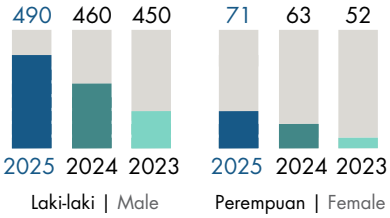
Pascasarjana (S2)
Postgraduate



Doktoral (S3)
Doctor



Jumlah
Total



Komposisi dan Persentase Pekerja Berdasarkan Kelompok Usia dan Gender [GRI 405-1]
Worker Composition and Percentage by Age Group and Gender

Kelompok Usia (Tahun) Age Group (Years)	2025			2024			2023		
	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total
<30	78	17	95	63	11	74	114	5	119
31-50	373	50	423	359	49	408	300	47	347
>50	39	4	43	38	3	41	36	0	36
Jumlah Total	**490**	**71**	**561**	**460**	**63**	**523**	**450**	**52**	**502**

Keanggotaan pada **Asosiasi** [OJK C.5][GRI 2-28]

Membership in Association

Asosiasi Panas Bumi Indonesia
Indonesian Geothermal Association

Status Keanggotaan: Anggota
Membership Status: Member

Asosiasi Emiten Indonesia
Indonesian Public Listed Companies Association

Status Keanggotaan: Anggota
Membership Status: Member

Indonesia Corporate Secretary Association (ICSA)

Status Keanggotaan: Anggota
Membership Status: Member

Partisipasi pada Inisiatif Keberlanjutan
Participation to Sustainability Initiatives

Keterangan I Notes:
*Perseroan tidak terdaftar secara langsung sebagai signatory UN Global Compact. Namun demikian, sebagai bagian dari PT Pertamina (Persero), yang merupakan signatory UN Global Compact, Perseroan berkomitmen untuk mendukung dan mengimplementasikan Sepuluh Prinsip UN Global Compact dalam aspek HAM, ketenagakerjaan, lingkungan, dan antikorupsi, selaras dengan kebijakan dan tata kelola Pertamina.
*The Company is not directly registered as a signatory to the UN Global Compact. However, as part of PT Pertamina (Persero), which is a signatory to the UN Global Compact, the Company is committed to supporting and implementing the Ten Principles of the UN Global Compact in the areas of human rights, labor, environment, and anti-corruption, in line with Pertamina's policies and governance.

Sertifikasi dan **Paten**

Certifications and Patents

Sertifikasi per 31 Desember 2025
Certifications as of 31 December 2025

Kantor Pusat dan Seluruh Area
Head Office and All Operational Areas

1. ISO 9001:2015 Quality Management System
2. ISO 14001:2015 Environmental Management System
3. ISO 27001:2022 Sistem Manajemen Keamanan Informasi
   Information Security Management System
4. ISO 37001:2016 Sistem Manajemen Anti Penyuapan
   Anti-Bribery Management System
5. ISO 45001:2018 Occupational Health & Safety Management System

Kantor Pusat
Head Office

6. ISO 20000-1:2018 IT Service Management System
7. ISO 22301:2019 Sistem Manajemen Kelangsungan Bisnis
   Business Continuity Management System

Area Kamojang
Kamojang Area

8. ISO 17025:2017 Akreditasi Sistem Manajemen Mutu Laboratorium
   Laboratory Quality Management System Accreditation

Kami juga memiliki sembilan paten terkait inovasi teknologi panas bumi yang dikembangkan secara internal. Paten-paten tersebut diterbitkan di dalam maupun di luar negeri. Adapun paten yang diperoleh pada 2025 adalah *Prove Geoflowtest,* yang diterbitkan oleh Kementerian Hukum RI pada Maret 2025 dan berlaku selama 10 tahun ke depan. Paten ini diberikan atas penemuan perangkat portabel yang memungkinkan uji produksi sumur panas bumi secara waktu nyata.

PGE also holds nine patents for geothermal technology innovations. These patents have been granted in Indonesia and abroad. In 2025, PGE received the Prove Geoflowtest patent from the Ministry of Law of the Republic of Indonesia in March 2025, with protection valid for ten years from the grant date. The patent was granted for the invention of a portable device that enables real-time testing of geothermal well production.

Penghargaan dan **Apresiasi**

Awards and Recognitions



Penghargaan Nasional

1. Subroto Awards 2025 yang diselenggarakan Kementerian ESDM, atas inovasi di bidang Keselamatan dan Kesehatan Kerja (K3) serta Program Pengembangan dan Pemberdayaan Masyarakat (PPM) di sektor panas bumi;
2. The Investor Daily ESG Appreciation 2025 yang diselenggarakan B-Universe untuk Kategori *Environment Sustainability;*
3. Indonesia Corporate Sustainability Awards (ICSA) 2025 yang diselenggarakan OlahKarsa untuk Gold Award pada kategori *Best Environmental Community Development.*



National Awards

1. Subroto Awards 2025, organized by the Ministry of Energy and Mineral Resources, in recognition of innovation in Occupational Health and Safety (OHS) as well as Community Development and Empowerment Programs (PPM) in the geothermal sector;
2. The Investor Daily ESG Appreciation 2025, organized by B-Universe, for the Environmental Sustainability category;
3. Indonesia Corporate Sustainability Awards (ICSA) 2025, organized by OlahKarsa, where PGE received the Gold Award in the Best Environmental Community Development category.



Penghargaan Internasional

1. PGE termasuk dalam daftar "2025 ESG *Top-Rated Company*" versi Sustainalytics, yang mencakup 50 perusahaan global dengan peringkat ESG terbaik dari 15.000 perusahaan di 42 negara, dan menjadi satu-satunya perusahaan Indonesia yang meraih pengakuan tersebut, sekaligus menempatkannya di jajaran Top 50 ESG Global versi Sustainalytics;
2. International Trade Fair Ideas, Inventions and New Products (IENA) 2025 di Nuremberg, Jerman atas inovasi dua karya unggulan yang berfokus pada efisiensi dan peningkatan mutu teknologi panas bumi;
3. The 17th Annual Global CSR & ESG Summit Awards 2025 by The Pinnacle Group International kategori *Platinum - Best Country Excellence* Indonesia untuk Area Lahendong dan Bronze - Best Community Programme Award untuk Area Ulubelu; dan
4. Gold Rank pada Asia Sustainability Reporting Rating (ASRRAT) yang diselenggarakan National Center for Corporate Reporting (NCCR) dan Institute of Certified Sustainability Practitioners (ICSP).

International Awards



1. Sustainalytics named PGE to its "2025 ESG Top-Rated Company" list, which recognizes the top 50 global companies based on ESG ratings out of approximately 15,000 companies across 42 countries. PGE was the only company from Indonesia to receive this recognition, placing it in Sustainalytics' Top 50 ESG Global group;
2. International Trade Fair Ideas, Inventions and New Products (IENA) 2025 in Nuremberg, Germany, recognizing two flagship innovations focused on efficiency and improved geothermal technology performance;
3. The 17th Annual Global CSR & ESG Summit Awards 2025 by The Pinnacle Group International, receiving Platinum – Best Country Excellence Indonesia for the Lahendong Area and Bronze – Best Community Programme Award for the Ulubelu Area; and
4. Gold Rank at the Asia Sustainability Reporting Rating (ASRRAT), organized by the National Center for Corporate Reporting (NCCR) and the Institute of Certified Sustainability Practitioners (ICSP).

Informasi mengenai penghargaan dan apresiasi lain yang diperoleh PGE di 2025, dapat diakses melalui Laporan Tahunan PGE 2025 dan situs web PGE: www.pge.pertamina.com.
More information on other awards and recognitions received by PGE in 2025 is available in the 2025 PGE Annual Report and on PGE's website at www.pge.pertamina.com.

Perubahan **Signifikan** [OJK C.6]

Significant Changes

Terdapat beberapa perubahan signifikan pada periode pelaporan, di antaranya:

1. Pengoperasian PLTP Lumut Balai Unit 2 berkapasitas 55 MW, yang ditandai dengan penerbitan Surat Layak Operasi (SLO) pada 29 Juni 2025. Beroperasinya PLTP Lumut Balai Unit 2 membuat kapasitas terpasang PGE meningkat menjadi 727 MW, dari sebelumnya 672 MW. Listrik yang dihasilkan selanjutnya disalurkan ke jaringan listrik nasional.
2. Perubahan susunan Direksi dan Dewan Komisaris pada rentang waktu periode pelaporan hingga saat laporan ini diterbitkan.
3. Perubahan struktur organisasi dengan penambahan Fungsi Commercial & Partnership di bawah Direktorat Eksplorasi dan Pengembangan.

Several significant changes occurred during the reporting period, including the following:

1. Lumut Balai Geothermal Power Plant Unit 2, with a capacity of 55 MW, began commercial operations. The milestone was marked by the issuance of the Certificate of Worthiness for Operation (SLO) on 29 June 2025. With Lumut Balai Unit 2 in operation, PGE's installed capacity increased to 727 MW from 672 MW. The electricity generated is delivered to the national power grid.
2. Changes in the composition of the Board of Directors and Board of Commissioners during the reporting period up to the time this report was published.
3. Changes in organizational structure with the addition of Commercial & Partnership functions under the Directorate of Exploration and Development.

Informasi lebih lanjut mengenai perubahan signifikan yang terjadi di 2025 dapat diakses melalui Laporan Tahunan PGE 2025.
Further information regarding significant changes occurring in 2025 can be accessed through the PGE 2025 Annual Report.



Tentang Laporan **Keberlanjutan**

About the Sustainability Report

Penyusunan Laporan Keberlanjutan PGE merupakan bentuk akuntabilitas dan transparansi Perseroan atas pengelolaan kinerja lingkungan, sosial, dan tata kelola, serta dukungan terhadap Tujuan Pembangunan Berkelanjutan (TPB) yang relevan dengan karakteristik dan ruang lingkup kegiatan usaha Perseroan.

The PGE prepares this Sustainability Report as a way to demonstrate accountability and transparency in managing environmental, social, and governance (ESG) performance, and to support the Sustainable Development Goals (SDGs) that are relevant to the characteristics and scope of the Company's business activities.



Acuan **Penyusunan Laporan**

Reporting Standards and References

Laporan Keberlanjutan PGE disusun mengacu pada beberapa standar dan panduan:

1. **Peraturan Otoritas Jasa Keuangan (OJK)**
   Laporan ini disusun dengan mengacu pada Peraturan OJK (POJK) Nomor 51/POJK.03/2017 tentang Penerapan Keuangan Berkelanjutan bagi Lembaga Jasa Keuangan, Emiten, dan Perusahaan Publik, serta Pedoman Teknis Penyusunan Laporan Keberlanjutan sebagaimana diatur dalam Surat Edaran OJK (SEOJK) Nomor 16/SEOJK.04/2021 tentang Bentuk dan Isi Laporan Tahunan Emiten atau Perusahaan Publik.
2. **Standar Global Reporting Initiative (GRI)**
   Laporan Keberlanjutan ini disusun dan disajikan *in accordance* dengan Standar GRI sebagai kerangka utama dalam pengungkapan kinerja keberlanjutan Perseroan.

This Sustainability Report has been prepared with reference to the following:

1. **Financial Services Authority (OJK) Regulations**
   This Report has been prepared with reference to OJK Regulation (POJK) No. 51/POJK.03/2017 on the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies, as well as OJK Circular Letter (SEOJK) No. 16/SEOJK.04/2021 on the Form and Content of the Annual Report of Issuers or Public Companies.

2. **Global Reporting Initiative (GRI) Standards**
   This Sustainability Report has been prepared and presented in accordance with the GRI Standards as the primary framework for disclosing the Company's sustainability performance.

Periode, Frekuensi, dan **Kontak Laporan** [GRI 2-3]

Reporting Period, Frequency, and Contact

PGE menerbitkan Laporan Keberlanjutan setiap tahun, dan laporan sebelumnya diterbitkan pada 30 April 2025. Periode pelaporan adalah 1 Januari hingga 31 Desember 2025.

PGE publishes its Sustainability Report annually. The previous report was issued on 30 April 2025. The reporting period runs from 1 January to 31 December 2025.

Kitty Adhora
Corporate Secretary
PT Pertamina Geothermal Energy Tbk
Kantor Pusat | Head Office
Grha Pertamina - Tower Pertamax Lt. 7 | 7th Floor
Jl. Medan Merdeka Timur No. 11-13
Gambir, Jakarta Pusat 10110
Telepon | Phone: (021) 3983 3222
Email: commpge@pertamina.com
Website: www.pge.pertamina.com



Cakupan **Laporan Keberlanjutan** [GRI 2-2, 2-4]

Sustainability Report Scope

Laporan Keberlanjutan ini mencakup seluruh unit kerja Perseroan dan entitas anak, yaitu PT Geothermal Energy Seulawah dan PT Pertamina Geothermal Energy Kotamobagu. Data dan informasi bersumber dari PGE serta mencakup informasi keuangan konsolidasian. Sejumlah informasi disajikan kembali dari laporan periode sebelumnya akibat perubahan metodologi perhitungan atau cakupan pelaporan, yang ditandai dengan indikator-indikator [GRI 2-4].

This Sustainability Report covers all of the Company's operating units and its subsidiaries, namely PT Geothermal Energy Seulawah and PT Pertamina Geothermal Energy Kotamobagu. The data and information are sourced from PGE and reflect consolidated financial information. Certain information has been restated from the previous report due to changes in methodology or reporting scope, as indicated by the markers [GRI 2-4].



Verifikasi **Independen** [OJK G.1][GRI 2-5]

Independent Verification

Laporan Keberlanjutan 2025 diverifikasi oleh PT Sejahtera Rambah Asia (SRAI) sebagai pihak independen. Penunjukan asuror dilakukan melalui proses yang objektif dengan mempertimbangkan kualitas, kompetensi, dan pengalaman di bidang pelaporan keberlanjutan, serta telah memperoleh persetujuan dari VP Strategic Planning & Sustainability tanpa adanya benturan kepentingan. Proses verifikasi dilakukan mengacu pada standar internasional AA1000AS. Jenis assurance yang diberikan terdiri atas *Type 1 assurance* atas keseluruhan konten Laporan, serta *Type 2 assurance* yang secara khusus mencakup topik material: (1) Kesehatan dan Keselamatan Kerja dan (2) Aksi Perubahan Iklim dan Penurunan Emisi, dengan *moderate level assurance*. SRAI menyatakan independensi dalam pelaksanaan verifikasi dan memastikan tidak terdapat konflik kepentingan. Verifikasi ini tidak mencakup data dan informasi keuangan dalam laporan, yang diasumsikan telah diaudit oleh Kantor Akuntan Publik (KAP).

The 2025 Sustainability Report was verified by PT Sejahtera Rambah Asia (SRAI) as an independent assurer. The appointment of the assurer was conducted through an objective process, taking into account quality, competence, and experience in sustainability reporting, and was approved by the VP Strategic Planning & Sustainability without any conflict of interest. The verification process was carried out in accordance with the internationally recognized AA1000 Assurance Standard (AA1000AS). The assurance provided comprises Type 1 assurance covering the overall content of the Report, and Type 2 assurance specifically covering the following material topics: (1) Occupational Health and Safety, and (2) Climate Change Action and Emission Reduction, with a moderate level of assurance. SRAI has declared its independence in conducting the verification and confirmed the absence of any conflict of interest. This verification does not cover financial data and information in the Report, which are assumed to have been audited by an independent public accounting firm.

Tanggapan atas **Lembar Umpan Balik** [OJK G.2, G.3]

Response to the Feedback Form

Laporan Keberlanjutan ini dilengkapi dengan Lembar Umpan Balik sebagai sarana penyampaian masukan dari pemangku kepentingan, meskipun hingga periode pelaporan Perseroan belum menerima umpan balik langsung melalui mekanisme tersebut. Namun demikian, manajemen PT Pertamina Geothermal Energy Tbk secara aktif merespons masukan tidak langsung yang bersumber dari hasil penilaian ESG *rating*, evaluasi internal, serta perkembangan regulasi dan standar pelaporan keberlanjutan, dengan melakukan penyesuaian pengungkapan agar lebih selaras dengan topik material; mengurangi duplikasi dengan Laporan Tahunan; meninjau kembali topik material sesuai konteks usaha pada 2025; serta memperkuat kesiapan internal dalam memahami potensi dampak finansial risiko dan peluang LST dan iklim secara bertahap dan proporsional, tanpa melakukan klaim penerapan sebelum standar tersebut berlaku efektif.

This Sustainability Report provides a Feedback Form for stakeholders to submit input; however, the Company did not receive any direct feedback through this mechanism during the reporting period. Even so, the management of PT Pertamina Geothermal Energy Tbk responds to indirect input reflected in ESG rating assessments, internal evaluations, and developments in sustainability reporting regulations and standards, by refining disclosures to align more closely with material topics; reduce duplication with the Annual Report; reassess material topics in the context of the 2025 business environment; and, in a gradual and proportionate manner, improve internal capability to understand the potential financial impacts of ESG and climate risks and opportunities, without claiming adoption before those standards become effective.

Topik **Material** [GRI 3-1]

Material Topics

Kami menetapkan topik material melalui *focus group discussion* (FGD) dan survei yang dilaksanakan pada 8 Januari 2026. Diskusi dan survei tersebut difasilitasi oleh tim ahli sebagai pihak independen, serta melibatkan fungsi-fungsi internal PGE untuk memetakan kebutuhan informasi para pemangku kepentingan, baik internal maupun eksternal. Penilaian materialitas menggunakan pendekatan materialitas ganda yang mempertimbangkan dampak sosial dan lingkungan terhadap pemangku kepentingan eksternal (*impact materiality*) dan implikasi terhadap ketahanan usaha dan penciptaan nilai jangka panjang Perseroan (*financial materiality*). Topik dengan tingkat materialitas tinggi pada kedua dimensi diprioritaskan dalam strategi keberlanjutan Perseroan. Analisis dilakukan bersama tim ahli sebagai fasilitator, dan hasilnya diajukan kepada Direksi untuk memperoleh persetujuan.

Material topics were determined through a focus group discussion (FGD) and a survey held on 8 January 2026. An expert team, acting as an independent party, facilitated both the discussion and the survey. PGE's internal functions also took part in mapping the information needs of internal and external stakeholders. The materiality assessment is using a double materiality approach which considers the social and environmental impacts on external stakeholders (impact materiality), as well as the implications for the Company's business resilience and long-term value creation (financial materiality). Topics that are highly material across both dimensions are prioritized in the Company's sustainability strategy. Sustainability topics were prioritized based on their impacts on stakeholders and on the Company's financial position. The analysis was carried out with the expert team serving as facilitators, and the results were then submitted to the Board of Directors for approval.

Berdasarkan proses tersebut, Laporan Keberlanjutan 2025 memuat enam topik material. Dengan demikian, terdapat perubahan atas topik material dibandingkan dengan yang diungkapkan dalam Laporan Keberlanjutan 2024. Pencapaian setiap topik material dievaluasi berdasarkan Indikator Kinerja Utama (KPI) di bawah pengawasan VP Strategic Planning & Sustainability, dengan mekanisme pemantauan secara triwulanan.

Through this process, six material topics were identified for the 2025 Sustainability Report. As a result, the material topics disclosed in the 2024 Sustainability Report have changed. The achievement of each material topic is evaluated based on the Key Performance Indicators (KPIs) under the supervision of the VP of Strategic Planning & Sustainability, with monitoring conducted on a quarterly basis.



PT Pertamina Geothermal Energy Tbk

Topik Material dan Batasan Dampak [GRI 3-2, 3-3]
Material Topics and Impact Boundaries

Topik Material dan Pengaruh Risiko (Jangka Waktu)
Material Topics and Risk Impact (Timeframe)



Keselamatan dan Kesehatan Kerja
Occupational Health and Safety

Jangka Waktu | Timeframe: Pendek | Short-term

Pemangku Kepentingan Terdampak
Impacted Stakeholders

Internal

Top Management dan Pekerja
Top Management and Workers

Eksternal
External

Vendor dan Manajemen Gudang, Mitra Usaha (KOB), Pemerintah dan Pembuat Kebijakan, Masyarakat dan Lembaga Swadaya Masyarakat (LSM)
Vendors and Warehouse Management, Business Partners (JOC), Government and Policymakers, Communities and Non-Governmental Organizations (NGOs)

Materialitas Dampak (Pemangku Kepentingan Eksternal)
Impact Materiality (External Stakeholders)

●●●○

Dampak positif:
Penerapan sistem K3 yang memadai berkontribusi pada perlindungan pekerja dan mitra kerja, peningkatan produktivitas, dan penguatan budaya keselamatan di seluruh rantai nilai.
Positive impacts:
A robust OHS system helps protect workers and contractors, improves productivity, and strengthens a safety culture across the value chain.

Dampak negatif:
Insiden keselamatan berpotensi menimbulkan cedera, gangguan operasional, dan dampak sosial terhadap pekerja dan komunitas sekitar.
Negative impacts:
Safety incidents can result in injuries, operational disruptions, and adverse social impacts on workers and surrounding communities.

Materialitas Finansial (Keberlanjutan Usaha dan Penciptaan Nilai)
Financial Materiality (Business Sustainability and Value Creation)

●●●○

Risiko:
Kegagalan pengelolaan K3 dapat memicu biaya kompensasi, denda, gangguan operasi, dan risiko reputasi.
Risks:
Weak OHS management can lead to compensation costs, penalties, operational interruptions, and reputational risk.

Peluang:
Kinerja K3 yang baik mendukung efisiensi operasional, stabilitas produksi, dan kepercayaan investor.
Opportunities:
Strong OHS performance supports operational efficiency, production stability, and investor confidence.

Respons:
Pengelolaan K3 dalam kegiatan operasional berdampak positif terhadap produktivitas kerja. Pengabaian pada K3 akan berdampak negatif karena risiko kecelakaan kerja, penyakit akibat kerja, kerusakan lingkungan, hingga tuntutan hukum yang menimbulkan potensi gangguan operasional, sehingga berpengaruh pada finansial Perseroan. Pengelolaan K3 dijalankan sesuai standar internasional (ISO 45001:2018) dan standar di Pertamina (SUPREME, *Corporate Life Saving Rules*/CSLR, *Contractor Safety Management System*/CSMS, serta *Process Safety and Asset Integrity Management System*/PSAIMS).
Responses:
Well-established OHS management keeps workers safe and operation productive. When controls fall short, workplace accidents, occupational illness, environmental damage, and legal claims may follow. Those impacts may interrupt operations and, in turn, weigh on the Company's financial performance. PGE manages OHS in line with ISO 45001:2018 and Pertamina standards, namely SUPREME, Corporate Life Saving Rules (CLSR), Contractor Safety Management System (CSMS), and Process Safety and Asset Integrity Management System (PSAIMS).

Topik Material dan Pengaruh Risiko (Jangka Waktu)
Material Topics and Risk Impact (Timeframe)



Kinerja Ekonomi
Economic Performance

Jangka Waktu | Timeframe: Pendek | Short-term

Pemangku Kepentingan Terdampak
Impacted Stakeholders

Internal

Top Management dan Pekerja
Top Management and Workers

Eksternal
External

Pemegang Saham dan Obligasi, Pemerintah dan Pembuat Kebijakan, Pelanggan, Mitra Usaha (KOB)
Shareholders and Bondholders, Government and Policymakers, Customers, Business Partners (JOC)

●●●○
Dampak positif:
Kinerja ekonomi yang sehat mendukung kontribusi terhadap negara, pemegang saham, mitra usaha, dan stabilitas pasokan energi.
Positive impacts:
Sound economic performance supports contributions to the state, shareholders, and business partners, and helps maintain a stable energy supply.

Dampak negatif:
Penurunan kinerja ekonomi dapat berdampak pada pemangku kepentingan melalui berkurangnya nilai tambah ekonomi dan ketidakpastian usaha.
Negative impacts:
A decline in economic performance may affect stakeholders through reduced economic value added and greater business uncertainty.

●●●○
Risiko:
Fluktuasi pasar, kebijakan, dan faktor eksternal dapat memengaruhi pendapatan dan arus kas.
Risks:
Market volatility, policy changes, and external factors may affect revenue and cash flows.

Peluang:
Pertumbuhan permintaan energi bersih dan pengembangan proyek panas bumi membuka peluang peningkatan nilai jangka panjang.
Opportunities:
Rising demand for clean energy and geothermal project development creates opportunities to enhance long-term value.

Respons:
Kinerja ekonomi yang baik akan memberikan nilai tambah bagi pemangku kepentingan dan meningkatkan kepercayaan publik. Sebaliknya, kinerja yang negatif akan meningkatkan risiko pada kelancaran operasional, termasuk pengelolaan lingkungan, sosial dan tata kelola. Kinerja ekonomi ditingkatkan dengan pendekatan efisiensi anggaran, pengelolaan risiko dan optimalisasi peluang pendapatan *beyond electricity*.
Responses:
Resilient economic performance creates added value for stakeholders and reinforces public trust. Weaker performance, however, can heighten risks to operational continuity, including how the Company manages environmental, social, and governance matters. To sustain and improve economic performance, the Company focuses on budget efficiency, risk management, and maximizing revenue streams beyond electricity sales.

Topik Material dan Batasan Dampak [GRI 3-2, 3-3]
Material Topics and Impact Boundaries

Topik Material dan Pengaruh Risiko (Jangka Waktu)
Material Topics and Risk Impact (Timeframe)



Etika dan Tata Kelola Perusahaan yang Baik
Ethics and Good Corporate Governance

Jangka Waktu | Timeframe: Menengah | Medium-term

Pemangku Kepentingan Terdampak
Impacted Stakeholders

Internal

Top Management dan Pekerja
Top Management and Workers

Eksternal
External

Pemegang Saham dan Obligasi, Pemerintah dan Pembuat Kebijakan, Mitra Usaha (KOB), Vendor dan Manajemen Gudang
Shareholders and Bondholders, Government and Policymakers, Business Partners (JOC), Vendors and Warehouse Management

●●●○
Dampak positif:
Tata kelola dan etika yang kuat memperkuat kepercayaan pemangku kepentingan dan memastikan kepatuhan terhadap regulasi.
Positive impacts:
Strong governance and ethics build stakeholder trust and support regulatory compliance.

Dampak negatif:
Pelanggaran etika dan tata kelola berpotensi merugikan pemangku kepentingan serta menurunkan legitimasi sosial perusahaan.
Negative impacts:
Ethical and governance breaches can harm stakeholders and erode the Company's social legitimacy (social license to operate).

●●●○
Risiko:
Kelemahan tata kelola dapat memicu sanksi hukum, penurunan kepercayaan investor, dan biaya kepatuhan.
Risks:
Governance weaknesses may result in legal sanctions, reduced investor confidence, and higher compliance costs.

Peluang:
Tata kelola yang baik mendukung akses pendanaan dan stabilitas jangka panjang.

Opportunities:
Good governance supports access to financing and long-term stability.

Respons:
Penerapan etika dan tata kelola yang baik akan berdampak positif bagi terciptanya lingkungan kerja yang mendukung produktivitas. Sebaliknya, etika dan tata kelola yang tidak optimal akan berdampak negatif, di antaranya turunnya kepercayaan publik bahkan sanksi denda finansial maupun sanksi hukum lain. Kondisi ini berpotensi menimbulkan risiko operasional dan kepatuhan yang memengaruhi finansial Perseroan. Penerapan etika dan sesuai Pedoman Etika Usaha serta Tata Perilaku atau Kode Etik.
Responses:
Sound ethics and good corporate governance help create a work environment that supports productive performance. Weak implementation, on the other hand, may erode public trust and expose the Company to financial penalties or other legal sanctions. These outcomes may trigger operational and compliance risks and, in turn, affect the Company's financial performance. PGE's ethics and governance practices are guided by the Business Ethics Guidelines and the Code of Conduct (CoC).

Topik Material dan Pengaruh Risiko (Jangka Waktu)
Material Topics and Risk Impact (Timeframe)



Aksi Perubahan Iklim dan Pengurangan Emisi

Climate Change Action and Emission Reduction

Jangka Waktu | Timeframe: Panjang | Long-term

Pemangku Kepentingan Terdampak
Impacted Stakeholders

Internal

Top Management dan Pekerja
Top Management and Workers

Eksternal
External

Pemerintah dan Pembuat Kebijakan, Masyarakat dan Lembaga Swadaya Masyarakat (LSM), Pemegang Saham dan Obligasi, Pelanggan
Government and Policymakers, Communities and Non-Governmental Organizations (NGOs), Shareholders and Bondholders, Customers

●●●○
Dampak positif:
Pengembangan panas bumi berkontribusi pada pengurangan emisi dan mendukung agenda transisi energi nasional.
Positive impacts:
Geothermal development contributes to emissions reductions and supports the national energy transition agenda.

Dampak negatif:
Ketidaksiapan menghadapi perubahan iklim dapat menimbulkan dampak lingkungan dan sosial yang lebih luas.
Negative impacts:
Insufficient preparedness for climate change can lead to broader environmental and social impacts.

●●●○
Risiko:
Risiko transisi dan risiko fisik iklim berpotensi memengaruhi kinerja aset dan biaya operasional.
Risks:
Climate transition and physical risks may affect asset performance and operating costs.

Peluang:
Posisi panas bumi sebagai energi rendah karbon membuka peluang pembiayaan hijau dan peningkatan nilai aset.
Opportunities:
Geothermal's role as a low-carbon energy source creates opportunities for green financing and stronger asset value.

Respons:
Kegiatan operasional PGE dalam memanfaatkan panas bumi memberikan dampak positif untuk mencegah emisi gas rumah kaca (GRK), sementara dampak negatif adalah timbulan air terproduksi yang dapat mencemari lingkungan. Pengelolaan dilakukan dengan mendukung transisi energi melalui dekarbonisasi dan pencapaian *net zero emission* 2060. Upaya tersebut akan meminimalisasi potensi risiko operasional dan membuka peluang pengembangan teknologi maupun kredit karbon, yang akan memengaruhi kinerja finansial.
Responses:
PGE's geothermal operations help avoid greenhouse gas (GHG) emissions. At the same time, produced water represents a potential adverse impact and poses a risk of environmental contamination when not properly managed. PGE addresses these impacts by supporting the energy transition through decarbonization efforts and progress toward net zero emissions by 2060. These initiatives aim to reduce operational risk while creating opportunities for technology development and carbon credits, which ultimately influence the Company's financial performance.

Topik Material dan Batasan Dampak [GRI 3-2, 3-3]
Material Topics and Impact Boundaries

Topik Material dan Pengaruh Risiko (Jangka Waktu)
Material Topics and Risk Impact (Timeframe)



Keterlibatan Masyarakat dan Dampak Ekonomi Tidak Langsung
Community Engagement and Indirect Economic Impact

Jangka Waktu | Timeframe: Pendek | Short-term

Pemangku Kepentingan Terdampak
Impacted Stakeholders

Internal

Top Management dan Pekerja
Top Management and Workers

Eksternal
External

Masyarakat dan Lembaga Swadaya Masyarakat (LSM), Pemerintah dan Pembuat Kebijakan, Mitra Usaha (KOB)
Communities and Non-Governmental Organizations (NGOs), Government and Policymakers, Business Partners (JOC)

●●●○
Dampak positif:
Keterlibatan masyarakat yang efektif mendukung penerimaan sosial dan peningkatan kesejahteraan ekonomi lokal.
Positive impacts:
Effective community engagement supports social acceptance and improves local economic well-being.

●●●○
Risiko:
Gangguan hubungan sosial dapat berdampak pada kelangsungan operasi dan biaya mitigasi sosial.
Risks:
Disruptions in community relations can affect operational continuity and increase social mitigation costs

Dampak negatif:
Pengelolaan yang kurang memadai dapat memicu konflik sosial dan menurunkan dukungan masyarakat.
Negative impacts:
Inadequate management can trigger social conflict and reduce community support.

Peluang:
Hubungan yang konstruktif mendukung keberlanjutan operasi dan stabilitas proyek jangka panjang.
Opportunities:
Constructive relationships support operational sustainability and long-term project stability.

Respons:
Keberadaan PGE memberi dampak positif bagi kesejahteraan dan ekonomi lokal di setiap wilayah kerja, namun juga berdampak negatif terhadap tatanan sosial budaya setempat. Keberadaan masyarakat lokal memberi lisensi sosial bagi Perseroan, sehingga mengurangi potensi risiko operasional yang berdampak pada kinerja finansial. Pengelolaan dampak dilakukan melalui program pemberdayaan dan pengembangan masyarakat, yang mengacu ISO 26000:2010.
Responses:
Across its working areas, PGE's presence contributes to local welfare and economic activity. At the same time, it also influences local socio-cultural dynamics. Community support and acceptance form the Company's social license to operate, helping reduce operational risks with implications for financial performance. It manages these impacts through community development and empowerment programs under ISO 26000:2010.

Topik Material dan Pengaruh Risiko (Jangka Waktu)
Material Topics and Risk Impact (Timeframe)



Konservasi Keanekaragaman Hayati dan Penggunaan Lahan

Conservation of Biodiversity and Land Use

Jangka Waktu | Timeframe: Panjang | Long-term

Pemangku Kepentingan Terdampak
Impacted Stakeholders

Internal

Top Management dan Pekerja
Top Management and Workers

Eksternal
External

Masyarakat dan Lembaga Swadaya Masyarakat (LSM), Mitra Usaha (KOB), Pemerintah dan Pembuat Kebijakan
Communities and Non-Governmental Organizations (NGOs), Business Partners (JOC), Government and Policymakers

●●●○
Dampak positif:
Pengelolaan keanekaragaman hayati yang baik membantu menjaga fungsi ekosistem dan hubungan dengan masyarakat serta regulator.
Positive impacts:
Sound biodiversity management helps safeguard ecosystem functions and strengthens relationships with communities and regulators.

Dampak negatif:
Aktivitas di kawasan sensitif berpotensi menimbulkan degradasi lingkungan jika tidak dikelola secara memadai.
Negative impacts:
Activities in sensitive areas may cause environmental degradation if not properly managed.

●●●○
Risiko:
Risiko perizinan, keterlambatan proyek, dan biaya pemulihan lingkungan.
Risks:
Permitting risk, project delays, and environmental restoration costs.

Peluang:
Praktik pengelolaan lahan yang bertanggung jawab mendukung kepatuhan regulasi dan kelayakan proyek jangka panjang.
Opportunities:
Responsible land management practices support regulatory compliance and long-term project viability.

Respons:
Kegiatan operasi PGE berdampak positif terhadap reduksi emisi gas rumah kaca (GRK), namun juga menimbulkan dampak negatif terhadap keanekaragaman hayati. Pengelolaan dampak dilakukan melalui konservasi keanekaragaman hayati sesuai kerangka mitigasi hirarki dalam *Biodiversity Action Plan* (BAP), khususnya pada wilayah kerja yang berdekatan dengan kawasan bernilai keanekaragaman hayati tinggi. Upaya konservasi akan mengurangi potensi risiko operasional dan membuka peluang ekonomi dari pengembangan sebagai kawasan wisata serta biodiversity credit di masa depan.
Responses:
PGE's operational activities generate positive impacts through the reduction of greenhouse gas (GHG) emissions, while also posing potential adverse impacts on biodiversity. These impacts are managed through biodiversity conservation initiatives in accordance with the mitigation hierarchy framework outlined in the Biodiversity Action Plan (BAP), particularly in working areas located near high biodiversity value areas. Conservation efforts are expected to reduce potential operational risks while creating future economic opportunities through the development of ecotourism areas and biodiversity credits.

Keterangan | Notes:
- Dampak jangka panjang menunjukan dampak langsung yang dapat memengaruhi keberlanjutan Perseroan secara signifikan dalam rentang waktu lebih dari 5 tahun.
- Dampak jangka menengah menunjukan dampak langsung yang dapat memengaruhi keberlanjutan Perseroan secara signifikan dalam rentang waktu 3-5 tahun.
- Dampak jangka pendek menunjukan dampak langsung yang dapat memengaruhi keberlanjutan Perseroan secara signifikan dalam rentang waktu kurang dari 3 tahun.
- Long-term impacts indicate direct impacts that can significantly affect the Company's sustainability over a period of more than 5 years.
- Medium-term impacts indicate direct impacts that can significantly affect the Company's sustainability within a period of 3-5 years.
- Short-term impacts indicate direct impacts that can significantly affect the Company's sustainability within a period of less than 3 years.

• **Topik Lingkungan** | Environmental Topics • **Topik Sosial** | Social Topics • **Topik Governans** | Governance Topics

Skala 1-4 (Sangat Rendah - Sangat Tinggi):
Scale 1-4 (Very Low – Very High):
●○○○ = 1 Sangat Rendah I Very Low)
●●○○ = 2 (Rendah I Low)
●●●○ = 3 (Tinggi I High)
●●●● = 4 (Sangat Tinggi I Very High)

Matriks Materialitas
Materiality Matrix

Materialitas Dampak
Impact Materiality

Manajemen Air dan Efluen Water and Effluent Management	**Aksi Perubahan Iklim dan Pengurangan Emisi** Climate Change Action and Emission Reduction	**Keselamatan dan Kesehatan Kerja** Occupational Health and Safety
Pengembangan Kompetensi Pekerja Worker Competency Development	**Kinerja Ekonomi** Economic Performance	**Etika dan Tata Kelola Perusahaan yang Baik** Ethics and Good Corporate Governance
Penerapan Keamanan Siber Cyber Security Implementation	**Keterlibatan Masyarakat dan Dampak Ekonomi Tidak Langsung** Community Engagement and Indirect Economic Impact	**Konservasi Keanekaragaman Hayati dan Penggunaan Lahan** Conservation of Biodiversity and Land Use
Keberagaman, Kesetaraan, dan Inklusi Equity, Diversity, and Inclusion	**Manajemen Air dan Efluen** Water and Effluent Management	**Pengelolaan Konsumsi Energi** Energy Consumption Management
	Praktik Pengadaan yang Berkelanjutan Sustainable Procurement Practices	**Meningkatkan Kesejahteraan Pekerja** Improving Worker Well-being

Core
Important
Relevant

Materialitas Finansial
Financial Materiality

Relevant — Important — Core



Dukungan **pada TPB**

Support for the SDGs

Kami mengidentifikasi dukungan terhadap TPB yang relevan dan menjadi prioritas, selaras dengan penerapan kinerja keberlanjutan dan ESG *Strategy Roadmap* 2024-2030, dengan mengacu pada kerangka SDG Compass.

PGE identifies the most relevant and priority SDGs in line with the practices of its sustainability performance and ESG Strategy Roadmap 2024-2030, with reference to the SDG Compass framework.

Indikator Prioritas TPB
SDGs Priority Indicators

2.2

Pada tahun 2030, menghilangkan segala bentuk kekurangan gizi, termasuk mencapai (pada tahun 2025) target yang disepakati secara internasional untuk anak pendek dan kurus di bawah usia 5 tahun, serta memenuhi kebutuhan gizi remaja perempuan, ibu hamil dan menyusui, serta manula.

By 2030, ending all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting among children under five, and meeting the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

Target 2030

Meningkatkan SROI sebesar 5,5% melalui Program Ekosistem Hijau untuk semua partisipasi.

2030 Target

Improving SROI by 5.5% through the Green Ecosystem program for all engagement.

Realisasi 2025

Program Kanyaah memperkuat adaptasi perubahan iklim dengan mereduksi sampah organik hingga 232.424 ton, mereduksi sampah anorganik 18,2 ton, dan mereduksi emisi hingga 146.283 t CO_2e. Melalui dampak ini, Program Kanyaah mendapatkan skor SROI sebesar 5,10.

2025 Realization

The Kanyaah program strengthened climate change adaptation by reducing organic waste by 232,424 tons, reducing inorganic waste by 18.2 tons, and reducing emissions by 146,283 t CO_2e. Through this impact, the Kanyaah Program received an SROI score of 5.10.

Strategi

Mengembangkan program TJSL di Area Kamojang melalui program Kanyaah.

Strategy

Developing the CSR program in the Kamojang Area through the Kanyaah program.



PT Pertamina Geothermal Energy Tbk

Indikator Prioritas TPB
SDGs Priority Indicators



3.9

Pada tahun 2030, secara signifikan mengurangi jumlah kematian dan kesakitan akibat bahan kimia berbahaya, serta polusi dan kontaminasi udara, air, dan tanah.

By 2030, substantially reducing the number of deaths and illnesses from hazardous chemicals and from air, water, and soil pollution and contamination.

Target 2030

- Nihil kecelakaan
- Nihil fatalitas

2030 Target

- Zero accidents
- Zero fatality

Realisasi 2025

Tidak terdapat korban jiwa dan tidak terdapat kejadian insiden keselamatan proses yang parah.

2025 Realization

There were no fatalities and no severe process safety incidents.

Strategi

- Rutin melakukan pengecekan *Fit to Work* dan *Health Risk Assessment* pada pekerja, khusus pekerja berisiko tinggi dilakukan *daily check up*.
- Mengikutsertakan pekerja dalam pelatihan wajib K3 dan peningkatan *awareness*, melalui sosialisasi dan peringatan bulan K3.

Strategy

- Conducting Fit to Work checks and Health Risk Assessments on a routine basis. For high-risk workers, daily check-ups are conducted.
- Enrolling workers in mandatory OHS training and awareness initiatives, delivered through briefings and National OHS Month activities.

Indikator Prioritas TPB
SDGs Priority Indicators



7.2

Pada tahun 2030, meningkat secara substansial pangsa energi terbarukan dalam bauran energi global.

By 2030, substantially increasing the share of renewable energy in the global energy mix.

7.3

Pada tahun 2030, melakukan perbaikan efisiensi energi di tingkat global sebanyak dua kali lipat.

By 2030, doubling the global rate of improvement in energy efficiency.

Target 2030

- Peningkatan jumlah produksi/penyaluran listrik/setara listrik yang diproduksi dari pembangkit *geothermal* 9.076 GWh.
- Jaminan emisi Cakupan 1, 2, dan 3 dengan target penurunan intensitas emisi hingga 29% di 2030 melalui penerapan tenaga listrik dan teknologi *geothermal*.

2030 Target

- Increase in electricity production/distribution/electricity-equivalent output from geothermal power plants of 9,076 GWh.
- Assurance of Scope 1, 2, and 3 emissions, with a target to reduce emissions intensity by up to 29% by 2030 through electrification and geothermal technology deployment.

Realisasi 2025

- Jumlah produksi/penyaluran listrik/setara listrik yang diproduksi dari pembangkit *geothermal* 4.908,24 GWh.
- Penjualan kredit karbon di IDXCarbon dan pasar luar negeri dengan volume mencapai 200.000 t CO_2e.
- Intensitas emisi mencapai 40,79 g CO_2e/kWh

2025 Realization

- Total electricity production/distribution/electricity-equivalent output from geothermal power plants was 4,908.24 GWh.
- Sale of carbon credits in IDXCarbon and overseas markets, with volume reaching 200,000 t CO_2e.
- Emission intensity: 40.79 g CO_2e/kWh.

Strategi

Penetrasi pasar di negara dengan kebijakan transisi energi yang progresif, memanfaatkan skema pembiayaan hijau dan kolaborasi multilateral untuk mempercepat pengembangan proyek.

- Efisiensi pemakaian sendiri listrik PLTP Lahendong Unit 5 & 6 dengan mengurangi pemakaian satu *vacuum pump* per unit yang mengurangi konsumsi energi sebesar 637,11 MWh.
- Efisiensi pengurangan *steam* dan *Hand Control Valve* (HCV) di Area Lumut Balai mengurangi konsumsi sebesar 7.488,06 MWh.

Strategy

Market penetration in countries with progressive energy transition policies, leveraging green financing schemes, and multilateral collaboration to accelerate project development.

- Improved own-use electricity efficiency at PLTP Lahendong Units 5 & 6 by reducing the use of one vacuum pump per unit, lowering energy consumption by 637.11 MWh.
- Efficiency gains from reducing steam through the Hand Control Valve (HCV) in the Lumut Balai Area, reducing consumption by 7,488.06 MWh.

Indikator Prioritas TPB
SDGs Priority Indicators

8.2

Mencapai tingkat produktivitas ekonomi yang lebih tinggi, melalui diversifikasi, peningkatan dan inovasi teknologi, termasuk melalui fokus pada sektor yang memberi nilai tambah tinggi dan padat karya.

Achieving higher levels of economic productivity through diversification, upgrading, and technological innovation, including through a focus on high-value-added and labour-intensive sectors.



8.3

Menggalakkan kebijakan pembangunan yang mendukung kegiatan produktif, penciptaan lapangan kerja layak, kewirausahaan, kreativitas dan inovasi, dan mendorong formalisasi dan pertumbuhan usaha mikro, kecil, dan menengah, termasuk melalui akses terhadap jasa keuangan.

Promoting development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encouraging the formalisation and growth of micro-, small-, and medium-sized enterprises, including through access to financial services.

8.8

Melindungi hak-hak tenaga kerja dan mempromosikan lingkungan kerja yang aman dan terjamin bagi semua pekerja, termasuk pekerja migran, khususnya pekerja migran perempuan, dan mereka yang bekerja dalam pekerjaan berbahaya.

Protecting labour rights and promoting safe and secure working environments for all workers, including migrant workers, especially women migrant workers, and those in precarious or hazardous work.

Target 2030

- Meningkatkan SROI sebesar 5,5% melalui Program Ekosistem Hijau untuk semua partisipasi.
- Mempertahankan hubungan antara PGE dan Serikat Pekerja.

2030 Target

- Improving SROI by 5.5% through the Green Ecosystem program for all engagement.
- Maintaining the relationship between PGE and the Labor Union.

Realisasi 2025

- Sebanyak 31 UMKM telah terlibat melalui Program Ekosistem Hijau.
- Peningkatan pendapatan UMKM terbina lebih dari Rp52 miliar.
- Tidak ada pelanggaran hak tenaga kerja.
- Jumlah anggota Serikat Pekerja Pegawai PGE (SPPPGE) mencapai 499 pekerja atau 88% dari total pekerja Perseroan.

2025 Realization

- A total of 31 MSMEs have been engaged through the Green Ecosystem Program.
- The income of MSMEs increased by more than Rp52 billion.
- No violations of labor rights.
- The number of members of the PGE Worker Labor Union (SPPPGE) reached 499 workers, or 88% of the Company's total workers.

Strategi

- Inovasi sosial berbasis pemanfaatan langsung energi panas bumi (*direct-use geothermal*) yang dipadukan dengan pendekatan ekonomi sirkular melalui Program Kanyaah.
- Melakukan pembaharuan Perjanjian Kerja Bersama (PKB) secara berkala.

Strategy

- Social innovation based on the direct use of geothermal energy (direct-use geothermal), combined with a circular economy approach through the Kanyaah Program.
- Periodically renewing the Collective Labor Agreement (CLA).

Indikator Prioritas TPB
SDGs Priority Indicators

9.4

Pada tahun 2030, meningkatkan infrastruktur dan *retrofit* industri agar dapat berkelanjutan, dengan peningkatan efisiensi penggunaan sumber daya dan adopsi yang lebih baik dari teknologi dan proses industri bersih dan ramah lingkungan, yang dilaksanakan semua negara sesuai kemampuan masing-masing.

By 2030, upgrading infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

Realisasi 2025
2025 Realization

Pengembangan 8 proyek *geothermal* yang dapat meningkatkan kapasitas terpasang dalam rangka pencapaian *roadmap geothermal*.

Development of eight geothermal projects to increase installed capacity in support of the geothermal roadmap.

Target 2030
2030 Target

- >1,3 GW total kapasitas terpasang dari produksi sendiri yang dicapai melalui eksplorasi dan *co-generation*.
- Total installed capacity of >1.3 GW from self-developed production, achieved through exploration and co-generation.
- CO_2 *liquefaction*, pengembangan metanol, serta pengembangan penangkapan karbon, dengan tujuan mencapai NZE 2060.
- CO_2 liquefaction, methanol development, and carbon capture development, with goal of achieving NZE 2060.

Strategi
Strategy

- Melakukan *exploration feasibility study*.
- Persetujuan FID Eksplorasi dan FID *Development*.
- Conducting exploration feasibility studies.
- Securing approval for Exploration FID and Development FID.

Indikator Prioritas TPB
SDGs Priority Indicators

12.6

Mendorong perusahaan, terutama perusahaan besar dan transnasional, untuk mengadopsi praktik-praktik berkelanjutan dan mengintegrasikan informasi keberlanjutan dalam siklus pelaporan mereka.

Encouraging companies to adopt sustainable practices and integrate sustainability information into corporate reporting.

Realisasi 2025
2025 Realization

Melaksanakan *initial study* Analisis Skenario Risiko Iklim Analisis Kuantitatif serta melakukan pengungkapan terkait iklim pada Laporan Keberlanjutan 2025.

Conducting an initial study of Climate Risk Scenario Analysis Quantitative Analysis and making climate-related disclosures in the 2025 Sustainability Report.

Target 2030
2030 Target

Keselarasan Laporan Keberlanjutan dengan kerangka pelaporan keberlanjutan dan iklim.

Alignment of Sustainability Reports with sustainability and climate reporting frameworks.

Strategi
Strategy

Melakukan analisis risiko, peluang, dan dampak finansial terhadap aspek LST dan iklim.

Alignment of Sustainability Report with ESG dan climate reporting frameworks.

Indikator Prioritas TPB
SDGs Priority Indicators



13.2

Mengintegrasikan tindakan antisipasi perubahan iklim ke dalam kebijakan, strategi dan perencanaan nasional.

Integrating climate change mitigation and adaptation measures into national policies, strategies, and planning.

Target 2030
2030 Target

Keselarasan Laporan Keberlanjutan dengan kerangka pelaporan keberlanjutan dan iklim.

Alignment of Sustainability Reports with sustainability and climate reporting frameworks.

Realisasi 2025
2025 Realization

- Perseroan telah memetakan delapan risiko fisik dan dua risiko transisi berdasarkan hasil analisis skenario iklim.
- Perseroan telah memiliki *Roadmap* NZE 2060.
- The Company has mapped eight physical risks and two transition risks based on the results of climate scenario analysis.
- The Company already has a Roadmap NZE 2060.

Strategi
Strategy

- Melakukan pemetaan, dampak terhadap keanekaragaman hayati di lokasi-lokasi yang sensitif secara ekologi.
- Melakukan konservasi keanekaragaman hayati PGE pada 18 area serta rencana tindak lanjutnya.
- Pendataan flora dan fauna yang termasuk dalam Daftar Merah IUCN.
- Mapping biodiversity impacts in ecologically sensitive locations.
- Conducting PGE biodiversity conservation in 18 areas, along with follow-up action plans.
- Collecting data on flora and fauna included in the IUCN Red List.

Indikator Prioritas TPB
SDGs Priority Indicators



15.2

Pada tahun 2030, meningkatkan pelaksanaan pengelolaan semua jenis hutan secara berkelanjutan, menghentikan deforestasi, merestorasi hutan yang terdegradasi dan meningkatkan secara signifikan forestasi dan reforestasi secara global.

By 2030, promoting the implementation of sustainable management of all types of forests, halting deforestation, restoring degraded forests, and substantially increasing afforestation and reforestation globally.

15.4

Pada tahun 2030, menjamin pelestarian ekosistem pegunungan, termasuk keanekaragaman hayatinya, untuk meningkatkan kapasitasnya memberikan manfaat yang sangat penting bagi pembangunan berkelanjutan.

By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, to enhance their capacity to provide benefits that are essential for sustainable development.

15.5

Melakukan tindakan cepat dan signifikan untuk mengurangi degradasi habitat alami, menghentikan kehilangan keanekaragaman hayati, dan, pada tahun 2020, melindungi dan mencegah lenyapnya spesies yang terancam punah.

Taking urgent and significant action to reduce the degradation of natural habitats, halt biodiversity loss, and, by 2020, protect and prevent the extinction of threatened species.

Target 2030

Penerapan *Biodiversity Action Plan* (BAP) di seluruh area kerja yang berdekatan dengan kawasan hutan yang dilindungi serta menerapkan pelaporan Taskforce on Nature-related Financial Disclosures (TNFD).

2030 Target

Implementing the Biodiversity Action Plan (BAP) across all work areas adjacent to protected forest areas and applying the Taskforce on Nature-related Financial Disclosures (TNFD) reporting.

Realisasi 2025

Penyelesaian penyusunan dokumen BAP di tiga area, yaitu Kamojang, Karaha, dan Lumut Balai.

2025 Realization

Completion of BAP document preparation in three areas, namely Kamojang, Karaha, and Lumut Balai.

Strategi

- Melakukan *exploration feasibility study*.
- Persetujuan FID Eksplorasi dan FID *Development*.

Strategy

- Conducting exploration feasibility studies.
- Securing approval for Exploration FID and Development FID.

Indikator Prioritas TPB
SDGs Priority Indicators

16.5

Secara substansial mengurangi korupsi dan penyuapan dalam segala bentuknya.

Substantially reducing corruption and bribery in all their forms.

16.6

Mengembangkan lembaga yang efektif, akuntabel, dan transparan di semua tingkat.

Developing effective, accountable, and transparent institutions at all levels.

Target 2030

Mematuhi seluruh peraturan perundangan, termasuk namun tidak terbatas pada regulasi di bidang pasar modal, serta mempertahankan sertifikasi ISO 37001: Sistem Manajemen Anti Penyuapan dalam rangka pelaksanaan proses bisnis yang prudent dan memenuhi aspek GCG.

2030 Target

Complying with all applicable laws and regulations, including but not limited to capital market regulations, and maintain ISO 37001: Anti-Bribery Management System certification to support prudent business processes and GCG.

Realisasi 2025

- Perseroan telah memenuhi seluruh peraturan yang berlaku terkait dengan BUMN yang terdaftar di bursa efek serta mempertahankan sertifikasi ISO 37001.
- Perseroan telah memiliki WBS yang dapat diakses oleh seluruh pemangku kepentingan.

Strategi

- Pengisian *Code of Conduct* (CoC) secara *online* ke situs web internal.
- Pelaporan *Conflict of Interest* (CoI) secara *online* ke website internal.
- Pelaporan LHKPN melalui aplikasi e-LHKPN (https://elhkpn.kpk.go.id/).
- Pelaporan gratifikasi secara *online* ke website internal.
- Sosialisasi GCG secara *online* dan *offline*.

2025 Realization

- Adhering to all relevant regulations applicable to publicly listed State-owned Enterprises (SOEs) and maintaining ISO 37001 certification.
- The Company has a WBS that can be accessed by all stakeholders.

Strategy

- Online completion of the Code of Conduct (CoC) via the internal website.
- Online Conflict of Interest (CoI) reporting via the internal website.
- LHKPN reporting through the e-LHKPN application (https://elhkpn.kpk.go.id/).
- Online gratuity reporting via the internal website.
- GCG outreach conducted both online and offline.

Indikator Prioritas TPB
SDGs Priority Indicators

17.7

Meningkatkan pengembangan, transfer, diseminasi dan penyebaran teknologi yang ramah lingkungan kepada negara berkembang berdasarkan ketentuan yang menguntungkan, termasuk ketentuan konsesi dan preferensi, yang disetujui bersama.

Promoting the development, transfer, dissemination, and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed.

Target 2030
2030 Target

Peningkatan jumlah produksi/penyaluran listrik/setara listrik yang diproduksi dari pembangkit *geothermal* 9.076 GWh.

Increase in electricity production/distribution/electricity-equivalent output from geothermal power plants of 9,076 GWh.

Realisasi 2025
2025 Realization

3.773 orang telah memanfaatkan teknologi *direct-use geothermal*.

3,773 beneficiaries have utilized direct-use geothermal technology.

Strategi
Strategy

Mengimplementasikan beberapa inovasi teknologi *direct-use geothermal* untuk masyarakat:

The Company rolled out several direct-use geothermal innovations to support local communities, including:

- Geothermal Dryhouse
- Geothermal Greenhouse
- Geothermal Dehydrator
- Geothermal Dryer
- Geothermal Heater
- Geothermal Dry Tube


STOP



Membangun Bisnis Bertanggung Jawab dan Berkelanjutan

Building a Responsible and Sustainable Business

Panas Bumi **untuk Semua**

Geothermal Energy for All

Perseroan menunjukkan kinerja solid di 2025, sejalan dengan praktik-praktik keberlanjutan, dengan menerapkan inisiatif non-kelistrikan (*beyond electricity*) guna memperkuat bisnis di masa depan dan memberikan manfaat panas bumi untuk semua.

In 2025, the Company delivered solid results while advancing sustainability, advancing beyond electricity initiatives to strengthen the business for the future and broaden geothermal's benefits for all.

3.272 GW
Potensi Kapasitas Panas Bumi PGE
PGE Geothermal Capacity Potential

1.103 GW
Target Kapasitas Terpasang untuk Pengelolaan Panas Bumi yang Dioperasikan Sendiri pada 2028
Target Installed Capacity for Self-Operated Geothermal Management by 2028

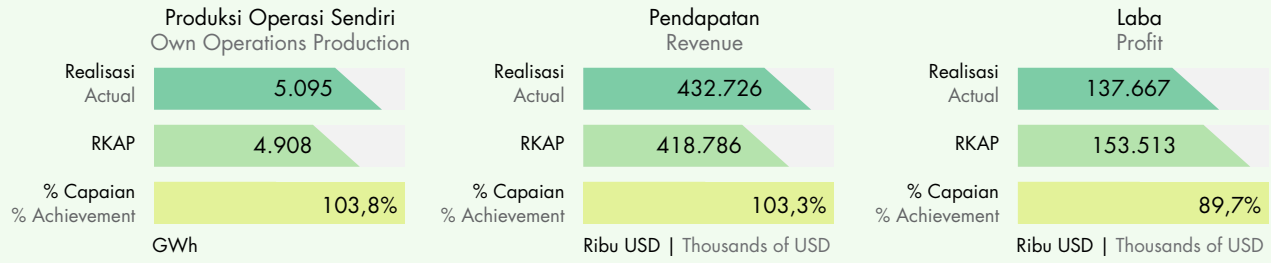
Perbandingan Target dan **Kinerja** [OJK F.2]

Comparison of Targets and Performance

Sejalan dengan penerapan keberlanjutan di seluruh operasi dan bisnis, PGE mampu menjaga kinerja produksi tahun 2025 dengan capaian 5.095 GWh untuk operasi sendiri, atau 103,8% dari Rencana Kerja dan Anggaran Perusahaan (RKAP) sebesar 4.908 GWh. Adapun untuk pendapatan mencapai USD432.726 ribu atau 103,3% dari RKAP USD418.786 ribu; dan perolehan laba bersih sebesar USD137.667 ribu, atau 89,7% dari RKAP sebesar USD153.513 ribu.

As sustainability practices continue to be embedded across operations and the wider business, PGE sustained 2025 production at 5,095 GWh from self-operated assets, or 103.8% of the Company Work Plan and Budget (CWPB) target of 4,908 GWh. Revenue totaled USD432,726 thousand, equal to 103.3% of the CWPB target of USD418,786 thousand. Net profit was USD137,667 thousand or 89.7% of the CWPB target of USD153,513 thousand.

Perbandingan Realisasi dan Target Kinerja Produksi, Perolehan Pendapatan, dan Laba (Rugi) Tahun 2025
Comparison of Actual and Target Performance in Production, Revenue, and Profit (Loss) for 2025



Perbandingan Target dan **Kinerja Pembiayaan Berkelanjutan** [OJK F.3]

Comparison of Targets and Performance in Sustainable Financing

Pada 27 April 2023, PGE menerbitkan surat utang berwawasan lingkungan (*green bond*) senilai USD400.000.000, dengan kupon tetap 5,15% per tahun dan jatuh tempo pada 27 April 2028. *Green Bond* PGE diperdagangkan dengan premium di pasar sekunder di Singapore Exchange Securities Trading Limited (SGX-ST). Di 2025, *Green Bond* PGE mendapatkan peringkat Baa3 dari Moody's Investors Service dan BBB- dari Fitch Ratings. Peringkat tersebut menunjukkan fundamental bisnis Perseroan yang kuat, sehingga memiliki proyeksi investasi menjanjikan di masa depan.

On 27 April 2023, PGE issued a USD400,000,000 green bond with a fixed 5.15% annual coupon, maturing on 27 April 2028. The bond has traded at a premium in the secondary market on Singapore Exchange Securities Trading Limited (SGX-ST). In 2025, the bond was rated Baa3 by Moody's Investors Service and BBB- by Fitch Ratings. These ratings reflect the Company's solid fundamentals and support a positive long-term investment outlook.

Dana dari penerbitan *green bond* digunakan Perseroan untuk membiayai kembali *(refinancing)* proyek-proyek pengembangan sumber daya geothermal PGE. Penggunaan dana untuk *refinancing* telah sesuai dengan *Eligibility Criteria* yang ditetapkan dalam *Green Financing Framework* PGE yang selaras dengan *Green Bonds Principles* 2021, *Green Loan Principles* 2021, dan ASEAN *Green Bonds Standards* 2018.

Proceeds from the green bond were used to refinance PGE's geothermal resource development projects. The refinancing allocation follows the Eligibility Criteria in PGE's Green Financing Framework, aligned with the Green Bond Principles 2021, the Green Loan Principles 2021, and the ASEAN Green Bond Standards 2018.

Peringkat Green Bond PGE **PGE Green Bond Rating**

MOODY'S RATINGS Baa3 Stable

FitchRatings BBB- Stable

Nilai Ekonomi Diperoleh dan **Didistribusikan** [GRI 201-1, 201-4]

Economic Value Generated and Distributed

Perseroan mencatat kinerja positif atas nilai ekonomi langsung yang diperoleh dan didistribusikan, serta nilai ekonomi yang ditahan. Informasi ini merupakan konsolidasi dari seluruh wilayah operasi Perseroan di Indonesia, mengingat PGE tidak memiliki operasi di luar Indonesia. Nilai ekonomi langsung yang diperoleh pada 2025 berasal dari penjualan uap, listrik, serta kredit karbon. Perseroan tidak menerima bantuan finansial dari Pemerintah; namun, PGE memanfaatkan Peraturan Menteri Keuangan (PMK) No. 115 Tahun 2021 tentang pembebasan PPN atas impor atau penyerahan Barang Kena Pajak tertentu yang bersifat strategis.

The Company recorded positive performance in direct economic value generated and distributed, as well as retained economic value. The information presented consolidates the Company's operations in Indonesia, as PGE has no operations outside Indonesia. In 2025, direct economic value was generated from steam and electricity sales, as well as carbon credits. The Company did not receive financial assistance from the Government; however, PGE applied Ministry of Finance Regulation (PMK) No. 115 of 2021 on VAT exemption for the import or delivery of certain strategic taxable goods.

Nilai Ekonomi Langsung yang Diperoleh dan Didistribusikan
Direct Economic Value Generated and Distributed

Uraian Description	Nilai Ekonomi (dalam Ribu USD) Economic Value (in USD thousand)		
	2025	2024	2023
Nilai Ekonomi Langsung yang Diperoleh (A) I Direct Economic Value Generated (A)			
Pendapatan Usaha I Operating Revenue	432.726	407.120	406.288
Penghasilan Bunga I Interest Income	28.221	33.565	22.171
Penghasilan Lainnya (termasuk Keuntungan Penjualan Aset Tetap, Selisih Kurs dan Lain-lain) I Other Income (including Gain on Sales of Fixed Assets, Foreign Exchange Difference, etc.)	3.742	18.808	22.211
Bagian Laba Bersih Investasi Ventura Bersama I Share of Net Profit of Joint Venture Investment	40	453	0
Jumlah Nilai Ekonomi Langsung Diperoleh I Total Direct Economic Value Generated	**464.729**	**459.946**	**450.670**
Nilai Ekonomi yang Didistribusikan (B) I Direct Economic Value Distributed (B)			
Beban Pokok Pendapatan dan Beban Bunga Langsung (di luar Beban Tenaga Kerja/Gaji/Upah Pekerja) I Cost of Revenue and Direct Expenses (excluding Labor Expenses/Salaries/Workers' Wages)	154.057	138.734	135.980
Beban Umum dan Administrasi (Di luar Beban Tenaga Kerja/Gaji/Upah Pekerja dan Beban TJSL) I General and Administrative Expenses (excluding Labor Expenses/Salaries/Workers' Wages and CSR Expenses)	15.138	16.222	13.177
Beban Lain-Lain (Termasuk Kerugian Penjualan Aset Tetap, Selisih Kurs, dll) I Other Expenses (including Loss on Sales of Fixed Assets, Exchange Rate Differences, etc.)	8.185	3.281	991
Distribusi kepada Pekerja I Distribution to Workers			
Beban Subkontrak Tenaga Kerja, Gaji dan Upah Pekerja | Subcontracted Labor Expenses, Salaries, and Workers' Wages	17.210	16.479	17.424
Beban Imbalan Pascakerja dan Penghargaan Kerja Lainnya I Post-employment and Other Long-service Benefits	43.169	23.743	15.949
Distribusi kepada Penyedia Dana I Distribution to Funders			
Beban Keuangan (kepada Kreditor) I Finance Expenses (to Creditors)	30.284	32.114	24.215
Dividen (kepada Pemegang Saham) I Dividend (to Shareholders)	0	136.400	128.400
Distribusi kepada Pemerintah I Distribution to the Government			
Beban Pajak Final I Final Tax Expense	0	0	1.028
Beban Pajak Penghasilan I Income Tax Expense	58.247	67.857	77.391
Distribusi Kepada Masyarakat: Dana TJSL I Distribution to Communities: CSR Funds	772	1.214	945
Jumlah Nilai Ekonomi Didistribusikan I Total Economic Value Distributed	**327.062**	**436.044**	**415.000**
Nilai Ekonomi Ditahan (A-B) Retained Economic Value (A-B)			
Nilai Ekonomi Ditahan I Retained Economic Value	**137.667**	**23.902**	**35.170**

Distribusi kepada **Pekerja**

Distribution to Workers

Distribusi nilai ekonomi langsung yang diperoleh antara lain digunakan untuk memenuhi kebutuhan pekerja, termasuk pembayaran kompensasi/imbalan jasa pekerjaan serta kewajiban program pensiun.

The distribution of direct economic value generated includes allocations to support workers, including compensation for services rendered and pension program obligations.



Rasio Standar Kompensasi Pekerja dan Perbandingan terhadap Upah Minimum

[OJK F.20][GRI 202-1]

PGE memberikan kompensasi kepada pekerja sesuai ketentuan dalam Perjanjian Kerja Bersama (PKB) PGE, yang meliputi upah pokok, tunjangan, insentif, bonus, program kesehatan bagi pekerja aktif dan pensiun, serta program pensiun. Secara umum, standar kompensasi bagi pekerja baru di PGE lebih tinggi dibandingkan upah minimum di setiap WKP Perseroan. Rasio terendah atas perbandingan antara gaji bulanan terendah pekerja PGE dengan upah minimum tahun 2025 ada di WKP Jakarta, yakni 1,5 dari upah minimum Provinsi DKI Jakarta. Sementara rasio tertinggi ada di WKP Karaha, yakni 10,5 dari upah minimum Provinsi Jawa Barat.

Ratio of Standard Worker Compensation Compared to Minimum Wage [OJK F.20][GRI 202-1]

PGE provides compensation to workers in accordance with the provisions set out in the Company's Collective Labor Agreement (CLA), which includes basic salary, allowances, incentives, bonuses, healthcare programs for active workers and retirees, as well as pension programs. Entry-level compensation at PGE is generally higher than the applicable regional minimum wage across the Company's WKP. In 2025, the lowest ratio of PGE's lowest monthly salary to the regional minimum wage was recorded in WKP Jakarta, at 1.5 times the DKI Jakarta Provincial Minimum Wage. The highest ratio was recorded in WKP Karaha, at 10.5 times the West Java Provincial Minimum Wage.

Rasio Kompensasi dan Manfaat antara Pekerja Laki-laki dan Perempuan [GRI 405-2]

Rasio kompensasi dan manfaat antara pekerja laki-laki dan perempuan adalah 1:1. PGE berkomitmen menerapkan prinsip non-diskriminasi dengan memberikan kesempatan setara kepada seluruh pekerja tanpa memandang jenis kelamin, suku, agama, maupun ras.

Ratio of Compensation and Benefits Between Male and Female Workers [GRI 405-2]

The ratio of compensation and benefits between male and female workers is 1:1. PGE is committed to upholding the principle of non-discrimination by providing equal opportunities to all workers regardless of gender, ethnicity, religion, or race.

Manfaat untuk Pekerja Tetap yang Tidak Diberikan kepada Pekerja Kontrak [GRI 401-2]

Selain kompensasi utama, bentuk lain yang diberikan kepada pekerja adalah tunjangan dan fasilitas. Pada 2025, tunjangan dan fasilitas yang diberikan kepada PWTT (tidak diberikan kepada PWT) meliputi bantuan fasilitas istirahat tahunan, uang pensiun, program kesehatan pekerja, serta program kesehatan bagi pensiunan. Perseroan juga menyediakan manfaat tambahan bagi pekerja yang bertugas di WKP dengan kondisi khusus, seperti daerah terpencil dan minim fasilitas. Fasilitas tersebut antara lain berupa penyediaan mes atau tempat tinggal di lokasi kerja yang disesuaikan dengan standar yang telah ditetapkan oleh Perseroan.

Benefits for Permanent Workers Not Provided to Contract Workers [GRI 401-2]

In addition to core compensation, PGE provides other forms of support to workers in the form of allowances and facilities. In 2025, the allowances and facilities granted to permanent workers (not to non-permanent workers) included annual leave assistance, pension benefits, healthcare programs for active workers, as well as healthcare programs for retirees. The Company also provides additional benefits for workers assigned to WKPs with specific conditions, such as remote areas with limited facilities. These benefits include, among others, the provision of dormitories or on-site housing at work locations, in accordance with the standards established by the Company.

Kewajiban Program Manfaat Pasti dan Program Pensiun Lainnya [GRI 201-3]

Perseroan memiliki kewajiban atas program pensiun dan imbalan kerja jangka panjang lainnya. Pemenuhan kewajiban atas program pensiun memberikan pengaruh positif bagi produktivitas pekerja PGE dan menjamin kelangsungan hidup setelah berhenti bekerja.

Defined Benefit Plan Obligations and Other Pension Programs [GRI 201-3]

The Company has obligations related to pension programs and other long-term worker benefits. Meeting these obligations supports worker productivity and helps provide financial security after retirement.

Cakupan Imbalan Kerja Jangka Panjang
Long-Term Worker Benefits Coverage

• Dana Pensiun Pertamina (DPP) I Pertamina Pension Fund (DPP)	• Biaya Pemulangan (Repatriasi) I Repatriation Allowance
• Penghargaan Atas Pengabdian (PAP) I Service Recognition Award	• Masa Persiapan Purna Karya (MPPK) I Pre-Retirement Preparation Program (MPPK)
• Kesehatan Pasca Pensiun I Post-Retirement Healthcare	• Ulang Tahun Dinas (UTD) I Service Anniversary Award (UTD)

Perseroan mengelola program purna bakti bagi seluruh pekerja sesuai Perjanjian Kerja Bersama (PKB), antara lain Program Pensiun Iuran Pasti (PPIP) dan Program Kesehatan bagi Pensiunan. Program Pensiun Iuran Pasti diselenggarakan melalui beberapa Dana Pensiun Lembaga Keuangan (DPLK), dengan besaran iuran 4,5% menjadi beban Perseroan, sedangkan 2% (minimum) menjadi beban pekerja untuk pekerja *direct hire*. Adapun bagi pekerja perbantuan dari PT Pertamina (Persero) selaku entitas induk, persentase iuran masing-masing pekerja ditentukan berdasarkan perhitungan sesuai Pernyataan Standar Akuntansi Keuangan (PSAK) 24.

The Company administers retirement (post-employment) programs for all workers in accordance with the Collective Labor Agreement (CLA), including a Defined Contribution Pension Program (*Program Pensiun Iuran Pasti*/PPIP) and a retiree healthcare program. The PPIP is administered through several Financial Institution Pension Funds (*Dana Pensiun Lembaga Keuangan*/DPLK). For direct-hire workers, contributions are 4.5% borne by the Company, while at least 2% is borne by the worker. For workers seconded from PT Pertamina (Persero) as the parent entity, each worker's contribution percentage is determined based on calculations in accordance with Indonesian Financial Reporting Standards (PSAK) 24.

Di 2025, terdapat tiga pekerja *direct hire* dan dua pekerja perbantuan yang mencapai usia pensiun. Sesuai kebijakan Perseroan, pekerja yang memasuki usia 55 tahun berhak menerima 90% atas pembayaran panjar PAP dalam kurun waktu tiga bulan sebelumnya. Nilai imbalan pascakerja pada 2025, khususnya pesangon atau PAP, mencapai Rp1,9 miliar. Dari nilai tersebut, sebesar 97% dapat dipenuhi melalui DPLK Perseroan, sehingga Perseroan tidak perlu menyiapkan pembiayaan tambahan yang signifikan untuk menutupi kekurangannya.

In 2025, three direct-hire workers and two seconded workers reached retirement age. Under the Company policy, workers who are within three months of turning 55 are entitled to receive 90% of the PAP advance payment made over the preceding three months. In 2025, post-employment benefits (particularly severance pay/PAP) amounted to Rp1.9 billion. Of this amount, 97% was covered through the Company's DPLK, reducing the need for the Company to allocate significant additional funding to cover any shortfall.

Program lain yang diselenggarakan oleh Badan Penyelenggara Jaminan Sosial (BPJS) Ketenagakerjaan meliputi Jaminan Hari Tua (JHT) dan Jaminan Pensiun (JP). Besaran iuran Program JHT adalah 5,7% dari upah, dengan kontribusi pekerja sebesar 2% dan Perseroan sebesar 3,7%. Sementara itu, iuran Program JP adalah sebesar 3%, dengan kontribusi Perseroan sebesar 2% dan pekerja sebesar 1%. Selain itu, Perseroan juga menyiapkan program kesehatan bagi pensiunan. Sampai Desember 2025, realisasi dana untuk program ini mencapai Rp95 miliar.

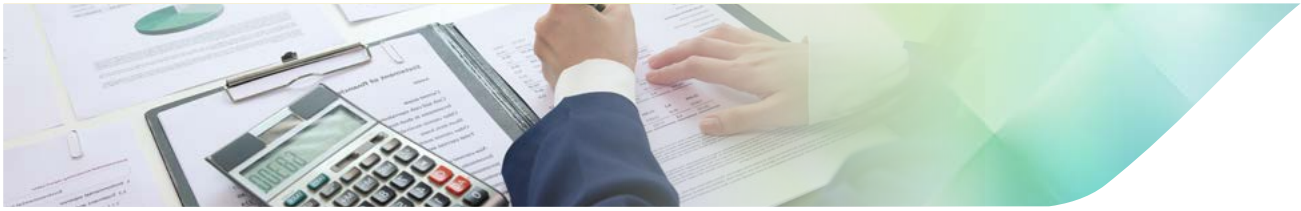
Other programs administered by the Social Security Administration for Employment (BPJS Ketenagakerjaan) include the Old-Age Security Program (JHT) and the Pension Security Program (JP). The contribution rate for the JHT Program is 5.7% of wages, with 2% contributed by workers and 3.7% by the Company. Meanwhile, the JP Program contribution is set at 3%, comprising 2% from the Company and 1% from workers. In addition, the Company provides healthcare programs for retirees. As of December 2025, the realized funding for this program amounted to Rp95 billion.

Pembayaran Pajak dan **Kewajiban Lain**

Tax Payments and Other Obligations

Distribusi lain dari nilai ekonomi langsung yang diperoleh adalah pembayaran pajak dan kewajiban lain, termasuk Setoran Bagian Pemerintah (SBP). SBP mencakup setoran kepada pemerintah daerah di wilayah operasional Perseroan, antara lain berupa bonus produksi.

A further distribution of direct economic value generated is the payment of taxes and other obligations, including Government Share Payments (*Setoran Bagian Pemerintah*/SBP). SBP includes remittances to regional governments in the Company's operating areas, including production bonuses.



Pendekatan terhadap Pajak [GRI 207-4]

Pendekatan terhadap pajak mengedepankan prinsip kepatuhan terhadap regulasi, di antaranya Undang-Undang No.7 Tahun 2021 tentang Harmonisasi Peraturan Perpajakan dan PMK No.115 Tahun 2021, dan PMK No. 90 Tahun 2017. Pengelolaan perpajakan PGE dipimpin oleh Direktur Keuangan yang bertanggung jawab untuk meninjau dan menyetujui strategi pajak yang disusun. Sebagai dukungan pada pembangunan berkelanjutan, seluruh kegiatan perpajakan di PGE telah dijalankan secara digital, sehingga lebih efisien dan mengurangi dokumen fisik yang berdampak pada reduksi limbah.

Approach to Tax [GRI 207-4]

The Company's tax approach prioritizes compliance with applicable regulations, including Law No. 7 of 2021 on the Harmonization of Tax Regulations and Ministry of Finance Regulation (PMK) No. 115/PMK.03/2021, and PMK No.90 2017. Tax management is led by the Finance Director, who reviews and approves the Company's tax strategy. To support sustainable development, PGE has digitalized its tax processes to improve efficiency and reduce paper-based documentation, contributing to waste reduction.

Tata Kelola, Kontrol, dan Manajemen Risiko Perpajakan [GRI 207-2]

Pengelolaan perpajakan di PGE dilaksanakan oleh Bagian Tax & Royalty di bawah Fungsi Controlling & Reporting yang bertanggung jawab kepada Direktur Keuangan. Direktur Keuangan memastikan implementasi strategi pajak dan kepatuhan terhadap regulasi, termasuk aturan baru yang berlaku selama 2025, serta secara berkala meninjau strategi dan risiko perpajakan bersama Divisi Manajemen Risiko. Sepanjang 2025, PGE tidak menerima sanksi administrasi, denda, maupun sanksi hukum terkait perpajakan. Fungsi Tax & Royalty memastikan kepatuhan atas regulasi, melakukan sosialisasi pelaporan pajak tahunan, serta mendampingi pengisian SPT PPh Pasal 21 orang pribadi. Perseroan menggunakan konsultan pajak independen guna menjamin kredibilitas pelaporan.

Pelibatan Pemangku Kepentingan dan Manajemen Pajak [GRI 207-3]

Dalam mengelola pajak, Perseroan menjalin hubungan dengan otoritas perpajakan, yakni Kantor Pelayanan Pajak (KPP) di tingkat daerah sesuai wilayah operasi serta Direktorat Jenderal Pajak di tingkat pusat. Melalui Asosiasi Panas Bumi Indonesia (APBI), PGE juga melakukan komunikasi dan advokasi kebijakan publik terkait perpajakan di sektor panas bumi. Pelibatan dengan pemangku kepentingan pada 2025 dilakukan melalui pertemuan untuk konsultasi dan koordinasi, serta forum-forum diskusi tematik.

Pelaporan Pajak Sesuai Negara Tempat Perseroan Beroperasi [GRI 207-4]

PGE beroperasi di Indonesia dan tidak memiliki wilayah operasi di luar negeri. Dengan demikian, laporan pembayaran pajak hanya untuk operasi PGE di Indonesia dan disampaikan dalam Laporan Keuangan PGE Konsolidasi yang Telah Diaudit untuk tahun buku 2025. Laporan ini hanya menyajikan informasi pelaporan pembayaran pajak bersifat umum.

Tax Governance, Control, and Risk Management [GRI 207-2]

Tax management at PGE is carried out by the Tax & Royalty Section under the Controlling & Reporting Function, reporting to the Finance Director. The Finance Director oversees implementation of the tax strategy and compliance with applicable regulations, including rules effective in 2025, and periodically reviews tax strategy and tax risks together with the Risk Management Division. Throughout 2025, PGE did not receive administrative sanctions, fines, or legal penalties related to tax matters. The Tax & Royalty function ensure compliance with regulations, conducts annual tax-filing outreach, and supports individual Article 21 income tax return filings. The Company engages independent tax consultants to support the credibility of tax filings.

Stakeholder Engagement and Tax Management [GRI 207-3]

In managing taxation matters, the Company engages with the tax authorities, local Tax Service Offices (KPP) in its operating areas and the Directorate General of Taxes (DGT) at the national level. The Company also engages with industry associations, including the Indonesian Geothermal Association (APBI), to communicate and advocate on public policy related to geothermal taxation. In 2025, this engagement was conducted through consultation and coordination meetings and thematic discussion forums.

Tax Reporting by Country of Operation [GRI 207-4]

PGE operates solely in Indonesia and has no operations overseas. Accordingly, tax payment disclosures cover only PGE's Indonesian operations and are presented in the Company's Audited Consolidated Financial Statements for fiscal year 2025. The disclosure provides general information on tax payments.



PT Pertamina Geothermal Energy Tbk

Pembayaran Pajak dan Setoran Bukan Pajak
PGE Tax and Non-Tax Payments

Jenis Kontribusi Types of Contributions	Total Kontribusi (Rp) Total Contributions (Rp)		
	2025	2024	2023
Pajak I Taxes (A)			
Pajak Penghasilan (PPh) I Income Tax (PPh)	319.988.104.819	347.370.148.840	234.988.153.601
Pajak Pertambahan Nilai (PPN) dan Pajak Penjualan atas Barang Mewah (PPnBM) I VAT (PPN) & Luxury Goods Sales Tax (PPnBM)	1.339.126.924	50.979.135	1.264.007.629
Bea Masuk/Keluar, Bea & Cukai, dan Bea Materai I Import/ Export Duties, Excise, and Stamp Duty	-	11.628.982.969	-
Pajak Pemerintah Pusat Lainnya (SKP/STP) I Other Central Tax Assessments/Collections (SKP/STP)	61.275.926	2.379.444.223	-
Total Kontribusi Pajak (Total A) I Total Tax Contributions (Total A)	**321.388.507.669**	**361.429.555.167**	**236.252.161.230**
Penerimaan Negara Bukan Pajak (PNBP) I Non-Tax State Revenue (PNBP) (B)			
Dividen I Dividend	-	-	-
PNBP Lainnya I Other PNBP	**703.107.457.802**	**1.096.697.093.767**	**1.276.988.745.318**
Total Kontribusi PNBP (Total B) I Total Non-Tax State Revenue Contributions (Total B)	**703.107.457.802**	**1.096.697.093.767**	**1.276.988.745.318**
Total Kontribusi Pajak dan PNBP (Total A dan Total B) I Total Contributions to the State (Total A and B)	**1.024.495.965.471**	**1.458.126.648.934**	**1.513.240.906.548**

Sesuai Peraturan Pemerintah No.28 Tahun 2016 tentang Besaran dan Tata Cara Pemberian Bonus Produksi Panas Bumi, PGE berkewajiban membayar bonus produksi kepada pemerintah daerah di setiap WKP. Perhitungan bonus produksi dilakukan secara triwulanan dengan tarif sebesar 1% atas pendapatan kotor dari penjualan uap dan 0,5% atas pendapatan kotor dari penjualan listrik. PGE membayarkan total bonus produksi 2025 kepada pemerintah daerah sebesar Rp43.053.328.419, lebih besar dari 2024 yang mencapai Rp31.284.836.549.

In accordance with the Government Regulation No. 28 of 2016 regarding the amount and procedures for granting geothermal production bonuses, PGE is required to pay production bonuses to local governments in each WKP. The production bonus is calculated quarterly at a rate of 1% of gross revenue from steam sales and 0.5% of gross revenue from electricity sales. In 2025, PGE paid a total production bonus of Rp43,053,328,419 to local governments, higher than the 2024 amount of Rp31,284,836.549.



Pembayaran kepada Masyarakat

Pengungkapan informasi mengenai pembayaran kepada masyarakat sebagai dana tanggung jawab sosial dan lingkungan (TJSL) Perseroan disampaikan di halaman 179 pada Laporan ini.

Payments to Communities

information regarding payments to communities in the form of Corporate Social Responsibility (CSR) funds is presented on page 179 of this Report.

Implikasi Finansial, Risiko, dan Peluang Disebabkan Perubahan Iklim [GRI 201-2]

Perubahan iklim dan partisipasi Indonesia dalam Paris Agreement membuka peluang finansial bagi Perseroan sebagai penyedia kredit karbon di pasar internasional sejak 2022, setelah PGE memperoleh *Certified Emission Reduction* (CER) dan *Gold Standard* (GS) untuk proyek *Clean Development Mechanism* (CDM) untuk proyek Area Ulubelu Unit 3 & 4 sebesar 1.549.663 t CO_2e dan Area Karaha Unit 1 sebesar 192.809 t CO_2e. PGE juga menjadi perusahaan *geothermal* penyedia kredit karbon pertama di Bursa Karbon Indonesia (IDX Carbon) sejak 2023 melalui proyek Lahendong, Unit 5 & 6, hasil kerja sama PGE dengan PT Pertamina NRE sejak April 2023. Sepanjang 2025, penjualan domestik melalui IDX Carbon dan internasional mencapai total 200.764 t CO_2e *Verified Carbon Unit* (VCU), tanpa ada kredit yang ditunda dengan tujuan ataupun alasan tertentu.

Financial Implications, Risks, and Opportunities Arising from Climate Change

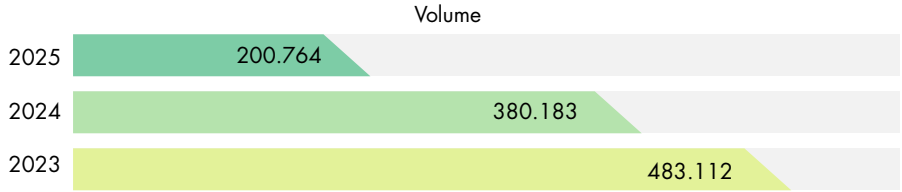
[GRI 201-2]

Climate change and Indonesia's participation in the Paris Agreement have created financial opportunities for the Company as a carbon credit provider in the international market since 2022, following PGE's acquisition of Certified Emission Reductions (CER) and Gold Standard (GS) certifications for its Clean Development Mechanism (CDM) projects, namely Ulubelu Area Units 3 & 4 totaling 1,549,663 t CO_2e and Karaha Area Unit 1 totaling 192,809 t CO_2e. PGE also became the first carbon credit provider listed on the Indonesia Carbon Exchange (IDX Carbon) in 2023 through the Lahendong Units 5 & 6 project, in collaboration with PT Pertamina NRE since April 2023. Cumulatively, by the end of 2025, domestic sales through IDX Carbon reached 200,764 t CO_2e Verified Carbon Units (VCU), with export sales amounting to 200,000 t CO_2e VCU, with no credits deferred for any specific purpose or reason.

Kredit Karbon PGE
PGE's Carbon Credits

Proyek Kredit Karbon Carbon Credits Project		Satuan Unit	Potensial ER Verifikasi Potential Verified ER
Clean Development Mechanism (CDM) Gold Standard	Lumut Balai Unit 1 & 2	t CO_2e/tahun I years	581.784
	Lumut Balai Unit 3 & 4		581.784
	Ulubelu 3 & 4		581.518
	Karaha Unit 1		156.669
International Renewable Energy Certificate (i-REC)	Kamojang Unit 5	MWh	236.520
Sistem Registri Nasional (SRN) National Registry System	Lahendong Unit 5 & 6	t CO_2e/tahun I years	181.030

Nilai Transaksi Kredit Karbon PGE (t CO_2e)
PGE Carbon Credit Transaction Value



Peluang lain dari perubahan iklim yang berimplikasi signifikan terhadap finansial Perseroan, adalah pendanaan hijau untuk proyek-proyek pengembangan panas bumi. Pada 2025, terdapat empat proyek PGE yang masuk dalam *Blue Book* 2025-2029 Kementerian Perencanaan Pembangunan Nasional (PPN)/Bappenas, yakni Lumut Balai Unit 3, Lumut Balai Unit 4, Gunung Tiga/Ulubelu Extension I, serta Lahendong Unit 7-8 & Binary, dengan tahapan operasi direncanakan tahun 2029 hingga 2032. Total nilai investasi mencapai lebih dari USD1,09 miliar, dengan estimasi tambahan kapasitas listrik rendah emisi 215 MW. Proyek-proyek tersebut berpeluang memperoleh pendanaan hijau melalui skema *indicative concessional loan* senilai USD613 juta dari lembaga multilateral seperti World Bank, Asian Development Bank (ADB), Japan Bank of International Cooperation (JBIC) atau Japan International Cooperation Agency (JICA).

Another climate-related opportunity with significant financial implications for the Company is access to green financing for geothermal development projects. In 2025, four PGE projects were included in the 2025–2029 Blue Book issued by the The Ministry of National Development Planning/Bappenas, namely Lumut Balai Unit 3, Lumut Balai Unit 4, Gunung Tiga/ Ulubelu Extension I, and Lahendong Units 7–8 & Binary, with commercial operation targeted between 2029 and 2032. The total estimated investment value exceeds USD1.09 billion, with an estimated additional low-emission generation capacity of 215 MW. These projects are eligible for green financing under an indicative concessional loan scheme amounting to USD613 million from multilateral institutions such as the World Bank, the Asian Development Bank (ADB), the Japan Bank for International Cooperation (JBIC), or the Japan International Cooperation Agency (JICA).

Tanggung Jawab Pengembangan **Produk Berkelanjutan**

Responsibility in Sustainable Product Development

Produk utama Perseroan adalah uap dan listrik. Sejalan dengan pengembangan bisnis, PGE melakukan pengembangan produk non-kelistrikan.

The Company's primary products are steam and electricity. In line with its business development strategy, PGE is also advancing the development of non-electricity.

Layanan yang Setara kepada Pelanggan [OJK F.17]

Sampai akhir 2025, produk PGE adalah uap dan listrik dan dijual kepada PT PLN Indonesia Power/PLN IP dan PT PLN (Persero)/PLN. Kami memberikan layanan yang setara kepada setiap pelanggan dengan menerapkan perjanjian jual beli, yakni Perjanjian Jual Beli Uap (PJBU) dan Perjanjian Jual Beli Listrik (PJBL) yang harus disetujui Kementerian ESDM. Kami belum melakukan penjualan produk non-kelistrikan, mengingat saat ini masih dalam pengembangan.

Equal Service to Customers [OJK F.17]

As of the end of 2025, PGE's products are steam and electricity sold to PT PLN Indonesia Power (PLN IP) and the State Electricity Company (PLN). The Company provides equal service to each customer through formal commercial agreements, namely the Steam Sales and Purchase Agreement (PJBU) and the Electricity Sales and Purchase Agreement (PJBL), both of which require approval from the Ministry of Energy and Mineral Resources (ESDM). The Company has not yet commenced commercial sales of non-electricity products, as these offerings remain under development.



PT Pertamina Geothermal Energy Tbk



Inovasi dan Pengembangan Produk Berkelanjutan [OJK F.26]

Pertumbuhan pendapatan Perseroan pada 2025 didorong oleh beroperasinya PLTP Lumut Balai Unit 2 (55 MW) pada Juni serta kesepakatan tarif listrik dengan PT PLN (Persero) untuk proyek PLTP Ulubelu Bottoming Unit (30 MW). Ke depan, pendapatan diproyeksikan terus meningkat seiring target kapasitas terpasang 1 GW pada 2030 dan pengembangan usaha non-kelistrikan berbasis panas bumi. PGE juga mengembangkan 17 proyek *quick win* yang dilaksanakan mulai 2026, serta berkolaborasi dengan PT PLN Indonesia Power pada 19 proyek berkapasitas 530 MW yang berpotensi meningkat hingga 1.130 MW.

Untuk mengurangi ketergantungan PGE terhadap PT PLN (Persero) sebagai pasar tunggal untuk produk uap dan listrik dari PLTP Perseroan. Kami sedang melakukan studi pengembangan model bisnis baru *geothermal*. Di sisi hilir, Perseroan meluncurkan *Pilot Project Green Hydrogen* Ulubelu pada 2025 di Kabupaten Tanggamus, Lampung. Proyek ini menjadi bagian penting dari upaya PGE untuk membangun ekosistem *green hydrogen* secara hulu-hilir, mulai dari produksi, distribusi, hingga pemanfaatannya untuk mendukung transisi menuju industri rendah karbon.

Innovation and Sustainable Product Development [OJK F.26]

The Company's revenue growth in 2025 was driven by the commencement of operations of Lumut Balai Geothermal Power Plant (PLTP) Unit 2 (55 MW) in June, as well as the electricity tariff agreement with PT PLN (Persero) for the Ulubelu Bottoming Unit (30 MW) project. Going forward, revenue is projected to continue increasing in line with the target of achieving 1 GW of installed capacity by 2030 and the development of geothermal-based non-electricity businesses. PGE is also developing 17 quick-win projects to be implemented starting in 2026 and collaborating with PT PLN Indonesia Power on 19 projects with a total capacity of 530 MW, which has the potential to increase to 1,130 MW.

To reduce PGE's dependence on PT PLN (Persero) as the sole market for steam and electricity products from the Company's geothermal power plants, we are conducting a study to develop a new geothermal business model. On the downstream side, the Company launched the Ulubelu Green Hydrogen Pilot Project in 2025 in Tanggamus Regency, Lampung. This project is an important part of PGE's efforts to build an upstream-downstream green hydrogen ecosystem, from production and distribution to utilization, to support the transition to a low-carbon industry. PGE is also pursuing development efforts outside Indonesia.

Upaya pengembangan juga dilakukan PGE ke luar Indonesia. Salah satunya melalui penandatanganan *Joint Study Agreement* (JSA) dengan perusahaan energi asal Turki, Zorlu Enerji Elektrik Üretim A.S., untuk pengembangan proyek PLTP di Turki.

One such effort is the signing of a Joint Study Agreement (JSA) with Turkish energy company Zorlu Enerji Elektrik Üretim A.S., for the development of a geothermal power plant project in Turkey.

Produk yang Sudah Dievaluasi Keamanannya bagi Pelanggan [OJK F.27][GRI 416-1, 416-2]

Sampai dengan akhir 2025, produk PGE berupa uap dan listrik. Uap panas bumi didistribusikan kepada unit PLTP yang dioperasikan pihak lain, sementara listrik dari PLTP yang dioperasikan PGE disalurkan ke jaringan listrik milik PT PLN (Persero). Seluruh proses produksi dan distribusi uap maupun listrik dilakukan dengan prosedur dan pengamanan yang ketat untuk menjamin keselamatan pelanggan. Selama 2025, PGE tidak pernah dihadapkan pada insiden yang diakibatkan adanya pelanggaran dalam keamanan dan keselamatan penyaluran uap maupun listrik. Kami juga tidak pernah mendapatkan sanksi denda maupun sanksi hukum lain dari pihak-pihak berwenang.

Products Evaluated for Customer Safety [OJK F.27][GRI 416-1, 416-2]

As of the end of 2025, PGE's products consisted of steam and electricity. Geothermal steam is distributed to geothermal power plant (PLTP) units operated by third parties, while electricity generated from PGE-operated PLTPs is transmitted to the power grid owned by the State Electricity Company (PLN). All steam and electricity production and distribution processes are carried out under stringent operational and safety procedures to ensure customer safety and reliability. Throughout 2025, PGE did not encounter any incidents resulting from breaches in the safety or security of steam or electricity distribution. The Company also did not incur any fines or other legal sanctions from the relevant authorities.

Dampak Produk dan Jumlah Produk yang Ditarik Kembali [OJK F.28, F.29]

Produk uap dan listrik yang dihasilkan PGE bersumber dari panas bumi serta tergolong rendah emisi karbon dan ramah lingkungan, sehingga berdampak positif terhadap reduksi emisi gas rumah kaca (GRK). Selama 2025, tidak ada pelanggan yang memutuskan penghentian kontrak pembelian produk uap dan listrik dari PGE.

Product Impact and Number of Products Recalled [OJK F.28, F.29]

The steam and electricity produced by PGE are generated from geothermal resources and are classified as low-carbon and environmentally friendly energy sources, contributing positively to the reduction of greenhouse gas (GHG) emissions. Throughout 2025, no customers terminated their contracts for the purchase of steam or electricity from PGE.

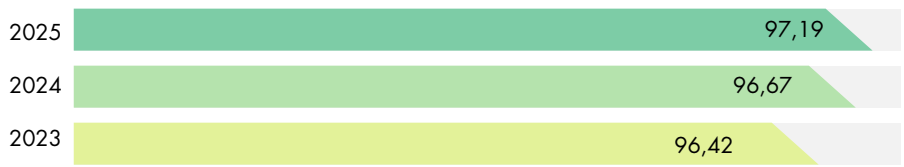
Survei Kepuasan Pelanggan [OJK F.30]

Hasil survei kepuasan pelanggan PGE yang dilaksanakan rutin satu kali dalam setahun kepada PT PLN (Persero) pada 2025 mencatat rerata Indeks Kepuasan Pelanggan sebesar 97,19 atau mutu pelayanan A/Kinerja Unit Sangat Puas. Capaian ini lebih tinggi dibandingkan dengan 2024 dengan skor 96,67 (mutu pelayanan A/Kinerja Unit Sangat Puas).

Customer Satisfaction Survey [OJK F.30]

The results of PGE's annual customer satisfaction survey, conducted in 2025 with PT PLN (Persero), recorded an average Customer Satisfaction Index of 97.19, corresponding to Service Quality Grade A (Very Satisfactory Unit Performance). This represents an improvement compared to 2024, which recorded a score of 96.67 with the same service quality grade.

Survei Indeks Kepuasan Pelanggan
Customer Satisfaction Index Survey



Pemasaran dan Pelabelan
[GRI 417-1, 417-2, 417-3]

Seluruh (100%) produk uap dan listrik yang dijual kepada pelanggan telah dilengkapi dengan informasi spesifikasi serta standar prosedur operasi untuk memastikan keamanan penggunaannya. Sepanjang 2025, tidak terdapat insiden ketidaksesuaian informasi produk maupun komplain dari pelanggan terkait hal tersebut. Mengingat produk PGE bersifat khusus dan ditujukan bagi segmen pelanggan tertentu, Perseroan tidak melakukan komunikasi pemasaran dalam bentuk iklan atau promosi. Namun, selama 2025, PGE tetap berpartisipasi dalam sejumlah kerja sama sponsor yang mendukung penerapan prinsip keberlanjutan dalam aspek lingkungan, sosial, dan tata kelola. Pada periode pelaporan, tidak terdapat insiden ketidakpatuhan terhadap regulasi terkait komunikasi pemasaran maupun perlindungan pelanggan.

Marketing and Labeling [GRI 417-1, 417-2, 417-3]

All (100%) steam and electricity products sold to customers are equipped with detailed product specifications and standard operating procedures to ensure safe usage. Throughout 2025, there were no incidents related to misinformation or discrepancies in product information, and no customer complaints were reported. Given that PGE's steam and electricity products are specialized and serve specific customer segments, the Company does not conduct marketing communications through advertising or other promotional activities. Nevertheless, in 2025, PGE participated in several sponsorship collaborations supporting the implementation of sustainability principles across environmental, social, and governance aspects. During the reporting period, there were no incidents of non-compliance with regulations related to marketing communications or customer protection.

Aksi Legal untuk Perilaku Antikompetitif, *Anti-trust*, dan Praktik Monopoli [GRI 206-1]

Hingga akhir 2025, PGE mengelola 12 WKP, dengan mengoperasikan sendiri PLTP berkapasitas 727 MW dan 1.205 MW dikelola dengan skema Kontrak Operasi Bersama. Dengan kondisi tersebut kapasitas terpasang panas bumi di wilayah kerja PGE berkontribusi sekitar 80% dari total kapasitas terpasang panas bumi di Indonesia. Sektor panas bumi memiliki kekhususan, yang melibatkan Kementerian Energi dan Sumber Daya Mineral (ESDM) sebagai regulator, sehingga Perseroan tidak melakukan upaya legal terkait perilaku antikompetitif dan pelanggaran antimonopoli maupun monopoli.

Legal Actions Related to Anti-Competitive Behavior, Anti-Trust, and Monopoly Practices
[GRI 206-1]

As of the end of 2025, PGE managed 12 Geothermal Working Areas (WKP), operating 727 MW of geothermal power capacity independently and 1,205 MW under Joint Operation Contract schemes. With this portfolio, PGE's installed geothermal capacity accounts for approximately 80% of Indonesia's total installed geothermal capacity. The geothermal sector operates under a specific regulatory framework involving the Ministry of Energy and Mineral Resources (ESDM) as the primary regulator. Accordingly, the Company has not been involved in any legal actions related to anti-competitive behavior, anti-trust violations, or monopoly practices.



Tata Kelola **Perusahaan**

Corporate Governance



Ambisi, Kebijakan, dan **Strategi Keberlanjutan** [OJK A.1]

PGE's Sustainability Ambition, Policies, and Strategies

PGE mengembangkan dan memanfaatkan panas bumi untuk menyediakan energi bersih yang ramah lingkungan serta mendukung penanganan perubahan iklim dengan menerapkan prinsip keberlanjutan di seluruh kegiatan bisnis. Untuk mencapai ambisi tersebut, Perseroan menerapkan Kebijakan Keberlanjutan sebagai inti tanggung jawab perusahaan energi yang ditetapkan untuk mendorong kepatuhan terhadap regulasi dan menciptakan nilai jangka panjang bagi pemangku kepentingan.

PGE develops and harnesses geothermal resources to deliver clean, environmentally friendly energy and support climate change mitigation, while embedding sustainability principles across its operations. To advance this ambition, the Company has established a Sustainability Policy as a core element of its responsibilities as an energy company, designed to promote regulatory compliance and create long-term value for stakeholders.

Ambisi Keberlanjutan PGE
PGE'S Sustainability Ambition

Ambisi PGE
PGE'S Ambition

Menjadi perusahaan energi global terkemuka dan bereputasi baik, serta diakui sebagai perusahaan yang ramah lingkungan, menjunjung tanggung jawab sosial perusahaan, dan menjunjung tinggi tata kelola perusahaan yang baik.

To become a leading, reputable global energy company, recognized for environmental responsibility, social accountability, and strong corporate governance.

Ambisi Keberlanjutan PGE
PGE'S Sustainability Ambition



Perusahaan yang Ramah Lingkungan
An Environmentally Friendly Company

Perusahaan yang menyediakan dan mendukung akses energi serta pengembangan energi baru dan terbarukan untuk mendukung agenda transisi iklim nasional, bertanggung jawab dalam menangani isu perubahan iklim, dan menjadi teladan dalam penerapan sistem manajemen lingkungan pada seluruh kegiatan operasionalnya.

A company that expands energy access and supports the development of new and renewable energy to advance the national climate transition agenda, takes responsibility for addressing climate change, and sets the standard in implementing environmental management systems across its operations.



Menjunjung Tanggung Jawab Sosial Perusahaan
A Company Upholding Social Responsibility

Perusahaan yang berkomitmen menerapkan standar tertinggi praktik kesehatan dan keselamatan kerja secara berkelanjutan; menghormati dan melibatkan masyarakat sekitar untuk mendorong pembangunan sosial dan ekonomi berkelanjutan; serta mendukung pengembangan pekerja yang berkelanjutan, keberagaman, dan prinsip-prinsip hak asasi manusia (HAM).

A company committed to the highest standards of occupational health and safety; that respects and engages local communities to foster sustainable social and economic development; and that supports continuous worker development, diversity, and human rights principles.



Tata Kelola Perusahaan yang Baik (GCG)
A Company with Good Corporate Governance (GCG)

PGE memastikan kepatuhan terhadap seluruh persyaratan hukum yang berlaku di wilayah operasinya, menjunjung standar tertinggi praktik tata kelola perusahaan yang baik (GCG), serta menegakkan praktik antikorupsi dan *anti-fraud* bagi seluruh pemangku kepentingan dalam lini operasional Perseroan.

PGE ensures compliance with all applicable legal requirements in its operating areas, upholds the highest standards of good corporate governance (GCG), and enforces anti-corruption and anti-fraud practices across its operations and stakeholder interactions.

Strategi dan Inisiatif Keberlanjutan [GRI 2-22]

PGE berupaya mencapai ambisi keberlanjutan dengan menjalankan strategi keberlanjutan, meliputi 11 Inisiatif Keberlanjutan yang ditetapkan berdasarkan SK No. RRD-04/PGE000/2024-S0, tanggal 31 Desember 2024, dan disusun dalam Peta Jalan Keberlanjutan 2024-2030. Kesebelas inisiatif tersebut menjadi acuan dari inisiatif-inisiatif turunan yang dijalankan masing-masing unit bisnis. Pencapaian inisiatif akan menjadi bagian indikator penilaian atau Indikator Kinerja Utama (KPI) unit bisnis. Penilaian KPI dilakukan setahun sekali dan dilaporkan kepada VP Strategic Planning & Sustainability. Pencapaian setiap inisiatif di 2025, disampaikan dalam pembahasan kinerja topik material maupun topik lain di Laporan ini.

Sustainability Strategy and Initiatives [GRI 2-22]

PGE advances its sustainability ambition by executing a sustainability strategy built around 11 Sustainability Initiatives. These initiatives are stipulated under Decree No. RRD-04/PGE000/2024-S0, dated December 31, 2024, and set out in the 2024–2030 Sustainability Roadmap. The 11 initiatives provide the umbrella framework for related, business unit–level programs. Delivery against these initiatives is incorporated into each business unit's performance indicators and Key Performance Indicators (KPIs). The KPI assessment is conducted annually and reported to the VP of Strategic Planning & Sustainability. Updates on progress for 2025 are presented in the discussions of material topics and other relevant topics in this Report.



Inisiatif Keberlanjutan Sustainability Initiatives	**Capaian 2025** 2025 Achievement	**2024-2026**	**2027-2030**	**Setelah 2030** After 2030
Menerapkan program konservasi keanekaragaman hayati dan membuat *Biodiversity Action Plan* (BAP). Implementing biodiversity conservation programs and creating a Biodiversity Action Plan (BAP).	Terlaksananya kajian BAP di 3 Area: Kamojang, Lumut Balai, dan Karaha. BAP assessments were completed in three areas: Kamojang, Lumut Balai, and Karaha.	Penerapan BAP di beberapa area. Implementation of BAP in several areas.	Penerapan BAP di seluruh area kerja yang berdekatan dengan kawasan hutan yang dilindungi dan menerapkan pelaporan Task Force on Nature-related Financial Disclosure (TNFD). Implementation of BAP in all work areas adjacent to protected forest areas and implementation of the Task Force on Nature-related Financial Disclosure (TNFD) reporting.	Mencapai *Net Positive Impact* serta pelaporan TNFD secara berkala. Achieving Net Positive Impact and regular TNFD reporting.
Menerapkan pengelolaan limbah yang terintegrasi melalui *Waste Integration System Enhancement* (WISE). Implementing integrated waste management through Waste Integration System Enhancement (WISE).	Menerapkan prinsip 4R pada pengelolaan 70,51% timbulan limbah. Implementing 4R practices for 70.51% of total waste generated.	Penerapan WISE di kantor pusat dan beberapa area kerja PGE. Implementation of WISE at the head office and several PGE work areas.	Menerapkan WISE di seluruh area kerja dengan target penggunaan kembali (*recycle*) 75% limbah di 2030. Implementing WISE in all work areas, with a target of 75% waste recycling by 2030.	Mempertahankan program WISE di seluruh area kerja PGE. Maintaining the WISE program across all PGE work areas.
Meningkatkan kapasitas terpasang. Increasing installed capacity.	Beroperasinya proyek Lumut Balai II (55 GW). Lumut Balai II project in operation (55 GW).	>1 GW total kapasitas terpasang dengan kombinasi pengembangan konvensional *brine to power* serta opsi pengembangan anorganik. >1 GW total installed capacity through a combination of conventional brine-to-power development and inorganic development options.	>1 GW total kapasitas terpasang dari produksi sendiri yang dicapai melalui eksplorasi dan *co-generation.* >1 GW total installed capacity from own production, achieved through exploration and co-generation.	>1,3 GW total kapasitas terpasang dari produksi sendiri yang dicapai melalui eksplorasi dan *co-generation.* >1.3 GW total installed capacity from own production achieved through exploration and co-generation.
Mengurangi intensitas emisi. Reducing emission intensity.	Penurunan intensitas emisi mencapai 40,79 g CO_2e/kWh. Emission intensity reduction to reach 40.79 g CO_2e/kWh.	Efisiensi energi dan inisiatif *co-generation* dengan target penurunan total intensitas emisi PGE >5% di 2026. Energy efficiency and co-generation initiatives, targeting a >5% reduction in PGE's total emission intensity by 2026.	Jaminan emisi cakupan 1, 2, dan 3 dengan target penurunan intensitas emisi hingga 29% di 2030 melalui penerapan tenaga listrik dan teknologi *geothermal.* Scope 1, 2, and 3 emissions guarantees, targeting an emission intensity reduction of up to 29% by 2030 through the use of electric power and geothermal technology.	*Liquefaction* CO_2, pengembangan metanol, dan pengembangan *carbon capture* untuk mencapai target NZE di 2060. CO_2 liquefaction, methanol development, and carbon capture development to achieve the NZE target in 2060.

Inisiatif Keberlanjutan Sustainability Initiatives	**Capaian 2025** 2025 Achievement	**2024-2026**	**2027-2030**	**Setelah 2030** After 2030
Memenuhi hak-hak normatif pekerja. Fulfilling workers' normative rights.	Melakukan pembaruan poin-poin di dalam PKB untuk mendukung pekerja. Updating provisions in the CLA to better support workers.	Melakukan perundingan PKB bersama Serikat Pekerja setiap periode. Conducting CLA negotiations with the Labor Union each period.	Memberikan sosialisasi dan internalisasi terkait hak-hak pekerja secara rutin. Providing regular communications and internal awareness-building on workers' rights.	Menjaga hubungan baik antara PGE, serikat pekerja, dan pemangku kepentingan. Maintaining constructive relations among PGE, labor unions, and stakeholders.
Mendukung keberagaman, kesetaraan, dan inklusi. Supporting diversity, equality, and inclusion.	Terlaksananya program untuk perempuan, masyarakat lokal, dan pekerja disabilitas. Programs empowering women, local communities, and workers with disabilities.	Membuat program pengembangan dan rekrutasi untuk perempuan, disabilitas, dan komunitas lokal. Creating development and recruitment programs for women, people with disabilities, and local communities.	Keterwakilan pekerja perempuan hingga 15% dan 1% pekerja disabilitas pada 2030. Female representation up to 15% and representation of workers with disabilities at 1% by 2030.	Keterwakilan pekerja perempuan hingga >15% dan >1% pekerja disabilitas. Female representation to >15% and representation of workers with disabilities to >1%.
Menerapkan program ekosistem hijau. Implementing green ecosystem programs.	Tercapainya penerima manfaat sebanyak 31.233 orang. A total of 31,233 beneficiaries were reached.	Mengelola *Social Return on Investment* (SROI) di 5,5% setiap tahun. Maintaining Social Return on Investment (SROI) at 5.5% annually.	Program ekosistem hijau PGE di seluruh area kerja. Implementing PGE's green ecosystem program across all work areas.	Meningkatkan SROI >5,5% untuk semua program pemberdayaan masyarakat PGE. Increasing SROI to >5.5% across all PGE community empowerment programs.
Menerapkan sistem manajemen aset. Implementing asset management systems.	Mengimplementasikan ISO 55001: Sistem Manajemen Aset. Implementing ISO 55001: Asset Management System.	Memperoleh ISO 55001 di 2026 dengan *rating* >3,5% di 2026. Obtaining ISO 55001 certification by 2026 with a rating of >3.5% in 2026.	Meningkatkan penerapan ISO 55001 dengan *rating* >4% di 2030. Increasing ISO 55001 implementation with a rating of >4% by 2030.	Mempertahankan sertifikasi ISO 55001. Maintaining ISO 55001 certification.
Menerapkan etika bisnis. Implementing business ethics.	Mematuhi seluruh regulasi terkait BUMN dan Perusahaan IPO dan menjaga ISO 37001 Anti Bribery. Complying with all regulations related to SOEs and IPO companies, and maintain ISO 37001 Anti-Bribery.	Mematuhi seluruh peraturan perundangan, termasuk namun tidak terbatas pada regulasi di bidang pasar modal, serta mempertahankan sertifikasi ISO 37001 Sistem Manajemen Anti Penyuapan dalam rangka pelaksanaan proses bisnis yang *prudent* dan memenuhi aspek GCG. Complying with all laws and regulations, including but not limited to capital market regulations, and maintain ISO 37001 Anti-Bribery Management System certification to support prudent business processes and meet GCG requirements.	Melakukan pembaruan kebijakan internal yang relevan dengan penerapan tata kelola perusahaan dan praktik terbaik etika bisnis. Updating internal policies relevant to corporate governance implementation and business ethics best practices.	Mempertahankan dan meningkatkan kebijakan internal yang relevan dengan penerapan tata kelola perusahaan dan praktik terbaik etika bisnis. Maintaining and strengthen internal policies relevant to corporate governance implementation and business ethics best practices.

Inisiatif Keberlanjutan Sustainability Initiatives	**Capaian 2025** 2025 Achievement	**2024-2026**	**2027-2030**	**Setelah 2030** After 2030
Proses pengadaan yang berkelanjutan. Sustainable procurement processes.	50% vendor utama memiliki ESG *policy* atau ISO 14001: Sistem Manajemen Lingkungan. 50% of major vendors have an ESG policy or ISO 14001: Environmental Management System.	50% vendor telah memiliki kebijakan maupun sertifikasi ESG. 50% of vendors already have ESG policies and certification.	75% vendor utama telah memiliki kebijakan maupun sertifikasi ESG. 75% of major vendors have ESG policies and certifications.	Seluruh *vendor* utama telah melalui penilaian standar ESG atau PGE telah meluncurkan rencana pengembangan ESG *vendor.* All major vendors have undergone ESG (or PGE ESG standard) assessments, or PGE has launched vendor ESG development plans.
Penerapan sistem dan manajemen keamanan siber. Implementation of cybersecurity systems and management.	Meningkatkan IT *Asset Monitoring*. Improving IT asset monitoring.	Meningkatkan *monitoring* aset Teknologi Informasi (TI) dan menjaga tingkat *phishing prone* di level <10%. Improve monitoring of Information Technology (IT) assets and maintain the phishing-prone level at <10%.	Mengimplementasikan sistem kebocoran data dan menjaga tingkat *phishing prone* di level <7%. Implementing a data leak system and maintain the phishing-prone level at <7%.	Meningkatkan sistem manajemen keamanan siber berdasarkan situasi yang terjadi di masa depan. Improving the cybersecurity management system based on future scenarios.



Membangun Budaya Keberlanjutan, Mendapatkan Advis, dan Meningkatkan Kepedulian [OJK F.1][GRI 2-26]

Proses PGE dalam membangun budaya keberlanjutan dimulai dari pengenalan dan internalisasi nilai-nilai yang dianut Perseroan, yaitu AKHLAK, serta penerapan Kode Etik. Nilai-nilai tersebut diturunkan melalui berbagai kebijakan dan pedoman sebagai acuan penerapan keberlanjutan di seluruh unit bisnis dan satuan kerja. Pada 2025, Perseroan juga menjalankan berbagai inisiatif untuk meningkatkan kesadaran, membangun budaya keberlanjutan, memperoleh advis, serta meningkatkan kepedulian terhadap keberlanjutan, antara lain:

1. *Talkshow* dan *sharing session* DEI dan *Mental Health Awareness*
2. *Building Inclusive Workplaces*: *Knowledge Sharing* & G-PERFORM *Kick-Off*
3. Penyediaan mekanisme sistem pelaporan pelanggaran (*Whistleblowing System*/WBS). Informasi mengenai WBS disampaikan pada halaman 90 Laporan ini.

Building a Sustainability Culture, Obtaining Advisory Support, and Raising Awareness

[OJK F.1][GRI 2-26]

PGE's efforts to build a sustainability culture begin with internalizing the Company's AKHLAK values and implementing its Code of Conduct. These values are embedded through policies and guidelines that serve as references for sustainability practices across all business units and work units. In 2025, the Company also rolled out initiatives to raise awareness, strengthen a sustainability culture, obtain advisory input, and deepen sustainability awareness, including:

1. DEI and Mental Health Awareness talk shows and sharing sessions.
2. Building Inclusive Workplaces: Knowledge Sharing & G-PERFORM Kick-Off.
3. A Whistleblowing System (WBS) reporting mechanism. Information on the WBS is provided on page 90 of this Report.

Struktur Tata Kelola **Keberlanjutan** [OJK E.1][GRI 2-9]

Sustainability Governance Structure

Struktur tata kelola keberlanjutan PGE mengikuti prinsip tata kelola korporasi sebagaimana diatur dalam Undang-Undang No. 40 Tahun 2007 tentang Perseroan Terbatas. Sesuai ketentuan tersebut, struktur tata kelola Perseroan terdiri dari Rapat Umum Pemegang Saham (RUPS), Dewan Komisaris, dan Direksi. Setiap organ menjalankan tugas dan kewenangannya secara independen sesuai Anggaran Dasar dan peraturan perundang-undangan yang berlaku.

Direksi merupakan organ tertinggi dalam tata kelola keberlanjutan Perseroan dan bekerja dengan pengawasan Dewan Komisaris. Direktur Utama Perseroan bertindak sebagai pejabat tertinggi tata kelola keberlanjutan PGE dan tidak menjabat sebagai Chief Executive Officer (CEO). Dengan demikian, tidak diperlukan ketentuan khusus untuk mencegah benturan kepentingan akibat peran ganda. Direksi bertanggung jawab atas penerapan keberlanjutan di seluruh aspek operasional dan bisnis Perseroan. Dalam mengelola keberlanjutan, Direksi didukung oleh pejabat Perseroan dari berbagai unit maupun fungsi bisnis sesuai tugas dan tanggung jawab masing-masing. [GRI 2-11]

PGE's sustainability governance structure aligns with corporate governance principles as stipulated under Law No. 40 of 2007 on Limited Liability Companies. Under this framework, the Company's governance structure consists of the General Meeting of Shareholders (GMS), the Board of Commissioners, and the Board of Directors. Each governing body carries out its duties and authorities independently, as set out in the Articles of Association and applicable regulations.

The Board of Directors is the highest body responsible for the Company's sustainability governance and operates under the oversight of the Board of Commissioners. The President Director serves as PGE's highest sustainability governance officer and does not hold a separate Chief Executive Officer (CEO) title. Accordingly, no specific provisions are required to prevent conflicts of interest arising from dual roles. The Board of Directors is accountable for implementing sustainability across all operational and business aspects of the Company. In managing sustainability, the Board is supported by Company officials across business units and functions, in line with their respective roles and responsibilities. [GRI 2-11]

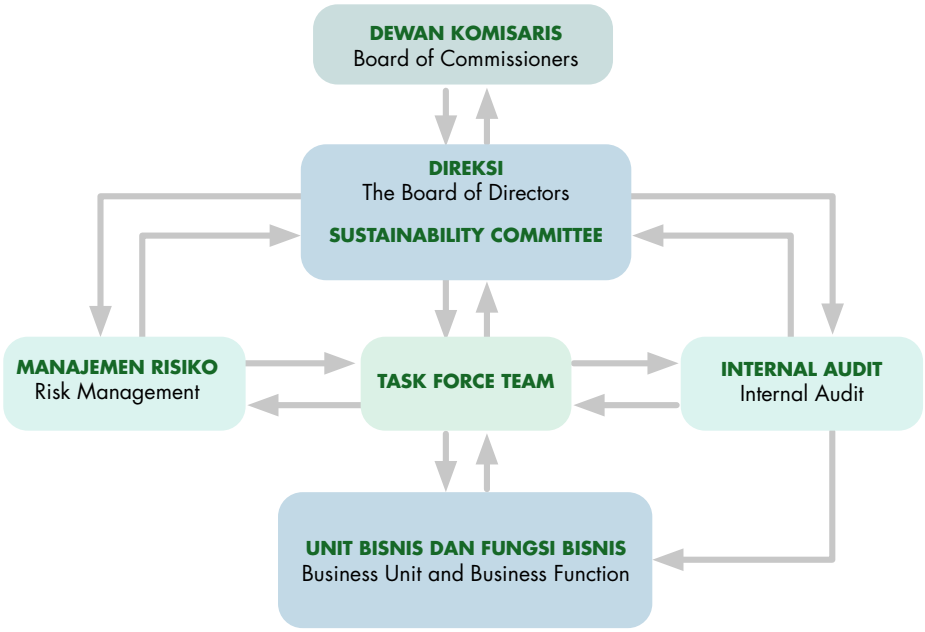
Untuk mendukung penerapan keberlanjutan, PGE membentuk Komite Keberlanjutan dan Task Force Team (TFT) berdasarkan Surat Keputusan No. Kpts-089/PGE000/2024-S0 tanggal 3 Desember 2024. Peran utama Komite Keberlanjutan adalah mengawasi dan memberikan arahan strategis atas pelaksanaan aspek keberlanjutan di Perseroan. Adapun TFT bertugas memastikan prinsip LST berjalan efektif pada level teknis di masing-masing unit dan fungsi bisnis, terutama dalam penerapan strategi keberlanjutan dan perubahan iklim.

To support sustainability implementation, PGE established a Sustainability Committee and a Task Force Team (TFT) pursuant to Decree No. Kpts-089/PGE000/2024-S0 dated December 3, 2024. The Sustainability Committee's primary role is to oversee and provide strategic direction for sustainability implementation across the Company. Meanwhile, the TFT ensures ESG principles are effectively implemented at the technical level across relevant units and business functions, particularly in executing sustainability and climate change strategies.

Komite Keberlanjutan dipimpin Direktur Utama dan beranggotakan seluruh anggota Direksi serta pejabat unit bisnis, seperti Vice President, Chief, dan Manager, yang bertanggung jawab atas penerapan aspek keberlanjutan di unit bisnis masing-masing. Keanggotaan TFT terdiri atas pejabat penanggung jawab bidang LST dari berbagai fungsi bisnis. Komposisi keanggotaan Komite Keberlanjutan dan TFT mencerminkan keberagaman latar belakang, baik gender, bidang keahlian/kompetensi terkait pengelolaan dampak, maupun representasi pemegang saham. Komite Keberlanjutan dan TFT bersifat internal, sehingga tidak terdapat perwakilan kelompok sosial dari pihak eksternal.

The Sustainability Committee is chaired by the President Director and comprises all members of the Board of Directors, along with business unit officials (such as Vice Presidents, Chiefs, and Managers) responsible for sustainability implementation within their respective units. The TFT consists of designated ESG leads from various business functions. The composition of both bodies reflects diversity in gender, relevant expertise and competencies in impact management, and shareholder representation. As internal bodies, the Sustainability Committee and the TFT do not include representatives from external social groups.

Struktur Tata Kelola Keberlanjutan
Sustainability Governance Structure



Pengungkapan mengenai masa jabatan, komposisi, dan keberagaman anggota Direksi dan Dewan Komisaris, termasuk gender, latar belakang kompetensi, keterwakilan kelompok sosial, serta representasi pemangku kepentingan, disampaikan dalam Laporan Tahunan PGE 2025.

Information on the tenure, composition, and diversity of the Board of Directors and the Board of Commissioners, including gender, competency backgrounds, representation of social groups, and stakeholder representation, is disclosed in PGE's 2025 Annual Report.

Nominasi dan Seleksi Keanggotaan Badan Tertinggi **Tata Kelola Keberlanjutan** [GRI 2-10]

Nomination and Selection of the Highest Sustainability Governance Body

Nominasi, seleksi, pengangkatan dan pemberhentian Direksi selaku badan tata kelola tertinggi dilakukan berdasarkan Anggaran Dasar Perseroan, Peraturan Menteri BUMN No.PER-03/MBU/03/2023 tentang Organ dan Sumber Daya Manusia Badan Usaha Milik Negara serta Peraturan OJK No. 33/POJK.04/2014 tentang Direksi dan Dewan Komisaris Emiten atau Perusahaan Publik.

The nomination, selection, appointment, and dismissal of the Board of Directors, as the highest sustainability governance body, are carried out in accordance with the Company's Articles of Association, Minister of State-Owned Enterprises Regulation No. PER-03/MBU/03/2023 on the Organs and Human Resources of State-Owned Enterprises, and Financial Services Authority (OJK) Regulation No. 33/POJK.04/2014 on the Board of Directors and Board of Commissioners of Issuers or Public Companies.

Proses nominasi dan seleksi anggota Direksi menjadi tanggung jawab Komite Nominasi dan Remunerasi, dengan memperhatikan pandangan pemangku kepentingan, termasuk pemegang saham, keberagaman, independensi dan kompetensi keberlanjutan, maupun kompetensi lain yang relevan dengan pengelolaan dampak Perseroan. Kandidat yang terpilih dipastikan telah memenuhi kualifikasi formal dan substantif, serta memiliki kompetensi sesuai kebutuhan Perseroan.

The Nomination and Remuneration Committee is responsible for the nomination and selection process for Board members, taking into account stakeholder perspectives, including shareholders, as well as diversity, independence, sustainability-related competence, and other competencies relevant to managing the Company's impacts. Selected candidates are required to meet both formal and substantive qualifications and to have competencies aligned with the Company's needs.

Peran Badan Tata Kelola Keberlanjutan Tertinggi **dalam Pengawasan Dampak** [GRI 2-12]

Role of the Highest Sustainability Governance Body in Impact Oversight

Direksi memberikan kewenangan penerapan keberlanjutan dan pengelolaan dampak kepada Komite Keberlanjutan dan TFT. Anggota Komite Keberlanjutan, antara lain Chief dan Manager, bertanggung jawab atas penerapan keberlanjutan dan pengelolaan dampak di masing-masing unit bisnis. Secara berkala, Komite Keberlanjutan maupun TFT mengadakan pertemuan dengan Direksi untuk menyampaikan laporan kinerja. Pada Desember 2025, telah dilaksanakan *Committee Meeting* terkait keberlanjutan bersama Direksi. Direksi, dengan pengawasan dan dukungan Dewan Komisaris, melakukan peninjauan, persetujuan, serta pemutakhiran tujuan, nilai, dan misi Perseroan untuk memastikan keterlibatan seluruh Insan PGE dalam pengelolaan dampak operasional maupun penerapan keberlanjutan. [GRI 2-13]

The Board of Directors delegates authority for sustainability implementation and impact management to the Sustainability Committee and the TFT. Sustainability Committee members, including Chiefs and Managers, are responsible for implementing sustainability and managing impacts within their respective business units. On a periodic basis, the Sustainability Committee and the TFT meet with the Board of Directors to present performance updates. The Board of Directors, under the oversight and with the support of the Board of Commissioners, reviews, approves, and updates the Company's purpose, values, and mission to ensure engagement across PGE in managing operational impacts and advancing sustainability implementation. [GRI 2-13]



Mekanisme lainnya adalah audit berkala oleh Fungsi Internal Audit untuk memastikan penerapan keberlanjutan dan pengelolaan dampak dari kegiatan operasional telah dijalankan dengan baik. PGE juga mengadopsi praktik terbaik sesuai standar internasional (ISO). Secara berkala, PGE melakukan resertifikasi sebagai bagian dari uji tuntas guna memastikan proses bisnis telah memenuhi standar ISO yang berlaku. Pada 2025, resertifikasi ISO yang dilakukan antara lain:

Another mechanism is periodic audits by the Internal Audit Function to ensure that sustainability implementation and impact management related to operational activities are carried out properly. PGE also adopts international best practices in line with ISO standards. As part of its due diligence, PGE undergoes periodic recertification to confirm that its business processes meet applicable ISO standards. In 2025, ISO recertifications included:

1. **ISO 14001:2015 (Environmental Management System)**
2. **ISO 45001:2018 (Occupational Health & Safety Management System)**
3. **ISO 37001:2016 (Anti-Bribery Management System)**
4. **ISO 22301:2019 (Business Continuity Management System)**
5. **ISO 27001:2022 (Information Security Management System)**
6. **ISO 20000-1:2018 (IT Service Management System)**

Direksi juga melakukan pertemuan/rapat dengan Dewan Komisaris dan komite di bawahnya, Komite Keberlanjutan, TFT, serta pejabat eksekutif dan fungsi-fungsi di Perseroan. Pertemuan membahas evaluasi penerapan keberlanjutan dan pengelolaan dampak kegiatan operasional. Selama 2025, Direksi melakukan rapat 12 kali dengan Dewan Komisaris dan 52 kali dengan komite-komite di bawah Dewan Komisaris. Rapat dengan Komite Keberlanjutan dilaksanakan satu kali pada tanggal 19 Desember 2025 serta satu kali rapat dengan TFT pada 20 Februari 2025. Berdasarkan hasil evaluasi, penerapan keberlanjutan dan pengelolaan dampak kegiatan operasional di PGE selama 2025 dinilai telah berjalan efektif.

The Board of Directors also held meetings with the Board of Commissioners and its committees, the Sustainability Committee, the TFT, as well as executive officers and corporate functions. These meetings discussed evaluations of sustainability implementation and the management of operational impacts. During 2025, the Board of Directors held 12 meetings with the Board of Commissioners and 52 meetings with committees under the Board of Commissioners. Meetings with the Sustainability Committee were held one time on 19 December 2025, and one meeting was held with the TFT. Based on these evaluations, sustainability implementation and the management of operational impacts at PGE throughout 2025 were considered effective.

Peran Badan Tata Kelola **Keberlanjutan Tertinggi** [GRI 2-13, 2-14]

Roles of the Highest Sustainability Governance Body

Direksi memiliki peran strategis dalam penyusunan Laporan Keberlanjutan, antara lain meninjau dan menyetujui topik material yang diungkapkan dalam laporan serta, apabila dipandang perlu, melakukan perubahan atas topik material tersebut. Berdasarkan evaluasi yang dilakukan, Direksi menyetujui enam topik material untuk dimuat dalam Laporan Keberlanjutan Tahun 2025. Direksi juga berperan menyetujui penunjukan pihak eksternal sebagai penjamin (*assuror*) serta menjaga independensinya dengan memastikan pihak tersebut tidak memiliki hubungan kerja maupun hubungan bisnis lain dengan Perseroan yang dapat menimbulkan benturan kepentingan.

The Board of Directors plays a strategic role in preparing the Sustainability Report, including reviewing and approving the material topics disclosed in the report and, where deemed necessary, revising those topics. Based on the evaluation conducted, the Board approved six material topics for inclusion in the 2025 Sustainability Report. The Board also approves the appointment of an external assurer and safeguards the assurer's independence by ensuring that the appointed party has no other employment or business relationship with the Company that could give rise to a conflict of interest.

Pengembangan Kompetensi **Badan Tata Kelola Tertinggi**

[OJK E.2][GRI 2-17]

Competency Development of the Highest Governance Body

Selama 2025, anggota Direksi dan Dewan Komisaris mengikuti total enam kegiatan untuk meningkatkan pengetahuan kolektif dan pengembangan kompetensi di bidang keberlanjutan, meliputi pelatihan, seminar, hingga partisipasi dalam konferensi berskala nasional maupun internasional. Selain itu, PGE juga berupaya memberikan pelatihan pengelolaan perubahan iklim kepada Dewan Komisaris, Direksi, manajemen, serta pekerja. Sepanjang 2025, Perseroan melaksanakan pelatihan terkait perubahan iklim, antara lain mengenai TCFD, TNFD, serta emisi GRK.

Throughout 2025, members of the Board of Directors and the Board of Commissioners participated in a total of six activities to strengthen their collective knowledge and competencies in sustainability, including training programs, seminars, and participation in national and international conferences. IIn addition, PGE provides climate change management training for the Board of Commissioners, the Board of Directors, management, and workers. During 2025, the Company conducted climate-related training, including on TCFD, TNFD, and GHG emissions.

Kegiatan Pengembangan dan Peningkatan Kompetensi Berkelanjutan 2025
Sustainable Development and Competency Improvement Activities 2025

No.	Nama Kegiatan/Program Name of Activity/Program	Jumlah Total	
		Dewan Komisaris Board of Commissioners	Direksi Board of Directors
1	10th Indonesia International Geothermal Convention & Exhibition (IIGCE) 2025	4	4
2	Professional Training Program for Certified Risk Professional	5	2
3	Abu Dhabi Sustainability Week (ADSW) 2025	3	1
4	Green Hydrogen Groundbreaking	1	3
5	African Energy Week 2025 & Site Visit to Project Seroja	-	3

Keterangan | Notes: Kehadiran sebagai peserta. | Attendants as participants.



Evaluasi Kinerja **Badan Tata Kelola Keberlanjutan** [GRI 2-18]

Performance Evaluation of the Highest Sustainability Governance Body

Sesuai *Board Manual*, kinerja Direksi dievaluasi setiap tahun melalui penilaian kolegial dan individu berdasarkan tingkat pencapaian Perseroan terhadap target Indikator Kinerja Utama (KPI). Penilaian dilaksanakan melalui mekanisme mandiri, dengan hasil evaluasi disampaikan kepada Dewan Komisaris dan penilaian akhir ditetapkan oleh Komisaris Utama berdasarkan rekomendasi Komite Nominasi dan Remunerasi. Hasil evaluasi kinerja Direksi selanjutnya disampaikan secara umum sebagai bentuk pertanggungjawaban pelaksanaan tugas dan tanggung jawab Direksi dalam RUPS Tahunan serta Laporan Tahunan Perseroan.

Sementara itu, kinerja Dewan Komisaris dan masing-masing anggotanya dievaluasi oleh pemegang saham melalui RUPS dengan mengacu pada ketentuan peraturan perundang-undangan yang berlaku, Anggaran Dasar Perseroan, serta amanat pemegang saham. Untuk mendukung efektivitas pelaksanaan fungsi pengawasan dan pemberian nasihat, Dewan Komisaris juga dapat melakukan penilaian mandiri sebagai bagian dari evaluasi internal. Selain itu, pada 2025, PGE mengukur penerapan GCG menggunakan parameter ASEAN Corporate Governance Scorecard (ACGS) dari ASEAN Capital Market Forum (ACMF) dengan pencapaian skor 122,52 yang mencerminkan tata kelola yang sangat baik.

In accordance with the Board Manual, the Board of Directors' performance is evaluated annually through collegial and individual assessments, based on the Company's achievement against its Key Performance Indicator (KPI) targets. The assessment is conducted through a self-assessment mechanism, with results submitted to the Board of Commissioners. The final evaluation is determined by the President Commissioner based on the recommendation of the Nomination and Remuneration Committee. The overall results are then disclosed in general terms as accountability for the Board's duties and responsibilities at the Annual General Meeting of Shareholders (AGMS) and in the Company's Annual Report.

Meanwhile, the performance of the Board of Commissioners and each of its members is evaluated by shareholders through the General Meeting of Shareholders (GMS), in line with applicable laws and regulations, the Company's Articles of Association, and shareholder mandates. To strengthen the effectiveness of its oversight and advisory functions, the Board of Commissioners may also conduct a self-assessment as part of its internal evaluation. In 2025, PGE measured its GCG implementation using the ASEAN Corporate Governance Scorecard (ACGS) parameters issued by the ASEAN Capital Market Forum and achieved a score of 122.52, reflecting very strong corporate governance practices.

Proses Penetapan Remunerasi [GRI 2-19]

Penetapan remunerasi Direksi dan Dewan Komisaris mengacu pada Surat Keputusan yang diterbitkan PT Pertamina (Persero), dengan kewenangan PT Pertamina (Persero) selaku pemegang saham utama melalui mekanisme RUPS. Dengan demikian, pemegang saham menjadi satu-satunya pemangku kepentingan yang dapat menyampaikan pertimbangan dalam proses penentuan serta penetapan remunerasi Direksi dan Dewan Komisaris. Perseroan tidak menggunakan jasa konsultan dalam proses penentuan besaran remunerasi Direksi dan Dewan Komisaris. Dalam RUPS Tahunan 2025, untuk tahun buku 2024, pemegang saham melalui proses pemungutan suara secara mayoritas menyetujui rekomendasi Dewan Komisaris terkait remunerasi Direksi dan Dewan Komisaris, untuk selanjutnya ditetapkan dalam RUPS.

Determining Remuneration Process [GRI 2-19]

Remuneration for the Board of Directors and the Board of Commissioners is determined with reference to Decree issued by PT Pertamina (Persero). PT Pertamina (Persero), as the majority shareholder, exercises this authority through the GMS mechanism. Accordingly, shareholders are the only stakeholders who may provide input in determining and approving remuneration for the Board of Directors and the Board of Commissioners. The Company does not engage consultants to determine the amount of remuneration. At the 2025 AGMS for fiscal year 2024, shareholders approved, by majority vote, the Board of Commissioners' recommendation on remuneration for the Board of Directors and the Board of Commissioners, which was then stipulated through the GMS.

Informasi besaran remunerasi masing-masing anggota Direksi dan Dewan Komisaris untuk tahun buku 2024 berdasarkan keputusan RUPS Tahunan 2025, termasuk rasio remunerasi tahunan, disampaikan dalam Laporan Tahunan PGE 2025.

Information on the remuneration amount for each member of the Board of Directors and the Board of Commissioners for fiscal year 2024, based on the 2025 AGMS decision, including the annual remuneration ratio, is disclosed in PGE's 2025 Annual Report.



Komponen dan Komposisi Remunerasi Direksi dan Dewan Komisaris [GRI 2-19, 2-20]

Remunerasi Direksi dan Dewan Komisaris terdiri dari komponen yakni upah/honorarium, tunjangan, dan fasilitas. Penetapan nilai remunerasi dilakukan melalui kajian yang mempertimbangkan berbagai indikator. Faktor bersifat tetap meliputi pendapatan, aktiva, kondisi dan kemampuan keuangan Perseroan, tingkat inflasi, faktor-faktor lain yang relevan dan kepatuhan. Penetapan remunerasi yang berbentuk tantiem bersifat variabel, ditentukan berdasarkan kinerja perusahaan, termasuk EBITDA dan KPI, tingkat kesehatan, kondisi, dan kemampuan keuangan Perseroan, serta faktor-faktor relevan lainnya. Perseroan juga memberikan penghasilan variabel berupa tantiem/insentif kinerja/insentif khusus kepada Direksi dan Dewan Komisaris, yang ditetapkan berdasar sejumlah indikator. Perseroan memiliki kebijakan penyesuaian pembayaran tantiem dan insentif kinerja tersebut berupa menunda pembayaran sebagian atau seluruh tantiem (*malus*), atau menarik kembali tantiem dan insentif kinerja tunai yang sudah dibayarkan (*clawback*).

Components and Composition of Remuneration for the Board of Directors and Board of Commissioners [GRI 2-19, 2-20]

Remuneration for the Board of Directors and the Board of Commissioners consists of wages/honorarium, allowances, and facilities. Remuneration levels are determined through a review that considers multiple indicators. Fixed considerations include revenue, assets, the Company's financial condition and capacity, inflation, other relevant factors, and compliance. Variable remuneration in the form of tantiem is determined based on Company performance, including EBITDA and KPI achievement, the Company's financial health, condition, and capacity, as well as other relevant factors. The Company also provides variable income in the form of tantiem/performance incentives/special incentives for the Board of Directors and the Board of Commissioners, determined based on specific indicators. The Company applies payment adjustment mechanisms, including deferring part or all of tantiem (malus) or reclaiming paid cash tantiem and performance incentives (clawback).



Perseroan telah menetapkan KPI terkait kinerja LST, meliputi aspek iklim, bagi Direksi serta tingkat manajemen, seperti Vice President (VP), pejabat setara VP (Corsec, Chief Audit Executive), dan General Manager. KPI terkait LST antara lain mencakup nilai TRIR, peningkatan HSSE *Culture*, pencapaian PROPER, reduksi emisi, program inisiatif LST, serta ESG *Rating*. PGE telah memasukkan perubahan iklim ke dalam indikator KPI Direksi. Berdasarkan KPI 2025, terdapat tujuh KPI terkait perubahan iklim, mencakup:

The Company has established KPIs related to ESG performance, such as climate-related aspects, for the Board of Directors and management levels such as Vice Presidents (VPs), VP-equivalent officials (Corsec, Chief Audit Executive), and General Managers. LST-related KPIs include TRIR, improvements in HSSE Culture, PROPER performance, emissions reductions, ESG initiative programs, and ESG ratings. PGE has incorporated climate change into the Board of Directors' KPI indicators. Based on the 2025 KPI, there are seven climate-related KPIs, including:

1. Inisiatif untuk menurunkan emisi GRK dari aktivitas operasional (Cakupan 1 dan 2) yang dipantau setiap triwulan;
2. Inisiatif *Beyond Energy* PGE yang mencakup proyek hidrogen yang dipantau setiap tahun;
3. Pencapaian kinerja lingkungan yang diukur melalui PROPER yang dipantau setiap tahun;
4. Produksi listrik terbarukan sebagai bentuk tanggung jawab Perseroan selaku perusahaan energi bersih yang dipantau setiap triwulan;
5. Inisiatif penambahan kapasitas terpasang energi terbarukan selaras dengan NDC Indonesia yang menargetkan akselerasi pengembangan EBT yang dipantau setiap triwulan;
6. Inisiatif ekspansi anorganik ke luar negeri; dan
7. Inisiatif kerja sama bisnis bersama mitra strategis terkait pengembangan panas bumi yang mencakup studi bersama, pengembangan bersama dan bentuk kerja sama lainnya.

1. Initiatives to reduce GHG emissions from operational activities (Scope 1 and 2), monitored quarterly;
2. PGE's Beyond Energy initiatives, including hydrogen projects, monitored annually;
3. Environmental performance achievements measured through PROPER, monitored annually;
4. Renewable electricity production as a form of the Company's responsibility as a clean energy company, monitored quarterly;
5. Initiatives to increase installed renewable energy capacity in line with Indonesia's NDC (accelerating renewable energy development), monitored quarterly;
6. Initiatives for inorganic expansion overseas; and
7. Business cooperation initiatives with strategic partners related to geothermal development, such as joint studies, joint development, and other forms of cooperation.

Rasio Persentase Kenaikan Upah Tahun 2025
Wages Increase Percentage Ratio in 2025

Rasio total upah pekerja dengan level tertinggi terhadap total upah tahunan rata-rata untuk semua pekerja. Ratio of the total annual wages of the highest-level worker to the median total annual wages for all workers.	3,23
Rasio persentase kenaikan total upah tahunan untuk pekerja dengan level tertinggi terhadap rasio peningkatan persentase median total upah untuk semua pekerja. Ratio of the percentage increase in total annual wages for the highest-level workers to the ratio of the percentage increase in median total wages for all workers.	1

Total nilai remunerasi yang dibayarkan kepada Direksi dan Dewan Komisaris pada tahun buku 2025 sebesar Rp13,82 miliar, dengan rasio total kompensasi tahunan untuk Direksi Perseroan terhadap total kompensasi tahunan untuk semua pekerja (pada jenis kompensasi yang serupa) mencapai 4,59%. Adapun mengikuti kebijakan terpusat dari PT Pertamina (Persero), pada 2025, tidak terdapat kenaikan total kompensasi tahunan untuk Direksi dan Drewan Komisaris Perseroan. Perhitungan remunerasi bagi Direksi dan Dewan Komisaris ditetapkan oleh Subholding Perseroan dengan mekanisme persetujuan melalui RUPS, sedangkan perhitungan remunerasi pekerja ditetapkan oleh Subholding Perseroan dengan mekanisme persetujuan melalui Direksi Perseroan. Penghitungan rasio kenaikan nilai remunerasi tahun buku yang berakhir pada 31 Desember 2024 sesuai putusan RUPS Tahunan 2025, dibandingkan dengan periode tahun buku sebelumnya. [GRI 2-21]

The total remuneration paid to the Board of Directors and Board of Commissioners in the 2025 fiscal year amounted to Rp13.82 billion, with the ratio of total annual compensation for the Company's Board of Directors to total annual compensation for all workers (for similar types of compensation) reaching 4.59%. In accordance with the centralized policy of PT Pertamina (Persero), there was no increase in the total annual compensation for the Company's Board of Directors and Board of Commissioners in 2025. The calculation of remuneration for the Board of Directors and Board of Commissioners is determined by the Company's Subholding with an approval mechanism through the GMS, while the calculation of worker remuneration is determined by the Company's Subholding with an approval mechanism through the Company's Board of Directors. The calculation of the remuneration increase ratio for the fiscal year ending December 31, 2024, is in accordance with the 2025 Annual GMS decision, compared to the previous fiscal year. [GRI 2-21]

Perseroan tidak menghitung rasio total kompensasi tertinggi dari individu yang dibayarkan terhadap nilai tengah total kompensasi seluruh pekerja. Praktik ini tidak lazim diterapkan di Indonesia. Pemerintah Indonesia mengacu ke regulasi yaitu POJK No.51, regulator hanya meminta informasi mengenai rasio kompensasi individu sama dengan atau di atas upah minimum provinsi (UMP). [GRI 2-21]

The Company does not calculate the ratio of the highest total compensation paid to an individual to the median total compensation of all workers. This practice is not commonly applied in Indonesia. The Indonesian government refers to Regulation POJK No. 51, under which the regulator only requires information regarding the ratio of individual compensation that is equal to or above the provincial minimum wage (UMP). [GRI 2-21]

Proses untuk Mengurangi **Dampak Negatif** [GRI 2-25]

Processes to Reduce Negative Impacts

Perseroan menyediakan saluran pengaduan, termasuk melalui WBS yang tersentralisasi dengan PT Pertamina (Persero) serta pertemuan berkala dengan masyarakat dan pemangku kepentingan terdampak. Setiap keluhan ditindaklanjuti hingga diperoleh solusi berkelanjutan yang melibatkan seluruh pihak terkait. Selain itu, PGE bekerja sama dengan pihak independen, LSM, dan perguruan tinggi untuk memantau dan mengurangi dampak negatif operasi, termasuk melalui program perlindungan keanekaragaman hayati dan pemberdayaan masyarakat, serta menerapkan SOP pengendalian dampak untuk insiden skala besar.

The Company provides grievance channels, including a centralized WBS with PT Pertamina (Persero) and regular meetings with communities and affected stakeholders. Each complaint is followed up until a sustainable solution is reached, involving all relevant parties. PGE also works with independent parties, NGOs, and universities to monitor and reduce negative operational impacts, including biodiversity protection and community empowerment programs, and implements SOPs to control impacts from large-scale incidents.

Penilaian Risiko atas **Penerapan Keberlanjutan** [OJK E.3, E.5]

Risk Assessment on Sustainability Implementation

PGE menerapkan pengelolaan risiko sesuai Pedoman Manajemen Risiko yang mengacu pada ISO 31000:2018 dan tertuang dalam Traktat Manajemen Risiko, Komitmen Manajemen Risiko, serta Sistem Kerja Manajemen Risiko. Pengelolaan risiko dijalankan oleh Fungsi Enterprise Risk Management (ERM) dan dipantau oleh Komite Manajemen Risiko. Fungsi ERM sebagai lini kedua bertugas mengukur, memantau, dan memperlakukan risiko secara agregat, sekaligus mengembangkan metodologi serta Kebijakan Manajemen Risiko Perusahaan. Sistem ERM diterapkan sebagai bagian dari sistem manajemen Perseroan secara sistematis untuk mendorong budaya sadar risiko di lingkungan kerja. Untuk memastikan efektivitasnya, Perseroan secara berkala meninjau pelaksanaan sistem manajemen risiko tersebut.

PGE manages risk in line with its Risk Management Guidelines, which refer to ISO 31000:2018 and are set out in the Risk Management Treaty, Risk Management Commitment, and Risk Management Work System. Risk management is carried out by the Enterprise Risk Management (ERM) Function and overseen by the Risk Management Committee. As the second line of defense, ERM measures, monitors, and treats risks on an aggregate basis, while also developing methodologies and the Company's Risk Management Policy. The ERM system is embedded in the Company's management system and implemented systematically to foster a risk-aware culture across the workplace. The Company periodically reviews the system to ensure it remains effective.

Berdasarkan proses pengelolaan risiko, pada 2025, Perseroan mengidentifikasi 12 risiko yang memengaruhi praktik keberlanjutan dan berdampak secara material maupun finansial.

Based on its risk management process, in 2025, the Company identified 12 risks that affect sustainability practices and have material and financial impacts.

Informasi mengenai risiko-risiko tersebut serta pengelolaan risiko yang dilakukan Perseroan disampaikan dalam Laporan Tahunan PGE 2025. Pengungkapan pada bagian ini hanya menampilkan risiko yang berdampak signifikan secara material dan finansial bagi PGE.

Information on these risks and the Company's risk management approach is disclosed in PGE's 2025 Annual Report. This section highlights only those risks with significant material and financial implications for PGE.

Jenis Risiko (Operasional) Type of Risk (Operational)	**Pengelolaan Risiko** Risk Management
 Bencana alam Natural disasters	• Menjalin kerja sama dengan BMKG untuk layanan informasi cuaca dan layanan konsultasi bidang klimatologi. • Menjalin kerja sama dengan Universitas untuk kajian kesiapan *geohazard* menggunakan *Geohazard Emergency Response Readiness Assessment Tool* (GERRAT). • Menindaklanjuti hasil studi *geohazard* melalui penanggulangan longsor, termasuk perkuatan lereng pada area rawan longsor. • Pemantauan dan perbaikan *Early Warning System* (EWS). • Partnering with BMKG for weather information services and climatology advisory support. • Partnering with universities to assess geohazard preparedness using the Geohazard Emergency Response Readiness Assessment Tool (GERRAT). • Following up on geohazard study results by mitigating landslide risks, including slope reinforcement in landslide-prone areas. • Monitoring and improving the Early Warning System (EWS).
 Tidak tercapainya HSSE *Excellence* Failure to achieve HSSE Excellence	• **Kesehatan:** Implementasi *Fit to Work* (FTW) dan *Health Risk Assessment* (HRA), penerapan protokol kesehatan, serta asesmen menggunakan *Medical Emergency Response Readiness Assessment Tools* (MERRAT). • **Keselamatan:** Pemantauan NoA, TRIR, dan laporan PEKA; penerapan siklus CSMS mulai dari pra-kualifikasi hingga evaluasi final vendor; pelaksanaan pengawasan HSSE yang melibatkan manajemen secara berkala melalui *Management Walk Through* (MWT) dan *Safety Walk & Talk* (SWAT); serta sosialisasi untuk peningkatan kesadaran HSSE dan pembelajaran bagi pekerja, mitra, maupun vendor. • **Keamanan:** Pemantauan TRIS, patroli dan pengamanan yang lebih intensif, serta penerapan Sistem Manajemen Pengamanan (SMP) di seluruh area. • **Lingkungan:** Pemantauan dan evaluasi pelaksanaan pemantauan lingkungan (RKL/RPL), serta mengikuti PROPER, PERCA, dan ESG *risk rating*. • **Kebakaran:** Penempatan bahan kimia dan bahan bakar secara terisolasi sesuai ketentuan; pengecekan dan monitoring fasilitas pemadam kebakaran agar layak dan siap digunakan; ketersediaan peralatan penanggulangan kebakaran; serta asesmen menggunakan *Fire Emergency Response Readiness Assessment Tools* (FERRAT). • Pelaksanaan pelatihan, *knowledge sharing*, dan sosialisasi terkait aspek HSSE. • **Health:** Implementing Fit to Work (FTW) and Health Risk Assessment (HRA), applying health protocols, and conducting assessments using the Medical Emergency Response Readiness Assessment Tools (MERRAT). • **Safety:** Monitoring NoA, TRIR, and PEKA reports; applying the CSMS cycle from pre-qualification through final vendor evaluation; running HSSE oversight with periodic management involvement through Management Walk Through (MWT) and Safety Walk & Talk (SWAT); and ongoing outreach to strengthen HSSE awareness and learning for workers, partners, and vendors. • **Security:** Monitoring TRIS, increasing patrols and security measures, and implementing a Security Management System (SMP) across all areas. • **Environment:** Monitoring and evaluating environmental monitoring implementation (RKL/RPL), and participating in PROPER, PERCA, and ESG risk rating processes. • **Fire:** Segregating chemicals and fuels in accordance with requirements; inspecting and monitoring firefighting facilities to ensure they are serviceable and ready for use; ensuring the availability of firefighting equipment; and conducting assessments using the Fire Emergency Response Readiness Assessment Tools (FERRAT). • Conducting training, knowledge sharing, and outreach related to HSSE.

Tidak Tercapainya Suplai Uap Bisnis Eksisting Failure to Achieve Existing Business Steam Supply	• Melakukan evaluasi pada sumur dan fasilitas produksi untuk optimalisasi kapasitas suplai uap. • Melakukan *Recovery Program: Geohazard, Reliability, dan Subsurface.* • Melakukan studi *Tracer Flow Test* dan manajemen reinjeksi. • Pengeboran sumur *make-up* dan *workover* sumur. • *Well integrity test.* • Mengevaluasi dan uji ulang performa individual sumur dengan memonitor dinamika/perubahan TKS. • Evaluating wells and production facilities to optimize steam supply capacity. • Implementing Recovery Programs: Geohazard, Reliability, and Subsurface. • Conducting Tracer Flow Test studies and reinjection management. • Drilling make-up wells and performing well workovers. • Well integrity test. • Evaluating and re-testing individual well performance by monitoring TKS dynamics/changes.

Kami terus meningkatkan pengelolaan risiko melalui asesmen oleh pihak independen. Berdasarkan asesmen tahun 2025, PGE meraih skor *Risk Maturity Index* (RMI) sebesar 3,7 dari 5,0 dalam *Risk Maturity Assessment* (RMA) 2025 yang dilakukan oleh Indonesia Risk & Business Advisory (IRBA). Capaian ini menempatkan PGE pada fase "Praktik yang Baik (+)", mencerminkan kematangan manajemen risiko yang terus berkembang serta menegaskan komitmen Perseroan bahwa setiap keputusan operasional didasarkan pada tata kelola risiko yang kuat, terukur, dan akuntabel.

We continue to strengthen our risk management through independent assessments. In the 2025 assessment, PGE earned a Risk Maturity Index (RMI) score of 3.7 out of 5.0 in the 2025 Risk Maturity Assessment (RMA) conducted by Indonesia Risk & Business Advisory (IRBA). This result places PGE in the "Good Practice (+)" phase, reflecting a steadily maturing risk management capability and reinforcing the Company's commitment to making operational decisions on the basis of strong, measurable, and accountable risk governance.

Penilaian Dewan Komisaris dan Direksi terhadap Penerapan Sistem Manajemen Risiko

Berdasarkan implementasi dan pengawasan dalam menjalankan proses bisnis Perseroan, Dewan Komisaris dan Direksi berperan aktif serta menilai bahwa Perseroan telah memiliki dan menerapkan Sistem Manajemen Risiko yang baik untuk mengelola risiko sesuai *risk appetite* dan toleransi risiko yang telah ditetapkan. Secara keseluruhan, hasil pemantauan risiko pada 2025 dinilai efektif dan mampu menurunkan level risiko sesuai toleransi manajemen, dengan *Residual Risk Exposure* berada di bawah Batas Toleransi Risiko Perseroan. Penilaian ini antara lain didasarkan pada hasil pemantauan risiko tahun 2024 yang berjalan efektif dan mampu menurunkan level risiko sesuai toleransi manajemen, dengan *Residual Risk Exposure* berada di bawah Batas Toleransi Risiko Perseroan.

Assessment of the Board of Commissioners and Board of Directors on the Implementation of the Risk Management System

Based on the implementation and oversight applied across the Company's business processes, the Board of Commissioners and the Board of Directors play an active role and conclude that the Company has established and implemented a sound Risk Management System to manage risks in line with its defined risk appetite and risk tolerance. Overall, risk monitoring in 2025 was considered effective and helped reduce risk levels within management's tolerance, with Residual Risk Exposure remaining below the Company's Risk Tolerance Limit. This assessment is based, among other factors, on the 2024 risk monitoring results, which were also effective and supported risk reduction within management's tolerance, with Residual Risk Exposure below the Company's Risk Tolerance Limit.

Etika Bisnis dan **GCG**

Business Ethics and GCG

Kami menjunjung etika bisnis dan tata kelola yang baik sebagai dasar keberlanjutan, serta terus memperkuat praktik bisnis bertanggung jawab untuk memimpin transisi energi di Indonesia.

We uphold business ethics and good corporate governance as the foundation of sustainability, and continue to strengthen responsible business practices to lead the energy transition in Indonesia.

Komitmen **Kebijakan** [GRI 2-23]

Policy Commitment

Kesungguhan PGE dalam menjalankan bisnis yang bertanggung jawab diperkuat melalui komitmen kebijakan yang mendukung integritas dan praktik keberlanjutan.

PGE's commitment to responsible business is backed by policy commitments that strengthen integrity and sustainability practices.

Peningkatan Kesadaran Kode Etik

- Melakukan penyegaran secara berkala atas materi Kode Etik melalui kampanye dan program sosialisasi.
- Memuat Kode Etik di situs web Perseroan agar dapat diakses kapan saja oleh publik.
- Mewajibkan setiap pekerja PGE menandatangani pernyataan komitmen tahunan untuk mematuhi dan menerapkan Kode Etik melalui GCG *Online System* yang dapat diakses melalui portal Perseroan.
- Menyusun berbagai kebijakan yang merujuk pada Kode Etik.

Raising Awareness of the Code of Conduct

- Running periodic refreshers on the Code of Conduct through awareness campaigns and outreach activities.
- Publishing the Code of Conduct on the Company's website so it can be accessed anytime.
- Requiring all PGE workers to sign an annual commitment statement confirming they will comply with and apply the Code of Conduct via the GCG Online System, accessible through the Company portal.
- Issuing policies that reference and reinforce the Code of Conduct.

Kode Etik dan Etika Bisnis [GRI 2-23]

Kode Etik disetujui oleh Direksi Perseroan sesuai SK No.KTPS-058/PGE000/2023-S0, terdiri dari Pedoman Etika Usaha dan *Code of Conduct* (CoC) sebagai pedoman dalam menjalankan bisnis secara bertanggung jawab serta membentuk perilaku insan PGE agar selaras dengan peraturan dan nilai-nilai Perseroan. PGE dapat melakukan penyesuaian Kode Etik dengan tetap mengacu pada peraturan perundangan, etika bisnis, praktik terbaik, prinsip kehati-hatian, dan penghormatan terhadap HAM. Penerapannya menjadi tanggung jawab seluruh insan PGE melalui sosialisasi, pelatihan, pemantauan, dan penegakan yang konsisten, dengan sanksi tegas atas setiap pelanggaran yang terbukti.

Code of Conduct and Business Ethics [GRI 2-23]

The Code of Conduct was approved by the Company's Board of Directors in Decree No. KTPS-058/PGE000/2023-S0, consists of the Business Ethics Guidelines and the Code of Conduct (CoC). Together, these serve as the Company's reference for responsible business conduct and for shaping the behavior of PGE personnel in line with the Company's rules and values. PGE may update the Code of Conduct while continuing to refer to applicable laws and regulations, business ethics, best practices, prudential principles, and respect for human rights. Implementation is the responsibility of all PGE personnel through ongoing outreach, training, monitoring, and consistent enforcement, supported by firm sanctions for any proven violations.



Kebijakan Hak Asasi Manusia (HAM) [GRI 2-23]

PGE menerapkan Kebijakan untuk Menjamin Hak Asasi Manusia dalam Bisnis yang berlaku di seluruh rantai nilai dan wilayah operasional, dengan mengacu pada standar nasional dan global, seperti Deklarasi Universal Hak Asasi Manusia Perserikatan Bangsa-Bangsa, Prinsip-prinsip Panduan PBB tentang Bisnis dan Hak Asasi Manusia (UN Guiding Principles on Business and Human Rights/UNGPs), Prinsip-prinsip Hak-hak Mendasar di Tempat Kerja berdasarkan 8 Konvensi Inti International Labour Organization (ILO) yang telah diratifikasi Pemerintah Indonesia, serta Prinsip-prinsip United Nations Global Compact (UNGC). Kebijakan ini merujuk pada Kebijakan Pertamina dan menjamin lingkungan kerja yang nondiskriminatif, inklusif, bebas dari kekerasan dan pelecehan, serta menghormati hak masyarakat adat sesuai Konvensi ILO No. 169 tentang *Indigenous and Tribal Peoples Convention*. Perseroan juga secara konsisten melakukan sosialisasi dan menyediakan mekanisme pengaduan atas dugaan pelanggaran HAM.

Pada 2025, Holding menjalankan Pertamina Industrial Peace Level (PIPL), setiap satu kali dalam dua tahun oleh auditor internal berdasarkan standar yang telah ditentukan mencakup *opportunity* & *equality*. Khusus bagi petugas keamanan, Perseroan mewajibkan sertifikasi satpam dari Polri yang memuat materi HAM. Hingga akhir 2025, seluruh (100%) personel telah tersertifikasi. Perseroan tidak pernah menyebabkan maupun berkontribusi terhadap pelanggaran HAM dalam seluruh kegiatan operasionalnya, sehingga tidak terdapat tindakan remediasi maupun sangkaan pelanggaran oleh pihak berwenang selama 2025. [GRI 410-1]

Human Rights Policy [GRI 2-23]

PGE has a Policy to Ensure Human Rights in Business that applies across its value chain and operational areas. The policy refers to national and international standards, including the United Nations Universal Declaration of Human Rights; the UN Guiding Principles on Business and Human Rights (UNGPs); the Fundamental Principles and Rights at Work reflected in the eight core International Labour Organization (ILO) Conventions ratified by the Government of Indonesia; and the principles of the United Nations Global Compact (UNGC). This policy refers to the Pertamina Policy and supports a non-discriminatory and inclusive workplace that is free from violence and harassment, and it respects the rights of Indigenous peoples in line with ILO Convention No. 169 on Indigenous and Tribal Peoples. The Company also conducts ongoing outreach and provides a grievance mechanism for alleged human rights violations.

In 2025, Holding has been implementing the Pertamina Industrial Peace Level (PIPL), conducted every two years by internal auditors in accordance with established standards covering opportunity and equality. For security personnel, the Company requires Indonesian National Police (Polri) security guard certification that includes human rightscontent. By the end of 2025, all (100%) personnel have been certified. The Company has not caused or contributed to human rights violations in its operations; accordingly, there were no remediation actions or allegations by authorities during 2025. [GRI 410-1]

Menanamkan Komitmen Kebijakan dan Kepatuhan terhadap Regulasi [GRI 2-24, 2-27]

Perseroan melakukan sosialisasi terkait Kode Etik, kebijakan HAM, serta kebijakan-kebijakan lainnya kepada pekerja dan pemangku kepentingan. Perseroan juga menyelenggarakan kegiatan bertema khusus untuk menanamkan pemahaman atas kebijakan yang diterapkan, seperti Bulan K3 Nasional, Peringatan Hari Buruh, Peringatan Hari Antikorupsi Sedunia, dan Peringatan Hari HAM. Secara berkala, PGE mengevaluasi penerapan berbagai kebijakan dalam proses bisnis. Hasil evaluasi tahun 2025 menunjukkan bahwa penerapan Kode Etik, kebijakan HAM, dan kebijakan-kebijakan lainnya berjalan dengan baik. Perseroan tidak pernah dihadapkan pada sangkaan ketidakpatuhan hukum dan tidak pernah menerima sanksi denda finansial maupun sanksi hukum lain dari pihak berwenang.

Instilling Commitment to Policy and Regulatory Compliance [GRI 2-24, 2-27]

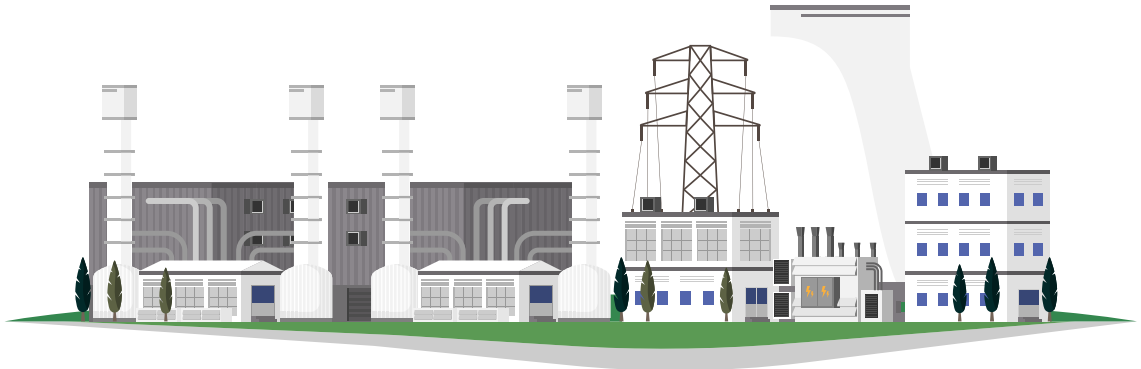
The Company communicates its Code of Conduct, human rights policy, and other relevant policies to workers and stakeholders. It also runs themed activities to reinforce understanding of these policies, such as National OHS Month, Labor Day, World Anti-Corruption Day, and Human Rights Day. PGE periodically evaluates how these policies are applied in its business processes. The 2025 evaluation results indicate that implementation of the Code of Conduct, the human rights policy, and other policies is operating effectively. The Company has not faced allegations of legal non-compliance and has not received financial penalties or other legal sanctions from the authorities.

Pencegahan Benturan **Kepentingan** [GRI 2-15]

Prevention of Conflicts of Interest

Pencegahan benturan kepentingan diatur dalam Pedoman Penanganan Konflik Kepentingan berdasarkan SK C-001/PGE600/2025-S9. Pedoman ini bertujuan menjaga integritas perusahaan dengan mencegah penyalahgunaan wewenang, kecurangan, dan perilaku menyimpang, serta mengatur mekanisme pelaporan dan penanganannya. Kebijakan ini disosialisasikan kepada seluruh pemangku kepentingan, termasuk Direksi dan Dewan Komisaris, dengan ketentuan: tidak adanya hubungan keluarga sedarah hingga derajat ketiga maupun hubungan semenda antaranggota Direksi serta antara Direksi dan Dewan Komisaris; serta hubungan dengan PT Pertamina (Persero) sebatas hubungan pekerjaan, kecuali Komisaris Independen yang tidak memiliki hubungan dengan pemegang saham. Sepanjang 2025, tidak terdapat pelanggaran konflik kepentingan yang melibatkan Direksi, Dewan Komisaris, maupun pemangku kepentingan lainnya.

Conflict of interest prevention is governed by the Conflict of Interest Management Guidelines under Decree C-001/PGE600/2025-S9. The guidelines are intended to safeguard the Company's integrity by preventing abuse of authority, fraud, and misconduct, and by setting out reporting and handling mechanisms. The policy is communicated to all stakeholders, including the Board of Directors and the Board of Commissioners, with provisions that include: no blood relations up to the third degree or in-law relationships among members of the Board of Directors, or between the Board of Directors and the Board of Commissioners; and a relationship with PT Pertamina (Persero) that is limited to an employment relationship, except for Independent Commissioners who have no relationship with shareholders. Throughout 2025, there were no conflict of interest violations involving the Board of Directors, the Board of Commissioners, or other stakeholders.



Komunikasi **Hal-hal Kritis** [GRI 2-16]

Communication of Critical Matters

Kami memiliki beberapa mekanisme yang dapat digunakan pemangku kepentingan untuk mengomunikasikan hal-hal kritis kepada Direksi, baik secara langsung maupun tidak langsung, antara lain:

1. Kunjungan lapangan ke proyek/lapangan, yang dilanjutkan dengan *Management Walk-Through* (WMT) dan diikuti oleh pekerja, manajemen termasuk Direksi, serta pemangku kepentingan lainnya. Pada pelaksanaan WMT 2025, beberapa hal kritis yang dikomunikasikan antara lain pengelolaan risiko dan keandalan operasi pembangkit panas bumi; pengelolaan reservoir dan pengeboran; manajemen kesehatan, keselamatan, keamanan, dan lingkungan (HSSE); serta integritas aset.
2. Program *Vendor Day and User Day*, yang diikuti oleh pemasok/kontraktor/vendor.
3. Paparan publik yang dihadiri investor sebagai sarana penyampaian kinerja, rencana pengembangan dan berbagai informasi material terkait Perseroan.
4. TKO Penanganan Konflik dan Keluhan dari Pemangku Kepentingan Eksternal.

We have several mechanisms that stakeholders can use to communicate critical matters to the Board of Directors, either directly or indirectly, including:

1. Site visits to projects/operating areas, followed by a Management Walk-Through (WMT) attended by workers, management (including the Board of Directors), and other stakeholders. During the 2025 WMT activities, critical matters discussed included risk management and the reliability of geothermal power plant operations; reservoir management and drilling; health, safety, security, and environment (HSSE) management; and asset integrity.
2. Vendor Day and User Day programs, attended by suppliers/contractors/vendors.
3. Public presentations attended by investors as a means of communicating performance, development plans, and various material information related to the Company.
4. The TKO Mechanism for Handling Conflicts and Complaints from External Stakeholders.

Sistem Pelaporan Pelanggaran

Mekanisme lain untuk mengomunikasikan hal-hal kritis kepada Direksi adalah Sistem Pelaporan Pelanggaran (*Whistleblowing System* atau WBS), yang tersentralisasi di PT Pertamina (Persero) dan dikelola oleh Fungsi Investigation Audit, WBS & Fraud Prevention (IWF) – Internal Audit PT Pertamina (Persero) bersama Konsultan Independen. PGE menerapkan WBS berdasarkan Pedoman Pengelolaan Pengaduan PT Pertamina (Persero) No. A9-001/J00000/2022-S9 tanggal 19 Januari 2022, yang diratifikasi melalui Surat Edaran Direktur Utama Perseroan No. 066/PGE000/2022-S8 tanggal 28 Juli 2022. Sistem pelaporan ini terbuka bagi pihak internal maupun eksternal untuk menyampaikan pengaduan terkait dugaan korupsi, perilaku tidak etis, atau pelanggaran lainnya, termasuk pelecehan, yang dilakukan oleh Perseroan maupun pekerja PGE.

PGE menyediakan Saluran Pelaporan WBS yang dikelola secara independen oleh Fungsi Internal Audit PGE, dapat diakses 24 jam setiap hari, dan tersedia dalam Bahasa Indonesia.

Whistleblowing System (WBS)

Another channel for escalating critical matters to the Board of Directors is the Whistleblowing System (WBS). The system is centralized at PT Pertamina (Persero) and is managed by the Investigation Audit, WBS & Fraud Prevention (IWF) Function, Internal Audit of PT Pertamina (Persero), in collaboration with independent consultants. PGE implements the WBS in accordance with PT Pertamina (Persero) Complaint Management Guidelines No. A9-001/J00000/2022-S9 dated January 19, 2022, as ratified through the Company President Director's Circular Letter No. 066/PGE000/2022-S8 dated July 28, 2022. The reporting system is open to internal and external parties to submit reports related to alleged corruption, unethical conduct, or other violations, including harassment, involving the Company and/or PGE workers.

PGE also provides a WBS reporting channel that is independently managed by PGE Internal Audit Function, accessible 24/7, and available in Indonesian.

Website:	https://pertaminaclean.tipoffs.info/	Fax:	(021) 381 5912
Call Center:	135	Email:	pertaminaclean@.tipsoffs.com.sg
Telepon | Phone:	(021) 381 5910, (022) 381 5911	Surat | Mail:	Attn: Tip-offs Anonymous™ Pertamina Clean P.O.Box 2600 JKP 10026
SMS & WhatsApp:	0811 861 5000		

Aktivitas penerimaan pengaduan, analisis awal, pelimpahan pengaduan, penanganan pengaduan, dan penyusunan resume hasil penanganan dikoordinasikan secara terpusat oleh Fungsi IWF PT Pertamina (Persero). Jika diperlukan dan/atau dalam kondisi tertentu, analisis awal dan audit investigasi dapat dilimpahkan kepada Fungsi Internal Audit PGE. Perseroan menjamin perlindungan bagi Pelapor, termasuk menjaga kerahasiaan identitas Pelapor dan isi laporan, serta memberikan perlindungan untuk mencegah adanya tindakan pembalasan.

Pada 2025, terdapat sepuluh pengaduan terkait entitas PGE yang diterima melalui kanal WBS PT Pertamina (Persero) dengan kategori *fraud* dan *irregularities*. Hingga akhir 2025, empat pengaduan yang telah selesai ditindaklanjuti dan enam laporan masih dalam proses tindak lanjut. Pada 2025, PGE melaksanakan 14 kegiatan sosialisasi dan pelatihan penggunaan WBS melalui *broadcast email* dan pelatihan *offline*. Informasi lebih lanjut terkait WBS dapat diakses pada Laporan Tahunan PGE.

The receipt of reports, initial assessment, case referral, case handling, and preparation of case summaries are centrally coordinated by PT Pertamina (Persero)'s IWF Function. Where necessary and/or under certain conditions, the initial assessment and investigative audit activities may be delegated to PGE's Internal Audit Function. The Company provides protections for reporters, including safeguarding the confidentiality of the reporter's identity and the report contents, and measures to prevent retaliation.

In 2025, 10 reports related to PGE entities were received through PT Pertamina (Persero)'s WBS channel, categorized as fraud and irregularities. By the end of 2025, four reports had been closed, while 6 were still in progress. In 2025, PGE conducted 14 WBS socialization and training activities through email broadcasts and offline sessions. Further information on the WBS is available in PGE's Annual Report.

Dukungan pada **Antikorupsi** [GRI 205-1, 205-2, 205-3]

Support for Anti-Corruption

Kebijakan antikorupsi di Perseroan diatur dalam Kode Etik, Traktat Kebijakan Antikorupsi, Pedoman Pengendalian Gratifikasi, serta Pedoman WBS. Sejak 2020, PGE menerapkan Sistem Manajemen Anti Penyuapan (SMAP) berbasis ISO 37001:2016 yang terintegrasi dengan *Geothermal Integrated Management System* (GIMS), guna memperkuat proses identifikasi, pencegahan, dan pendeteksian indikasi penyuapan. Sertifikasi ISO 37001:2016 telah diterapkan di kantor pusat serta area Lumut Balai, Kamojang, Lahendong, Karaha, dan Ulubelu. Penerapan SMAP mencakup seluruh elemen dan personel organisasi, salah satunya melalui prinsip 4 NO's: *No Bribery, No Gift, No Kickback, & No Luxurious Hospitality*.

The Company's anti-corruption policies are set out in its Code of Conduct, Anti-Corruption Policy Charter, Gratification Control Guidelines, and WBS Guidelines. Since 2020, PGE has implemented an Anti-Bribery Management System (ABMS) in line with ISO 37001:2016, integrated with the Geothermal Integrated Management System (GIMS), to strengthen the identification, prevention, and detection of potential bribery. ISO 37001:2016 certification has been implemented at the head office and in the Lumut Balai, Kamojang, Lahendong, Karaha, and Ulubelu areas. The ABMS applies across the organization and its personnel, including through the 4 NO's principle: No Bribery, No Gift, No Kickback, and No Luxurious Hospitality.

Sebagai bagian dari dukungan pada antikorupsi, Perseroan mengidentifikasi risiko penyuapan melalui *Bribery Risk Assessment*. Berdasarkan analisis risiko yang dilakukan, seluruh (100%) tahapan proses bisnis PGE tidak menunjukan potensi terjadinya risiko penyuapan yang signifikan. Meski demikian, kami terus memperkuat integritas Insan PGE dalam pencegahan korupsi, antara lain melalui komunikasi kebijakan antikorupsi yang berlaku dan penyelenggaraan pelatihan antikorupsi. Kami memastikan selama 2025, tidak ada kasus/insiden antikorupsi yang terkonfirmasi terjadi di PGE, baik yang melibatkan pejabat maupun pekerja Perseroan, maupun vendor/kontraktor/mitra kerja. [GRI 205-1, 205-3]

As part of its anti-corruption efforts, the Company identifies bribery risks through a Bribery Risk Assessment. Based on the risk analysis conducted, all (100%) stages of PGE's business processes do not indicate any potential for significant bribery risks. Even so, we continue to reinforce integrity across PGE personnel by communicating applicable anti-corruption policies and delivering anti-corruption training. We confirm that throughout 2025, there were no verified anti-corruption cases/incidents at PGE, whether involving Company officials or workers, or vendors/contractors/business partners. [GRI 205-1, 205-3]

Selama 2025, Perseroan menyelenggarakan berbagai kegiatan dukungan antikorupsi berupa sosialisasi dan kampanye yang ditujukan kepada seluruh (100%) anggota Direksi, Dewan Komisaris, pejabat Perseroan lainnya, serta pekerja PGE. Kami juga melibatkan vendor/kontraktor dan mitra kerja melalui penyelenggaraan *Vendor Day*. Pada 2025, kegiatan *Vendor Day* diikuti 122 vendor/kontraktor dan mitra kerja, atau 81,33% dari total yang terdaftar di PGE untuk seluruh wilayah operasi Perseroan. PGE juga menyelenggarakan dan mengikutsertakan anggota Direksi, Dewan Komisaris, pejabat Perseroan lainnya, serta pekerja dalam pelatihan antikorupsi. Selama periode pelaporan, telah dilaksanakan empat kali pelatihan antikorupsi, dengan jumlah dan persentase peserta disajikan dalam tabulasi. [GRI 205-2]

During 2025, the Company conducted various anti-corruption initiatives, including outreach and campaigns delivered to the Board of Directors, the Board of Commissioners, other Company officials, and PGE workers across all operating areas. We also engaged vendors/contractors and business partners through Vendor Day activities. In 2025, Vendor Day was attended by 122 vendors/contractors/business partners, representing 81.33% of the total registered with PGE across the Company's operating areas. PGE also organized anti-corruption training and included members of the Board of Directors, the Board of Commissioners, other Company officials, and workers. During the reporting period, four anti-corruption training sessions were conducted, with participant numbers and percentages presented in the table. [GRI 205-2]



Kebijakan Antigratifikasi

Perseroan telah menetapkan ketentuan terkait gratifikasi, yang tertuang dalam Pedoman Gratifikasi, Penolakan, Penerimaan, Pemberian Hadiah/Cinderamata dan/atau Hiburan *(Entertainment)* No. B-003/PGE600/2025-S9. Perseroan membentuk Tim Unit Pengendalian Gratifikasi (UPG) yang dipimpin Chief Audit Executive dan bertanggung jawab atas pengelolaan pelaporan gratifikasi di Perseroan. Secara berkala, Perseroan melakukan sosialisasi kebijakan terkait pedoman tersebut kepada seluruh pekerja, antara lain melalui kewajiban pelaporan bulanan atas penerimaan atau penolakan gratifikasi. Sepanjang 2025, terdapat satu laporan terkait penolakan penerimaan gratifikasi melalui portal GCG *Online* PGE, yang telah ditelaah oleh Tim UPG PGE. Melalui mekanisme ini, Perseroan berharap pekerja dapat meningkatkan integritas, didukung kemudahan akses portal pelaporan.

Anti-Gratification Policy

The Company has established gratuity-related regulations set out in the Guidelines on Gratification: Refusal, Acceptance, Giving of Gifts/Souvenirs and/or Entertainment No. B-003/PGE600/2025-S9, as updated by the Gratification Control Guidelines No. A-002/PGE000/2022-S9. The Company also established a Gratification Control Unit Team (UPG), led by the Chief Audit Executive, to manage gratuity reporting across the Company. Periodically, the Company conducts outreach on these guidelines for all workers, including through a mandatory monthly reporting requirement for the acceptance or rejection of gratuities. Throughout 2025, one report related to the rejection of a gratuity submission was filed via PGE's GCG Online portal and reviewed by the Company's UPG team. Through this mechanism, the Company expects workers to strengthen integrity, supported by easy access to the reporting portal.

Laporan Harta Kekayaan Penyelenggara Negara (LHKPN)

PGE turut menerapkan kewajiban Laporan Harta Kekayaan Penyelenggara Negara (LHKPN), berdasarkan Akta No. 50 tanggal 25 Februari 2022. LHKPN wajib dipenuhi oleh pejabat pada level asisten manajer/setara hingga Direksi dan Dewan Komisaris. Pada 2025, terdapat 216 orang dari seluruh unit kerja di PGE yang wajib melaporkan LHKPN, dengan tingkat kepatuhan 100%.

State Officials' Wealth Report (LHKPN)

PGE also complies with the State Officials' Wealth Report (LHKPN) requirement, pursuant to Deed No. 50 dated February 25, 2022. LHKPN reporting is mandatory for positions at the assistant manager level (or equivalent) up to the Board of Directors and the Board of Commissioners. In 2025, 216 personnel across all PGE work units were required to file LHKPN, with a 100% compliance rate.

Kontribusi Politik [GRI 415-1]

Sesuai Pedoman Etika Usaha dan Tata Perilaku (*Code of Conduct*), PGE mengatur aktivitas politik bagi setiap Perwira maupun pekerja lain di seluruh lingkungan Perseroan. Ketentuan tersebut menyatakan bahwa Perwira PGE tidak melakukan kegiatan politik di lingkungan Perseroan, tidak memberikan sumbangan, serta tidak memberikan bantuan lain dalam bentuk apa pun yang mengatasnamakan Perseroan, termasuk penggunaan sarana, fasilitas, dan dana Perseroan untuk kepentingan partai politik. Selama 2025, kami memastikan tidak memberikan bantuan keuangan maupun bantuan lain sebagai kontribusi politik kepada pihak tertentu, baik secara langsung maupun tidak langsung, untuk kepentingan lobi maupun kampanye.

Political Contributions [GRI 415-1]

Under PGE's Business Ethics and Code of Conduct, political activity is governed for all officers and workers across the Company. The policy states that PGE workers must not engage in political activities within the Company, make donations, or provide any form of support on the Company's behalf, including the use of Company assets, facilities, or funds, for the benefit of political parties. Throughout 2025, PGE confirmed that it did not provide financial support or any other assistance as political contributions to any party, either directly or indirectly, for lobbying or campaign purposes.

Transformasi Digital dan Keamanan **Serangan Siber**

Digital Transformation and Cyber Security

PGE melanjutkan transformasi digital melalui pengembangan sistem terintegrasi yang mendukung pengambilan keputusan berbasis data, efisiensi operasional, serta penguatan ketahanan usaha jangka panjang. Salah satu inisiatif utamanya adalah pengembangan G-Bionic, yang dirancang untuk memperkuat budaya kerja berbasis data dan mendukung pengelolaan risiko proyek yang lebih terukur. Memasuki 2025, pengembangan G-Bionic yang dimulai sejak 2023 memasuki tahap penting menuju penerapan nyata. Saat ini, G-Bionic menjalankan 52 inisiatif digital yang mencakup seluruh rantai operasi, mulai dari *subsurface*, *drilling*, *surface*, hingga enterprise. PGE terus mengoptimalkan pemanfaatan aplikasi terintegrasi, *Internet of Things* (IoT), dan kecerdasan buatan untuk mendukung produktivitas, efisiensi, serta kesiapan Perseroan dalam menghadapi dinamika transisi energi.

PGE is advancing its digital transformation by building integrated systems that enable data-driven decision-making, improve operational efficiency, and strengthen long-term business resilience. A key initiative is G-Bionic, developed to reinforce a data-driven work culture and support more measurable project risk management. In 2025, the G-Bionic program, initiated in 2023, reached a critical stage as it moved into practical rollout. Today, G-Bionic is running 52 digital initiatives across the full operating chain, from subsurface, drilling, and surface to enterprise functions. PGE continues to scale the use of integrated applications, the Internet of Things (IoT), and artificial intelligence to boost productivity and efficiency and to stay ready for the shifting landscape of the energy transition.

Keamanan Siber dan Pencegahan Pelanggaran Privasi dan Kehilangan Data Pelanggan [GRI 418-1]

Dalam mendukung transformasi digital yang bertanggung jawab, Perseroan menerapkan pengelolaan keamanan informasi dan perlindungan privasi yang terintegrasi dengan sistem manajemen risiko dan kepatuhan. Kebijakan keamanan informasi dan privasi ditetapkan melalui ketentuan internal yang berlaku di seluruh operasi Perseroan serta menjadi acuan pengendalian akses, penggunaan, penyimpanan, dan perlindungan data, termasuk data pelanggan dan pemangku kepentingan lainnya. Pengawasan atas penerapan kebijakan tersebut dilakukan oleh manajemen dan organ tata kelola yang berwenang sebagai bagian dari penguatan tata kelola keamanan siber.

Pada 2025, PGE meningkatkan pengelolaan keamanan siber melalui penerapan *data loss prevention system*, menjaga *phishing prone* <7% hingga 2030, memperluas cakupan ISO 27001:2022, pelatihan keamanan siber, pembaruan TI berdasarkan *penetration test*, dan audit internal maupun oleh pihak independen. Perseroan juga secara berkala melaksanakan simulasi penanganan insiden siber guna memastikan kesiapan respons operasional. Langkah ini menghasilkan kinerja positif, tanpa keluhan pelanggan atau pihak berwenang terkait pelanggaran privasi, kebocoran, atau kehilangan data.

Cybersecurity and Prevention of Privacy Violations and Customer Data Loss [GRI 418-1]

To support responsible digital transformation, the Company manages information security and privacy protection in an approach integrated with its risk management and compliance systems. Information security and privacy policies are set out in internal regulations that apply across all operations and serve as the basis for controlling data access, use, storage, and protection, including customer data and other stakeholder information. Oversight of these policies is carried out by management and the relevant governance bodies as part of strengthening cybersecurity governance.

In 2025, PGE strengthened cybersecurity through the rollout of a data loss prevention system, maintaining a phishing-prone level of <7% through 2030, expanding the scope of ISO 27001:2022, delivering cybersecurity training, updating IT controls based on penetration testing, and conducting internal and independent audits. The Company also runs regular cyber incident response simulations to confirm operational readiness. These measures delivered positive results, with no complaints from customers or authorities related to privacy breaches, data leaks, or data loss.

Hingga akhir periode pelaporan, Perseroan tidak menerima keluhan dari pelanggan maupun otoritas terkait pelanggaran privasi, kebocoran, atau kehilangan data.

Uraian lebih rinci mengenai arsitektur keamanan siber, tata kelola keamanan informasi, standar yang diacu, serta kapabilitas teknis dan operasional telah disampaikan dalam Laporan Tahunan Perseroan 2025, Bab Digitalisasi dan Keamanan Siber, yang menjadi rujukan utama pengungkapan topik ini. Penyampaian dalam Laporan Keberlanjutan difokuskan pada aspek keberlanjutan dan relevansi pengelolaan keamanan siber terhadap perlindungan pemangku kepentingan serta ketahanan usaha Perseroan.

As of the end of the reporting period, the Company had received no complaints from customers or authorities related to privacy breaches, data leaks, or data loss.

More detailed information on the cybersecurity architecture, information security governance, referenced standards, and technical and operational capabilities is provided in the Company's 2025 Chapter on Digitalization and Cybersecurity, which serves as the primary reference for this disclosure. In the Sustainability Report, the discussion focuses on sustainability-related aspects and how cybersecurity supports stakeholder protection and the Company's business resilience.

Dukungan pada Inovasi Berkelanjutan [OJK F.26]

Pada 2025, PGE juga memberikan dukungan pada inovasi berkelanjutan berbasis digital, salah satunya melalui teknologi Flow2Max® yang dikembangkan dari riset studi doktoral oleh Perwira PGE saat menempuh pendidikan di University of Auckland. Teknologi ini memungkinkan pengukuran aliran fluida panas bumi secara waktu nyata untuk meningkatkan efisiensi, mengurangi *downtime*, dan memperkuat keberlanjutan pengelolaan reservoir. Pemanfaatan Flow2Max® membantu PGE mengevaluasi kinerja serta memprediksi produktivitas sumur produksi dengan lebih akurat. Selain itu, PGE juga mengembangkan inovasi strategis *GeoFlowTest*, yaitu alat portabel untuk memproses data uji sumur panas bumi secara *real-time*, mempercepat analisis, dan meningkatkan efisiensi lapangan. Inovasi ini telah memperoleh penghargaan dari beberapa negara dalam forum internasional: International Trade Fair Ideas, Inventions and New Products (IENA) 2025 serta International Intellectual Property, Invention, Innovation, and Technology Exposition (IPITEx).

Support for Sustainable Innovation [OJK F.26]

In 2025, PGE supported digital-enabled sustainable innovation, including Flow2Max® technology developed from doctoral research conducted by a PGE workers while studying at the University of Auckland. The technology enables real-time measurement of geothermal fluid flow, helping improve efficiency, reduce downtime, and strengthen sustainable reservoir management. With Flow2Max®, PGE can assess performance and forecast production-well productivity more accurately. PGE also advanced GeoFlowTest, a portable tool that processes geothermal well-test data in real time—speeding up analysis and improving field efficiency. The innovation has earned awards from multiple countries at international forums, including the International Trade Fair for Ideas, Inventions and New Products (IENA) 2025 and the International Intellectual Property, Invention, Innovation, and Technology Exposition (IPITEx).



Hubungan dan Pendekatan Pelibatan **Pemangku Kepentingan** [OJK E.4][GRI 2-29]

Relationships and Approaches to Stakeholder Engagement

Keberadaan dan operasional PGE melibatkan berbagai pemangku kepentingan, antara lain pemegang saham dan pemegang obligasi, pemerintah dan pembuat kebijakan, pekerja dan manajemen, mitra usaha, pelanggan, vendor, serta masyarakat di sekitar wilayah operasional. Pemangku kepentingan dipahami sebagai pihak yang memiliki keterkaitan dan/atau terdampak oleh aktivitas Perseroan. Pelibatan pemangku kepentingan dilakukan secara berkelanjutan melalui berbagai saluran komunikasi yang disesuaikan dengan karakteristik hubungan dan konteks operasional, dengan mempertimbangkan proses bisnis, lingkup usaha, serta ketentuan yang berlaku, guna mendukung pengelolaan keberlanjutan dan kinerja jangka panjang Perseroan.

PGE's operations involve a range of stakeholders, including shareholders and bondholders, the government and policymakers, workers and management, business partners, customers, vendors, and communities in areas surrounding its operations. Stakeholders are defined as parties that are connected to and/or affected by the Company's activities. The Company engages stakeholders on an ongoing basis through multiple communication channels tailored to the nature of each relationship and the operational context, taking into account business processes, the scope of operations, and applicable requirements, to support sustainability management and long-term performance.

Metode dan Frekuensi Pelibatan Pemangku Kepentingan
Methods and Frequency of Stakeholder Engagement

Pemangku Kepentingan Stakeholders	**Kebutuhan** Needs	**Pendekatan** Approach	
		Metode Method	**Frekuensi** Frequency
Pemegang Saham dan Obligasi Shareholders and Bondholders	Pemenuhan target produksi dan penjualan Fulfillment of production and sales targets	Pelaporan Kinerja Performance Reporting	Berkala: triwulan, semester dan tahunan Periodic: quarterly, semiannual, and annual
		RUPS Tahunan Annual General Meeting of Shareholders (AGMS)	Satu kali setiap tahun buku Once per financial year
		RUPS Luar Biasa Extraordinary General Meeting of Shareholders (EGMS)	Sesuai kebutuhan As needed
		Pelaporan Keuangan Financial Reporting	Berkala: triwulan, semester dan tahunan Periodic: quarterly, semiannual, and annual

Masyarakat dan Lembaga Swadaya Masyarakat (LSM) Communities and Non-Governmental Organizations (NGOs)	Manfaat kepada masyarakat serta komunikasi yang efektif dan transparan Community benefits and effective, transparent communication	Pertemuan berkala untuk menyusun program tanggung jawab sosial dan lingkungan (TJSL) Regular meetings to develop corporate social responsibility (CSR)	Dilaksanakan secara berkala setiap tiga bulan Conducted regularly every three months
Top Management dan Pekerja Top Management and Workers	Kebebasan berserikat dan pemenuhan hak-hak normatif Freedom of association and fulfillment of statutory rights and entitlements	Penyusunan Perjanjian Kerja Bersama (PKB) Preparation of Collective Labor Agreements (CLA)	Pembaruan setiap dua tahun Renewed every two years
	Keselamatan dan kesehatan kerja (K3) Occupational health and safety (OHS)	Penerapan standar K3 Implementation of OHS standards	Dilaksanakan setiap tahun Conducted annually
		Pelatihan K3 OHS training	Dilaksanakan sesuai kebutuhan Conducted as needed
	Peningkatan kompetensi dan jaminan pengembangan karier Competency development and career growth support	Pendidikan, pelatihan dan sertifikasi Education, training, and certification	Dilaksanakan sesuai kebutuhan Conducted as needed
		Penilaian kinerja Performance appraisal	Dilaksanakan berkala setiap pertengahan dan akhir tahun Conducted periodically in the middle and at the end of the year
Pemerintah dan Pembuat Kebijakan Government and Policy Makers	Kepatuhan Compliance	Audit dan Resertifikasi Audit and Recertification	Dilaksanakan berkala sesuai periodisasi Conducted periodically in line with the applicable cycle
	Pemenuhan target Indikator Kinerja Utama (KPI) Fulfillment of Key Performance Indicators (KPI) targets	Penyusunan Rencana Kerja dan Anggaran Perusahaan (RKAP) Preparation of Company Work Plan and Budget (RKAP)	Dilaksanakan setiap awal tahun dan dievaluasi di akhir tahun Conducted at the beginning of each year and evaluated at the end of the year
		Penyusunan KPI KPI Development	
Mitra Usaha (KOB) Business Partners (JOC)	Transparansi kontrak kerja sama dan pemenuhan hak kontraktor Transparency of cooperation contracts and fulfillment of contractor rights	Penyusunan Kontrak Kerja Sama Preparation of Cooperation Contracts	Dilaksanakan sesuai kebutuhan Conducted as needed
		Pertemuan dan Evaluasi Meetings and Evaluation	

Pelanggan Customers	Jaminan pasokan listrik dan layanan Reliable electricity supply and service	Pertemuan berkala dan *workshop* Regular meetings and workshops	Dilaksanakan sesuai kebutuhan Conducted as needed
		Pembaharuan kontrak jual beli listrik Renewal of electricity purchase agreements	Dilaksanakan berkala berdasar periodisasi kontrak Implemented periodically based on contract cycles
		Survei kepuasan pelanggan Customer satisfaction survey	Dilaksanakan satu kali setiap tahun Conducted once a year
Vendor dan Manajemen Gedung Vendors and Building Management	Transparansi proses pengadaan dan kontrak kerja pengadaan Transparency in procurement processes and procurement contracts	Penerapan *e-procurement* Implementation of e-procurement	Dilaksanakan sesuai kebutuhan Carried out as needed





Membangun Bisnis, Menjaga Bumi

Building the Business, Preserving the Earth



Aksi Perubahan **Iklim dan Reduksi Emisi**

Climate Action and Emissions Reduction

Tahun 2025 menjadi fase penting bagi PGE dalam memperkuat panas bumi sebagai tulang punggung transisi energi dan swasembada energi nasional. PGE terus mengembangkan panas bumi sebagai sumber energi bernilai tambah dan ramah lingkungan sehingga dapat turut berkontribusi dalam menjaga Bumi.

The year 2025 marks a phase for PGE in making geothermal energy the backbone of the transition and self-sufficiency of national energy. PGE continues to develop geothermal energy as a value-added and environmentally friendly energy source, thereby contributing to the preservation of the Earth.

Mitigasi **Perubahan Iklim**

Climate Change Mitigation

Dengan potensi panas bumi Indonesia sebesar 24 GW atau sekitar 40% cadangan dunia, PGE berupaya menjadikannya sebagai energi bersih andalan dalam transisi energi nasional menuju netralitas karbon di 2060. Upaya ini diwujudkan melalui penyediaan energi ramah lingkungan dan terjangkau; pengukuran serta penurunan emisi gas rumah kaca (GRK); serta pemanfaatan hasil samping operasional, guna mendukung target *Enhanced* NDC 2022 sebesar 31,89% secara mandiri dan 43,20% dengan dukungan internasional pada 2030, sejalan dengan pembatasan kenaikan suhu global hingga 1,5°C.

Upaya tersebut selaras dengan RUPTL PLN 2025–2034 dan Kebijakan Energi Nasional yang menargetkan bauran EBT 23% pada 2030, dengan porsi pembangkit EBT hingga 76%, termasuk kontribusi panas bumi 5,2 GW. PGE juga melanjutkan eksplorasi *greenfield* PLTP Gunung Tiga dengan potensi kapasitas 55 MW di Lampung. Selama 2025, PGE melakukan Rapat Kerja dengan Komisi XII DPR serta menerima kunjungan kerja spesifik Komisi XII DPR ke WKP Lahendong. PGE juga membangun dialog dengan Kementerian Energi dan Sumber Daya Mineral (ESDM), baik dengan Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi (Ditjen EBTKE) maupun Ditjen Ketenagalistrikan. PGE juga bertemu dengan berbagai pemangku kepentingan dalam forum panas bumi di tingkat nasional maupun global, di antaranya Indonesia International Geothermal Convention & Exhibition (IIGCE) 2025.

With Indonesia's geothermal potential of 24 GW, or around 40% of the world's reserves, PGE strives to position geothermal energy as a key clean-energy pillar in the national energy transition toward carbon neutrality by 2060. This effort is carried out through providing environmentally friendly and affordable energy; measuring and reducing greenhouse gas (GHG) emissions; and utilizing operational by-products, to support the 2022 Enhanced NDC target of 31.89% unconditionally and 43.20% with international support by 2030, in line with limiting global temperature rise to 1.5°C.

These efforts are aligned with PLN's RUPTL 2025–2034 and the National Energy Policy, which targets a 23% share of renewable energy in the energy mix by 2030, with renewable-based power generation accounting for up to 76%, including a geothermal contribution of 5.2 GW. PGE also continues the greenfield exploration of the Gunung Tiga geothermal power plant (PLTP), with a potential capacity of 55 MW in Lampung. Throughout 2025, PGE held a working meeting with Commission XII of the House of Representatives (DPR) and received a specific working visit from Commission XII to the Lahendong geothermal working area (WKP). PGE also engaged in dialogue with the Ministry of Energy and Mineral Resources (ESDM), including the Directorate General of New, Renewable Energy and Energy Conservation (EBTKE) and the Directorate General of Electricity. In addition, PGE participated in various geothermal forums at both national and global levels, including the Indonesia International Geothermal Convention & Exhibition (IIGCE) 2025.

Rencana Adaptasi **Perubahan Iklim**

Climate Change Adaptation Plan

Perubahan iklim akibat emisi GRK menyebabkan kerusakan ekosistem, hilangnya habitat flora dan fauna, serta mengganggu ketersediaan sumber daya, aktivitas ekonomi, dan kesehatan manusia. Kondisi ini mendorong PGE berkontribusi dalam pengendalian perubahan iklim melalui pemanfaatan panas bumi sebagai sumber energi rendah emisi karbon. Pemanfaatan panas bumi dilakukan melalui pembangkit listrik tenaga panas bumi (PLTP) dan produk nonlistrik (*beyond electricity*) untuk menghindari emisi GRK dari pembangkit fosil. Hal ini mendorong PGE mengelola 15 WKP panas bumi di Sumatra, Jawa, Bali, dan Sulawesi, dengan kapasitas terpasang hingga akhir 2025 sebesar 727 MW untuk operasi sendiri dan 1.216 MW bersama, dengan penghindaran emisi mencapai 4.291.102,02 ton CO_2e. PGE menargetkan kapasitas terpasang mandiri mencapai 1 GW pada 2028 dan 1,8 GW pada 2033, didukung potensi panas bumi sekitar 3 GW dari 10 WKP yang dikelola sendiri.

Climate change caused by GHG emissions leads to ecosystem damage, loss of flora and fauna habitats, and disruption of resource availability, economic activities, and human health.This condition has encouraged PGE to contribute to climate change mitigation by using geothermal energy as a low-carbon energy source. Geothermal energy is utilized through geothermal power plants (PLTPs) and non-electricity products (beyond electricity) to avoid GHG emissions from fossil-fuel power plants. This has prompted PGE to manage 15 geothermal concession areas (WKP) in Sumatra, Java, Bali, and Sulawesi, with an installed capacity of 727 MW for its own operations and 1,216 MW in joint operations by the end of 2025, avoiding emissions of 4,291,102.02 tonnes of CO_2e (t CO_2e). PGE targets an installed capacity of 1 GW by 2028 and 1.8 GW by 2033, supported by a geothermal potential of around 3 GW from 10 WKPs managed independently.

Tata Kelola **Perubahan Iklim**

Climate Change Governance

PGE telah memiliki Kebijakan Keberlanjutan dan Kebijakan HSSE untuk seluruh pekerja, yang di dalamnya juga mengatur mengenai Sistem Manajemen Lingkungan. Seluruh (100%) area operasi juga telah memperoleh sertifikasi ISO 14001:2015 Sistem Manajemen Lingkungan yang diaudit secara berkala setiap tahunnya. Direksi bertanggung jawab penuh dalam pelaksanaan strategi perubahan iklim serta memastikan penerapannya dalam proses bisnis. Isu perubahan iklim dibahas secara rutin di dalam rapat Direksi, termasuk dalam rapat gabungan dengan Dewan Komisaris dan Komite terkait. Untuk memastikan strategi perubahan iklim diterapkan hingga ke tataran teknis, Direksi akan memberikan arahan kepada penanggung jawab bidang yang kemudian akan melanjutkan arahan tersebut kepada tim pelaksana atau *Stream Leader*. Sebagai bagian dari proses pengawasan, Direksi akan melaporkan rencana strategis terkait iklim beserta progres pencapaian kepada Dewan Komisaris, baik melalui rapat gabungan Dewan Komisaris dan Direksi, maupun melalui Komite Audit.

PGE has a Sustainability Policy and HSSE Policy for all workers, which also regulates the Environmental Management System. All (100%) operational areas have also obtained ISO 14001:2015 Environmental Management System certification, which is subject to annual surveillance audits. The Board of Directors is fully responsible for implementing the climate change strategy and ensuring its application in business processes. Climate change issues are discussed regularly at Board of Directors meetings, including joint meetings with the Board of Commissioners and relevant committees. To ensure that the climate change strategy is implemented at the technical level, the Board of Directors provides guidance to the person in charge of the field, who then passes on the guidance to the implementation team or Stream Leader. As part of the oversight process, the Board of Directors reports on climate-related strategic plans and progress to the Board of Commissioners, either through joint meetings of the Board of Commissioners and the Board of Directors, or through the Audit Committee.

VP Health, Safety, Security, and Environment (HSSE) bekerja sama dengan Stream Leader ESG Environmental bertanggung jawab dalam meninjau dan memantau penerapan strategi dan kegiatan aksi perubahan iklim di tingkat unit bisnis, untuk kemudian dilaporkan kepada Direksi. Fungsi Operasi dan Fungsi Project Development menyelenggarakan rapat berkala yang dihadiri Direksi, jajaran manajemen, dan pekerja guna membahas pencapaian penerapan aksi perubahan iklim. Beberapa hal yang menjadi pembahasan antara lain kesiapan keandalan operasional dalam menghadapi risiko fisik perubahan iklim, seperti longsor; dan rencana pengembangan bisnis EBT, termasuk risiko transisi perubahan iklim. PGE juga telah memasukkan perubahan iklim ke dalam indikator KPI Direksi. Informasi lebih lanjut mengenai KPI Direksi dapat dilihat pada bagian Tata Kelola.

The VP of Health, Safety, Security, and Environment (HSSE) works with the ESG Environmental Stream Leader to review and monitor the implementation of climate change strategies and activities at the business unit level, which are then reported to the Board of Directors. The Operations and Project Development functions hold regular meetings attended by the Board of Directors, management, and workers to discuss the progress of climate change action implementation. Some of the topics discussed include operational reliability readiness in facing physical risks of climate change, such as landslides, and renewable energy business development plans, including climate change transition risks. PGE has also included climate change in its Board of Directors' KPI indicators. Further information regarding the Board of Directors' KPI can be found on Governance part.

Strategi Pengelolaan **Perubahan Iklim**

Climate Change Management Strategy

Strategi perubahan iklim PGE terangkum di dalam salah satu fokus strategi keberlanjutan Perseroan, yaitu *net zero emission* (NZE). Strategi ini berfokus pada target Perseroan untuk mengurangi intensitas emisi hingga 29% di 2030, dan mencapai NZE di 2060.

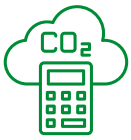
PGE's climate change strategy is outlined in one of the Company's sustainability strategy focuses, namely net zero emission (NZE). This strategy focuses on the Company's target to reduce emission intensity by 29% by 2030 and achieve NZE by 2060.

Peta Jalan *Net Zero Emission* (NZE)

Perseroan telah menyusun strategi dan langkah inisiatif untuk mencapai target *net zero emission* (NZE) yang dijalankan melalui berbagai tahapan peta jalan yaitu 2024-2026 (*emerge*), 2027-2030 (*transform*), dan 2030-seterusnya (*sustain*). Strategi NZE telah sesuai dengan upaya Perseroan untuk mendukung target penurunan emisi perusahaan *Holding* PT Pertamina (Persero), baik melalui upaya dekarbonisasi, inisiatif bisnis baru yang rendah karbon maupun *carbon capture*.

Net Zero Emission (NZE) Roadmap

The Company has developed strategies and initiatives to achieve its net zero emission (NZE) target implemented through various stages of a roadmap, namely 2024-2026 (emerge), 2027-2030 (transform), and 2030 onwards (sustain). The NZE Strategy aligns with the Company's efforts to support the emission-reduction targets of the holding company PT Pertamina (Persero), both through decarbonization, new low-carbon business initiatives, and carbon capture.



2030

Intensitas Emisi Berkurang

Emission Intensity Reduced

↓29%

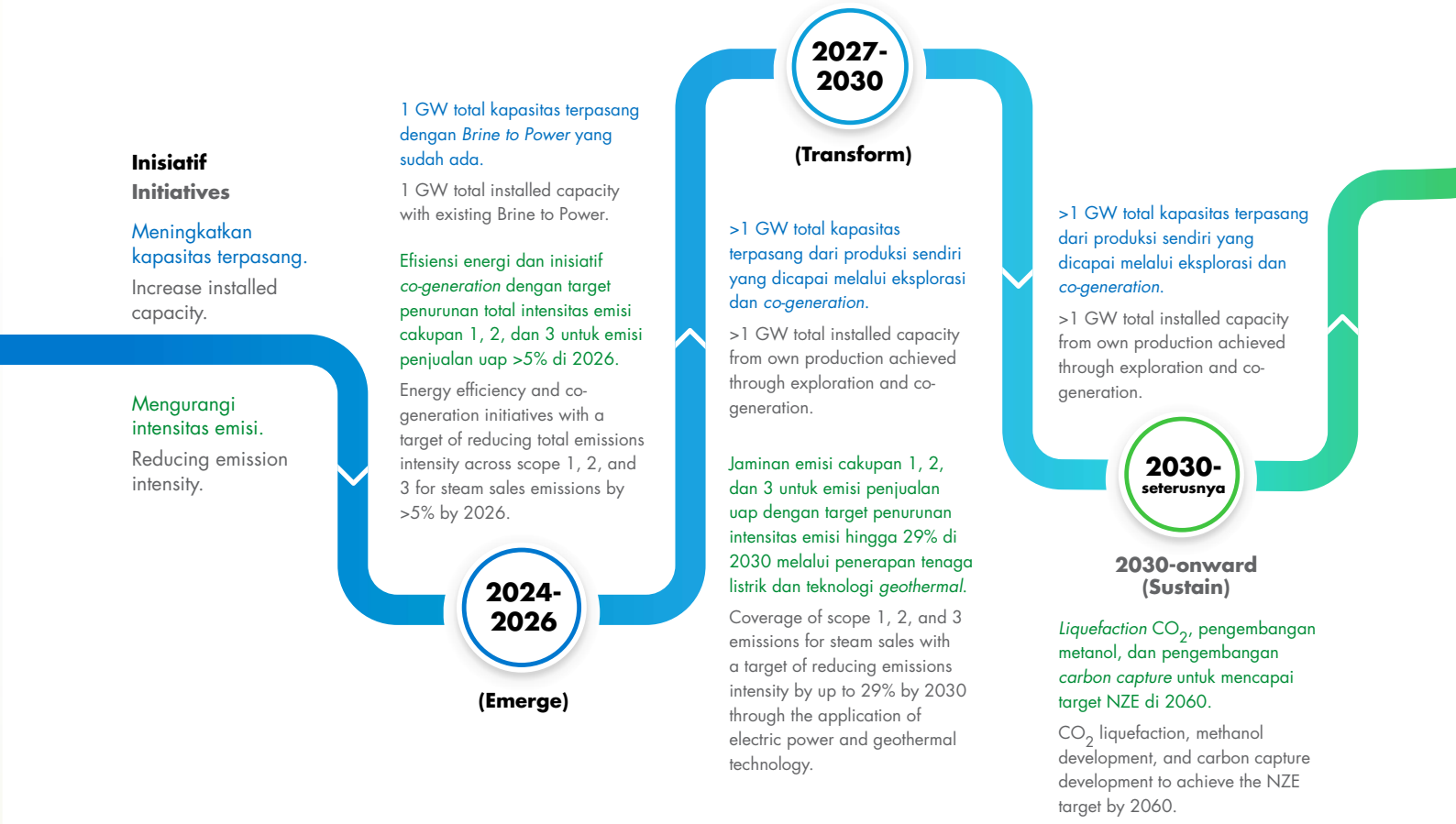
2060

Net Zero Emission

0

Strategi Strategy	**Inisiatif** Initiatives	
Aksi Perubahan Iklim dan Upaya Pengurangan Emisi Climate Change Action and Emission Reduction Efforts	• Mengurangi jejak lingkungan. • Menghitung potensi penurunan emisi GRK. • Mengelola risiko dan peluang perubahan iklim.	• Reducing environmental footprints. • Calculating GHG emission reduction potential. • Managing climate change risks and opportunities.
Mengelola Konsumsi Energi Managing Energy Consumption	• Menggunakan energi terbarukan. • Efisiensi energi. • Menyusun aksi perubahan iklim.	• Using renewable energy. • Energy efficiency. • Developing climate change action plans.

Peta Jalan Strategi Net *Zero Emission*
Net Zero Emission Strategy Roadmap



Sebagai bentuk kesungguhan menerapkan transisi energi dan mengelola perubahan iklim, PGE menyiapkan biaya untuk mendukung berbagai inisiatif dalam proyek panas bumi. Biaya tersebut berasal dari dana Penawaran Umum Perdana (IPO) dan kas internal. Per akhir 2025, PGE memiliki posisi kas yang kuat sebesar USD718.499.

As a sign of its commitment to implementing the energy transition and managing climate change, PGE has allocated funds to support various initiatives in geothermal projects. These funds come from its initial public offering (IPO) and internal cash reserves. As of the end of 2025, PGE has a strong cash position of USD718,499.

Perseroan berfokus mendukung *nature* dari bisnis PGE sebagai penghasil energi hijau panas bumi, dengan mengalokasikan belanja modal (*capex*) untuk proyek pengembangan non-bisnis *geothermal* yang mencakup pengeboran sumur *make-up*, pengembangan teknologi, serta infrastruktur area Perseroan.

The Company focuses on supporting the nature of PGE's business as a producer of green geothermal energy by allocating capital expenditure (capex) to non-business development geothermal projects, which include make-up well drilling, technology development, and infrastructure in the Company's area.

Realisasi Belanja Modal Proyek Pengembangan Bisnis *Geothermal* 2025
2025 Geothermal Business Development Project Capital Expenditure Realization

Anggaran Biaya Investasi Capital Investment Budget	**RKAP (USD)**	**Realisasi |** Realization **(USD)**
Proyek Lumut Balai 1 & 2 Lumut Balai 1 & 2 Project	40.344.678	27.548.022
Proyek Hululais 1 & 2 Hululais 1 & 2 Project	1.932.547	1.749.800
Proyek Lahendong 7 & 8 Lahendong 7 & 8 Project	426.191	-
Eksplorasi Gunung Tiga Gunung Tiga Exploration	23.888.042	10.531.712
Eksplorasi WK Eksisting Existing Working Area (WK) Exploration	126.584	-
Eksplorasi Seulawah Seulawah Exploration	9.372.953	-
Eksplorasi Kotamobagu Kotamobagu Exploration	24.886.794	-
Small Scale	84.180.600	-
Investasi Inorganik Inorganic Investment	31.800.000	-
Heat Exchanger Manufacturing	1.000.000	-
Total	**217.958.389**	**39.829.534**

Realisasi Belanja Modal Pemeliharaan Pengembangan Non-Bisnis *Geothermal* 2025
2025 Geothermal Non-Business Development Project Maintenance Capital Expenditure Realization

Anggaran Biaya Investasi Capital Investment Budget	**RKAP (USD)**	**Realisasi |** Realization **(USD)**
Area Kamojang Kamojang Area	9.579.271	9.661.956
Area Lahendong Lahendong Area	6.729.844	5.763.873
Area Ulubelu Ulubelu Area	29.623.052	21.269.144
Area Karaha Karaha Area	12.610.992	11.805.431
Area Lumut Balai Lumut Balai Area	11.348.207	9.773.189
Kantor Pusat Head Office	2.549.548	2.413.800
Total	**72.440.914**	**60.687.393**

PGE juga terus menjajaki pembiayaan berkelanjutan melalui empat proyek strategis panas bumi yang masuk dalam *Blue Book* 2025–2029 Kementerian Perencanaan Pembangunan Nasional/Badan Perencana Pembangunan Nasional (PPN/Bappenas). Keempat proyek tersebut adalah Lumut Balai Unit 3, Lumut Balai Unit 4, Gunung Tiga/Ulubelu Extension I, serta Lahendong Unit 7–8 & Binary. Total nilai investasi untuk keempat proyek tersebut mencapai lebih dari USD1,09 miliar, dengan proyeksi menambah 215 MW kapasitas listrik rendah emisi dan direncanakan beroperasi secara bertahap mulai 2029 hingga 2032. Proyek-proyek tersebut berpotensi memperoleh pendanaan luar negeri melalui skema *indicative concessional loan* dengan nilai mencapai USD613 juta, yang berasal dari sejumlah lembaga multilateral.

PGE also continues to explore sustainable financing through four strategic geothermal projects included in the 2025–2029 Blue Book of the Ministry of National Development Planning/ National Development Planning Agency (PPN/Bappenas). The four projects are Lumut Balai Unit 3, Lumut Balai Unit 4, Gunung Tiga/Ulubelu Extension I, and Lahendong Unit 7–8 & Binary. The total investment value for the four projects reaches more than USD1.09 billion, with a projected addition of 215 MW of low-emission electricity capacity, planned to be operational in stages from 2029 to 2032. These projects have the potential to obtain foreign funding through an indicative concessional loan scheme worth USD613 million from a number of multilateral institutions.



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.

Proses identifikasi dan penilaian risiko perubahan iklim PGE dilakukan melalui tahapan berikut:

1. **Melakukan peninjauan seluruh risiko Perseroan**
   PGE melakukan peninjauan *database* seluruh risiko yang terdapat dalam *Integrated Risk Management System/ Enterprise Risk Management System* (IRMS/ERMS). Perseroan kemudian memetakan risiko-risiko terkait perubahan iklim di dalam *database* tersebut.
2. **Melakukan tolak ukur dengan perusahaan dan industri sejenis**
   Perseroan melakukan tolak ukur risiko perubahan iklim di perusahaan dan industri sejenis, guna mengetahui risiko perubahan iklim yang relevan bagi bisnis dan operasional Perseroan.
3. **Survei terkait perubahan iklim**
   Perseroan telah melaksanakan survei terkait perubahan iklim kepada manajemen untuk mendapatkan informasi mengenai pendapat manajemen terhadap risiko iklim yang paling signifikan untuk Perseroan serta langkah-langkah mitigasi yang dapat dilakukan. Survei melibatkan Task Force Team serta representasi dari berbagai fungsi bisnis di dalam Perseroan.
4. **Peninjauan oleh Fungsi Subject Matter Expert (SME)**
   Perseroan melakukan *peninjauan* dan pengelolaan risiko dengan melibatkan tenaga ahli internal PGE atau Fungsi SME, khususnya mereka yang berada di bawah divisi pengelolaan risiko dan pengelolaan lingkungan. Dengan melibatkan tenaga ahli tersebut, PGE dapat melakukan penilaian yang komprehensif, baik dalam identifikasi risiko maupun langkah-langkah mitigasi yang dapat dilakukan.
5. **Validasi oleh manajemen PGE**
   Setelah peninjauan selesai, hasil identifikasi akan divalidasi oleh tim manajemen Perseroan yang relevan, termasuk Direksi yang berada di dalam Komite Keberlanjutan.

The process of identifying and assessing PGE's climate change risks is carried out through the following stages:

1. **Reviewing all risks of the Company**
   PGE reviews the entire risk database contained in the Integrated Risk Management System/Enterprise Risk Management System (IRMS/ERMS). The Company then maps the risks related to climate change in the database
2. **Conducting benchmarking with similar companies and industries**
   The Company conducted a benchmarking of climate change risks in the Company and similar industries to identify climate change risks relevant to the Company's business and operations.
3. **Surveys related to climate change**
   The Company conducted a climate change survey of management to obtain information on management's views on the most significant climate risks to the Company and the mitigation measures that could be taken. The survey involved the Task Force Team and representatives from various business functions within the Company.
4. **Review by Subject Matter Expert (SME) Function**
   The Company reviews and manages risks by involving PGE's internal experts or SME Function, particularly those under the risk management and environmental management divisions. By involving these experts, PGE can conduct comprehensive assessments, both in identifying risks and mitigation measures that can be taken.
5. **Validation by PGE management**
   After the review is complete, the identification results shall be validated by the relevant Company management team, including the Board of Directors within the Sustainability Committee.

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.

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.

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.

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.

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:

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.

Skenario Iklim Berdasarkan RCP
Climate Scenarios Based on RCP

RCP 2.6
Upaya Mitigasi Ketat
Stringent Mitigation Measures

Skenario aksi iklim yang agresif untuk menjaga tingkat pemanasan bumi di bawah 2°C.
An aggressive climate action scenario to keep global warming below 2°C.

RCP 4.5
Upaya Mitigasi Moderat
Moderate Mitigation Measures

Skenario yang mempertimbangkan puncak GRK di 2040 yang kemudian menurun, ditunjang oleh stabilnya tingkat CO_2 di atmosfer pada 2100. Skenario ini sesuai dengan proyeksi kenaikan panas bumi hingga 1,8°C pada 2100 dengan adanya upaya moderat untuk mengurangi emisi.

This scenario considers peak GHG emissions in 2040, followed by a decline, supported by stable CO_2 levels in the atmosphere in 2100. This scenario is consistent with a projected global warming of up to 1.8°C by 2100 with moderate efforts to reduce emissions.

RCP 8.5
Upaya Bisnis Seperti Biasa
Business as Usual

Skenario ini mempertimbangkan tingginya emisi GRK dan konsentrasi emisi dengan kenaikan panas bumi hingga 3,7°C pada 2100 karena rendahnya atau tidak adanya upaya untuk mengurangi emisi.
This scenario considers high GHG emissions and concentrations with global warming of up to 3.7°C by 2100 due to low or no efforts to reduce emissions.

Skenario Iklim Berdasarkan SSP
Climate Scenarios Based on SSP

SSP 1
Skenario "*Taking the Green Road*"
The "Taking the Green Road" Scenario

Merepresentasikan masa depan saat masyarakat memprioritaskan keberlanjutan dan tata kelola yang efektif. Kondisi ini menggambarkan kondisi lingkungan yang terlindungi, inklusivitas, serta kebijakan pengambilan keputusan yang transparan guna mencapai kemakmuran untuk semua.
Representing the future when society prioritizes sustainability and effective governance. This condition describes a protected environment, inclusiveness, and transparent decision-making policies to achieve prosperity for all.

SSP 5
Skenario "*Fossil-fueled Development*"
The "Fossil-fueled Development" Scenario

Mempresentasikan masa depan saat tren sosioekonomi berfokus pada pasar yang kompetitif, inovasi, perkembangan teknologi, serta pengembangan sumber daya manusia (SDM). Masyarakat bergantung kepada kekuatan bahan bakar fosil untuk mendorong produksi dan pertumbuhan ekonomi.
Representing a future where socio-economic trends focus on competitive markets, innovation, technological development, and human resource development. Society relies on fossil fuels to power production and economic growth.

Berdasarkan skenario RCP dan SSP, PGE juga telah memetakan delapan risiko fisik dan dua risiko transisi, antara lain:

Based on the RCP and SSP scenarios, PGE has also mapped out eight physical risks and two transition risks, including:

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

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.

Jenis Risiko Risk Type	Suhu panas ekstrim Extreme heat
Kategori dan Periode Risiko Risk Category and Period	• Kronis • Jangka Panjang (2031-2060) • Chronic • Long-term (2027-2030)
Dampak Risiko Risk Impact	Menurunkan efisiensi tenaga pembangkit karena berkurangnya sistem pendinginan dan efisiensi turbin, meningkatkan tekanan air dan transmisi, serta mendorong kondisi kekeringan yang membawa risiko kebakaran hutan. Hal ini berpotensi mendisrupsi sistem operasional yang berujung pada peningkatan biaya operasional. Decreases power plant efficiency due to reduced cooling systems and turbine efficiency, increases water pressure and transmission, and promotes drought conditions that carry the risk of forest fires. This has the potential to disrupt operational systems, leading to increased operating costs.
Inisiatif 2025 2025 Initiative	Perawatan dan pengecekan bulanan fasilitas dan sarana operasional. Routine monthly maintenance and checking of facilities and operational equipment.

Jenis Risiko Risk Type	Kebakaran hutan Wildfire
Kategori dan Periode Risiko Risk Category and Period	• Akut • Jangka Pendek (2024-2026) • Acute • Short-term (2024-2026)
Dampak Risiko Risk Impact	Membawa risiko kerusakan pada area dan properti Pembangkit Listrik Tenaga Panas Bumi (PLTP) di area tersebut, yang dapat mengganggu keseluruhan proses operasional. Kondisi ini juga dapat merusak reputasi Perseroan karena dianggap merusak lingkungan. Poses a risk of damage to the area and property of the Geothermal Power Plant (PLTP) in the area, which could disrupt the entire operational process. This condition could also damage the Company's reputation, as it is considered harmful to the environment.
Inisiatif 2025 2025 Initiative	1. Penyiapan sarana dan prasarana pemadam kebakaran, termasuk mobil pemadam kebakaran. 2. Menyelenggarakan program pengembangan masyarakat yang berorientasi pada keberlanjutan hutan, seperti program Perhutanan Sosial Margo Rukun Bestari di Ulubelu. 3. Patroli hutan dan pengamanan wilayah bekerja sama dengan Dinas Kehutanan dan Balai Konservasi dan Sumber Daya Alam. 1. Preparation of firefighting facilities and infrastructure, including fire trucks. 2. Organizing community development programs oriented towards forest sustainability, such as the Margo Rukun Bestari Social Forestry program in Ulubelu. 3. Forest patrols and area security in collaboration with the Forestry Service and the Conservation and Natural Resources Agency.

Jenis Risiko Risk Type	Banjir Flood
Kategori dan Periode Risiko Risk Category and Period	• Akut • Jangka Panjang (2031-2060) • Acute • Long-term (2031-2060)
Dampak Risiko Risk Impact	Merusak infrastruktur, mengganggu lalu lintas komunikasi, serta transportasi di wilayah operasional. Kondisi ini dapat mendorong penundaan pengiriman material, mengganggu operasional di lapangan, hingga berdampak kepada komunitas masyarakat di sekitar wilayah operasional. Damages infrastructure, disrupts communication and transportation in the operational area. These conditions can cause delays in material delivery, disrupt field operations, and impact communities around the operational area.
Inisiatif 2025 2025 Initiative	1. Menjalin kerja sama dengan BMKG untuk layanan informasi cuaca dan layanan konsultasi bidang klimatologi. 2. *Monitoring geohazard,* terutama di area rawan banjir. 3. Perkuatan lereng dan perawatan drainase. 4. Melakukan penanaman pohon pada area operasional perusahaan, lahan kritis, dan daerah aliran sungai. 1. Establish cooperation with BMKG for weather information services and climatology consultation services. 2. Monitor geohazards, especially in flood-prone areas. 3. Strengthen slopes and maintain drainage. 4. Plant trees in the Company's operational areas, critical land, and river basins.

Jenis Risiko Risk Type	Angin ribut Windstorm	Kategori dan Periode Risiko Risk Category and Period	• Akut • Jangka Panjang (2031-2060) • Acute • Long-term (2031-2060)
Dampak Risiko Risk Impact	Merusak infrastruktur dan mengganggu lalu lintas komunikasi di wilayah operasional dan sekitarnya. Selain itu, pohon yang jatuh karena terkena angin berpotensi mengganggu arus transportasi dan membahayakan pekerja. Damages infrastructure and disrupts communication traffic in the operational area and surrounding areas. In addition, trees that fall due to wind have the potential to disrupt transportation flows and endanger workers.	Inisiatif 2025 2025 Initiative	1. Menjalin kerja sama dengan BMKG untuk layanan informasi cuaca dan layanan konsultasi bidang klimatologi. 2. Perawatan rutin fasilitas dan sarana operasional. 1. Establish cooperation with BMKG for weather information services and climatology consultation services. 2. Routine maintenance of facilities and operational equipment.
Jenis Risiko Risk Type	Daya saing pasar energi Energy market competitiveness	Kategori dan Periode Risiko Risk Category and Period	• Pasar • Jangka Menengah (2027-2030) • Market • Medium-term (2027-2030)
Dampak Risiko Risk Impact	• Tidak ada peningkatan produksi yang signifikan dari pembangkit listrik berbasis Energi Baru Terbarukan (EBT). • Pendapatan tidak meningkat signifikan karena Perseroan hanya memiliki satu pelanggan, yaitu PT Perusahaan Listrik Negara (PLN). • Peningkatan beban biaya tidak sejalan dengan pertumbuhan pendapatan yang dapat menggerus margin laba. • No significant increase in production from Renewable Energy (EBT) power plants. • Revenue shall not increase significantly because the Company has only one customer, namely PT Perusahaan Listrik Negara (PLN). • Increased costs are not in line with revenue growth, which could erode profit margins.	Inisiatif 2025 2025 Initiative	1. Berpartisipasi aktif melalui Asosiasi Panas Bumi (APBI) sebagai mitra Pemerintah dalam perumusan percepatan perizinan lingkungan dan kehutanan. 2. Komunikasi intensif dengan instansi terkait dalam proses pembebasan lahan dan perizinan. 1. Actively participate through the Geothermal Association (APBI) as a partner of the Government in formulating the acceleration of environmental and forestry licensing. 2. Intensive communication with relevant agencies in the land acquisition and licensing process.
Jenis Risiko Risk Type	Kerja sama dengan induk usaha Pertamina sebagai perusahaan migas terintegrasi Collaboration with Pertamina as an integrated oil and gas Company	Kategori dan Periode Risiko Risk Category and Period	• Reputasi • Jangka Pendek (2024-2026), Menengah (2027-2030), dan Panjang (2031-2060) • Reputation • Short-term (2024-2026), Medium-term (2027-2030), and Long-term (2031-2060)
Dampak Risiko Risk Impact	• Alokasi modal yang tidak meningkat dari Pertamina. • Akses yang terbatas kepada pasar dan kemitraan yang berfokus kepada EBT. • Tantangan *positioning* di pasar karena dianggap belum mengikuti tren keberlanjutan saat ini. • No increase in capital allocation from Pertamina. • Limited access to markets and partnerships focused on renewable energy. • Challenges in market positioning due to being perceived as not following current sustainability trends.		
Inisiatif 2025 2025 Initiative	1. Melakukan *operational excellence* pada kegiatan pengeboran atau *drilling* yang memiliki komponen biaya yang signifikan dalam biaya investasi. 2. Membuat inisiatif *vertical integration* berupa fabrikasi *heat exchanger* sebagai komponen utama ORC. 3. Diversifikasi produk turunan panas bumi berupa pemanfaatan listrik geotermal untuk *off grid* seperti *pilot project* Hidrogen Hijau Ulubelu. 1. Achieving operational excellence in drilling activities, which have a significant cost component in investment costs. 2. Creating a vertical integration initiative in the form of heat exchanger fabrication as a key component of ORC. 3. Diversifying geothermal derivative products by utilizing geothermal electricity for off-grid projects such as Ulubelu Green Hydrogen pilot project.		

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.

Pengelolaan perubahan iklim yang dijalankan PGE juga membuka peluang yang memperkuat kinerja keberlanjutan dalam membangun bisnis berkelanjutan. Beberapa peluang yang sangat berpotensi dikembangkan antara lain bahan bakar pengganti untuk pengeboran, bahan bakar pengganti untuk kendaraan, tenaga panas bumi yang digunakan sendiri, teknologi *brine to water*, serta solusi berbasis alam. [OJK F.5]

PGE's climate change management also opens opportunities to strengthen sustainability performance and build a sustainable business. Some of the most promising opportunities include alternative fuels for drilling, alternative fuels for vehicles, self-generated geothermal power, brine-to-water technology, and nature-based solutions. [OJK F.5]

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.

Metriks dan **Target**
Metrics and Target

Hal utama pada peran panas bumi dalam mengurangi jejak karbon adalah kemampuannya menggantikan bahan bakar fosil untuk pembangkit listrik. Penggunaan panas bumi sebagai pengganti mampu mencegah emisi GRK dari pemakaian bahan bakar fosil. PGE terus meningkatkan kapasitas PLTP guna memenuhi target penurunan emisi GRK. Selama periode pelaporan, Perseroan tidak melakukan aksi korporasi yang dapat membatasi kemampuannya dalam melaporkan emisi GRK Cakupan 1, 2, dan 3. Dengan demikian, data emisi yang dilaporkan mencerminkan batasan organisasi dan operasional yang konsisten dengan periode sebelumnya.

The main role of geothermal energy in reducing carbon footprint is its ability to replace fossil fuels for power generation. The use of geothermal energy as a substitute can prevent GHG emissions from the use of fossil fuels. PGE continues to increase its geothermal power plant capacity to meet GHG emission reduction targets. During the reporting period, the Company did not undertake any corporate actions that could limit its ability to report Scope 1, 2, and 3 GHG emissions. Thus, the reported emissions data reflects organizational and operational boundaries consistent with the previous period.

Emisi GRK Cakupan 1 [OJK F.11][GRI 305-1]

Emisi Cakupan 1 bersumber dari emisi operasional pembangkitan listrik akibat *venting non-condensable gases* (NCGs) yang secara alami terkandung dalam fluida panas bumi dari seluruh area operasi. Perhitungan menggunakan data primer hasil uji NCG dan produksi uap. Metodologi perhitungan mengacu pada ACM 0002 dan Surat Keputusan (SK) Dirjen Pengendalian Perubahan Iklim No.SK.38/PPI/IGAS/PPI.2/11/2020. Sumber lain adalah penggunaan BBM untuk kendaraan operasional dan *emergency diesel generator* (EDG) dari seluruh kegiatan area operasi, proyek dan kantor pusat. Spesifikasi BBM yang digunakan mengacu pada faktor emisi lokal produk BBM yang dijual di Indonesia. Faktor emisi CO_2 mengacu pada Tabel 4-4 (API Compendium), dan CH_4, N_2O mengacu pada Tabel 4-6 (API Compendium). Hasil penghitungan dinyatakan dalam ton CO_2e (t CO_2e), dengan *base-year* emisi tahun 2020 sebesar 200.681,06 ton CO_2e.

Pada 2025, volume emisi GRK Cakupan 1 dengan jenis emisi GRK yang dihitung meliputi CO_2, CH_4, dan N_2O mencapai 89.909,24 ton CO_2e, turun sebesar 2,51% dari 2024 sebesar 92.222,91 ton CO_2e. Jumlah emisi metana di 2025 mencapai 129,84 ton atau setara dengan 3.782,75 ton CO_2e atau 4,21% dari total emisi GRK Cakupan 1.

GHG Emission Scope 1 [OJK F.11][GRI 305-1]

Scope 1 emissions originate from operational emissions from electricity generation due to the venting of non-condensable gases (NCGs) that are naturally contained in geothermal fluids from all areas of operation. Calculations use primary data from NCG testing and steam production. The calculation methodology refers to ACM 0002 and the Decree (SK) of the Director General of Climate Change Control No. SK.38/PPI/IGAS/PPI.2/11/2020. Another source is the use of fuel for operational vehicles and emergency diesel generators (EDG) from all activities in the operating area, projects, and head office. The fuel specifications used refer to the local emission factors of fuel products sold in Indonesia. The CO_2 emission factor refers to Table 4-4 (API Compendium), and CH_4 and N_2O refer to Table 4-6 (API Compendium). The calculation results are stated in tonnes of CO_2e (t CO_2e), with base-year emissions for 2020 at 200,681.06 tonnes of CO_2e.

In 2025, Scope 1 GHG emissions, which include CO_2, CH_4, and N_2O, reached 89,909.24 tonnes of CO_2e, down 2.51% from 92,222.91 tonnes of CO_2e in 2024. The amount of methane emissions in 2025 reached 129.84 tonnes, equivalent to 3,782.75 tonnes of CO_2e, or 4.21% of total Scope 1 GHG emissions.

Jumlah Emisi GRK yang Dihasilkan Berdasarkan Gas yang Termasuk dalam Penghitungan
Total GHG Emissions Generated by Gas Included in the Calculation

Uraian Description	Satuan Unit	2025	2024	2023	2022	2021
Emisi GRK Cakupan 1 Scope 1 GHG Emission		89.909,24	92.222,91	89.567,05	119.143,41	106.968,27
Emisi GRK Cakupan 1 – *Venting* NCG *Fluid Geothermal* **Scope 1 GHG Emission - Venting NCG Fluid Geothermal**						
Total Emisi GRK Langsung Total Direct GHG Emission	t CO_2e	88.599,12	90.548,24	87.656,16	117.900,59	105.440,02
Karbon Dioksida (CO_2) Carbon Dioxide (CO_2)	Ton Tonne	84.817,93	83.715,59	85.510,16	114.600,34	103.385,84
Metana (CH_4) Methane (CH_4)		129,79	229,28	72,01	110,75	82,17
Nitrogen Oksida (N_2O) Nitrous Oxide (N_2O)		-	-	-	-	-
Hidrofluorokarbon (HFC) Hydrofluorocarbons (HFC)		-	-	-	-	-
Sulfur Heksafluorida (SF_6) Sulfur Hexafluoride (SF_6)		-	-	-	-	-
Fluorokarbon (PFC) Perfluorocarbons (PFC)		-	-	-	-	-
Nitrogen Trifluorida (NF_3) Nitrogen Trifluoride (NF_3)		-	-	-	-	-
Emisi GRK Cakupan 1 – Emisi Bergerak dan Tidak Bergerak **Scope 1 GHG Emissions – Mobile and Stationary Emissions**						
Total Emisi GRK Langsung Total Direct GHG Emission	t CO_2e	1.310,11	1.674,68	1.910,89	1.242,82	1.528,25
Karbon Dioksida (CO_2) Carbon Dioxide (CO_2)	Ton Tonne	1.305,73	1.669,73	1.910,83	1.238,90	1.523,73
Metana (CH_4) Methane (CH_4)		0,05	0,07	0,05	0,04	0,06
Nitrogen Oksida (N_2O) Nitrous Oxide (N_2O)		0,01	0,01	0,01	0,01	0,01
Hidrofluorokarbon (HFC) Hydrofluorocarbons (HFC)		-	-	-	-	-
Sulfur Heksafluorida (SF_6) Sulfur Hexafluoride (SF_6)		-	-	-	-	-
Fluorokarbon (PFC) Perfluorocarbons (PFC)		-	-	-	-	-
Nitrogen Trifluorida (NF_3) Nitrogen Trifluoride (NF_3)		-	-	-	-	-

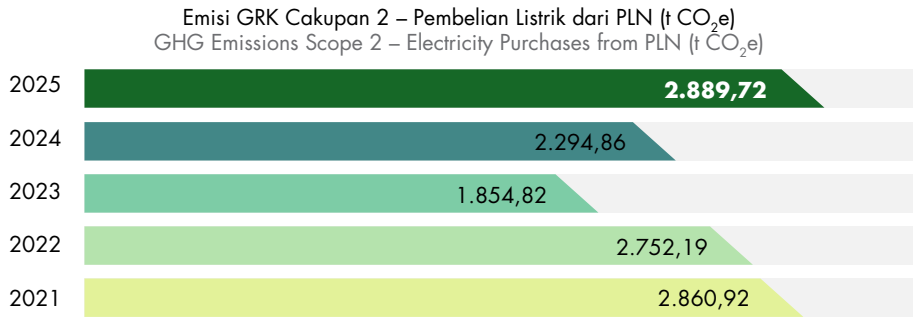
Emisi GRK Cakupan 2 [OJK F.11][GRI 305-2]

Emisi GRK Cakupan 2 bersumber dari pemakaian listrik yang dipasok pihak ketiga (PLN). Faktor emisi GRK mengacu pada Faktor Emisi *Grid* Direktorat Jenderal Kelistrikan tahun 2018. Hasil penghitungan dinyatakan dalam ton CO_2e (t CO_2e), dengan *base-year emission* tahun 2020 sebesar 3.266,67 t CO_2e. Total emisi Cakupan 2 di 2025 tercatat 2.889,72 t CO_2e, bertambah 25,92% dari 2024 sebesar 2.294,86 t CO_2e karena meningkatnya penggunaan listrik di Area Lumut Balai untuk mendukung fasilitas penunjang operasional seiring beroperasinya PLTP Unit 2 berkapasitas 55 MW.

GHG Emission Scope 2 [OJK F.11][GRI 305-2]

Scope 2 GHG emissions originate from the use of electricity supplied by third parties (PLN). GHG emission factors refer to the 2018 Grid Emission Factors of the Directorate General of Electricity. Calculation results are expressed in tonnes of CO_2e (t CO_2e), base-year emissions in 2020 at 3,266.67 t CO_2e. Total Scope 2 emissions in 2025 are recorded at 2,889.72 t CO_2e, an increase of 25.92% from 2024's 2,294.86 t CO_2e due to increased electricity usage in the Lumut Balai Area to support operational support facilities in line with the operation of the 55 MW Unit 2 PLTP.

Jumlah Emisi GRK yang Dihasilkan Berdasarkan Gas yang Termasuk dalam Penghitungan
Amount of GHG Emissions Generated Based on Gases Included in the Calculation



Emisi GRK Cakupan 3 [OJK F.11][GRI 305-3]

Perhitungan emisi GRK Cakupan 3 meliputi:

1. **Kategori 1**, bersumber dari kegiatan pembelian barang dan jasa kegiatan operasional di atas USD10 ribu. Faktor emisi yang digunakan mengacu pada Faktor Emisi GRK pembelian barang dan jasa US EPA 2022, dengan jenis pembelian barang dan jasa yang mendekati. Penghitungan kategori 1 baru dilakukan pada 2024.

2. **Kategori 2**, bersumber dari kegiatan pembelian barang dan jasa modal di atas USD10 ribu seperti kegiatan pembelian jasa *drilling/workover* sumur, kegiatan EPCC, dan material modal. Faktor emisi yang digunakan mengacu pada Faktor Emisi GRK pembelian barang dan jasa US EPA 2022, dengan jenis pembelian barang dan jasa yang mendekati.

GHG Emission Scope 3 [OJK F.11][GRI 305-3]

Scope 3 GHG emissions calculations include:

1. **Category 1**, sourced from the purchase of goods and services for operational activities above USD10 thousands. The emission factors used are the US EPA 2022 GHG Emission Factors for the purchase of goods and services, with the types of goods and services purchased being similar. Category 1 calculations were only carried out in 2024.
2. **Category 2**, sourced from the purchase of capital goods and services above USD10 thousand, such as the purchase of well drilling/workover services, EPCC activities, and capital materials. The emission factors used refer to the US EPA 2022 GHG Emission Factors for the purchase of goods and services, with similar types of goods and services purchased.

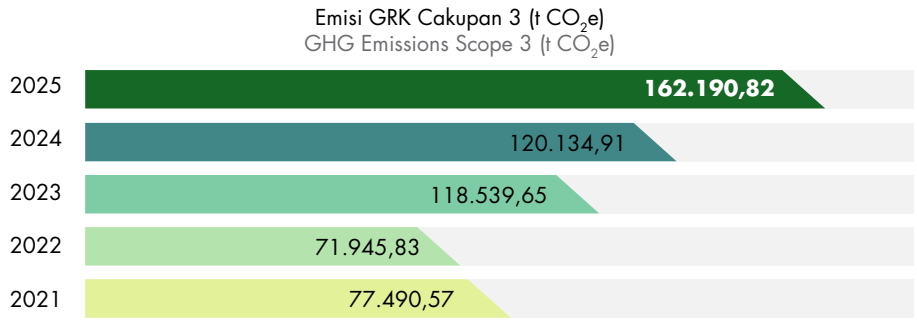
3. **Kategori 6**, bersumber dari penggunaan pesawat dan hotel untuk kegiatan perjalanan bisnis pekerja. Perhitungan emisi pesawat berbasis jarak dengan faktor emisi penerbangan berdasarkan GHG Factor hub US EPA 2022, sementara jarak penerbangan mengacu pada ICAO. Emisi hotel bersumber dari data hari menginap sesuai catatan perjalanan dinas Perseroan, dan konsumsi listrik hotel sesuai bintang berdasarkan survei konsumsi energi spesifik di Bangunan Gedung Perkantoran, KESDM-UNDP 2019, dikali dengan Faktor Emisi GRK Sistem Ketenagalistrikan sesuai *grid* oleh DJK-ESDM.
4. **Kategori 11**, bersumber dari penjualan uap panas bumi ke PLN. Perhitungan menggunakan data primer hasil uji NCG dan produksi uap. Metodologi perhitungan mengacu pada ACM 0002 dan SK. Dirjen Pengendalian Perubahan Iklim No.SK.38/PPI/IGAS/PPI.2/11/2020.

3. **Category 6**, sourced from the use of aircraft and hotels for worker business travel. Aircraft emissions are calculated based on distance using flight emission factors from the US EPA 2022 GHG Factor hub, while flight distances refer to ICAO. Hotel emissions are sourced from the number of nights stayed according to the Company's official travel records, and hotel electricity consumption according to star rating based on a specific energy consumption survey in Office Buildings, KESDM-UNDP 2019, multiplied by the GHG Emission Factor for the Electricity System according to the grid by DJK-ESDM.
4. **Category 11** is sourced from the sale of geothermal steam to PLN. Calculations use primary data from NCG testing and steam production. The calculation methodology refers to ACM 0002 and Decree of the Director General of Climate Change Control No. SK.38/PPI/IGAS/PPI.2/11/2020.

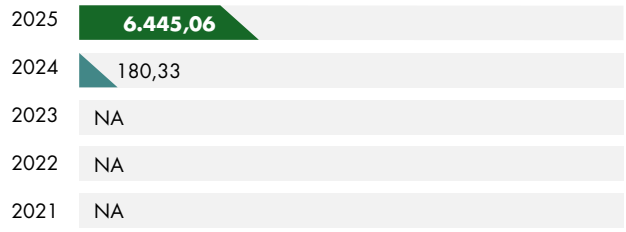
Total emisi Cakupan 3 pada 2025 mencapai 162.190,82 t CO_2e, bertambah 35,01% dari 2024 sebesar 120.134,91 t CO_2e. Kenaikan disebabkan peningkatan pengadaan/pembelian *capital goods* untuk proyek-proyek investasi *green business* di PGE. Untuk menjaga tingkat emisi Cakupan 3 yang melibatkan pihak eksternal, Perseroan terus mendorong vendor/pemasok untuk melakukan pencatatan data emisi dan mengurangi emisi karbon dari setiap kegiatan yang dijalankan, serta mendorong penggunaan bahan bakar pengganti yang rendah karbon.

Total Scope 3 emissions in 2025 reached 162,190.82 t CO_2e, an increase of 35.01% from 120,134.91 t CO_2e in 2024. This increase is due to the increase in procurement/purchase of capital goods for green business investment projects at PGE. To maintain Scope 3 emissions involving external parties, the Company continues to encourage vendors/suppliers to record emissions data, reduce carbon emissions across all activities, and use low-carbon alternative fuels.

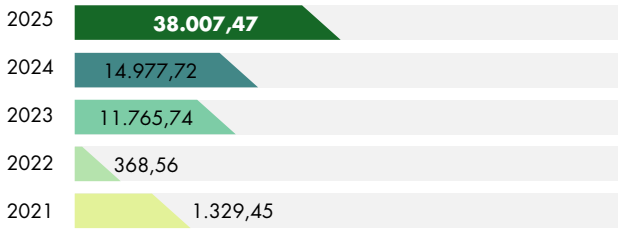
Jumlah Emisi GRK yang Dihasilkan Berdasarkan Gas yang Termasuk dalam Penghitungan
Amount of GHG Emissions Generated Based on Gases Included in the Calculation



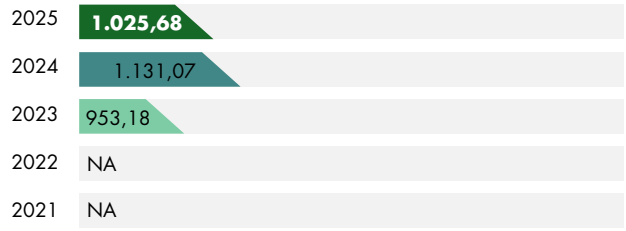
Emisi GRK Cakupan 3
GHG Emissions Scope 3



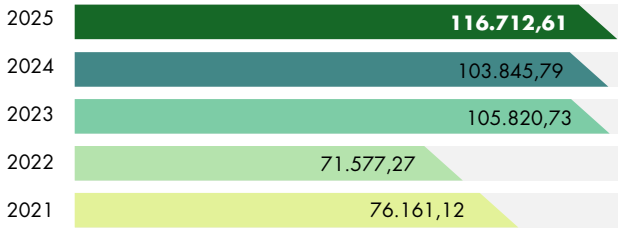
Kategori 1 – Pembelian Barang dan Jasa Kegiatan Operasional (t CO_2e)
Category 1 – Purchase of Goods and Services for Operational Activities (t CO_2e)



Kategori 2 – Pembelian Barang dan Jasa Modal (t CO_2e)
Category 2 – Provision of Capital Goods and Services (t CO_2e)



Kategori 6 – Perjalanan Bisnis (t CO_2e)
Category 6 – Business Travel (t CO_2e)



Kategori 11 – Penggunaan Produk yang Dijual Akibat Penjualan Uap ke PLN (t CO_2e)
Category 11 – Use of Products Sold as a Result of Steam Sales to PLN (t CO_2e)

Intensitas Emisi GRK [OJK F.11][GRI 305-4]

Sesuai Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor P.15 Tahun 2019 tentang Baku Mutu Emisi Pembangkit Listrik Tenaga Termal, PGE telah menetapkan batasan emisi pada cakupan 1, 2, dan 3 yang berasal dari kegiatan di area operasi, proyek, serta kantor pusat. Penghitungan emisi GRK dinyatakan sebagai total emisi dalam satuan ton CO_2e (t CO_2e), dengan *baseline* tahun 2020 yang mencakup gas CO_2. Faktor konversi GRK non-CO_2 (CH_4 dan N_2O) berdasarkan nilai IPCC *global warming potential* (GWP)*: sixth assessment report* (AR6) untuk jangka waktu 100 tahun. Penghitungan emisi belum memasukkan jenis emisi dari biogenik.

Perseroan telah melakukan penghitungan beban emisi GRK secara komprehensif sejak 2020 sebagai *baseline*, dengan total emisi sebesar 200.681,06 t CO_2e. Pada 2025, total emisi GRK Cakupan 1, 2, dan 3 tercatat sebesar 209.511,57 t CO_2e, meningkat dibandingkan *baseline* dan realisasi 2024 sebesar 198.363,56 t CO_2e. Peningkatan terjadi seiring beroperasinya PLTP Lumut Balai Unit 2 dan penambahan realisasi produksi pembangkitan listrik di area lainnya. Intensitas emisi GRK pada 2025 mencapai 41,12 g CO_2e/kWh, meningkat 0,07% dari realisasi 2024 sebesar 41,09 g CO_2e/kWh serta turun 6,55% dari *baseline* 44 g CO_2e/kWh, sehingga tetap sejalan dengan target penurunan intensitas emisi sebesar 29% dari *baseline*. Capaian intensitas emisi tersebut juga berada di bawah ambang batas Taksonomi Eropa dan Taksonomi Keuangan Berkelanjutan Indonesia sebesar 100 g CO_2e/kWh.

Emission Intensity [OJK F.11][GRI 305-4]

In accordance with Regulation of the Minister of Environment and Forestry Number P.15 of 2019 concerning Quality Standards for Emissions from Thermal Power Plants, PGE has set emission limits for scopes 1, 2, and 3, which originate from activities in operational areas, projects, and head offices. GHG emissions are calculated as total emissions in tonnes of CO_2e (t CO_2e), with a 2020 baseline that includes CO_2 gas. Non-CO_2 GHG conversion factors (CH_4 and N_2O) are based on the IPCC global warming potential (GWP) values: sixth assessment report (AR6) for a period of 100 years. The emission calculation does not include biogenic emissions.

The Company has conducted a comprehensive GHG emission calculation since 2020 as a baseline, with total emissions of 200,681.06 t CO_2e. In 2025, total GHG emissions for Scopes 1, 2, and 3 were recorded at 209,511.57 t CO_2e, an increase compared to the baseline and 2024 realization of 198,363.56 t CO_2e. This increase occurred in line with the operation of the Lumut Balai Unit 2 PLTP and additional electricity generation in other areas. GHG emissions intensity in 2025 reached 41.12 g CO_2e/kWh, an increase of 0.07% from the 2024 realization of 41.09 g CO_2e/kWh and a decrease of 6.55% from the baseline of 44 g CO_2e/kWh, thus remaining in line with the target of reducing emissions intensity by 29% from the baseline. This emission intensity achievement is also below the European Taxonomy and Indonesian Sustainable Finance Taxonomy thresholds of 100 g CO_2e/kWh.

Intensitas Emisi GRK Berdasarkan Cakupan
Intensity of GHG Emissions Based on Scope

Uraian Description	Satuan Unit	2025	2024	2023	2022	2021
Produksi **Production**						
Total	MWh	5.095.485,00	4.827.221,00	4.734.567,85	4.629.595,51	4.660.477
Emisi **Emissions**						
Cakupan 1 Scope 1	t CO_2e	89.909,24	92.222,91	89.159,78	119.143,41	106.968,27
Cakupan 2 Scope 2		2.889,72	2.294,86	1.854,82	2.752,19	2.860,92
Cakupan 3 (Emisi dari Penjualan Uap) Scope 3 (Emissions from Steam Sales)		116.712,61	103.845,79	105.820,73	71.577,27	76.161,12
Total		209.511,57	198.363,56	196.835,33	193.472,87	185.990,31
Intensitas Emisi **Emissions Intensity**						
Intensitas Emisi Emissions Intensity	g CO_2e/ kWh*	41,12	41,09	41,57	41,79	40,19
Tracking Dibandingkan *Baseline* Tracking Compared to Baseline	%	(6,55)	(6,61)	(5,51)	(5,02)	(8,65)

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Emisi GRK yang Dipindahkan dan Kredit Karbon

Selama 2025, PGE tidak melakukan pemindahan karbon maupun emisi GRK lainnya, namun tengah mengembangkan inisiatif *carbon capture and storage* (CCS) dan *carbon capture, utilization and storage* (CCUS) yang masih dalam tahap riset dan studi kelayakan sebagai bagian dari strategi dekarbonisasi jangka panjang. Di sisi lain, PGE berkontribusi melalui penerbitan kredit karbon dari proyek panas bumi yang memiliki jejak karbon hingga 10 kali lebih rendah dibandingkan pembangkit fosil, dengan satu kredit setara pengurangan 1 ton CO_2e.

PGE menjadi perusahaan pertama penyedia kredit karbon di Bursa Karbon Indonesia (IDXCarbon) sejak 26 September 2023 melalui proyek Lahendong Unit 5 & 6 bersama Pertamina NRE. Selain itu, sejak 2022, PGE telah memasok kredit karbon di pasar internasional melalui perolehan *Certified Emission*

Transferred GHG Emissions and Carbon Credits

During 2025, PGE did not transfer carbon or other GHG emissions, but is developing carbon capture and storage (CCS) and carbon capture, utilization and storage (CCUS) initiatives that are still in the research and feasibility study stage as part of its long-term decarbonization strategy. On the other hand, PGE contributes by issuing carbon credits from geothermal projects with a carbon footprint up to 10 times lower than fossil-fuel power plants, with one credit equivalent to a reduction of 1 tonne of CO_2e.

PGE became the first carbon credit provider on the Indonesia Carbon Exchange (IDXCarbon) on September 26, 2023, through the Lahendong Unit 5 & 6 project in collaboration with Pertamina NRE. Additionally, since 2022, PGE has supplied carbon credits to the international market by acquiring of

Reduction (CER) dan *Gold Standard* CER untuk proyek CDM Area Ulubelu Unit 3 & 4 sebesar 1.549.663 t CO_2e serta Area Karaha Unit 1 sebesar 192.809 t CO_2e. Adapun *Gold Standard* CDM merupakan label premium yang mencerminkan kualitas proyek dan kontribusinya terhadap pembangunan berkelanjutan sesuai TPB, dan sertifikasi yang diraih Perseroan menjadi yang pertama di sektor panas bumi Indonesia, menandakan pemenuhan standar pelibatan pemangku kepentingan, penghormatan HAM, konservasi keanekaragaman hayati, serta pemberdayaan masyarakat.

Certified Emission Reductions (CERs) and Gold Standard CERs for the CDM Ulubelu Area Units 3 & 4 project, amounting to 1,549,663 t CO_2e, and the Karaha Area Unit 1 project, amounting to 192,809 t CO_2e. The Gold Standard CDM is a premium label that reflects the quality of the project and its contribution to sustainable development in accordance with the SDGs, and the certification achieved by the Company is the first in the Indonesian geothermal sector, signifying compliance with standards for stakeholder engagement, respect for human rights, biodiversity conservation, and community empowerment.



Penghindaran Emisi

Selain berbagai inisiatif reduksi emisi GRK dalam operasionalnya, sebagai bisnis *low carbon* PGE, juga mewujudkan komitmen *net zero emission* (NZE) melalui peningkatan produksi listrik dengan intensitas emisi yang lebih rendah 95,43% dibandingkan pembangkit listrik tenaga fosil. Pada 2025, pembangkitan listrik sebesar 5.095,49 GWh berhasil menghindarkan emisi 4.291.102,02 t CO_2e. Penghindaran emisi dihitung berdasarkan metode ACM 0002 yang telah diadopsi oleh Kementerian Lingkungan Hidup (KLH).

Emission Avoidance

Beyond various GHG emission-reduction initiatives in its operations, as a low-carbon business, PGE advances its net-zero emissions (NZE) commitment by increasing electricity production with a lower emission intensity of 95.43% compared to fossil-fuel power plants. In 2025, electricity generation of 5,095.49 GWh successfully avoided emissions of 4,291,102.02 t CO_2e. Emission avoidance is calculated based on the ACM 0002 method adopted by the Ministry of Environment (KLH).

Uraian Description	Satuan Unit	2025	2024	2023
Pembangkitan Setara Listrik Seluruh Unit PLTP di PGE* Equal Power Generation for All PLTP Units at PGE*	GWh	5.095,49	4.827,22	4.734,57
Emisi yang Dihindarkan* Emissions Avoidance*	t CO_2e	4.291.102,02	4.051.167,79	3.971.869,92
Pembangkitan Listrik Unit PLTP PGE** Electricity Generation of PGE Geothermal Power Plant Units**	GWh	2.712,61	2.443,65	2.442,57
Emisi yang Dihindarkan** Emissions Avoidance**	t CO_2e	2.334.315,20	2.084.786,34	2.086.573,69

Keterangan
*Termasuk produksi listrik dan produksi uap setara listrik yang dijual.
**Produksi listrik yang dijual (produksi listrik PLTP yang dioperasikan oleh PGE).

Notes:
*Including electricity production and electricity-equivalent steam production sold.
**Electricity production sold (electricity production from GPP operated by PGE).

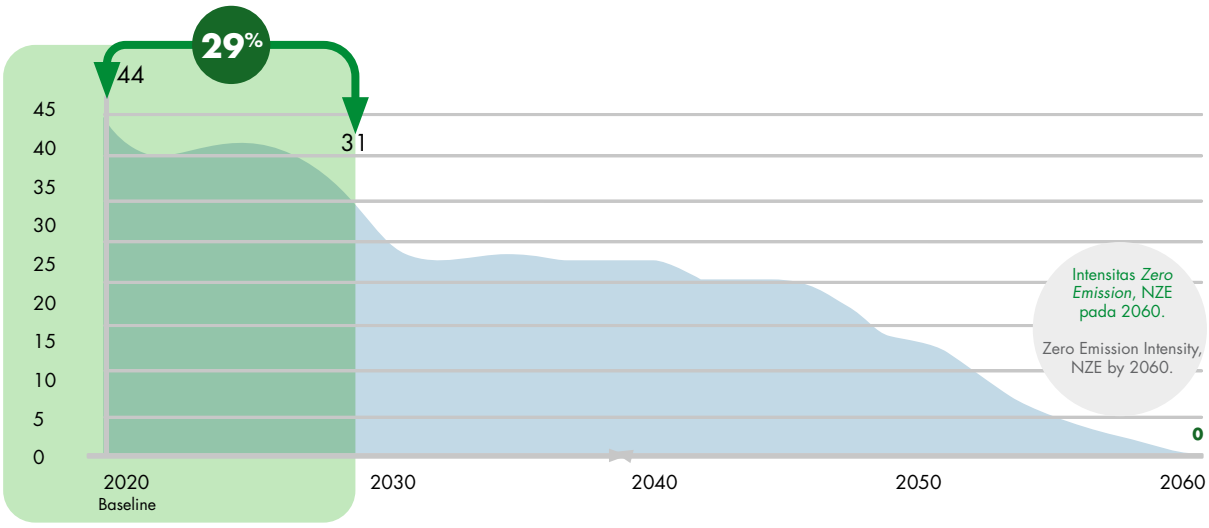
Upaya Reduksi Emisi GRK [OJK F.12][GRI 305-5]

Program penurunan emisi GRK di PGE mengacu pada agenda dekarbonisasi yang telah ditetapkan pada 2023, sebagai bagian dari upaya pengurangan emisi dalam proses bisnis atau *business as usual* (BAU). Berdasarkan agenda dekarbonisasi, PGE menargetkan penurunan intensitas emisi sebesar 29%, dari *baseline* tahun 2020 di angka 44 g CO_2e/kWh menjadi 31 g CO_2e/kWh di 2030. Target tersebut sejalan dengan target penurunan emisi PT Pertamina (Persero) selaku perusahaan *Holding*, dan target pemegang saham utama PGE, yaitu PT Pertamina NRE (PNRE). Masing-masing menargetkan penurunan emisi pada 2030 mencapai 32% dan 30%. Kesungguhan PGE melakukan reduksi emisi menjadi bagian dari upaya bersama mengendalikan pemanasan global dan mencegah kenaikan suhu bumi 1,5°C.

GHG Emission Reduction Initiatives

[OJK F.12][GRI 305-5]

PGE's GHG emission reduction program refers to the decarbonization agenda set in 2023, as part of efforts to reduce emissions in business processes or business as usual (BAU). Based on the decarbonization agenda, PGE targets a 29% reduction in emission intensity, from a 2020 baseline of 44 g CO_2e/kWh to 31 g CO_2e/kWh in 2030. This target aligns with the emission-reduction targets of PT Pertamina (Persero), the holding Company, and with the target of PGE's main shareholder, PT Pertamina NRE (PNRE). Each targets a 32% and 30% reduction in emissions by 2030, respectively. PGE's commitment to reducing emissions is part of a joint effort to control global warming and prevent the Earth's temperature from rising by 1.5°C.



Keterangan: dalam g CO_2/kWh | Note: in g CO_2/kWh

Selama 2025, Perseroan berhasil melakukan beberapa inisiatif utama yang mendukung penurunan emisi GRK, antara lain:

1. Program *debottlenecking* atau optimalisasi dan interkoneksi sumur-sumur produksi di Area Ulubelu untuk menurunkan kadar gas NCG yang merupakan sumber emisi utama pada PLTP, dengan realisasi penurunan emisi sebesar 40.272,31 ton CO_2e;
2. Penggunaan Pembangkit Listrik Tenaga Surya (PLTS) di Kantor Area Lahendong dan Kamojang, dengan realisasi penurunan emisi sebesar 20,99 ton CO_2e;
3. *Binary power plant* di Area Lahendong, dengan realisasi penurunan emisi sebesar 1.197,60 ton CO_2e;

During 2025, the Company successfully implemented several key initiatives that supported GHG emission reduction, including:

1. A debottlenecking program or optimization and interconnection of production wells in the Ulubelu Area to reduce NCG gas levels, which are the main source of emissions at PLTP, with a realized emission reduction of 40,272.31 tonnes of CO_2e;
2. The use of solar power plants (PLTS) at the Lahendong and Kamojang Area Offices, with a realized emission reduction of 20.99 tonnes of CO_2e;
3. A binary power plant in the Lahendong Area, with a realized emission reduction of 1,197.60 tonnes of CO_2e;

4. Pengurangan jam kerja pompa reinjeksi dengan pompa gravitasi di Area Kamojang yang menurunkan emisi sebesar 229,08 ton CO_2e;
5. Mengurangi emisi genset pada pengelasan pipa air pemboran dengan inovasi *clamp seam*, berhasil menurunkan emisi sebesar 0,12 ton CO_2e;
6. Pengoperasian *vacuum pump* dari *energy own use* PLTP Unit 5 dan 6 yang dapat menghindarkan emisi sebesar 1.789 ton CO_2e;
7. Elektrifikasi area *logyard* dan *cluster*, yang berhasil menurunkan emisi sebesar 200,52 ton CO_2e;
8. Penggunaan mobil *hybrid* dan mobil listrik yang berhasil menghindarkan emisi sebesar 73,27 ton CO_2e.

4. Reduction of reinjection pump operating hours with gravity pumps in the Kamojang Area, which reduced emissions by 229.08 tonnes of CO_2e;
5. Reducing generator emissions in water drilling pipe welding with clamp seam innovation, which successfully reduced emissions by 0.12 tonnes of CO_2e;
6. Operation of vacuum pumps from energy own use PLTP Units 5 and 6, which can prevent emissions of 1,789 tonnes of CO_2e;
7. Electrification of the logyard and cluster areas, which successfully reduced emissions by 200.52 tonnes of CO_2e;
8. Use of hybrid and electric cars, which successfully prevented emissions of 73.27 tonnes of CO_2e.

Pengendalian **Emisi Non-GRK** [GRI 305-6, 305-7]

Non-GHG Emissions Control

Proses produksi PGE menghasilkan emisi non-GRK berupa gas *Non-Condensable Gas* (NCG) yang secara alami terkandung dalam fluida panas bumi dan dilepaskan melalui *cooling tower* PLTP, serta emisi udara non-GRK lainnya yang bersumber dari operasional kendaraan dan *emergency diesel generator*. Perhitungan emisi dilakukan menggunakan aplikasi Emission Calc v.5.0 berdasarkan data konsumsi BBM, dengan faktor emisi mengacu pada spesifikasi bahan bakar nasional dan US-EPA AP-42. Pada 2025, total emisi non-GRK mencapai 2.933,80 ton H_2S dan 238,98 ton NH_3, yang dihitung dengan mengalikan hasil analisis NCG dengan volume uap yang dihasilkan, sementara proses produksi Perseroan tidak menghasilkan zat perusak ozon. Dibandingkan dengan 2024, sebesar 2.954,90 ton H_2S, emisi H_2S pada 2025 turun sebesar 0,72%, sedangkan emisi NH_3 bertambah 20,37% dari 190,31 ton NH_3 pada 2024. Kenaikan emisi non-GRK terjadi seiring meningkatnya kapasitas pembangkitan listrik Perseroan.

The PGE production process generates non-GHG emissions in the form of Non-Condensable Gas (NCG), which is naturally contained in geothermal fluids and released through the PLTP cooling tower, as well as other non-GHG air emissions sourced from vehicle operations and emergency diesel generators. Emissions are calculated using the Emission Calc v.5.0 application based on fuel consumption data, with emission factors referring to national fuel specifications and US-EPA AP-42. In 2025, total non-GHG emissions reached 2,933.80 tonnes of H_2S (t H_2S) and 238.98 tonnes of NH_3 (t NH_3), calculated by multiplying the results of the NCG analysis by the volume of steam produced, while the Company's production process does not produce ozone-depleting substances. Compared to 2024, which was 2,954.90 t H_2S, H_2S emissions in 2025 decrease by 0.72%, while NH_3 emissions increased by 20.37% from 190.31 t NH_3 in 2024. The increase in non-GHG emissions was in line with the Company's expansion of power generation capacity.



PT Pertamina Geothermal Energy Tbk

Volume dan Jenis Emisi Non-GRK
Volume and Types of Non-GHG Emissions

Jenis Emisi Type of Emissions	Satuan Unit	2025	2024	2023	2022	2021
Proses Produksi **Production Process**						
Emisi H_2S H_2S Emissions	t H_2S	2.933,80	2.954,90	3.511,29	3.226,25	3.154,38
Emisi NH_3 NH_3 Emissions	t NH_3	238,98	190,31	149,50	180,81	250,75
Emisi Udara **Air Emissions**						
Sulfur Oksida (SOx) Sulfur Oxides (SOx)	t SOx	3,55	3,47	2,88	4,23	2,64
Nitrogen Oksida (NOx) Nitrogen Oxides (NOx)	t NOx	54,13	52,77	44,23	67,59	40,31
Particulate Matter (PM)	t PM	4,13	3,71	3,59	4,52	2,83

Keterangan:
- Cakupan emisi yaitu emisi dari emisi sumber bergerak dan tidak bergerak.
- Perhitungan dilakukan dari pencatatan penggunaan BBM Perseroan, dengan menggunakan spesifikasi BBM nasional, dan mengacu pada faktor emisi dari US-EPA AP-42.

Notes:
- Emissions coverage includes emissions from mobile and stationary sources.
- Calculations are based on the Company's fuel consumption records, using national fuel specifications and referring to emission factors from US-EPA AP-42.

Pengendalian H_2S

Kegiatan uji produksi merupakan tahapan akhir pengeboran sumur panas bumi yang bertujuan untuk mengetahui tingkat produktivitas sumur, melalui pengaliran fluida panas bumi untuk mengukur laju alir, entalpi, serta karakteristik kimia, termasuk kandungan *Non-Condensable Gas* (NCG) yang umumnya didominasi oleh gas CO_2 dan gas lain dalam kadar lebih rendah seperti H_2S, H_2, N_2, NH_3, dan CH_4. Pada kondisi statis, gas NCG dapat terakumulasi di kepala sumur dan berpotensi menimbulkan risiko, terutama akibat kandungan gas H_2S yang bersifat beracun, sehingga Perseroan melakukan mitigasi melalui program H_2S *Abatement* dengan menetralkan gas H_2S menggunakan larutan *caustic soda* (NaOH). Untuk meningkatkan efektivitas proses tersebut, PGE mengembangkan metode Gazsol guna mengoptimalkan kebutuhan larutan NaOH, sehingga dapat meminimalkan timbulan limbah B3 sekaligus menurunkan emisi gas H_2S yang dilepaskan ke lingkungan.

H_2S Abatement

Production testing is the final stage of geothermal well drilling, which aims to determine the productivity level of the well by flowing geothermal fluid to measure the flow rate, enthalpy, and chemical characteristics, including the content of Non-Condensable Gas (NCG), which is generally dominated by CO_2 gas and other gases in lower concentrations such as H_2S, H_2, N_2, NH_3, and CH_4. Under static conditions, NCG gases can accumulate at the wellhead and pose a risk, especially given the toxicity of H_2S gas. Therefore, the Company mitigates this risk through an H_2S Abatement program by neutralizing H_2S gas using a caustic soda (NaOH) solution. To improve the effectiveness of this process, PGE developed the Gazsol method to optimize the NaOH solution requirement, thereby minimizing hazardous waste and reducing H_2S gas emissions released into the environment.

Pengendalian Kualitas Udara Ambien

Aktivitas eksplorasi dan produksi Perseroan memiliki risiko polusi udara berupa emisi ambien dan kebauan. Pada 2025, PGE telah melakukan pemantauan kualitas udara ambien di seluruh area PGE.

Ambient Air Quality Control

The Company's exploration and production activities carry the risk of air pollution in the form of ambient emissions and odors. In 2025, PGE monitored ambient air quality across all PGE areas.

Dari hasil pengukuran serta perbandingannya dengan baku mutu udara ambien di masing-masing wilayah operasi selama 2025, diketahui bahwa kualitas udara ambien telah memenuhi baku mutu yang ditetapkan dalam regulasi, sehingga sehat untuk manusia maupun makhluk hidup di wilayah operasi. Sebagai langkah mitigasi, kami menerapkan beberapa langkah inisiatif sebagai berikut:

1. Melakukan pengelolaan dan pemantauan emisi dan udara mengacu pada PP No. 41 Tahun 1999 tentang Pengendalian Pencemaran Udara;
2. Memenuhi ketentuan baku mutu emisi dan perhitungan beban emisi sesuai Permen LHK No. 15 Tahun 2019 tentang Baku Mutu Emisi Pembangkit Listrik Tenaga Termal;
3. Memasang H_2S *Abatement system* pada jalur uji produksi untuk menangkap kandungan gas H_2S;
4. Memastikan kendaraan yang digunakan untuk kegiatan operasional memenuhi standar operasi yang ditetapkan Perseroan;
5. Melakukan penanaman pohon endemik di sekitar area operasional;
6. Melakukan pemeliharaan sumur produksi, PLTP, dan fasilitas penunjang secara rutin dan berkala;
7. Melepaskan gas dari *gas extraction system* melalui *outlet fan cooling tower* untuk dispersi gas dari uap panas bumi;
8. Memasang *gas detector* pada area-area yang berpotensi menimbulkan gas berbahaya;
9. Melengkapi pekerja di area yang berpotensi terpapar gas berbahaya dengan portable *gas detector*.

Based on the measurement results and comparisons with ambient air quality standards in each operating area during 2025, it was found that ambient air quality met the standards set by regulations, making it safe for humans and other living creatures in the operating areas. As a mitigation measure, we implemented several initiatives as follows:

1. Managing and monitoring emissions and air quality in accordance with Government Regulation No. 41 of 1999 concerning Air Pollution Control;
2. Complying with emission quality standards and emission load calculations in accordance with the Minister of Environment and Forestry Regulation No. 15 of 2019 concerning Emission Quality Standards for Thermal Power Plants;
3. Installing an H_2S Abatement system on the production test line to capture H_2S gas content;
4. Ensuring that vehicles used for operational activities meet the Company's established operating standards;
5. Planting endemic trees around the operational area;
6. Performing routine and periodic maintenance of production wells, PLTP, and supporting facilities;
7. Releasing gas from the gas extraction system through the cooling tower outlet fan to disperse gas from geothermal steam;
8. Installing gas detectors in areas with the potential for hazardous gases;
9. Equipping workers in areas with the potential for exposure to hazardous gases with portable gas detectors.

Biaya Pengelolaan Lingkungan dan **Informasi Pengaduan Lingkungan** [OJK F.4, F.15, F.16]

Environmental Management Costs and Environmental Complaint Information

Perseroan menginvestasikan biaya pengelolaan dan pelestarian lingkungan pada 2025 sebesar Rp10.370.534.531, meningkat Rp695.447.900 atau 4,71% dari 2024 sebesar Rp9.904.381.904. PGE tidak menerima maupun membayar denda atau sanksi terkait pelanggaran peraturan lingkungan atau isu ekologi dalam empat tahun terakhir. Pada 2025, tidak terdapat pengaduan lingkungan, termasuk tidak ada insiden kebocoran fluida panas bumi. Hal ini mencerminkan komitmen PGE dalam mematuhi seluruh ketentuan peraturan perundang-undangan di bidang lingkungan serta penerapan pengelolaan lingkungan yang bertanggung jawab dan berkelanjutan di seluruh wilayah operasional Perseroan.

The Company invested Rp10,370,534,531 in environmental management and conservation costs in 2025, an increase of Rp695,447,900 or 4.71% from Rp9,904,381,904 in 2024. PGE has not received or paid any fines or penalties related to environmental violations or ecological issues in the last four years. In 2025, there were no environmental complaints, including no geothermal fluid leaks. This reflects PGE's commitment to complying with all environmental laws and regulations and implementing responsible and sustainable environmental management across all of the Company's operational areas.

Investasi Biaya Pengelolaan dan Pelestarian Lingkungan (Rp)
Investment in Environmental Management and Conservation Costs (Rp)

Area	2025		2024	2023
	Jumlah Total	% Peningkatan (Penurunan) % Increase (Decrease)		
Area Kamojang Kamojang Area	3.155.000.000	3,87	3.037.500.000	3.082.000.000
Area Lahendong Lahendong Area	1.932.278.820	(3,17)	1.995.510.250	1.633.638.225
Area Ulubelu Ulubelu Area	1.225.897.524	(0,28)	1.229.289.540	1.195.478.620
Area Karaha Karaha Area	1.152.066.092	0,40	1.147.462.364	1.160.288.623
Area Lumut Balai Lumut Balai Area	1.716.125.847	90,82	899.349.750	633.479.000
Area Sibayak Sibayak Area	124.900.000	(76,21)	524.920.000	290.000.000
Proyek Hululais Hululais Area	895.446.248	0,57	890.350.000	928.050.000
Proyek Sungai Penuh Sungai Penuh Project	168.820.000	(6,21)	180.000.000	164.000.000
Total	**10.370.534.531**	**4,71**	**9.904.381.904**	**9.086.934.468**

Aksi Mendukung Pengendalian **Perubahan Iklim**

Actions to Support Climate Change Mitigation

Pengelolaan **Konsumsi Energi**

Energy Consumption Management

Kebijakan pengelolaan energi diatur dalam Kebijakan Keberlanjutan PGE yang disahkan pada 24 Juli 2023 serta Rencana Pengelolaan Lingkungan–Rencana Pemantauan Lingkungan (RKL-RPL) PGE. Pengelolaan energi difokuskan pada efisiensi energi melalui optimalisasi penggunaan EBT serta pengurangan konsumsi energi. PGE menargetkan bauran penggunaan EBT di dalam proses operasional mencapai 96% untuk pemakaian energi dalam Perseroan pada 2030, dengan capaian di 2025 sebesar 94,36%, meningkat dari 2024 sebesar 94,13%. Optimalisasi energi akan berpengaruh pada penghematan biaya operasi, sementara pengembangan EBT akan mendukung transisi energi.

Energy management policies are regulated by PGE's Sustainability Policy, ratified on July 24, 2023, and by PGE's Environmental Management Plan–Environmental Monitoring Plan (RKL-RPL). Energy management focuses on energy efficiency through the optimization of renewable energy use and the reduction of energy consumption.PGE targets a 96% renewable energy mix in its operations for energy use within the Company by 2030, with a target of 94.36% by 2025, up from 94.13% in 2024. Energy optimization results in operational cost savings, while the development of renewable energy supports the energy transition.

Pemakaian Energi di dalam Perseroan

[OJK F.6][GRI 302-1]

PGE menggunakan kombinasi energi terbarukan dan tidak terbarukan untuk memenuhi kebutuhan energi Perseroan, yang bersumber dari PLTP milik Perseroan, pembangkit listrik tenaga surya (PLTS), BBM, serta listrik dari PLN. Metode penghitungan penggunaan energi didasarkan pada Pedoman Inventarisasi GRK DJK ESDM 2018. Jumlah konsumsi energi Perseroan pada 2025 mencapai 178.197,38 MWh, bertambah sebesar 14,63% dibandingkan 2024 sebesar 155.454,22 MWh. Porsi penggunaan EBT dalam bauran energi mencapai 94,36%, lebih tinggi dibandingkan tahun sebelumnya sebesar 94,24%. Ke depan, PGE akan meningkatkan pemanfaatan kendaraan berbahan bakar listrik, *hybrid*, maupun hidrogen dalam kegiatan operasional guna mendukung pencapaian target bauran energi terbarukan Perseroan sebesar 96% pada 2030.

Energy Use within the Company [OJK F.6][GRI 302-1]

PGE uses a combination of renewable and non-renewable energy to meet the Company's energy needs, which come from the Company's geothermal power plants, solar power plants (PLTS), fuel oil, and electricity from PLN. The method of calculating energy use is based on the 2018 DJK ESDM GHG Inventory Guidelines. The Company's energy consumption in 2025 reached 178,197.38 MWh, an increase of 14.63% compared to 2024's 155,454.22 MWh. The share of renewable energy in the energy mix reached 94.36%, higher than the previous year's figure of 94.24%. Going forward, PGE shall increase the use of electric, hybrid, and hydrogen-powered vehicles in its operations to support the achievement of the Company's renewable energy mix target of 96% by 2030.

Konsumsi Energi di dalam Perseroan dan dari Pembangkit Sendiri
Energy Consumption within the Company and from Self-Generation

Sumber Energi Terbarukan | Renewable Energy Sources

	Panas Bumi (MWh) Geothermal Energy (MWh)	Tenaga Surya (MWh) Solar Energy (MWh)	Jumlah (MWh) Total (MWh)
2025	168.122,41	26,71	168.149,12
2024	146.428,39	75,28	146.503,66
2023	146.774,78	53,04	146.827,81

Sumber Energi Tidak Terbarukan | Non-Renewable Energy Sources

	BBM - Solar (MWh) Fuel - Diesel (MWh)	BBM - Bensin (MWh) Fuel - Gasoline (MWh)	BBM - Solar (MWh) Fuel - Diesel (MWh)	Jumlah (MWh) Total (MWh)
2025	6.631,61	0,49	3.416,16	10.048,26
2024	6.672,31	0,18	2.278,07	8.950,56
2023	5.889,94	0,18	2.997,47	8.887,59

Total Konsumsi Energi Sumber Energi Terbarukan + Sumber Energi Tidak Terbarukan
Total Energy Consumption Renewable Energy Sources + Non-Renewable Energy Sources

	Jumlah (MWh) Total (MWh)
2025	178.197,38
2024	155.454,22
2023	155.715,40

Bauran Energi Terbarukan
Renewable Energy Mix

	Persentase Bauran Energi Terbarukan (%) Percentage of Renewable Energy Mix (%)
2025	94,36
2024	94,24
2023	94,29

Keterangan:
- Penggunaan listrik Panas Bumi, Tenaga Surya, dan PLN: Data pencatatan konsumsi listrik dari kWh meter.
- Penggunaan BBM: Pencatatan dari pembelian dan flow meter tangki BBM.

Notes:
- Use of geothermal power, solar power, and PLN: Data recording of electricity consumption from kWh meters.
- Fuel consumption: Recording from purchases and fuel tank flow meters.

Konsumsi Energi *Upstream* dan *Downstream* [GRI 302-2]

Kegiatan operasi PGE merupakan kombinasi dari aktivitas pengeboran sumur panas bumi atau sektor hulu dan produksi listrik atau sektor hilir. Total kebutuhan energi PGE di 2025 adalah 187.884,46 MWh yang terdiri atas kebutuhan untuk kegiatan pembangkitan listrik dan pengeboran. Kebutuhan energi untuk kegiatan pengeboran sumur panas bumi di 2025 mencapai 9.687,08 MWh atau 5,16% dari total kebutuhan energi, sementara untuk aktivitas pembangkitan listrik sebesar 178.197,38 MWh atau 94,84% dari total kebutuhan energi. Penghitungan konsumsi energi untuk kegiatan pengeboran sumur panas bumi didasarkan pada Pedoman Inventarisasi GRK DJK ESDM 2018.

Upstream and Downstream Energy Consumption [GRI 302-2]

PGE's operations are a combination of geothermal well drilling activities or upstream sector, and electricity production or downstream sector. PGE's total energy demand in 2025 is 187,884.46 MWh, consisting of demand for electricity generation and drilling activities. The energy requirement for geothermal well drilling activities in 2025 reached 9,687.08 MWh or 5.16% of the total energy requirement, while the energy requirement for electricity generation activities reached 178,197.38 MWh or 94.84% of the total energy requirement. The calculation of energy consumption for geothermal well drilling activities is based on the 2018 DJK ESDM GHG Inventory Guidelines.

Intensitas Energi [OJK F.6][GRI 302-3]

PGE menghitung rasio intensitas energi sebagai perbandingan antara total energi yang dikonsumsi, baik di dalam maupun di luar Perseroan, dengan total produksi listrik panas bumi. Pada 2025, intensitas energi total tercatat sebesar 0,037 MWh/MWh, turun sebanyak 10,10% dibandingkan 2024 sebesar 0,041 MWh/MWh, serta naik sebanyak 5,71% dibandingkan dengan *baseline* 2020, yaitu 0,035 MWh/MWh. Sementara itu, intensitas energi untuk kegiatan pengeboran sumur panas bumi yang dilakukan oleh vendor pada 2025 mencapai 0,002 MWh/MWh, lebih rendah dibandingkan 2024 sebesar 0,009 MWh/MWh, serta sama dengan *baseline* 2020 sebesar 0,002 MWh/MWh. Terdapat penurunan konsumsi energi di luar perusahaan yang signifikan di 2025 karena hanya terdapat satu aktivitas pengeboran yang dilakukan oleh vendor.

Energy Intensity [OJK F.6][GRI 302-3]

PGE calculates the energy intensity ratio as the ratio of total energy consumption, both inside and outside the Company, to total geothermal electricity production. In 2025, the total energy intensity was recorded at 0.037 MWh/MWh, down 10.10% from 2024 (0.041 MWh/MWh) and 5.71% from the 2020 baseline of 0.035 MWh/MWh. Meanwhile, the energy intensity for geothermal well-drilling activities carried out by vendors in 2025 was 0.002 MWh/MWh, down from 0.009 MWh/MWh in 2024 and matching the 2020 baseline of 0.002 MWh/MWh. There is a significant decrease in external energy consumption in 2025 because there is only one drilling activity carried out by vendors.

Intensitas Energi
Energy Intensity

Uraian Description	Satuan Unit	2025	2024	2023
Konsumsi Energi **Energy Consumption**				
Total Konsumsi Energi di Dalam Perusahaan Total Energy Consumption within the Company	MWh	178.197,38	155.832,70	155.715,40
Total Konsumsi Energi di Luar Perusahaan Total Energy Consumption Outside the Company		9.687,08	43.511,11	50.107,52
Total		**187.884,46**	**199,343.81**	**205.822,93**

Uraian Description	Satuan Unit	2025	2024	2023
Produksi Listrik **Electricity Production**				
Total	**MWh**	**5.095.485,00**	**4.827.221,00**	**4.734.567,93**
Intensitas Energi **Energy Intensity**				
Intensitas Energi di Dalam Perusahaan Energy Intensity within the Company	MWh/ MWh	0,035	0,032	0,033*
Intensitas Energi di Luar Perusahaan Energy Intensity Outside the Company		0,002	0,009	0,010
Intensitas Energi Total **Total Energy Intensity**		**0,037**	**0,041**	**0,043***

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Reduksi Konsumsi Energi dan Pencapaiannya [OJK F.7][GRI 302-4, 302-5]

Sepanjang 2025, Perseroan melakukan berbagai upaya untuk mendorong efisiensi energi termasuk mengurangi konsumsi energi, beberapa inisiatif utama yang dilakukan antara lain:

1. Optimalisasi penggunaan energi dengan mengoperasikan satu buah *liquid ring vacuum pump* (LRVP) saat operasi normal untuk PLTP Unit 4 & 5 untuk Area Kamojang yang mengurangi konsumsi energi sebesar 563,76 MWh.
2. Efisiensi pemakaian sendiri listrik PLTP Lahendong Unit 5 & 6 dengan mengurangi pemakaian satu *vacuum pump per unit* yang mengurangi konsumsi energi sebesar 637,11 MWh.
3. Optimalisasi penggunaan satu unit LRVP untuk operasional PLTP untuk Area Karaha mengurangi konsumsi energi sebesar 319,5 MWh.
4. Program *Steam Redistribution and Adjustment Method* (STREAM) yaitu pemanfaatan sumur bertekanan rendah sehingga meningkatkan produksi listrik di Area Ulubelu sebesar 13.756,00 MWh.
5. Pemanfaatan panas pada fasilitas produksi dan reinjeksi fluida panas bumi untuk pengeringan endapan *brine* di Area Lumut Balai mengurangi konsumsi energi sebesar 7.669,93 MWh.
6. Efisiensi pengurangan *steam* dan *hand control valve* (HCV) di Area Lumut Balai mengurangi konsumsi sebesar 7.488,06 MWh.

Energy Consumption Reduction and Its Achievements [OJK F.7][GRI 302-4, 302-5]

Throughout 2025, the Company undertook various efforts to promote energy efficiency, including reducing energy consumption. Some of the main initiatives undertaken included:

1. Optimizing energy use by operating one liquid ring vacuum pump (LRVP) during normal operations for PLTP Units 4 & 5 for the Kamojang Area, which reduced energy consumption by 563.76 MWh.
2. Improving the efficiency of electricity usage at Lahendong Units 5 & 6 by reducing the use of one vacuum pump per unit, which reduced energy consumption by 637.11 MWh.
3. Optimization of the use of one LRVP unit for PLTP operations in the Karaha Area, reducing energy consumption by 319.5 MWh.
4. Steam Redistribution and Adjustment Method (STREAM) program, which utilizes low-pressure wells, thereby increasing electricity production in the Ulubelu Area by 13,756.00 MWh.
5. Utilization of heat in production facilities and reinjection of geothermal fluids for brine deposit drying in the Lumut Balai Area reduced energy consumption by 7,669.93 MWh.
6. Efficiency in steam reduction and hand control valve (HCV) in the Lumut Balai Area reduced consumption by 7,488.06 MWh.

Atas berbagai upaya efisiensi energi yang telah dilakukan, pada 2025, PGE berhasil mencatatkan penurunan energi total hingga 25.139,52 MWh, meningkat 125,92% dari 2024 yang sebesar 11.127,44 MWh. Peningkatan tersebut didorong oleh program *Steam Redistribution and Adjustment Method* (STREAM) yang dilakukan pada 2025. Penghitungan tersebut dilakukan berdasarkan Pedoman Perhitungan dan Pelaporan Inventarisasi Gas Rumah Kaca - Dirjen Ketenagalistrikan KESDM 2018. Adapun nilai rasio efisiensi energi untuk 2025 tercatat sebesar 0,0049 MWh/MWh. Capaian tersebut lebih tinggi dari 2024 sebesar 0,0023 MWh/MWh, yang menunjukkan semakin efisiennya penggunaan energi untuk operasional PGE.

Through various energy efficiency efforts, by 2025, PGE has successfully recorded a total energy reduction of 25,139.52 MWh, an increase of 125.92% from 2024, which was 11,127.44 MWh. The increase was driven by the Steam Redistribution and Adjustment Method (STREAM) program implemented in 2025. This calculation was made based on the Guidelines for Calculation and Reporting of Greenhouse Gas Inventories - Director General of Electricity, Ministry of Energy and Mineral Resources 2018. The energy efficiency ratio for 2025 was recorded at 0.0049 MWh/MWh. This achievement is higher than the 2024 figure of 0.0023 MWh/MWh, indicating increasingly efficient energy use for PGE's operations.

Capaian Efisiensi Energi Area Operasi dan Rasio Efisiensi Energi PGE
Energy Efficiency Performance of Operating Areas and PGE Energy Efficiency Ratio

Uraian Description	**Satuan** Unit	**2025**	**2024**	**2023**
Nilai Efisiensi Energi **Energy Efficiency Value**				
Area Kamojang Kamojang Area	MWh	3.517,39	8.019,31	8.234,37
Area Lahendong Lahendong Area		4.093,29	1.693,35	2.089,86
Area Ulubelu Ulubelu Area		15.489,40	246,21	159,38
Area Karaha Karaha Area		2.039,44	1.168,57	1.170,21
Jumlah Efisiensi Energi **Total Energy Efficiency**		**25.139,52**	**11.127,44**	**11.653,82**
Produksi Listrik **Electricity Production**				
Total	MWh	5.095.485,00	4.827.220,00	4.734.567,85
Rasio Efisiensi Energi **Energy Efficiency Ratio**				
Nilai Rasio Efisiensi Energi Energy Efficiency Ratio Value	MWh/MWh	0,0049	0,0023	0,0016

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.



Sebagai bentuk pengawasan atas penerapan efisiensi energi, PGE melaksanakan audit energi secara berkala setiap tiga tahun. Audit dilakukan untuk mengukur efisiensi energi yang dihasilkan dari inovasi-inovasi di kegiatan operasional dan penunjang, dengan basis perhitungan dan standar yang mengacu pada masing-masing jenis inovasi. Audit energi terakhir dilakukan pada Januari 2025, audit tersebut memverifikasi bahwa hasil program efisiensi energi, penghematan biaya, dan rasio efisiensi energi pada PGE cenderung terus meningkat.

As a form of supervision over the implementation of energy efficiency, PGE conducts periodic energy audits every three years. The audit is conducted to measure the energy efficiency generated from innovations in operational and supporting activities, with calculations and standards based on each type of innovation. The last energy audit was conducted in January 2025, verifying that the results of the energy efficiency program, cost savings, and energy efficiency ratio at PGE continue to increase.

Pengelolaan **Air dan Efluen** [OJK F.8]

Water and Effluent Management

Kesungguhan PGE dalam mengelola pemakaian dan ketersediaan air mendapat apresiasi melalui peringkat B pada aspek *Water Security* dalam program Carbon Disclosure Project (CDP) 2025.
PGE's commitment to managing water usage and availability was recognized with a B rating for Water Security in the 2025 Carbon Disclosure Project (CDP) program.

Interaksi Pengambilan Air dari Sumber Bersama [GRI 303-1]

Air digunakan untuk produksi listrik, pengeboran, kegiatan pendukung, dan kebutuhan domestik, sehingga PGE mengelolanya secara bertanggung jawab untuk meminimalkan dampak terhadap lingkungan, masyarakat, dan ketersediaan alam. PGE menuangkan komitmennya terhadap efisiensi air di dalam dokumen kebijakan keberlanjutan.

Sumber air berasal dari reservoir panas bumi, air tanah, air permukaan, serta pembelian dari pihak ketiga, dengan seluruh pengambilan dilengkapi dengan Surat Izin Pengambilan dan Pemanfaatan Air Tanah (SIPA) untuk air tanah serta Surat Izin Pengambilan dan Pemanfaatan Air Permukaan (SIPPA) untuk air permukaan. Khusus air permukaan yang juga dimanfaatkan masyarakat, pengelolaan dilakukan secara hati-hati melalui sosialisasi, pengawasan otoritas, dan pemantauan internal oleh tenaga ahli bersertifikat tanpa adanya pengaduan selama periode pelaporan.

Interaction of Water Withdrawal from Shared Sources [GRI 303-1]

Water is used for power generation, drilling, support activities, and domestic needs. Accordingly, PGE manages water use responsibly to minimize impacts on the environment, communities, and water availability. PGE sets out its commitment to water efficiency in its sustainability policy document.

Water is sourced from geothermal reservoirs, groundwater, surface water, and third-party purchases. All withdrawals are covered by a Groundwater Withdrawal And Utilization Permit (SIPA) for groundwater and a Surface Water Withdrawal and a Utilization Permit (SIPPA) for surface water. Where surface water is also used by local communities, it is managed carefully through outreach and engagement, oversight by the relevant authorities, and internal monitoring by certified experts, with no complaints recorded during the reporting period.

Untuk memastikan efisiensi dan keberlanjutan pengelolaan air, PGE melakukan audit pengelolaan air setiap tiga tahun, dengan hasil terakhir pada Januari 2025 oleh pihak independen yang memperoleh predikat "Baik". Sepanjang 2025, pengambilan air dipastikan tidak mengganggu ketersediaan, termasuk di wilayah berisiko stres air, dan dalam tiga tahun terakhir tidak terdapat insiden terkait air yang berdampak finansial signifikan maupun mengganggu operasional. Selain itu, terdapat 15 pekerja PGE yang memperoleh sertifikasi BNSP terkait Kompetensi Pengendalian Pencemaran Air.

To support efficient and sustainable water management, PGE conducts water management audits every three years; the most recent audit, completed by an independent party in January 2025, received a "Good" rating. Throughout 2025, PGE ensured water withdrawals did not affect water availability, including in areas exposed to water-stress risk, and over the past three years there were no water-related incidents with significant financial impacts or operational disruption. In addition, 15 PGE workers obtained BNSP certification in water pollution control competency.

Pengambilan Air [GRI 303-3]

Sebagian besar air yang diambil adalah air terproduksi dari dalam reservoir yang digunakan untuk proses produksi listrik di unit pembangkit. Selain itu, ada air yang diambil dari sumber air permukaan, air tanah, dan pihak ketiga. Total pengambilan air terproduksi pada 2025 mencapai 269,03 megaliter (ML) berkurang 130,13 ML atau 32,60% dari 2024 sebesar 399,16 ML. Air terproduksi seluruhnya bukan merupakan air tawar karena memiliki salinitas tinggi.

Water Withdrawal [GRI 303-3]

Most of PGE's water withdrawal is produced water from the reservoir, used in power generation at the plant. PGE also withdraws water from surface water sources, groundwater, and third parties. Total produced-water withdrawal in 2025 was 269.03 megaliters (ML), down 130.13 ML or 32.60% from 399.16 ML in 2024. None of the produced water is fresh, as it has high salinity. None of the produced water is fresh water, as it has high salinity.

Volume Pengambilan Air Terproduksi
Volume of Produced Water Withdrawal

Area	Satuan Unit	2025	2024	2023
Area Kamojang, Jawa Barat Kamojang Area, West Java	Megaliter	11,89	50,19	70,68
Area Lahendong, Sulawesi Utara Lahendong Area, North Sulawesi		24,90	136,78	116,82
Area Ulubelu, Lampung Ulubelu Area, Lampung		208,87	21,11	47,44
Area Karaha, Jawa Barat Karaha Area, West Java		10,40	188,90	62,96
Area Lumut Balai, Sumatra Selatan Lumut Balai Area, South Sumatra		12,97	2,17	2,36
Total		**269,03**	**399,15**	**300,26**

Total Volume Pengambilan Air Berdasarkan Sumber
Total Water Withdrawal Volume by Source

Tahun Year	Satuan Unit	Sumber Pengambilan Withdrawal Sources			
		Air Permukaan Surface Water	Air Tanah Groundwater	Pembelian Purchased Water	Jumlah Total
2025	Megaliter	242,64	20,61	5,78	269,03
2024		372,49	18,03	8,63	399,15
2023		267,44	25,11	7,70	300,26*

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Volume Pengambilan Air Tahun 2025 Berdasarkan Area
Water Withdrawal Volume in 2025 by Area

Area	Satuan Unit	Sumber Pengambilan Withdrawal Sources			
		Air Permukaan Surface Water	Air Tanah Groundwater	Pembelian Purchased Water	Jumlah Total
Area Kamojang Kamojang Area	Megaliter	1,41	4,70	5,78	11,89
Area Lahendong Lahendong Area		20,84	4,06	-	24,90
Area Ulubelu Ulubelu Area		197,02	11,85	-	208,87
Area Karaha Karaha Area		10,40	-	-	10,40
Area Lumut Balai Lumut Balai Area		12,97	-	-	12,97
Total		**242,64**	**20,61**	**5,78**	**269,03**

Volume Pengambilan Air Tahun 2024 Berdasarkan Area
Water Withdrawal Volume in 2024 by Area

Area	Satuan Unit	Sumber Pengambilan Withdrawal Sources			
		Air Permukaan Surface Water	Air Tanah Groundwater	Pembelian Purchased Water	Jumlah Total
Area Kamojang Kamojang Area	Megaliter	36,32	5,24	8,63	50,19*
Area Lahendong Lahendong Area		131,60	5,18	-	136,78
Area Ulubelu Ulubelu Area		13,50	7,61	-	21,11
Area Karaha Karaha Area		188,90	-	-	188,90
Area Lumut Balai Lumut Balai Area		2,17	-	-	2,17
Total		**372,49**	**18,03**	**8,63**	**399,15**

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.



Volume Pengambilan Air Tahun 2023 Berdasarkan Area
Water Withdrawal Volume in 2023 by Area

Area	Satuan Unit	Sumber Pengambilan Withdrawal Sources			
		Air Permukaan Surface Water	Air Tanah Groundwater	Pembelian Purchased Water	Jumlah Total
Area Kamojang Kamojang Area	Megaliter	56,46	6,51	7,70	70,68*
Area Lahendong Lahendong Area		111,79	5,03	-	116,82
Area Ulubelu Ulubelu Area		33,88	13,57	-	47,45*
Area Karaha Karaha Area		62,96	-	-	62,96
Area Lumut Balai Lumut Balai Area		2,36	-	-	2,36
Total		**267,44**	**25,11**	**7,70**	**300,26**

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Volume Air Dikonsumsi dan Intensitas Konsumsi Air [GRI 303-5]

PGE mengelola enam WKP yang tidak berbatasan langsung dengan danau atau rawa, namun memiliki badan air berupa sungai atau anak sungai di sekitar area operasi. Berdasarkan pemantauan di 2025, tidak terdapat penurunan signifikan pada volume air akibat pengambilan oleh Perseroan. Total konsumsi air selama 2025 mencapai 262,24 ML, menurun 33,31% dibandingkan dengan 2024 seiring berkurangnya aktivitas pengeboran menjadi satu kegiatan.

Water Consumption Volume and Water Consumption Intensity [GRI 303-5]

PGE manages six WKP sites that are not directly adjacent to lakes or swamps, but are surrounded by water bodies such as rivers and tributaries near the operating areas. Based on monitoring in 2025, there was no significant reduction in water volume attributable to the Company's withdrawals. Total water consumption in 2025 was 262.24 megaliters (ML), down 33.31% from the 2024 decrease, in line with drilling activities being reduced to one drilling activity.

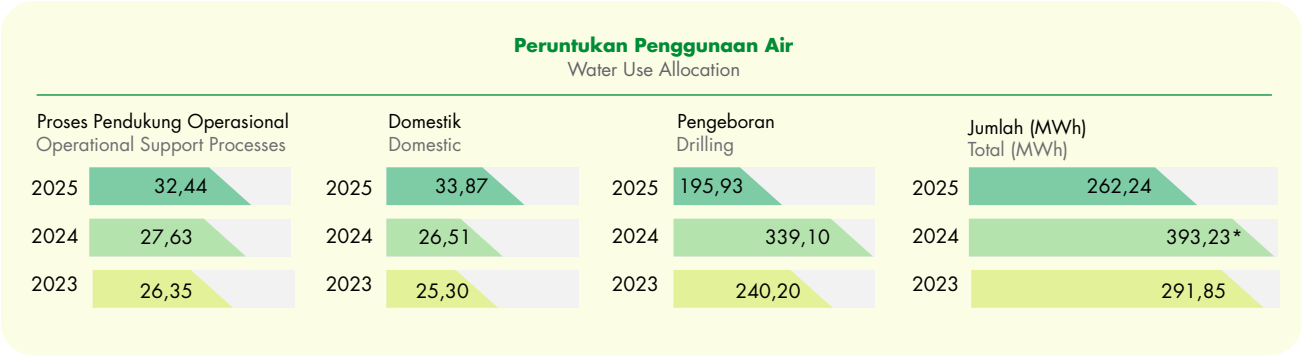
Volume Air yang Dikonsumsi (Megaliter)
Volume of Water Consumed (Megaliters)

Tujuan Penggunaan Air
Purpose of Water Use

	Keperluan Operasional (Rutin) Operational Needs (Routine)	Keperluan Pengeboran oleh Vendor (Non-Rutin) Drilling Needs by Vendors (Non-Routine)	Jumlah Total
2025	66,31	195,93	262,24
2024	54,13	339,10	393,23
2023	51,64	240,20	291,85*

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Konsumsi Air Sesuai Peruntukan di Seluruh Wilayah Operasional (Megaliter)
Water Consumption by Purpose Across All Operational Areas (Megaliters)



Perseroan memastikan pemakaian air, khususnya untuk kebutuhan rutin, tetap efisien sejalan dengan penambahan kapasitas terpasang dan peningkatan produksi listrik. Tingkat efisiensi tersebut tercermin dari nilai intensitas konsumsi air yang dihitung sebagai jumlah megaliter air yang dibutuhkan untuk menghasilkan satu GWh listrik.

The Company ensures that water use, particularly for routine needs, remains efficient as installed capacity expands and electricity output increases. This efficiency is reflected in water consumption intensity, calculated as the number of megaliters of water required to generate one GWh of electricity.

Intensitas Konsumsi Air
Water Consumption Intensity

Uraian Description	Satuan Unit	2025	2024	2023
Kapasitas Terpasang dan Volume Produksi **Installed Capacity and Production Volume**				
Kapasitas Terpasang Installed Capacity	MW	727,50	672,50	672
Produksi Listrik Electricity Production	GWh	5.095,49	4.827,22	4.734,57
Volume Pemakaian Air **Water Consumption Volume**				
Penggunaan Air Rutin Routine Water Use	Megaliter	73,11	54,13	51,64
Penggunaan Air Non-Rutin Non-Routine Water Use		195,93	339,10	240,20
Total Volume Penggunaan Air **Total Water Consumption Volume**		**262,24**	**393,23**	**291,85**
Intensitas Konsumsi Air (IKA) **Water Consumption Intensity (WCI)**				
Nilai IKA Penggunaan Air Rutin WCI Value for Routine Water Use	Megaliter/GWh	0,014	0,011	0,011*
Nilai IKA Penggunaan Air Non-Rutin WCI Value for Non-Routine Water Use		0,038	0,070	0,051
Nilai IKA Keseluruhan **Overall WCI Value**		**0,052**	**0,081**	**0,062**

Keterangan | Notes:
*Merupakan angka pembulatan dari 0,0109.
*Rounded from 0.0109.

Air yang Dilepaskan Kembali dan Pengelolaannya [GRI 303-2, 303-4]

Dalam proses produksi listrik, PGE tidak melakukan pembuangan air terproduksi (nihil), karena menerapkan sistem perputaran tertutup (*closed-loop system*) di mana seluruh air yang berasal dari fluida panas bumi disuntikkan kembali (reinjeksi) ke reservoir untuk mendukung proses produksi selanjutnya. Dengan sistem ini, tidak ada air terproduksi yang dilepaskan ke badan air di sekitar area operasi, dan seluruh proses reinjeksi dilakukan sesuai dengan Peraturan Menteri Lingkungan Hidup Nomor 13 Tahun 2007. Di Area Ulubelu, seluruh air terproduksi direinjeksi ke sumur tertutup, termasuk air limbah domestik yang dihasilkan dari kegiatan operasional. Sementara itu, pengelolaan air limbah di kantor pusat dilaksanakan oleh pengelola gedung.

Water Discharged and Its Management [GRI 303-2, 303-4]

In the electricity generation process, PGE does not discharge any produced water (zero discharge), as it applies a closed-loop system in which all water derived from geothermal fluids is reinjected into the reservoir to support subsequent production. As a result, no produced water is released into surrounding water bodies, and all reinjection processes are carried out in accordance with Minister of Environment Regulation No. 13 of 2007. In the Ulubelu Area, all produced water is reinjected into closed wells, including domestic wastewater generated from operational activities. Meanwhile, wastewater management at the head office is handled by the building management.

Surat Izin Pembuangan Olahan Efluen dan Badan Air Tujuan Berdasarkan Area Operasi
Effluent Discharge Permit and Receiving Water Body by Operating Area

Area Operasi Operating Area	Nomor Surat Izin Permit Number	Badan Air Tujuan Receiving Water Body
Area Kamojang Kamojang Area	0016/KEP./IPBL/DPMPTSP-2020 tentang Izin Pembuangan Air Limbah ke Saluran Terintegrasi 0016/KEP./IPBL/DPMPTSP-2020 concerning the Permit for Discharging Wastewater into the Integrated Channel	Sungai Cikaro, Kamojang Cikaro River, Kamojang
Area Lumut Balai Lumut Balai Area	SLO.5/PPKL/PPA/PKL.2.12/B/02/2024 tentang Surat Kelayakan Operasional PT PGE Area Lumut Balai SLO.5/PPKL/PPA/PKL.2.12/B/02/2024 concerning the Operational Feasibility Certificate of PT PGE Area Lumut Balai	Sungai Air Hangat, Kab. Muara Enim Air Hangat River, Muara Enim Regency
Area Lahendong Lahendong Area	2/IPLC/DPMPTSP/VIII/2020 tentang Pemberian Izin Pembuangan Limbah Cair (IPLC) PT PGE Area Lahendong 2/IPLC/DPMPTSP/VIII/2020 concerning the Granting of a Wastewater Discharge Permit (IPLC) for PT PGE Area Lahendong	Parit Jl. Raya Tomohon, Kota Tomohon Drainage Canal along Jl. Raya Tomohon, Tomohon City
Area Karaha Karaha Area	660/2780/001/IPLC/DPMPTSP/2018 tentang Izin Pembuangan Limbah Cair 660/2780/001/IPLC/DPMPTSP/2018 concerning the Wastewater Discharge Permit	Parit Jl. Terusan Karaha Kab. Tasikmalaya Drainage Canal along Jl. Terusan Karaha, Tasikmalaya Regency

Selain itu, Perseroan menghasilkan air limbah (efluen) berupa limbah cair domestik, limbah cair laboratorium, dan air limpasan drainase yang seluruhnya merupakan air tawar serta dikelola melalui instalasi pengolahan air limbah (IPAL) di seluruh area operasi. Efluen diolah hingga memenuhi baku mutu sesuai ketentuan Permen LHK No. 68 Tahun 2016 tentang Baku Mutu Air Limbah Domestik serta Permen LH No. 19 Tahun 2010 tentang Baku Mutu Air Limbah bagi Usaha dan/atau Kegiatan

In addition, the Company generates wastewater (effluent) in the form of domestic wastewater, laboratory wastewater, and drainage runoff. All of this is freshwater and is managed through wastewater treatment plants (WWTP) across operating areas. Effluent is treated to meet applicable standards under Permen LHK No. 68 of 2016 on Domestic Wastewater Quality Standards and Permen LH No. 19 of 2010 on Wastewater Quality Standards for Oil and Gas and Geothermal Businesses

Minyak dan Gas serta Panas Bumi sebelum dilepaskan kembali ke badan air berdasarkan izin yang berlaku, sehingga tidak membahayakan kesehatan manusia maupun lingkungan. Selama 2025, total volume olahan air limbah yang dilepaskan mencapai 6,80 ML, naik 15,06% dibandingkan dengan 2024 sebesar 5,91 ML.

and/or Activities before being discharged to receiving water bodies under the applicable permits, to avoid harm to human health or the environment. In 2025, the total volume of treated wastewater discharged reached 6.80 ML, up 15.06% from 5.91 ML in 2024.

Volume Olahan Air Limbah yang Dilepaskan Kembali ke Badan Air [GRI 303-4]
Volume of Treated Wastewater Discharged to Receiving Water Bodies

Area Operasi Operating Area	Satuan Unit	2025	2024	2023
Area Kamojang Kamojang Area	Megaliter	5,29	4,75	6,24
Area Lahendong Lahendong Area		1,36	0,01	0,01
Area Ulubelu Ulubelu Area		0,00	0,13	0,01
Area Karaha Karaha Area		0,09	0,11	0,08
Area Lumut Balai Lumut Balai Area		0,06	0,91	2,07
Total		**6,80**	**5,91**	**8,41***

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Wilayah/Area Stres Air [GRI 303-3]

Pengelolaan air PGE tidak hanya berfokus pada pemantauan volume dan efisiensi penggunaan, tetapi juga mempertimbangkan tingkat risiko stres air di setiap area melalui penilaian rutin *water stress area* berdasarkan *Aqueduct Water Risk Atlas* 2023, dengan hasil:

1. Area Kamojang dan Area Karaha termasuk dalam kategori risiko tinggi terhadap air;
2. Area Ulubelu termasuk dalam kategori risiko sedang hingga tinggi terhadap air;
3. Area Lumut Balai, Area Lahendong dan Proyek Hululais termasuk dalam kategori risiko rendah terhadap air.

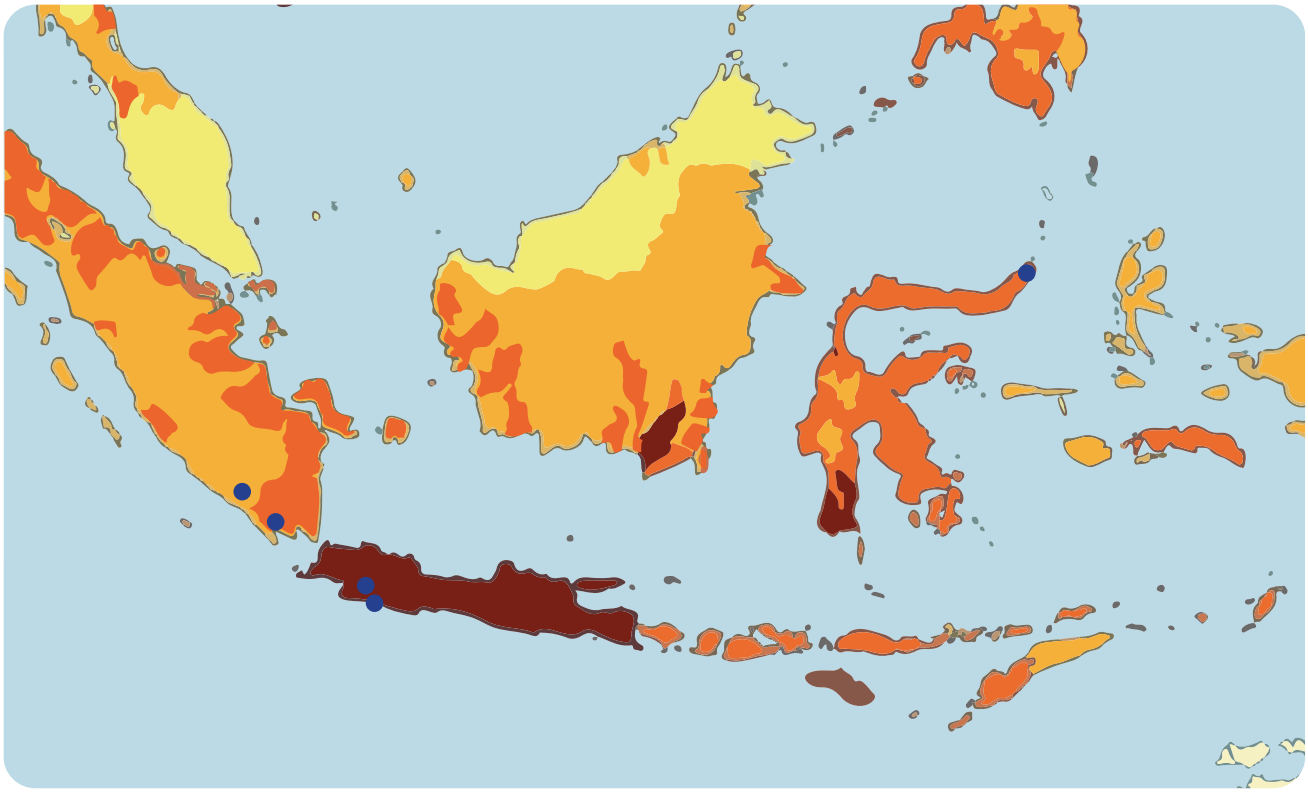
Water-Stressed Areas [GRI 303-3]

PGE's water management focuses not only on monitoring volumes and use efficiency, but also on water-stress risk across each area through routine assessments based on the Aqueduct Water Risk Atlas 2023, with the following results:

1. The Kamojang and Karaha Areas are classified as having high water-stress risk;
2. The Ulubelu Area is classified as having moderate-to-high water-stress risk;
3. The Lumut Balai Area, Lahendong Area, and the Hululais Project are classified as having low-water-stress risk.



Lokasi Area PGE dan Peta Tingkat Risiko terhadap Air untuk Wilayah Indonesia
PGE Area Locations and Water Risk Level Map for Indonesia



Sumber | Sources: Aqueduct Water Risk Atlas 2023
Titik biru menunjukkan lokasi Area PGE
Blue dots indicate the locations of PGE Areas

Overall Water Risk

Low	Low-Medium	Medium-High	High	Extremely High
(0-1)	(1-2)	(2-3)	(3-4)	(4-5)

Total volume pemakaian air di Area Kamojang dan Karaha selama 2025 mencapai 16,91 ML yang mencakup 18% dari total konsumsi air PGE. Jumlah tersebut menurun sebanyak 217,33 ML dibandingkan 2024 yang bernilai 234,24 ML dikarenakan tidak terdapat aktivitas pengeboran yang dilakukan di 2025. PGE berkomitmen untuk mengurangi intensitas penggunaan air rutin di wilayah stres air sebesar 4% pada 2030. Sementara volume pelepasan kembali olahan air limbah ke badan air selama 2025 untuk Area Kamojang dan Area Karaha adalah 16,91 ML. Jumlah tersebut mencapai 75,86% dari total air yang diambil dari kedua area tersebut sebesar 22,29 ML serta mencakup 18% dari total air yang dikonsumsi di PGE. Seluruh olahan air limbah yang dilepas ke badan air merupakan air tawar. [GRI 303-4]

Total water consumption in the Kamojang and Karaha Areas in 2025 was 16.91 ML, accounting for 18% of PGE's total water consumption. This decreased by 217.33 ML from 234.24 ML in 2024, as no drilling activities were carried out in 2025. PGE is committed to reducing routine water-use intensity in water-stressed areas by 4% by 2030. Meanwhile, treated wastewater discharged back to receiving water bodies in 2025 for the Kamojang and Karaha Areas totaled 16.91 ML. This represents 75.86% of total water withdrawn from both Areas (22.29 ML) and accounts for 18% of total water consumed at PGE. All treated wastewater discharged to receiving water bodies is freshwater. [GRI 303-4]

Konsumsi Air Sesuai Peruntukan pada Area (Termasuk Area Stres Air) yang Berisiko Tinggi Terhadap Air [GRI 303-5]
Water Consumption by Purpose in Areas (Including Water-Stressed Areas) with High Water Risk

Tahun Year	Satuan Unit	Penunjang Proses Operasional Operational Process Support	Domestik Domestic	Pengeboran Drilling	Jumlah Total
2025	Megaliter	10,67	6,24	0	16,91
2024		16,45	10,28	207,50	234,24
2023		11,99	9,15*	106,19	127,33*

Sejalan dengan kesungguhan untuk menjaga sumber daya air, PGE melakukan beberapa upaya di 2025 untuk memastikan ketersediaan air dan mendukung konservasi sumber daya air, terutama di daerah dengan tingkat risiko tinggi terhadap air/*stress water area*, antara lain:

1. Modifikasi sistem operasi fasilitas pendingin utama di PLTP di Area Kamojang yang berhasil menghemat air sebesar 0,08 ML.
2. Penggunaan air hasil *dehumidifier* untuk bahan baku *oil purifier* dan *generator water leakage* di Area Kamojang menghemat air sebesar 0,05 ML.
3. Melakukan program sistem efisiensi dan andalan pompa reinjeksi di Area Kamojang yang berhasil menghemat air sebanyak 0,02 ML.
4. Pemanfaatan ulang air demineral untuk kebutuhan domestik di Area Karaha yang berhasil menghemat air sebanyak 1,45 ML.
5. Efisiensi penggunaan air bersih pada sistem pendingin tertutup dengan metode PEP-C yang berhasil menghemat air sebanyak 0,02 ML.
6. Pemasangan *sprinkler water* di Area Karaha yang menghemat air sebanyak 0,01 ML.

In line with its commitment to preserving water resources, PGE undertook several initiatives in 2025 to ensure water availability and support water resource conservation, particularly in areas with high water risk/water stress, including:

1. Modifying the operating system of the main cooling facilities at the PLTP in the Kamojang Area, saving 0.08 ML of water.
2. Using dehumidifier condensate as input for the oil purifier and generator water leakage in the Kamojang Area, saving 0.05 ML of water.
3. Implementing a reliable and efficient reinjection pump system program in the Kamojang Area, which successfully saved 0.02 ML of water.
4. Reusing demineralized water for domestic needs in the Karaha Area, saving 1.45 ML of water.
5. Water efficiency in a closed cooling system using the PEP-C method, which successfully saved 0.02 ML of water.
6. Installing water sprinklers in the Karaha Area, saving 0.01 ML of water.

Pengelolaan **Limbah Terintegrasi**

Integrated Waste Management

Timbulan Limbah dan Dampaknya [GRI 306-1]

Kegiatan operasional PGE dalam memproduksi listrik ramah lingkungan tetap menghasilkan timbulan limbah yang perlu dikelola secara tepat agar tidak mencemari lingkungan serta mendukung upaya pengurangan emisi GRK. Timbulan limbah tersebut meliputi limbah yang mengandung bahan berbahaya dan beracun (B3), termasuk lumpur dan serbuk bor dari kegiatan pengeboran yang dilakukan oleh vendor atau pemasok, serta limbah domestik yang tergolong non-B3. Seluruh pengelolaan limbah di PGE mengacu pada Rencana Pengelolaan Lingkungan dan Rencana Pemantauan Lingkungan (RKL-RPL) sebagai bagian dari dokumen Analisis Mengenai Dampak Lingkungan (AMDAL).

Waste Generation and Its Impact [GRI 306-1]

PGE's operational activities to produce environmentally responsible electricity still generate waste that must be managed properly to prevent pollution and support efforts to reduce GHG emissions. This includes hazardous waste, including drilling sludge and drilling residue from vendor or supplier-driven drilling activities, as well as domestic waste classified as non-hazardous. All waste management at PGE is governed by the Environmental Management Plan and Environmental Monitoring Plan (RKL-RPL) as part of the Environmental Impact Assessment document (AMDAL).

Pengelolaan Dampak Limbah Signifikan

[OJK F.14][GRI 306-2]

Setiap area operasi PGE dilengkapi fasilitas pengelolaan limbah yang dikelola Fungsi HSSE melalui pendekatan terintegrasi dari hulu ke hilir dengan *Waste Integration System Enhancement* (WISE). Sistem yang telah diterapkan di kantor pusat dan ditargetkan berlaku di seluruh wilayah kerja pada 2030 ini meningkatkan tingkat daur ulang hingga lebih dari 75% serta memastikan pencatatan timbulan, pemilahan, dan proses lanjutan limbah lebih akurat dan terukur. Untuk meminimalkan dampak, Perseroan menerapkan prinsip 4R (*reduce, reuse, recycle, recovery*), termasuk pada aktivitas vendor dan pemasok, didukung langkah *replace*, *return to supplier*, *treatment*, serta pengelolaan akhir oleh pihak ketiga berizin dari Kementerian Lingkungan Hidup. Seluruh proses diawasi secara ketat dan dilaporkan berkala kepada instansi berwenang, termasuk KLH dan Dinas Lingkungan Hidup (DLH).

Management of Significant Waste Impacts

[OJK F.14][GRI 306-2]

Each PGE operating area has waste management facilities overseen by the HSSE Function, with an integrated end-to-end approach under the Waste Integration System Enhancement (WISE). Implemented at the head office and targeted for rollout across all work areas by 2030, the system increases the recycling rate to above 75% and supports more accurate, measurable recording of waste generation, sorting, and downstream processing. To minimize impacts, the Company applies the 4R principles (reduce, reuse, recycle, recovery), including across vendor and supplier activities, supported by replacement, return to supplier, treatment, and final management by licensed third parties approved by the Ministry of Environment (KLH). All processes are closely monitored and reported periodically to the relevant authorities, including KLH and the Environmental Agency (DLH).

Timbulan Limbah dan Pengolahannya

[OJK F.13, F.15][GRI 306-3, 306-4, 306-5]

Timbulan limbah dari kegiatan operasional dan pendukungnya di PGE terdiri atas limbah B3 dan non-B3. Limbah B3 disimpan sementara di tempat penampungan sementara (TPS) berlabel sesuai ketentuan sebelum diserahkan kepada pihak ketiga berizin untuk diolah sesuai karakteristiknya. Adapun limbah non-B3 akan diangkut ke bank sampah dan/atau tempat pemrosesan akhir (TPA) di luar area operasi PGE untuk dikelola bersama masyarakat melalui pemilahan, penggunaan kembali, daur ulang, dan pengomposan.

Waste Generation and Treatment

[OJK F.13, F.15][GRI 306-3, 306-4, 306-5]

Waste generated from PGE's operational and supporting activities consists of hazardous and non-hazardous waste. Hazardous waste is temporarily stored in labeled temporary storage facilities (TPS) in accordance with regulations before being handed over to licensed third parties for treatment based on its characteristics. Non-hazardous waste is transported to waste banks and/or final disposal sites (TPA) outside PGE's operating areas to be managed together with communities through sorting, reuse, recycling, and composting.

Jenis, Volume, dan Persentase Timbulan Limbah (Ton)
Types, Volume, and Percentage of Waste Generated (Tonnes)

	Jenis Limbah Waste Type	2025		2024		2023	
		Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
	Limbah B3 Hazardous Waste	30,98	41,47	28,32	56,23	36,44	63,82
	Limbah Non-B3 Non-hazardous Waste	43,72	58,53	22,04	43,77	20,65	36,16
	Jumlah Limbah Total Waste	**74,70**	**100,00**	**50,36**	**100,00**	**57,09**	**100,00**

Selama 2025, total timbulan limbah B3 yang dihasilkan mencapai 30,98 ton, naik sebanyak 9,39% dari 2024.

During 2025, total hazardous waste generated reached 30.98 tonnes, an increase of 9.39% from 2024.

Kenaikan limbah B3 pada 2025 disebabkan oleh peningkatan limbah laboratorium seiring penargetan Laboratorium Area Kamojang sebagai laboratorium komersial, serta bertambahnya limbah aki bekas akibat pemeliharaan alat berat dan daya cadangan darurat di beberapa area.

Untuk mengurangi jumlah oli/pelumas bekas, PGE bekerja sama dengan pihak ketiga untuk memanfaatkan limbah tersebut menjadi bahan bakar alternatif sehingga terdapat perubahan kategori dalam menghitung persentase limbah B3 yang harus dilakukan 4R. Pada 2025, tidak terdapat insiden tumpahan selama aktivitas operasional PGE.

The increase in hazardous waste in 2025 was driven by higher laboratory waste, as the Kamojang Area Laboratory was designated a commercial laboratory, as well as more used-battery waste from heavy-equipment maintenance and emergency backup power systems across several areas.

To reduce used oil/lubricant volumes, PGE works with third parties to utilize this waste as an alternative fuel. This change affects how the percentage of hazardous waste subject to the 4R approach is categorized and calculated. In 2025, there were no spill incidents during PGE's operational activities.

Jenis dan Volume Timbulan Limbah B3
Types and Volume of Hazardous Waste Generated

Jenis Limbah Waste Type	Satuan Unit	2025	2024	2023
Oli/Pelumas Bekas Used Oil/Lubricants	Ton Tonnes	18,51	19,91	16,71
Limbah Sisa Analisis Laboratorium dan Limbah Laboratorium Laboratory Analysis Residues and Laboratory Waste		2,97	1,70	2,42
Kemasan Bekas B3 Used Packaging of Hazardous Materials		0,57	0,47	12,43
Limbah Elektronik/Lampu TL Bekas dan Lainnya Electronic Waste/Used Fluorescent Lights and Others		0,26	0,16	0,55
Toner/Cartridge Bekas Used Toner/Cartridges		0,00	0,34	0,15
Aki Bekas Used Batteries		4,63	1,28	0,15
Majun Bekas Used Majun		0,32	1,29	0,98
Baterai Bekas Used Batteries		0,08	0,15	0,02
Bahan Kimia Kedaluwarsa Expired Chemicals		2,22	0,91	0,51
Filter Bekas Oli/Solar/Udara Used Oil/Diesel/Air Filters		0,29	0,19	0,51
Limbah Terkontaminasi Contaminated Waste		1,13	1,92	2,05
Residu Dasar Tangki Solar *(Oil Sludge)* Diesel Tank Residue (Oil Sludge)		0,00	0,00	0,00
Limbah Medis Medical Waste		0,00	0,00	0,00
(a) Jumlah Timbulan Limbah B3 **(a) Total Amount of Hazardous Waste Generated**		**30,98**	**28,32**	**36,48***
(b) 4R Limbah B3 **(b) 4R Hazardous Waste**		**11,31**	**15,18**	**22,56**
(c) Total Limbah B3 (a+b) **(c) Total Hazardous Waste (a+b)**		**42,29**	**43,49**	**59,04**
(d) Total Limbah 4R B3 dan Oli/Pelumas Bekas **(d) Total 4R Hazardous Waste and Used Oil/Lubricants**		**29,82**	**35,08**	**39,27**
(e) Persentase Limbah B3 yang Dilakukan 4R (d/c) **(e) Percentage of Hazardous Waste Subject to 4R (d/c)**	%	**70,51**	**80,66****	**66,52****

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
**Penyajian kembali informasi karena perubahan pengelompokan limbah B3 yang dikelola 4R. [GRI 2-4]
*Restatement of information due to adjustments in calculation.
**Restatement of information due to changes in the classification of hazardous waste managed under the 4R approach.

Total limbah non-B3 yang dihasilkan di 2025 mencapai 43,72 ton, meningkat dari 2024 yang sebesar 22,04 ton. Peningkatan limbah non-B3 terjadi akibat bertambahnya sampah organik selama pembangunan dan *commissioning* PLTP Unit 2 di Area Lumut Balai yang melibatkan banyak tenaga kerja. Dari jumlah tersebut, 17 ton atau 38,88% diolah menggunakan metode 4R, sementara sisanya sebesar 26,72 ton atau 61,12% dikelola melalui penimbunan di TPA.

Total non-hazardous waste generated in 2025 reached 43.72 tonnes, up from 22.04 tonnes in 2024. The increase was driven by higher organic waste during the construction and commissioning of PLTP Unit 2 in the Lumut Balai Area, which involved a large workforce. Of this amount, 17 tonnes or 38.88% were processed using the 4R method, while the remaining 26.72 tonnes or 61,12% were disposed of in landfill at the TPA.

Jenis dan Volume Timbulan Limbah Non-B3
Types and Volume of Non-Hazardous Waste Generated

	2025	2024	2023
Kertas / Paper	**5,69**	6,83	6,97
Plastik / Plastic	**7,25**	4,04	4,69
Kaca / Glass	**0,30**	0,00	0,00
Organik / Organic	**24,69**	11,17	8,99
Residu / Residue	**5,79**	-	-
Total Limbah Non-B3 / Total Non-Hazardous Waste	**43,72**	22,04*	20,65*
Total Limbah Non-B3 yang Dilakukan 4R / Total Non-Hazardous Waste Subject to 4R	**17,00**	13,66	12,06
Total Limbah Non-B3 yang Ditimbun / Total Non-Hazardous Waste Landfilled	**26,72**	8,38*	8,59*
Persentase Limbah B3 yang Dilakukan 4R / Percentage of Hazardous Waste Subject to 4R	**38,88**	61,98*	58,40*

Ton I Tonnes

Keterangan | Notes:
*Penyajian kembali informasi karena adanya penyesuaian perhitungan. [GRI 2-4]
*Restatement of information due to adjustments in calculation.

Inovasi Pengelolaan **Limbah**

Waste Management Innovation

Pada 2025, PGE bekerja sama dengan pihak ketiga untuk mengurangi limbah yang melalui berbagai inisiatif:

In 2025, PGE worked with third parties to reduce waste generation through the following initiatives:

Limbah B3
Hazardous Waste

a. Penggunaan *portable oil water separator* di Area Kamojang, menghasilkan penghematan timbulan 3,60 ton oli bekas.
b. Perubahan metoda beberapa parameter analisa dengan menggunakan metode *Inductively Coupled Plasma* (ICP) pengurangan limbah lab sebesar 0,44 ton.
c. Pelaksanaan program RITA - *Reuseable* IBC *Tank* di Area Lumut Balai, mengurangi timbulan kemasan B3 sebanyak 1,80 ton.

a. The use of portable oil water separators in the Kamojang Area resulted in savings of 3.60 tonnes of used oil.
b. Changes in several analysis parameters using the Inductively Coupled Plasma (ICP) method have reduced laboratory waste by 0.44 tonnes.
c. The implementation of the RITA - Reusable IBC Tank program in the Lumut Balai Area has reduced B3 packaging waste by 1.80 tonnes.

Limbah Non-B3
Non-hazardous Waste

a. Budidaya *black soldier fly* (BSF) maggot, bekerja sama dengan TPS 3R Desa Pulau Panggung di area Lumut Balai berhasil mengelola sampah organik sebesar 8,08 ton.
b. Pemanfaatan sampah residu untuk bahan baku RDF di Area Kamojang, berhasil mengelola sampah residu sebesar 2,7 ton.
c. Kantor Hijau Ulubelu Lestari berhasil mengelola sampah plastik sebesar 0,318 ton.

a. Black soldier fly (BSF) maggot cultivation, in collaboration with TPS 3R Pulau Panggung Village in the Lumut Balai area, successfully managed 8.08 tonnes of organic waste.
b. The use of residual waste as raw material for RDF in the Kamojang area successfully managed 2.7 tonnes of residual waste.
c. The Ulubelu Lestari Green Office successfully managed 0.318 tonnes of plastic waste.



Penggunaan Material **Ramah Lingkungan** [OJK F.4][GRI 301-1, 301-2, 301-3]

Use of Environmentally Friendly Materials

Material utama yang digunakan dalam kegiatan operasi PGE adalah uap panas bumi sebagai sumber energi terbarukan. Dalam proses produksi, Perseroan mengelola material pendukung berupa air terproduksi (*brine* dan kondensat) yang dimanfaatkan kembali melalui proses reinjeksi ke dalam reservoir sebagai bagian dari pengelolaan sumber daya panas bumi. Perseroan juga menggunakan material tidak terbarukan dalam jumlah terbatas untuk mendukung kegiatan operasional. Uap panas bumi dan energi listrik disalurkan langsung melalui infrastruktur pipa dan jaringan transmisi, sehingga tidak menghasilkan limbah kemasan dari produk yang didistribusikan dan tidak ada produk yang dikembalikan selama tahun pelaporan. Pada 2025, total volume produksi setara listrik mencapai 5.095.484 MWh, meningkat sebesar 268.264 MWh atau 5,56% dibandingkan dengan 2024 yang sebesar 4.827.220 MWh. Sementara itu, volume air terproduksi yang dimanfaatkan mencapai 100.692.062 ton, meningkat 8,45% dibandingkan dengan 2024 sebesar 92.847.364 ton.

The main material used in PGE's operations is geothermal steam as a renewable energy source. In the production process, the Company manages supporting materials, including produced water (brine and condensate), which is reused by reinjection into the reservoir as part of geothermal resource management. The Company also uses limited amounts of non-renewable materials to support operations. Geothermal steam and electricity are delivered directly through pipeline infrastructure and transmission networks, so their distribution does not generate packaging waste and there were no products returned during the reporting year. In 2025, total electricity-equivalent output reached 5,095,484 MWh, up 268,264 MWh or 5.56% from 4,827,220 MWh in 2024. Meanwhile, the volume of produced water utilized increased to 100,692,062 tonnes, up 8.45% from 92,847,364 tonnes in 2024.

Konservasi Keanekaragaman **Hayati dan Peruntukan Lahan** [OJK F.10][GRI 101-4]

Biodiversity Conservation and Land Use

PGE berupaya melindungi keanekaragaman hayati melalui kepatuhan terhadap regulasi dan penerapan langkah mitigasi, terutama pada kegiatan eksplorasi panas bumi di kawasan hutan alami yang berpotensi menimbulkan dampak sejak tahap persiapan hingga tahap operasional PLTP. Untuk itu, PGE secara rutin mengidentifikasi dan mengelola dampak, melakukan sosialisasi kepada pekerja dan kontraktor bersama pihak berwenang, seperti Balai Konservasi Sumber Daya Alam (BKSDA) dan Dinas Lingkungan Hidup (DLH), serta melaksanakan pemantauan dan pelaporan secara berkala.

PGE seeks to protect biodiversity through regulatory compliance and mitigation measures, particularly for geothermal exploration in natural forest areas where impacts may arise from site preparation through PLTP operations. PGE therefore regularly identifies and manages impacts, conducts briefings and outreach for workers and contractors together with the relevant authorities, such as the Natural Resources Conservation Agency (BKSDA) and the Environmental Agency (DLH) and carries out periodic monitoring and reporting.

Fungsi Environmental Sustainability di bawah VP Health, Safety, Security and Environment (HSSE) bertanggung jawab atas pelaksanaan strategi pengelolaan keanekaragaman hayati, termasuk penutupan dan rehabilitasi lahan, serta memastikan penerapannya dalam proses bisnis.

The Environmental Sustainability Function under the VP HSSE is responsible for implementing biodiversity management strategies, including land closure and rehabilitation, and ensuring they are embedded in business processes.

Rangkuman informasi terkait strategi mitigasi dampak lingkungan, dari tahap awal pembangunan hingga tahap operasional, tersedia dalam buku Bersahabat dengan Alam: Potret Keanekaragaman Hayati di Sumber Energi Panas Bumi yang dapat diunduh melalui situs web Perseroan pada tautan berikut: https://www.pge.pertamina.com/Media/Uploads/keberlanjutan/file/Bersahabat%20dengan%20Alam%20590.pdf

A summary of environmental impact mitigation strategies, from the initial construction stage through operations, is available in the book Making Friends with Nature: A Potrait of Biodiversity in Geothermal Energy Sources which can be downloaded from the Company's website via the following link: https://www.pge.pertamina.com/Media/Uploads/keberlanjutan/file/Bersahabat%20dengan%20Alam%20590.pdf

Kebijakan Menghentikan dan **Mengembalikan Keanekaragaman Hayati Hilang** [GRI 101-1]

Policy to Halt and Restore Lost Biodiversity

Kegiatan eksplorasi panas bumi PGE yang berada di kawasan hutan alami mendorong Perseroan menjaga keseimbangan antara kepentingan bisnis dan pelestarian keanekaragaman hayati melalui berbagai upaya konservasi. Upaya tersebut mendukung pelaksanaan Kerangka Keanekaragaman Hayati Global Kunming–Montreal serta sejalan dengan target Pemerintah Indonesia untuk menghentikan dan memulihkan kehilangan keanekaragaman hayati pada 2030 dan mewujudkan hidup harmonis dengan alam pada 2050.

PGE's geothermal exploration activities in natural forest areas encourage the Company to maintain a balance between business interests and biodiversity conservation through various conservation efforts. These efforts support the implementation of the Kunming–Montreal Global Biodiversity Framework and are in line with the Indonesian government's target to halt and reverse biodiversity loss by 2030 and achieve living in harmony with nature by 2050.

Pelaksanaan pelestarian keanekaragaman hayati PGE mengacu pada ketentuan peraturan perundang-undangan yang berlaku, termasuk UU No. 5 Tahun 1990 tentang Konservasi Sumber Daya Alam dan Ekosistemnya, UU No. 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup, PP No. 7 Tahun 1999 tentang Pengawetan Jenis Tumbuhan dan Satwa, PP No. 28 Tahun 2011 tentang Pengelolaan Kawasan Suaka Alam dan Kawasan Pelestarian Alam, dan Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor P.106/MenLHK/Setjen/Kum.1/12/2018 tentang Perubahan Kedua atas Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor

PGE's biodiversity conservation efforts are based on applicable laws and regulations, including Law No. 5 of 1990 concerning Conservation of Natural Resources and Their Ecosystems, Law No. 32 of 2009 concerning Environmental Protection and Management, Government Regulation No. 7 of 1999 concerning the Preservation of Plant and Animal Species, Government Regulation No. 28 of 2011 concerning the Management of Nature Reserves and Nature Conservation Areas, and Regulation of the Minister of Environment and Forestry Number P.106/MenLHK/Setjen/Kum.1/12/2018 concerning the Second Amendment to Regulation of the Minister

P.20/Menlhk/Setjen/Kum.1/6/2018 tentang Jenis Tumbuhan dan Satwa yang Dilindungi. Pada 2025, PGE melanjutkan penyusunan *Biodiversity Action Plan* (BAP) dan menargetkan penerapannya di seluruh area operasi hingga 2030.

of Environment and Forestry Number P.20/Menlhk/Setjen/Kum.1/6/2018 concerning Protected Plant and Animal Species. In 2025, PGE continued to develop its Biodiversity Action Plan (BAP) and aims to implement it across all operational areas by 2030.

Pengelolaan Dampak **Keanekaragaman Hayati** [OJK F.9][GRI 101-2]

Management of Biodiversity Impacts

Selama beberapa tahun terakhir, Perseroan telah melakukan berbagai upaya pengelolaan keanekaragaman hayati dan peruntukan lahan dengan pendekatan mitigasi, meliputi:

1. Aksi Penghindaran Dampak Keanekaragaman Hayati

PGE telah memiliki komitmen *net positive impact* (NPI) untuk mengelola dan memitigasi dampak proyek dan aktivitas terhadap keanekaragaman hayati sesuai Kebijakan Keberlanjutan. Perseroan juga menargetkan pencapaian kenaikan Indeks Keanekaragaman Hayati sebesar 1% pada setiap area operasional di 2030 sesuai Kebijakan Kehati di masing-masing area.

2. Aksi Meminimalkan Dampak Negatif terhadap Keanekaragaman Hayati

PGE mempertimbangkan lingkungan dan komunitas, termasuk area habitat dengan nilai konservasi tinggi, dalam merencanakan pengembangan dan mendesain fasilitas produksi. Perseroan mendesain dan menempatkan pipa uap secara bertumpuk untuk mengurangi pemakaian lahan, serta dibuat berwarna hijau saat melewati wilayah hutan konservasi agar tidak mengganggu satwa di sekitarnya. Perseroan juga melakukan kegiatan penghijauan di sekitar wilayah operasional dengan menanam 13.435 bibit pohon selama 2025.

3. Aksi Restorasi dan Rehabilitasi Ekosistem Terdampak [OJK F.9]

Hingga akhir 2025, jumlah area konservasi keanekaragaman hayati PGE mencapai 18 area, dengan luas total mencapai 59,60 hektar dan melingkupi total 241 spesies yang terdiri dari 157 spesies flora dan 84 spesies fauna. PGE menetapkan area konservasi keanekaragaman hayati di setiap wilayah operasional dengan mempertimbangkan berbagai faktor penting.

Over the past few years, the Company has undertaken biodiversity and land-use management initiatives using a mitigation approach, including:

1. Biodiversity Impact Avoidance Actions

PGE has a net positive impact (NPI) commitment to manage and mitigate biodiversity impacts from projects and activities in line with its Sustainability Policy. The Company also targets a 1% increase in the Biodiversity Index across each operating area by 2030, in accordance with the Biodiversity Policy applicable in each area.

2. Actions to Minimize Negative Impacts on Biodiversity

PGE considers environmental and community factors, including habitats with high conservation value, when planning developments and designing production facilities. Steam pipes are designed and installed in stacked configurations to reduce land use and are painted green when passing through conservation forest areas to minimize disturbance to surrounding wildlife. The Company also carried out reforestation around its operating areas by planting 13,435 tree seedlings in 2025.

3. Actions to Restore and Rehabilitate Affected Ecosystems [OJK F.9]

By the end of 2025, PGE had established 18 biodiversity conservation areas, covering a total area of 59.60 hectares and encompassing 241 species, including 157 flora species and 84 fauna species. PGE establishes biodiversity conservation areas in each operating area, considering key factors.

Lokasi Konservasi Alam di Wilayah Operasional PGE
Natural Conservation Areas within PGE Operational Areas

Area Operasi Operating Area	Luas Wilayah Konservasi (Ha) Conservation Area Size (Ha)	Jumlah Area Konservasi Total Conservation Area
Kamojang, Jawa Barat | West Java	47,59	6
Lahendong, Sulawesi Utara | North Sulawesi	5,85	4
Ulubelu, Lampung	3,47	4
Karaha, Jawa Barat | West Java	0,50	2
Sibayak, Sumatra Utara | North Sumatra	-	-
Lumut Balai, Sumatra Selatan | South Sumatra	1,19	1
Hululais, Bengkulu	1	1
Jumlah **Total**	**59,60**	**18**

Jumlah Spesies pada Setiap Area Konservasi
Number of Species in Each Conservation Area

Nama Program Konservasi Conservation Program Name	Luas Area Konservasi (Ha) Conservation Area Size (Ha)	Indeks Keanekaragaman Hayati Shannon-Wiener (H') Shannon-Wiener Biodiversity Index (H')			Jumlah Spesies Number of Species	
		2025	2024	2023	Flora	Fauna
Kamojang						
Pusat Konservasi Elang Kamojang Kamojang Eagle Conservation Center	11,50	2,23	2,26	2,21	0	13
Pembibitan Tumbuhan Langka dan Tanaman Endemik Kamojang Kamojang Nursery for Rare Plants and Indigenous	4,00	1,84	1,84	1,83	10	0
RINDU AIR (Revitalisasi Hijau Hulu - Hilir Untuk Daerah Aliran Sungai dan Air) Green Revitalization For River & Water Basins	0,79	0,66	0,66	0,00	6	0
ELASTIK (Ekosistem Lestari Saninten di Kamojang) Sustainable Saninten Ecosystem in Kamojang	1,20	0,00	0,00	-	1	0
Konservasi *In-situ* Spesies *Lichen* Langka In-situ Conservation of Rare Lichen Species	30,00	2,56	2,49	2,40	13	0
Gerakan Penanaman Akar Wangi untuk Mitigasi Bencana Longsor & Karhutla (GEPAKUMANA) Movement to Mitigate Landslides and Forest Fires (GEPAKUMANA)	0,10	0,00	0,00	0,00	1	0
Karaha						
Agroforestri di Lahan Kritis Agroforestry on Critical Land	0,15	1,23	1,23	1,22	6	1
Patroli Kawasan Hutan Karaha Karaha Forest Area Patrol	0,35	1,83	1,81	1,83	8	0



Lahendong						
Budidaya Bunga Krisan Chrysanthemum Cultivation	0,58	0,69	0,69	0,69	2	0
Konservasi Varietas Bunga Endemik melalui Metode *In-vitro* dengan Penambahan Varian Nutrisi Conservation of Endemic Flower Varieties through In-Vitro Methods with Added Nutrients	0,62	0,69	0,69	0,69	2	0
Inovasi *Show Window* pada Budidaya Krisan Kulo (Putih) dan Riri (Kuning) Show Window Innovation in the Cultivation of Kulo (White) and Riri (Yellow) Chrysanthemums	0,65	0,69	0,69	0,69	2	0
Konservasi Satwa Endemik Yaki (*Macaca nigra*) Conservation of the Endemic Yaki (*Macaca nigra*)	4,00	0,00	0,00	0,00	0	1
Ulubelu						
Budidaya Ternak Kambing Saburai Saburai Goat Farming	0,02	0,00	0,00	0,00	0	1
Tanaman Penaung sebagai Pendukung Wisata Edukasi Pertanian Berkelanjutan Shade Trees as Support for Sustainable Agricultural Education Tourism	1,20	1,89	1,81	1,80	14	0
Penghijauan dan Pemeliharaan Tanah Reforestation and Soil Maintenance	1,50	2,41	2,49	2,48	13	0
Permaculture for Environmental, Agricultural, Conservation, and Enhancement (PEACE)	0,75	0,65	0,65	0,65	1	2
Lumut Balai						
Pemantauan Flora dan Satwa Liar Wildlife and Flora Monitoring	1,19	2,50	2,50	2,71	46	49
Hululais						
Pemantauan Flora dan Satwa Liar Wildlife and Flora Monitoring	1,00	N/A	N/A	N/A	32	17

4. Aksi *Offset* Keanekaragaman Hayati untuk Memulihkan Dampak Residu

Hingga akhir 2025, PGE memanfaatkan beberapa kawasan hutan berdasarkan Persetujuan Penggunaan Kawasan Hutan (P2KH) dari Kementerian Lingkungan Hidup yang mewajibkan pemenuhan kewajiban penyediaan lahan kompensasi dan/atau penanaman rehabilitasi Daerah Aliran Sungai (DAS). Kegiatan ini dilaksanakan dengan melibatkan masyarakat sejak tahap perencanaan hingga pemeliharaan, menggunakan pola agroforestri yang memadukan tanaman kehutanan endemik dengan komoditas alpukat, durian, manggis, petai, dan pinang.

Selain itu, program ini berkontribusi pada perlindungan keanekaragaman hayati, termasuk spesies endemik, serta mitigasi dan adaptasi terhadap perubahan iklim melalui penyerapan karbon, peningkatan resapan air, serta pencegahan erosi dan banjir.

4. Biodiversity Offset Action to Restore Residual Impacts

By the end of 2025, PGE utilized several forest areas under Forest Area Use Approval (P2KH) from the Ministry of Environment, which requires the provision of compensation land and/or rehabilitation planting in watershed areas (DAS). These activities involve communities from the planning stage through maintenance, using agroforestry practices that combine endemic forest species with commodities such as avocado, durian, mangosteen, stink beans, and areca nut.

This program also supports biodiversity protection, including endemic species, and contributes to climate change mitigation and adaptation through carbon sequestration, improved water absorption, and the prevention of erosion and flooding.

Hingga akhir 2025, Perseroan telah merehabilitasi dan mereboisasi lahan seluas 677,93 hektar di Jawa Barat, Lampung, Bengkulu, dan Sumatra Selatan, dengan 353,69 hektar di antaranya telah diserahkan kepada Kementerian Lingkungan Hidup.

By the end of 2025, the Company had rehabilitated and reforested 677.93 hectares in West Java, Lampung, Bengkulu, and South Sumatra, with 353.69 hectares handed over to the Ministry of Environment.

5. Aksi Transformasi dan Konservasi Tambahan

- Kajian studi BAP Area Karaha bersama Institut Pertanian Bogor (IPB).
- Kolaborasi dengan Pusat Konservasi Elang Kamojang (PKEK) untuk konservasi dan pelepasliaran Elang Kamojang.
- Pengembangan Pupuk Silika Katrili oleh PGE Area Lahendong dan Fakultas Teknik Universitas Gadjah Mada (UGM) berbahan silika hasil samping panas bumi.
- Penyusunan BAP di Area Lumut Balai, Kamojang, dan Karaha bersama masyarakat dan BKSDA agar selaras dengan regulator dan berkelanjutan.
- Rehabilitasi lahan melalui kemitraan dengan komunitas lokal.
- Pengembangan Hutan Kemasyarakatan di Area Ulubelu bersama masyarakat.
- Penanaman pohon di sekitar *cluster* dan area bekas pengeboran.

5. Additional Transformation and Conservation Actions

- BAP study for the Karaha Area in collaboration with IPB University.
- Collaboration with Kamojang Eagle Conservation Center (PKEK) for conservation and the release of Kamojang Hawk.
- Development of Katrili Silica Fertilizer by PGE Lahendong Area with the Faculty of Engineering at Gadjah Mada University (UGM), using silica derived from geothermal by-products.
- Preparation of BAP for the Lumut Balai, Kamojang, and Karaha Areas together with local communities and BKSDA to align with regulators and support long-term continuity.
- Land rehabilitation through partnerships with local communities.
- Development of Community Forests in the Ulubelu Area together with communities.
- Tree planting around clusters and former drilling areas.

Akses dan Pemanfaatan Bersama serta **Layanan Ekosistem** [GRI 101-3, 101-8]

Access and Benefit Sharing and Ecosystem Services

Dalam pengelolaan dampak keanekaragaman hayati, PGE tetap membuka akses dan pemanfaatan bersama bagi masyarakat adat/penduduk asli sesuai kearifan lokal serta pemangku kepentingan lainnya, sejalan dengan UU No. 11 Tahun 2013 tentang Pengesahan Protokol Nagoya mengenai akses sumber daya genetik dan pembagian keuntungan yang adil dan seimbang. Pengelolaan ini dilaksanakan dengan memperhatikan kelestarian ekosistem serta ruang hidup masyarakat di setiap area operasi, tanpa menghalangi masyarakat sekitar, termasuk masyarakat adat/penduduk asli, untuk memperoleh manfaat dari tanaman, satwa yang tidak dilindungi, maupun pemanfaatan lahan bagi kegiatan ekonomi guna memenuhi kebutuhan pangan. Sepanjang 2025, PGE tidak menerima laporan, pengaduan, maupun keluhan terkait pembatasan akses atau penurunan daya dukung keanekaragaman hayati akibat kegiatan operasional. [OJK F.16]

In managing biodiversity impacts, PGE continues to provide access and shared use for indigenous peoples/native communities in line with local wisdom and other stakeholders, in accordance with Law No. 11 of 2013 on the ratification of the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization. This approach is implemented with due regard for ecosystem preservation and community living space in each operating area, without preventing local communities, including indigenous peoples/native communities, from benefiting from plants, non-protected wildlife, or land use for economic activities to meet food needs. Throughout 2025, PGE received no reports, complaints, or grievances regarding access restrictions or a decline in ecosystem carrying capacity attributable to its operations. [OJK F.16]



Lokasi Keanekaragaman **Hayati Terdampak** [GRI 101-5]

Locations of Affected Biodiversity

Sampai akhir 2025, luas kawasan hutan yang digunakan oleh Perseroan adalah sebesar 694,99 hektar. Luasan tersebut berada di dalam atau berdekatan dengan kawasan hutan yang dilindungi, sehingga berdampak terhadap flora dan fauna sekitar.

By the end of 2025, the Company's forest area was 694.99 hectares. This area is located within or adjacent to protected forest areas, thus impacting the surrounding flora and fauna.

Lokasi Konservasi Alam di Wilayah Operasional PGE
Natural Conservation Areas within PGE Operational Areas

Area Operasi Operating Area	**Luas Wilayah** Area Size **(Ha)**	**Aktivitas Operasi yang Berdekatan dengan Daerah Dilindungi/Tinggi Nilai Keanekaragaman Hayati** Operational Activities Adjacent to Protected/High Biodiversity Value Areas		
		Bersilangan Overlapping	**Berdekatan** Adjacent	**Nama Kawasan Dilindungi** Name of Protected Area
Kamojang, Jawa Barat | West Java	49,69 56,85	o	o	1. Hutan Lindung (HL) Rakutakpulus Rakutakpulus Protected Forest 2. Taman Wisata Alam (TWA) Kawah Kamojang Kamojang Crater Nature Tourism Park
Lahendong, Sulawesi Utara | North Sulawesi	0	x	x	Tidak Ada None
Ulubelu, Lampung	124,53	o	o	HL Bukit Rindingan Bukit Rindingan Protected Forest
Karaha, Jawa Barat | West Java	45,18	o	o	HL Gunung Galunggung Gunung Galunggung Protected Forest
Sibayak, Sumatra Utara | North Sumatra	0	x	o	Tahura Bukit Barisan Bukit Barisan Grand Forest Park
Lumut Balai, Sumatra Selatan | South Sumatra	124,22 33,53 2,22	o	o	1. HL Bukit Jambul Bukit Jambul Protected Forest 2. HL Bukit Nanti Bukit Nanti Protected Forest 3. HL Semendo Semendo Protected Forest
Hululais, Bengkulu	120 138,72	o	o	1. HL Bukit Gedang Bukit Gedang Protected Forest 2. HL Bukit Daun Bukit Daun Protected Forest

Berdasarkan hasil pemetaan, dampak terhadap keanekaragaman hayati di lokasi-lokasi tersebut ditunjukkan oleh keberadaan area yang sensitif secara ekologi:

1. Wilayah yang penting bagi keanekaragaman hayati dan wilayah dengan integritas ekosistem yang tinggi, meliputi Area Kamojang, Ulubelu, Karaha, Sibayak, dan Lumut Balai.
2. Secara keseluruhan, tidak terdapat area dengan penurunan integritas ekosistem yang signifikan. Di beberapa lokasi terdapat aktivitas penanaman kopi oleh masyarakat sebagai sumber mata pencaharian. Seluruh wilayah tetap memberikan manfaat bagi komunitas lokal serta pemangku kepentingan lainnya, tanpa terganggu oleh operasional PGE.
3. Daerah dengan risiko air fisik yang tinggi, meliputi Area Kamojang dan Area Karaha.

Based on the mapping results, the impact on biodiversity in these locations is indicated by the presence of ecologically sensitive areas:

1. Areas that are important for biodiversity and areas with high ecosystem integrity, including Kamojang, Ulubelu, Karaha, Sibayak, and Lumut Balai.
2. Overall, there are no areas with significant declines in ecosystem integrity. In some locations, there are coffee planting activities by the community as a source of livelihood. All areas continue to provide benefits to local communities and other stakeholders, without being disturbed by PGE's operations.
3. Areas with high physical water risk, including the Kamojang Area and Karaha Area.



PGE mengelola dampak terhadap keanekaragaman hayati di area yang sensitif secara ekologi melalui beberapa kegiatan/program, antara lain:

1. Membatasi pembukaan lahan sesuai kebutuhan dan prinsip keberlanjutan.
2. Melakukan konservasi spesies kunci, prioritas, langka, dan terancam punah.
3. Mengembangkan pembibitan dan perindukan tumbuhan langka/endemik.
4. Melaksanakan reboisasi/penghijauan dengan tanaman lokal atau endemik.
5. Memulihkan habitat dan ekosistem bersama masyarakat dan pemangku kepentingan.
6. Memantau flora, fauna, dan biodiversitas sesuai RKL–RPL.
7. Menyosialisasikan perlindungan keanekaragaman hayati kepada pekerja dan kontraktor.
8. Meningkatkan kesadaran masyarakat melalui program dan media konservasi.
9. Memasang papan larangan penebangan dan perburuan liar di kawasan lindung.
10. Mengkaji dampak melalui BAP.

PGE manages the impact on biodiversity in ecologically sensitive areas through several activities/programs, including:

1. Limiting land clearing in accordance with needs and sustainability principles.
2. Conserving key, priority, rare, and endangered species.
3. Developing nurseries and breeding programs for rare/endemic plants.
4. Implementing reforestation/regreening with local or endemic plants.
5. Restoring habitats and ecosystems together with communities and stakeholders.
6. Monitoring flora, fauna, and biodiversity in accordance with the RKL-RPL.
7. Socializing biodiversity protection to workers and contractors.
8. Raising public awareness through conservation programs and media.
9. Installing signs prohibiting logging and poaching in protected areas.
10. Assessing operational impacts through the BAP.

Faktor Langsung Penyebab Hilangnya Keanekaragaman Hayati [GRI 101-6]

PGE telah mengidentifikasi potensi faktor langsung yang memengaruhi keanekaragaman hayati terutama terkait mobilitas kendaraan, penggunaan peralatan operasional, serta keberadaan infrastruktur di/atau berdekatan dengan area bernilai keanekaragaman hayati. Pengelolaan dilakukan melalui pengendalian operasional dan pemantauan lingkungan sesuai ketentuan yang berlaku, termasuk pemantauan kualitas udara ambien dan penerapan prosedur untuk mencegah masuknya spesies asing invasif melalui pergerakan material dan peralatan operasional.

Direct Drivers of Biodiversity Loss [GRI 101-6]

PGE has identified potential direct drivers that may affect biodiversity, particularly vehicle movement, the use of operational equipment, and infrastructure located in or near areas with high biodiversity value. These drivers are managed through operational controls and environmental monitoring in line with applicable requirements, including ambient air quality monitoring and procedures to prevent invasive alien species from entering through the movement of materials and equipment.

Dampak Signifikan dari Kegiatan, Produk, dan Jasa terhadap Keanekaragaman Hayati
Significant Impacts of Activities, Products, and Services on Biodiversity

Sifat Dampak
Nature of the Impact

Permanen
1. Hilangnya habitat permanen akibat pembukaan lahan untuk lapangan uap panas bumi dan konstruksi PLTP serta fasilitas penunjang dan akses jalan.
2. Menurunnya populasi fauna terestrial akibat tabrakan dengan kendaraan.

Tidak Permanen
1. Hilangnya habitat sementara selama kegiatan konstruksi fasilitas produksi uap panas bumi, PLTP, serta selama kegiatan pemboran.
2. Terusirnya satwa dari habitatnya akibat gangguan kebisingan dan cahaya dari aktivitas transportasi.
3. Menurunnya populasi flora dan fauna akibat perambahan dan perburuan.
4. Hambatan fisik terhadap pergerakan fauna.
5. Masuknya spesies tumbuhan asing invasif.

Irreversible
1. Permanent habitat loss due to land clearing for geothermal steam fields and the construction of PLTP, supporting facilities, and access roads.
2. Decline in terrestrial fauna populations due to collisions with vehicles.

Reversible
1. Temporary habitat loss during the construction of geothermal steam production facilities and PLTP, including during drilling activities.
2. Wildlife displacement due to noise and light pollution from transportation activities.
3. Decline in flora and fauna populations due to encroachment and hunting.
4. Physical barriers to animal movement.
5. Introduction of invasive alien plant species.

Bentuk Dampak
Form of the Impact

1. Spesies terpengaruh: Habitat dan spesies dengan Nilai Konservasi Tinggi (NKT).
2. Jangkauan wilayah terdampak: lahan yang telah dibuka untuk lapangan uap panas bumi, PLTP, fasilitas penunjang, serta sekitar wilayah operasional.
3. Durasi dampak: Selama masa konstruksi dan operasional.

1. Affected species: habitats and species with High Conservation Value (HCV).
2. Scope of affected areas: land cleared for geothermal steam fields, PLTP, supporting facilities, and surrounding operating areas.
3. Duration of impact: During construction and operation.

Program Pengelolaan
Management Programs

1. Menghindari sedapat mungkin lokasi dengan spesies dan habitat NKT dan jalur satwa.
2. Pengoptimalan area kerja dan pembukaan lahan baru sesuai kebutuhan.
3. Penanaman pohon secara internal di sekitar wilayah operasional.
4. Rehabilitasi lahan sesuai dengan ketentuan IPPKH.
5. Membatasi aktivitas malam hari untuk mengurangi kebisingan dan polusi cahaya.
6. Pemasangan papan pembatasan kecepatan dan larangan penebangan/perambahan serta perburuan satwa liar.
7. Melakukan pembatasan kecepatan kendaraan di lokasi kerja.
8. Patroli berkala di sekitar wilayah operasi.
9. Melakukan program-program konservasi flora dan fauna dengan NKT.
10. Melakukan desain berbasis lingkungan dan komunitas.
11. Pelepasliaran kembali satwa liar bekerja sama dengan BKSDA.
12. Pengendalian spesies tumbuhan asing invasif.
13. Pelaksanaan TJSL, sosialisasi, serta edukasi pengelolaan KEHATI ke seluruh pekerja, kontraktor, dan masyarakat.
14. Monitoring flora dan fauna secara berkala.

1. Where feasible, avoid locations with HCV species and habitats and wildlife corridors.
2. Optimizing work areas and limiting new land clearing to what is necessary.
3. Internal tree planting around operating areas.
4. Land rehabilitation in accordance with IPPKH requirements.
5. Limiting night-time activities to reduce noise and light pollution.
6. Installing speed-limit signs and signage prohibiting logging/encroachment and wildlife hunting.
7. Enforcing vehicle speed limits at work sites.
8. Conducting regular patrols around operating areas.
9. Implementing conservation programs for flora and fauna associated with HCV.
10. Applying environment- and community-based design.
11. Releasing wildlife in collaboration with BKSDA.
12. Controlling invasive alien plant species.
13. Implementing CSR, outreach, and KEHATI management education for workers, contractors, and communities.
14. Periodic monitoring of flora and fauna.

Perubahan pada Keadaan **Keanekaragaman Hayati** [GRI 101-7]

Changes in Biodiversity Condition

Sepanjang 2025, Perseroan melakukan pemantauan keanekaragaman hayati di seluruh area operasi melalui pengamatan langsung, identifikasi jejak satwa, perekaman suara, serta penggunaan kamera pemerangkap (*trap camera*). Pemantauan ini bertujuan untuk mengidentifikasi spesies yang ada serta memastikan habitatnya tidak terganggu oleh aktivitas PGE. Hasil pemantauan menunjukkan ditemukannya beberapa spesies satwa yang belum tercatat pada 2024, yaitu Macan Tutul Jawa (*Panthera pardus melas*) berupa bekas-bekas cakaran di Area Karaha, yang dapat mengindikasikan perbaikan kondisi keanekaragaman hayati dibandingkan periode sebelumnya.

Throughout 2025, the Company monitored biodiversity across all operating areas through direct observation, wildlife trace identification, sound recording, and camera trap use. The monitoring aims to identify species present and help ensure that habitats are not disturbed by PGE's activities. Results indicate the presence of species not recorded in 2024, including evidence of the Javan Leopard (*Panthera pardus melas*) in the form of scratch marks in the Karaha Area, which may indicate improved biodiversity conditions compared to the previous period.

Selama periode pemantauan, PGE mencatat keberadaan berbagai spesies satwa, antara lain Macan Tutul Jawa (*Panthera pardus melas*), Macan Dahan (*Neofelis diardi*), Kucing Merah (*Catopuma badia*) dan Kelinci Hutan (*Nesolagus netscheri*), Tapir (*Tapirus indicus*), Kukang Jawa (*Nycticebus javanicus*), Kucing Emas (*Catopuma temminckii*), Beruang (*Helarctos malayanus*), Surili (*Presbytis comata*), Celepuk Gunung (*Otus* sp.), Landak

During the monitoring period, PGE recorded various wildlife species, including the Javan Leopard (*Panthera pardus melas*), Sunda Clouded Leopard (*Neofelis diardi*), Marbled Cat (*Catopuma badia*), Sumatran Striped Rabbit (*Nesolagus netscheri*), Malayan Tapir (*Tapirus indicus*), Javan Slow Loris (*Nycticebus javanicus*), Asian Golden Cat (*Catopuma temminckii*), Sun Bear (*Helarctos malayanus*), Surili (*Presbytis*

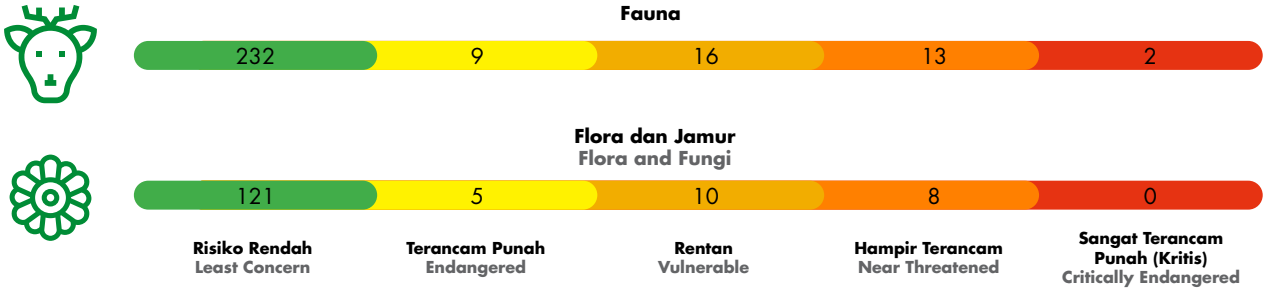
(*Hystrix sumatrae*), serta burung bioindikator seperti Cekakak Sungai (*Halcyon chloris*), Cekakak Jawa (*Halcyon cyanoventris*), dan Burung Madu (*Nectarinia jugularis*). Keberadaan spesies tersebut menunjukkan kawasan hutan di sekitar area operasi PGE berfungsi sebagai habitat yang mendukung dan memiliki kualitas lingkungan yang baik, termasuk memiliki air bersih melalui keberadaan burung bioindikator.

Secara keseluruhan, hingga akhir 2025, tercatat sebanyak 40 spesies fauna dan 23 spesies flora yang tergolong langka/dilindungi, dengan penetapan status mengacu pada Daftar Merah (*Red List*) International Union for Conservation of Nature (IUCN); Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix I; Undang-Undang (UU) No. 5 Tahun 1990 tentang Konservasi Sumber Daya Alam; Peraturan Pemerintah No. 7 Tahun 1999 tentang Pengawetan Jenis Tumbuhan dan Satwa; serta Peraturan Menteri LHK No.P.20/MENLHK/SETJEN/KUM.1/6/2018 tentang Jenis Tumbuhan dan Satwa yang Dilindungi.

comata), Mountain Scops Owl (*Otus* sp.), Sumatran Porcupine (*Hystrix sumatrae*), and Bioindicator Birds such as the Collared Kingfisher (*Halcyon chloris*), Javan Kingfisher (*Halcyon cyanoventris*), and Olive-backed Sunbird (*Nectarinia jugularis*). The presence of these species indicates that forests around PGE's operating areas provide supportive habitat and good environmental quality, including clean water, as suggested by the presence of bioindicator birds.

Overall, by the end of 2025, 40 fauna species and 23 flora species were classified as rare/protected, with status determined by reference to the International Union for Conservation of Nature (IUCN) Red List; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix I; Law No. 5 of 1990 on Natural Resource Conservation; Government Regulation No. 7 of 1999 on the Preservation of Plant and Animal Species; and Minister of Environment and Forestry Regulation No. P.20/MENLHK/SETJEN/KUM.1/6/2018 on Protected Plant and Animal Species.

Jumlah Spesies Dilindungi dan Tingkat Kepunahan Berdasarkan Daftar Merah IUCN
Number of Protected Species and Level of Extinction Based on the IUCN Red List





Program Konservasi dan Perlindungan **Keanekaragaman Hayati**

Biodiversity Conservation and Protection Programs

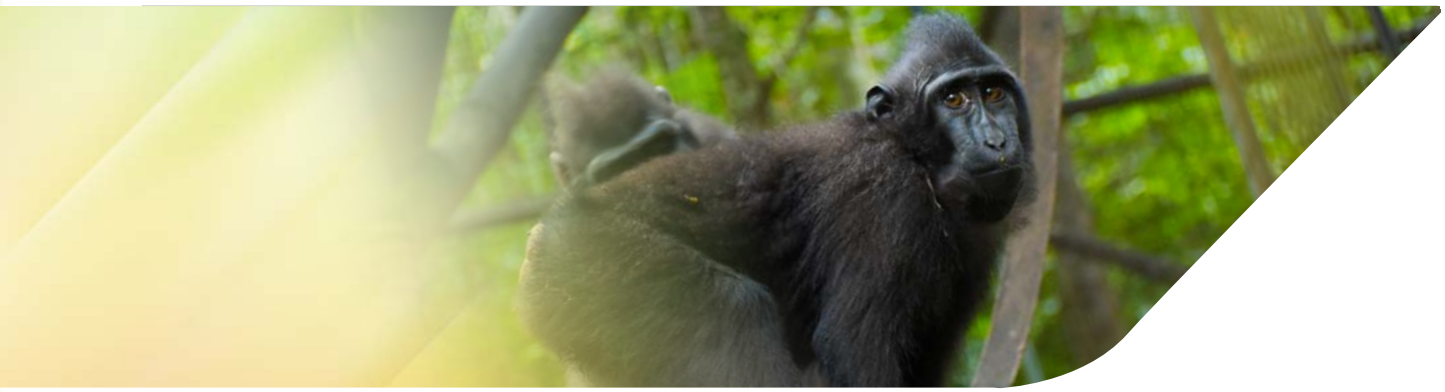


Konservasi Elang Kamojang

Pusat Konservasi Elang Kamojang (PKEK) yang dibangun sejak 2014 merupakan hasil kerja sama kemitraan antara PGE dan Balai Besar Konservasi Sumber Daya Alam (BBKSDA) Jawa Barat. PKEK berfungsi sebagai pusat penyelamatan, rehabilitasi, pelepasliaran, serta edukasi lingkungan bagi masyarakat, dengan fokus pada konservasi satwa elang, khususnya Elang Jawa (*Nisaetus bartelsi*) yang berstatus *Endangered* (EN) menurut IUCN *Red List* dan merupakan spesies dilindungi sesuai Peraturan Menteri LHK Nomor P.106 Tahun 2018. Sejak beroperasi, PKEK telah merehabilitasi lebih dari 398 ekor elang dari berbagai wilayah di Indonesia. Sebanyak 164 ekor elang telah berhasil direhabilitasi dan dilepasliarkan ke alam, termasuk 10 ekor yang dilepasliarkan oleh PKEK pada 2025. Atas konsistensi dan komitmen dalam upaya konservasi, pada 2025 PGE juga menerima Penghargaan Menteri Kehutanan dalam rangkaian kegiatan "Tiga Dekade Konservasi Elang Jawa" yang diselenggarakan di Bogor, Jawa Barat.

Kamojang Eagle Conservation

The Kamojang Eagle Conservation Center (PKEK), established in 2014, is a partnership between PGE and Natural Resources Conservation Office (BBKSDA) West Java. PKEK serves as a center for rescue, rehabilitation, release, and environmental education for communities, with a focus on eagle conservation, particularly the Javan Hawk-eagle (*Nisaetus bartelsi*), which is classified as Endangered (EN) under the IUCN Red List and is protected under the Minister of Environment and Forestry Regulation No. P.106 of 2018. Since beginning operations, PKEK has rehabilitated more than 398 eagles from various regions across Indonesia. A total of 164 eagles have been rehabilitated and released into the wild, including 10 released by PKEK in 2025. In recognition of its consistent commitment to conservation, PGE received the Minister of Forestry Award in 2025, presented as part of the “Three Decades of Javan Hawk-Eagle Conservation” event series held in Bogor, West Java.



Konservasi Yaki di Area Lahendong

PGE bekerja sama dengan BKSDA Sulawesi Utara dan Yayasan Masarang Utara untuk melakukan konservasi Yaki atau Monyet Hitam Sulawesi (*Macaca nigra*) yang berstatus *critically endangered* (CR) sesuai IUCN *Red List* melalui rehabilitasi, habituasi, pelepasliaran, serta edukasi masyarakat. Sejak 2021, kolaborasi tersebut telah melindungi dan merawat 21 ekor Yaki melalui penyediaan fasilitas edukasi, pakan, pemeriksaan medis, dukungan dokter hewan, serta penjaga. Pada tahap rehabilitasi, Yaki menjalani observasi dan pemeriksaan kesehatan oleh dokter hewan, kemudian dilanjutkan dengan habituasi pada iklim dan lingkungan yang menyerupai habitat aslinya agar siap dilepasliarkan. Individu yang dinilai sehat dan aman selanjutnya dilepasliarkan kembali ke habitat alaminya. Proses habituasi telah berlangsung selama tiga tahun dan sampai akhir 2025, PGE telah berhasil melepasliarkan total 12 ekor Yaki ke kawasan konservasi Taman Wisata Alam Gunung Ambang.

Yaki Conservation in the Lahendong Area

PGE collaborates with BKSDA Sulawesi Utara and Yayasan Masarang Utara to conserve Yaki, or the Sulawesi Black Monkey (*Macaca nigra*), which is classified as critically endangered (CR) under the IUCN Red List. The program covers rehabilitation, habituation, release, and community education. Since 2021, this collaboration has protected and cared for 21 Yaki through the provision of education facilities, feed, medical examinations, veterinary support, and caretakers. During rehabilitation, the Yaki undergo observation and health checks by veterinarians, followed by habituation to a climate and environment that resembles their natural habitat to prepare them for release. Individuals assessed as healthy and safe are then released back into their natural habitat. The habituation process has been ongoing for three years, and by the end of 2025, PGE had successfully released a total of 12 Yaki into the conservation area Gunung Ambang Nature Tourism Conservation Area.

Budidaya, Konservasi, dan Inovasi *Show Window* Krisan Kulo dan Riri

Bunga Krisan Kulo (Putih) dan Riri (Kuning) merupakan bunga endemik kebanggaan masyarakat Tomohon sekaligus ikon Tomohon International Flower Festival (TIFF) yang telah didaftarkan oleh Pemerintah Kota Tomohon ke Kementerian Pertanian RI. PGE bekerja sama dengan Pemerintah Kota Tomohon mengembangkan konservasi Krisan melalui metode *in vitro* (kultur jaringan) pada lahan seluas 200 m^2, yang memungkinkan budidaya lebih efisien dengan hasil bunga berukuran lebih besar dibandingkan metode konvensional. Pada 2025, PGE berhasil membudidayakan Bunga Krisan sebanyak 15.000 batang atau meningkat rata-rata 6-7% tiap tahunnya. Melalui upaya ini, Perseroan menjaga kelestarian flora endemik sekaligus mendorong ekonomi lokal dan potensi peningkatan pendapatan asli daerah (PAD) melalui peluang ekspor Bunga Krisan.

Cultivation, Conservation, and Innovation of the Kulo and Riri Chrysanthemum Show Window

Krisan Kulo (White) and Riri (Yellow) are endemic flowers that are a source of pride for the Tomohon community and an icon of the Tomohon International Flower Festival (TIFF), registered by the Tomohon City Government with the Indonesian Ministry of Agriculture. In collaboration with the Tomohon City Government, PGE supports chrysanthemum conservation through in vitro (tissue culture) methods on 200 m^2 of land, enabling more efficient cultivation with larger blooms than conventional methods. In 2025, PGE successfully cultivated 15,000 chrysanthemum stems, with an average annual increase of 6–7%. Through these efforts, the Company helps preserve endemic flora while supporting the local economy and the potential to increase local revenue through Chrysanthemum export opportunities.

Konservasi Lumut Balai

Pada 2024, Area Lumut Balai secara bertahap telah melaksanakan tindak lanjut rekomendasi Kajian *Biodiversity Action Plan* (BAP) untuk meningkatkan kualitas pemantauan fauna, dengan memasang lima *camera trap* di lokasi Cluster 1, 2, 6, 7, dan 9. Dari hasil tangkapan *camera trap*, kami mendapati keberadaan berbagai spesies langka dan dilindungi, di antaranya Beruang Madu (*Helarctos malayanus*), Macan Dahan (*Neofelis nebulosa*), Kucing Merah (*Catopuma badia*), dan Kelinci Hutan (*Nesolagus netscheri*). Pada 2025, kami menindaklanjuti temuan tersebut melalui Kerjasama Pengamanan Hutan dengan Dinas Kehutanan Provinsi Sumatera Selatan, kerja sama dengan Universitas Sriwijaya untuk Pemantauan Lingkungan Kehati tahunan serta menambah dua titik *camera trap* di area pengembangan Unit 3 dan Unit 4.

Lumut Balai Conservation

In 2024, the Lumut Balai Area gradually implemented follow-up recommendations from the Biodiversity Action Plan (BAP) study to improve the quality of fauna monitoring by installing five camera traps in Clusters 1, 2, 6, 7, and 9. From the camera trap images, we found the presence of various rare and protected species, including the Sun Bear (*Helarctos malayanus*), Clouded Leopard (*Neofelis nebulosa*), Bornean Bay Cat (*Catopuma badia*), and Sumatran Striped Rabbit (*Nesolagus netscheri*). In 2025, we followed up on these findings through Forest Security Cooperation with the South Sumatra Provincial Forestry Service, Cooperation with Sriwijaya University for annual Environmental Monitoring, and added two camera trap points in the development areas of Units 3 and Units 4.

Asesmen Kriteria **Lingkungan untuk Pemasok**

Environmental Criteria Assessment for Suppliers

Perseroan telah menetapkan kebijakan pengadaan berwawasan lingkungan (*green procurement*) untuk memastikan mitra kerja mematuhi standar lingkungan dalam operasional dan rantai pasok guna meminimalkan dampak negatif, yang akan diimplementasikan secara bertahap. Pada 2025, PGE memasuki tahap penentuan indikator *leading* dan *lagging* sebagai dasar penyusunan *sustainable procurement scorecard* pada 2026, sementara seleksi mitra kerja dilakukan melalui CSMS dengan sertifikasi ISO 14001 sebagai nilai tambah, khususnya untuk bidang pengeboran. Selama 2025, tercatat ada total 89 pemasok yang telah memiliki sertifikasi ISO 14001 sehingga total pemasok yang memenuhi ISO 14001 mencapai 70,64% (89 dari 126) vendor yang mengisi kuesioner.

[GRI 308-1, 308-2]

The Company has established an environmentally conscious procurement policy (*green procurement*) to ensure business partners comply with environmental standards across operations and the supply chain, thereby minimizing adverse impacts. This policy will be implemented in phases. In 2025, PGE began defining leading and lagging indicators as the basis for preparing a sustainable procurement scorecard in 2026, while partner selection was conducted through CSMS, with ISO 14001 certification treated as an added value, particularly for drilling-related work. During 2025, a total of 89 suppliers were recorded as holding ISO 14001 certification, bringing the total number of ISO 14001-compliant suppliers to 70.64% (89 out of 126) of vendors who completed the questionnaire.

[GRI 308-1, 308-2]



PT Pertamina Geothermal Energy Tbk



Membangun Bisnis untuk Sejahtera Bersama

Building a Business for Shared Prosperity

Memperkuat K3 dan **Kesejahteraan Pekerja**

Strengthening OHS and Worker Welfare

Salah satu faktor penting dalam upaya PGE membangun bisnis berkelanjutan adalah operasi dan lingkungan kerja yang aman, didukung penerapan keselamatan dan kesehatan kerja (K3) serta dukungan sumber daya manusia (SDM) unggul yang dilandasi prinsip menghargai keberagaman, kesetaraan, dan inklusivitas.

A safe operation and work environment is central to PGE's sustainability agenda. This is supported by robust occupational health and safety (OHS) practices and strong human capital grounded in the principles of diversity, equity, and inclusion.

Lingkungan Kerja Layak dan **Aman serta Sistem Pengelolaan K3** [OJK F.21][GRI 403-1, 403-8]

Decent and Safe Working Environment and OHS Management System

PGE menerapkan sistem pengelolaan kesehatan, keselamatan, keamanan, dan lingkungan (K3L) yang mengacu pada regulasi pemerintah dan berlaku bagi seluruh pekerja, aktivitas, serta lokasi kerja, guna memastikan 100% Perwira PGE dan pihak terkait, termasuk mitra, vendor, dan pemasok, memperoleh jaminan K3 tanpa toleransi terhadap ketidakpatuhan. Penerapan sistem ini diawasi oleh Fungsi HSSE melalui pencatatan setiap kegiatan secara konsisten, serta didukung Kebijakan Keselamatan dan Kesehatan Kerja (K3) yang berlaku bagi seluruh operasional, pekerja, dan kontraktor, disusun sesuai peraturan perundang-undangan serta standar dan praktik K3 yang relevan.

PGE applies a health, safety, security, and environment (HSSE) management system aligned with government regulations across all workers, activities, and work sites. The system is intended to ensure that 100% of workers and relevant parties, such as partners, vendors, and suppliers receive OHS protection, with zero tolerance for non-compliance. The HSSE Function oversees implementation through consistent recording of activities. This is supported by an Occupational Health and Safety (OHS) Policy that applies to operations, workers, and contractors, prepared in line with applicable laws and relevant OHS standards and practices.

Regulasi yang menjadi acuan antara lain Peraturan Menteri (Permen) ESDM No. 33 Tahun 2021 tentang Keselamatan dan Kesehatan Kerja, Perlindungan dan Pengelolaan Lingkungan Hidup dan Kaidah Teknis Panas Bumi untuk Pemanfaatan Tidak Langsung; Sistem Manajemen Keselamatan Ketenagalistrikan sesuai Permen ESDM No. 10 Tahun 2021 tentang Keselamatan Ketenagalistrikan; serta *Geothermal Integrated Management System* (GIMS) yang terintegrasi dengan *Sustainability Pertamina Expectations for* HSSE *Management Excellence* (SUPREME). SUPREME merupakan sistem manajemen yang mengintegrasikan praktik terbaik HSSE pada tingkat Korporat, Direktorat, Unit Operasi, dan Anak Perusahaan Pertamina untuk mengelola risiko bisnis dan mendukung pencapaian target Perseroan.

Key references are Minister of Energy and Mineral Resources Regulation No. 33 of 2021 on Occupational Safety and Health, Environmental Protection and Management, and Geothermal Technical Principles for Indirect Utilization; the Electricity Safety Management System in accordance with Minister of Energy and Mineral Resources Regulation No. 10 of 2021 on Electricity Safety; and the Geothermal Integrated Management System (GIMS), which is integrated with Pertamina's Sustainability Expectations for HSSE Management Excellence (SUPREME). SUPREME is a management system that integrates HSSE best practices at the Corporate, Directorate, Operating Unit, and Pertamina Subsidiary levels to manage business risks and support the achievement of the Company's targets.

Geothermal Integrated Management System (GIMS)

Dalam mengembangkan dan mengusahakan bisnis panas bumi, PGE menerapkan GIMS yang ditetapkan melalui Surat Keputusan PGE No.A-001/PGE000/2021-S9 Revisi 1 Tanggal 7 Juni 2024 tentang pengelolaan Sistem Manajemen. GIMS yang merupakan kerangka kerja sistem manajemen terpadu terintegrasi, terdiri dari berbagai ISO, yaitu:

1. Sistem Manajemen Mutu ISO 9001:2015 untuk seluruh (100%) area operasi.
2. Sistem Manajemen Keselamatan dan Kesehatan Kerja ISO 45001:2018 untuk seluruh (100%) area operasi.
3. Sistem Manajemen Lingkungan ISO 14001:2015.
4. Sistem Manajemen Risiko ISO 31000:2018.
5. Sistem Manajemen Anti Penyuapan ISO 37001:2016.
6. Sistem Manajemen Keamanan Informasi ISO 27001:2022.
7. Sistem Manajemen Layanan Teknologi Informasi ISO/IEC 20000-1:2018.
8. Sistem Manajemen Aset ISO 55001:2014.

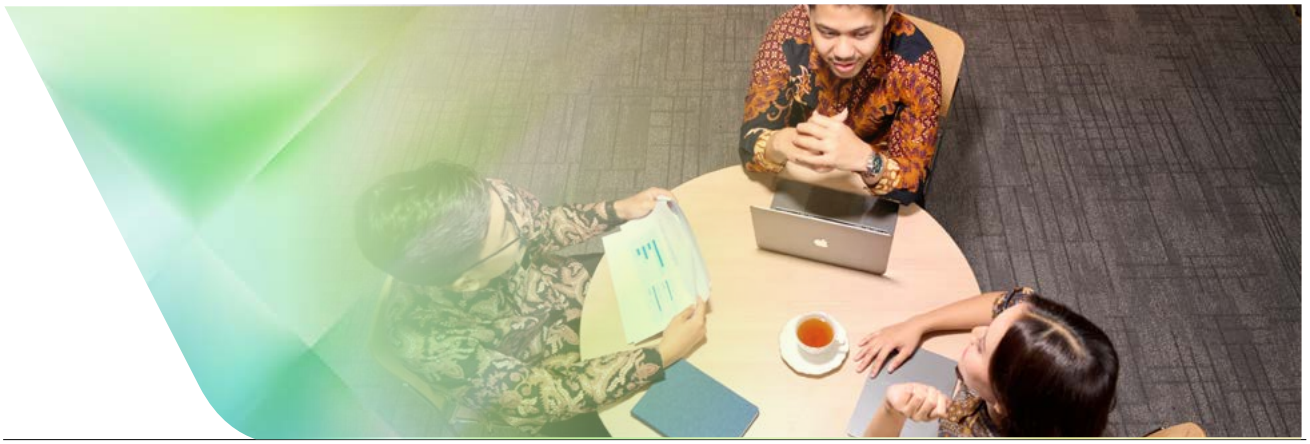
GIMS juga telah terhubung dengan sistem manajemen lain, yakni Sistem Manajemen Laboratorium ISO/IEC 17025:2017, Sistem Manajemen Pengamanan dari Polri, dan SUPREME. Perseroan juga terus mengembangkan GIMS dan mengintegrasikan sistem manajemen lain, seperti ISO 50001 Sistem Manajemen Energi, ISO/IEC 42001 *Artificial Intelligence Management System*, dan lain-lain. Pengembangan GIMS diharapkan semakin mendorong kinerja PGE menjadi lebih baik, di antaranya efisiensi operasional, pengurangan biaya, kepatuhan yang lebih baik, peningkatan kinerja, serta fleksibilitas dan skalabilitas.

Geothermal Integrated Management System (GIMS)

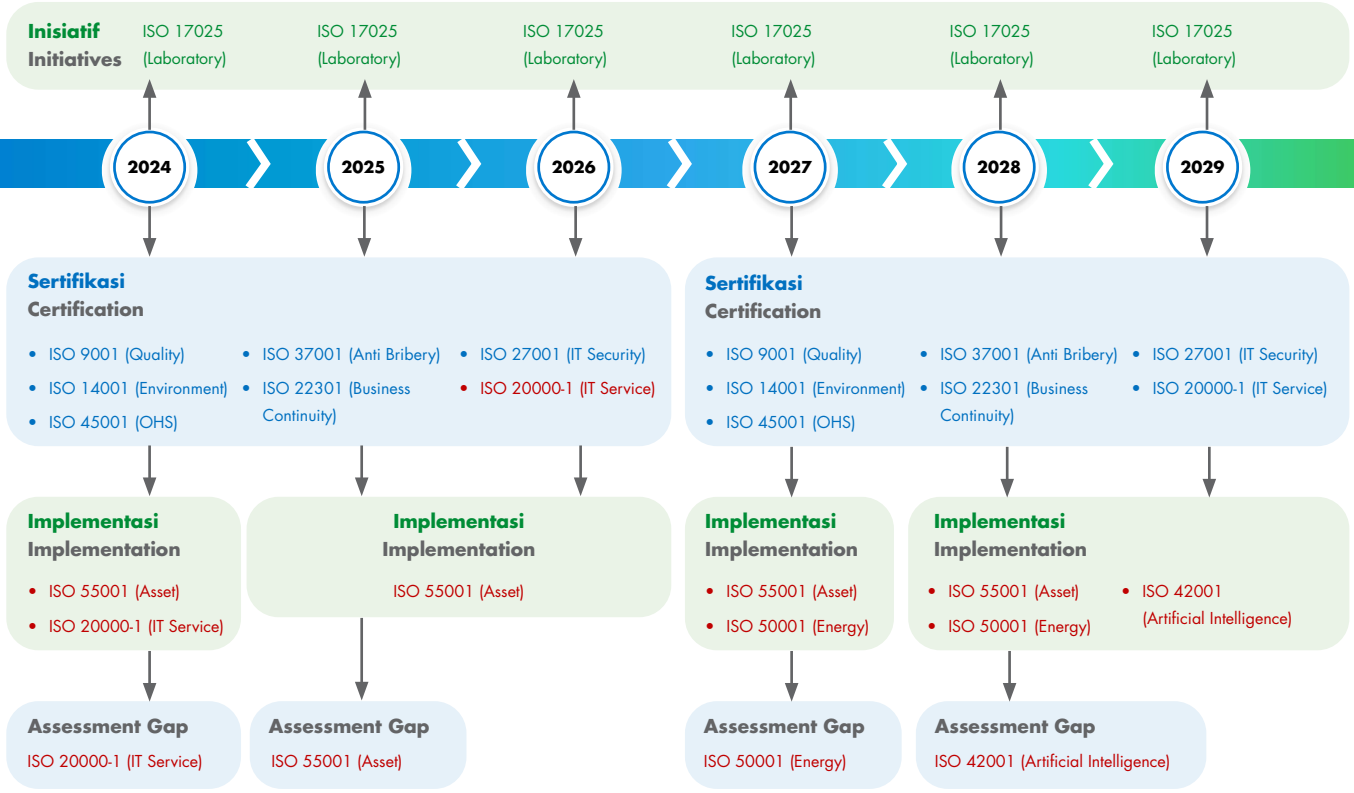
In developing and pursuing geothermal business, PGE implements GIMS as stipulated in PGE Decision Letter No. A-001/PGE000/2021-S9 Revision 1 dated June 7, 2024, regarding management system administration. GIMS, which is an integrated management system framework, consists of various ISO standards, namely:

1. ISO 9001:2015 Quality Management System for all (100%) areas of operation.
2. ISO 45001:2018 Occupational Health and Safety Management System for all (100%) areas of operation.
3. ISO 14001:2015 Environmental Management System.
4. ISO 31000:2018 Risk Management System.
5. ISO 37001:2016 Anti-Bribery Management System.
6. ISO 27001:2022 Information Security Management System.
7. Information Technology Service Management System ISO/IEC 20000-1:2018.
8. Asset Management System ISO 55001:2014.

GIMS is also connected to other management systems, namely the ISO/IEC 17025:2017 Laboratory Management System, the Indonesian National Police (Polri) Security Management System, and SUPREME. The Company also continues to develop GIMS and integrate other management systems, such as the ISO 50001 Energy Management System, ISO/IEC 42001 Artificial Intelligence Management System, and others. The development of GIMS is expected to further improve PGE's performance, including operational efficiency, cost reduction, better compliance, improved performance, as well as flexibility and scalability.



Peta Jalan Pengembangan GIMS 2024-2029
GIMS Development Roadmap 2024-2029



Keterangan:
1. Hanya Integrated Internal Audit, akan dilakukan Audit Sertifikasi jika diperlukan.
2. Akreditasi/Implementasi ISO 17025:2017 untuk Laboratorium PT PGE Tbk.
3. *Font* Merah: ISO baru.

Note:
1. Only Integrated Internal Audit, Certification Audit shall be conducted if necessary.
2. Accreditation/Implementation of ISO 17025:2017 for PT PGE Tbk. Laboratories.
3. Red Font: New ISO.

Identifikasi Bahaya, Asesmen Risiko, dan **Investigasi Insiden** [GRI 403-2]

Hazard Identification, Risk Assessment, and Incident Investigation

Pengelolaan risiko HSSE dilakukan melalui *Risk Register* untuk risiko bisnis dan *Hazard Identification Risk Assessment and Determining Control* (HIRADC) untuk risiko operasional, guna mengidentifikasi bahaya, menilai tingkat risiko, serta menetapkan pengendalian demi menciptakan lingkungan kerja yang aman dan melindungi kesehatan pekerja. Proses ini dilaksanakan oleh tim yang kompeten dan tersertifikasi, dengan pemantauan triwulanan bersama Fungsi Manajemen Risiko, sementara tanggung jawab berada pada General Manager/ Project Manager di masing-masing area dan proyek.

HSSE risks are managed through a Risk Register for business risks and Hazard Identification Risk Assessment and Determining Control (HIRADC) for operational risks. These tools are used to identify hazards, assess risk levels, and define controls to maintain a safe workplace and protect worker health. The process is carried out by a competent, certified team and monitored quarterly together with the Risk Management Function, with accountability held by the General Manager/ Project Manager for each area and project.

Hasil identifikasi menunjukkan adanya potensi kecelakaan kerja, penyakit akibat kerja (PAK), pencemaran lingkungan, serta gangguan keamanan di area operasi dan proyek yang perlu dikelola secara berkelanjutan. Untuk memitigasi bahaya tersebut, PGE menerapkan mekanisme dan kebijakan bagi pekerja untuk melaporkan kondisi tidak aman, yakni:

- Pengamatan Keselamatan Kerja (PEKA), yaitu sistem pelaporan bagi pekerja dan mitra kerja apabila terjadi kondisi tidak aman dan tidak sesuai yang harus ditindaklanjuti.
- *Stop Work Authority* (SWA), yaitu kebijakan yang diberikan kepada pekerja dan mitra kerja di wilayah kerja PGE untuk menghentikan suatu pekerjaan apabila di dalam pelaksanaannya terdapat suatu keadaan yang berpotensi menimbulkan bahaya dan/atau kerugian.

The identification results indicate potential workplace accidents, work-related ill health, environmental pollution, and security disruptions across operating areas and projects that require ongoing management. To mitigate these hazards, PGE provides mechanisms and policies for workers to report unsafe conditions, namely:

- Work Safety Observation (PEKA), a reporting system for workers and business partners to report unsafe acts and unsafe conditions that must be followed up.
- Stop Work Authority (SWA), a policy that authorizes workers and business partners in PGE's work areas to stop a job if execution conditions could potentially lead to harm and/or losses.

Penghentian pekerjaan mencakup menghentikan, melaporkan, dan memperbaiki pekerjaan tidak aman sebelum diizinkan kembali beroperasi. Laporan kondisi berbahaya digunakan Fungsi HSSE untuk investigasi dan evaluasi bulanan, dengan perlindungan bagi pelapor dari tindakan pembalasan. Sepanjang 2025, terdapat 12.003 laporan kondisi dan tindakan tidak aman yang ditindaklanjuti melalui penghentian operasi dan perbaikan, disertai apresiasi bagi pekerja yang mencegah potensi kerugian lebih besar. Setiap insiden diinvestigasi oleh tim kompeten untuk menetapkan akar penyebab dan rekomendasi perbaikan, dengan hasil dilaporkan kepada Direksi dan pemangku kepentingan terkait.

Work stoppages cover stopping the activity, reporting it, and correcting the unsafe work before operations are allowed to resume. Reports of hazardous conditions are used by the HSSE Function for monthly investigation and evaluation, with protection for reporters against retaliation. Throughout 2025, there were 12,003 reports of unsafe conditions and unsafe acts that were followed up through work stoppages and corrective actions, along with recognition for workers who helped prevent greater potential losses. Each incident is investigated by a competent team to identify root causes and define improvement recommendations, with results reported to the Board of Directors and relevant stakeholders.



Layanan **Kesehatan Kerja** [GRI 403-3]

Occupational Health Services

PGE menyediakan layanan kesehatan kerja yang dirancang untuk mendukung perlindungan kesehatan Perwira serta pekerja mitra kerja, vendor, dan pemasok yang terlibat dalam kegiatan operasional. Layanan tersebut mencakup pelaksanaan asesmen risiko kesehatan sebagai dasar pengelolaan kesehatan kerja, penerapan kebijakan *fit to work* guna memastikan kesiapan pekerja dalam menjalankan tugas secara aman, serta penyediaan layanan medis di lokasi operasi.

PGE provides occupational health services designed to support the health protection of Perwira (PGE's officers) and business partners, vendors, and suppliers involved in operational activities. These services include conducting health risk assessments as a basis for occupational health management, implementing fit to work policies to ensure workers are ready to perform their duties safely, and providing medical services at the operation site.

Selain itu, Perseroan memiliki rencana respons darurat medis untuk menangani kedaruratan kesehatan, melaksanakan program kesehatan perusahaan yang bersifat promotif dan preventif, serta menyelenggarakan kampanye dan bincang kesehatan sebagai bagian dari upaya peningkatan kesadaran dan budaya hidup sehat di lingkungan kerja.

In addition, the Company has a medical emergency response plan to handle health emergencies, implements promotional and preventive corporate health programs, and organizes health campaigns and discussions as part of its efforts to raise awareness and promote a culture of healthy living in the workplace.

Asesmen Risiko Kesehatan [GRI 403-3]

Asesmen risiko kesehatan dilaksanakan secara rutin, guna mengidentifikasi *hazard* yang berisiko terhadap kesehatan pekerja, termasuk risiko paparan H_2S dan kebisingan di area operasi. Sepanjang 2025, Perseroan melakukan berbagai langkah mitigasi agar tingkat risiko kesehatan berada pada kategori *As Low As Reasonably Practicable* (ALARP), antara lain:

1. Pengendalian sumber paparan kebisingan, zat kimia, gas (H_2S) dan lingkungan kerja. Dilaksanakan melalui perawatan rutin alat, mesin dan peralatan untuk memastikan layak pakai; perawatan sistem ventilasi dan *blower* untuk memastikan gas-gas berbahaya dapat terurai dari lingkungan kerja; sistem deteksi gas di lokasi-lokasi dengan tingkat paparan risiko tinggi untuk memberikan peringatan dini apabila konsentrasi gas mencapai tingkat berbahaya; dan pembatasan area/wilayah kerja berisiko tinggi hanya bagi pekerja berwenang;
2. Pemantauan potensi paparan. Dilakukan dengan pengukuran dan pemantauan rutin terhadap tingkat risiko paparan untuk memastikan berada di bawah ambang batas yang ditentukan oleh standar keselamatan, pemantauan kesehatan pekerja untuk memantau adanya dampak jangka panjang dari paparan bahaya terhadap kesehatan pekerja;
3. Penggunaan alat pelindung diri (APD) untuk mengurangi paparan bahaya;
4. Pelatihan tanggap darurat untuk memberikan pemahaman kepada pekerja mengenai langkah-langkah evakuasi apabila terjadi kondisi darurat.

Health Risk Assessment [GRI 403-3]

Health risk assessments are conducted regularly to identify hazards that pose a risk to worker health, including the risk of H_2S and noise exposure in the operating area. Throughout 2025, the Company took various mitigation measures to ensure that health risks were kept to a level that was As Low As Reasonably Practicable (ALARP), including:

1. Control of sources of exposure to noise, chemicals, gases (H_2S), and the work environment. This is carried out through routine maintenance of tools, machinery, and equipment to ensure they are in good working order; maintenance of ventilation systems and blowers to ensure that hazardous gases can be removed from the work environment; gas detection systems in locations with high exposure risks to provide early warning when gas concentrations reach dangerous levels; and restriction of high-risk work areas/zones to authorized workers only.
2. Monitoring of potential exposure. This is done by regularly measuring and monitoring exposure risk levels to ensure they are below the thresholds specified by safety standards, monitoring worker health to monitor the long-term effects of exposure to hazards on worker health;
3. Use of personal protective equipment (PPE) to reduce exposure to hazards;
4. Emergency response training to provide workers with an understanding of evacuation procedures in the event of an emergency.





Fit to Work

PGE memastikan seluruh pekerja dalam kondisi bugar (*fit*) untuk bekerja, dengan menerapkan kebijakan *Fit to Work*, melalui:

1. Kebijakan *No Follow Medical Check Up* (MCU) *No Entry*, dengan realisasi 100% telah melaksanakan MCU dan telah menjalani pemeriksaan kesehatan lanjutan pada 2025;
2. Pemeriksaan kesehatan harian (*daily check up* atau DCU) untuk pekerjaan berisiko tinggi. Pada 2025, PGE telah melaksanakan DCU kepada pekerja dengan pekerjaan berisiko tinggi untuk memastikan pekerja tersebut layak bekerja.

Fit to Work

PGE ensures that all workers are fit to work by implementing a Fit to Work policy through:

1. A No Follow Medical Check-Up (MCU) No Entry policy, with 100% of workers having undergone an MCU and further medical examinations by 2025;
2. Daily health check-up (DCUs) for high-risk jobs. By 2025, PGE had conducted DCUs for workers in high-risk jobs to ensure they are fit for work.



Medis di Lokasi dan Rencana Respons Darurat Medis

Seluruh area kerja Perseroan didukung layanan medis yang dilengkapi dokter dan tenaga kesehatan. Pada 2025, layanan medis di area kerja melayani 1.927 kunjungan layanan kesehatan pekerja di seluruh area. Selain itu, PGE menerapkan Pengelolaan Rencana Tanggap Darurat Medis atau *Medical Emergency Response Plan* (MERP) sebagai prosedur/pedoman penanganan kegawatdaruratan medis. MERP terdiri dari empat kategori, yaitu:

- **MERP 1**: pengelolaan *first aid* di lokasi kejadian;
- **MERP 2**: pengelolaan kejadian oleh tim medis;
- **MERP 3**: pengelolaan kejadian di rumah sakit rujukan; dan
- **MERP 4**: *medical evacuation* dari rumah sakit rujukan ke Rumah Sakit Pusat Pertamina (RSPP) atau rumah sakit alternatif lainnya.

Pada 2025, terdapat satu respons kedaruratan medis dengan kategori pengelolaan korban oleh tim medis *on-site* di area (MERP 2).

On-site Medical Services and Medical Emergency Response Plan

All of the Company's work areas are supported by medical services equipped with doctors and health workers. In 2025, medical services in the work area served 1,927 worker health service visits across all areas. In addition, PGE implements a Medical Emergency Response Plan (MERP) as a procedure/guideline for handling medical emergencies. MERP consists of four categories, namely:

- **MERP 1**: first aid management at the scene of the incident;
- **MERP 2**: incident management by the medical team;
- **MERP 3**: incident management at the referral hospital; and
- **MERP 4**: medical evacuation from the referral hospital to the Pertamina Central Hospital (RSPP) or other alternative hospitals.

In 2025, there was one medical emergency response with victim management by an on-site medical team in the area (MERP 2).



Program Kesehatan Perusahaan serta Kampanye Kesehatan dan Bincang Kesehatan [GRI 403-6]

Program kesehatan difokuskan pada pencegahan penyakit akibat kerja (PAK) melalui pelaksanaan asesmen risiko kesehatan, penambahan jenis pemeriksaan dalam MCU yang disesuaikan dengan potensi risiko pekerjaan dan bahaya kesehatan yang teridentifikasi, serta pemantauan lingkungan kerja, seperti tingkat kebisingan dan pencahayaan.

Corporate Health Program and Health Campaigns and Health Talks [GRI 403-6]

The health program focuses on preventing occupational diseases (ODs) through health risk assessments, expanding the scope of MCU tests based on identified job-related risks and health hazards, and monitoring workplace conditions such as noise and lighting levels.

Melalui hasil MCU, Perseroan juga memantau kondisi kesehatan masing-masing pekerja sesuai tingkatan kesehatan yang ditentukan. Pada 2025, Perseroan menambahkan indikator kesehatan jiwa dalam penilaian MCU. Selain itu, PGE menyelenggarakan sosialisasi dan kampanye terkait pengelolaan kesehatan kerja setiap bulan di masing-masing area. Sosialisasi dan kampanye ini dapat diikuti oleh pekerja maupun kontraktor.

Using MCU results, the Company also tracks each worker's health status according to the established health categories. In 2025, the Company added mental health indicators to the MCU assessment. In addition, PGE conducts monthly briefings and campaigns on occupational health management in each area, which are open to both workers and contractors.

PGE juga memfasilitasi layanan kesehatan bagi pekerja yang mengalami gangguan kesehatan bukan PAK melalui kerja sama dengan PT Pertamina Bina Medika-Indonesia Healthcare Corporation yang merupakan Holding Rumah Sakit BUMN. Kami juga bekerja sama dengan penyedia jasa layanan kesehatan sesuai area operasi guna memudahkan dan mempercepat penanganan medis. Melalui kegiatan kampanye kesehatan dan bincang kesehatan (*health talk*), PGE menawarkan layanan dan program promosi kesehatan sukarela kepada pekerja, guna membantu mereka meningkatkan kualitas kesehatan. Layanan dan program yang diselenggarakan pada 2025 di antaranya *corporate wellness* melalui program *Stay Fit* dengan fokus pada aspek gizi, program donor darah, program berhenti merokok, serta kegiatan olahraga bersama.

PGE also facilitates healthcare services for workers experiencing non-work related ill health issues through cooperation with PT Pertamina Bina Medika-Indonesia Healthcare Corporation, the SOE hospital holding company. The Company also works with other healthcare service providers in its operating areas to make medical treatment more accessible and faster. Through health campaigns and health talks, PGE offers voluntary health-promotion services and programs to help workers improve their health and well-being. Services and programs delivered in 2025 include corporate wellness through the Stay Fit program with a nutrition focus, blood donation drives, smoking cessation programs, and group sports activities.



Partisipasi, Konsultasi, dan Komunikasi K3 kepada Pekerja [GRI 403-4]

PGE mendorong pekerja untuk berpartisipasi dalam pengelolaan K3 sebagai bagian dari penerapan HSSE. Kami juga membuka ruang kepada pekerja untuk melakukan konsultasi dan komunikasi dalam pengelolaan K3. Beberapa kegiatan yang dilaksanakan pada 2025, antara lain:

1. Pelaksanaan Bulan K3 Nasional. Kegiatan ditujukan untuk memperkuat kesadaran, kepedulian, serta partisipasi aktif seluruh pekerja dan mitra kontraktor dalam menerapkan prinsip K3 secara konsisten dan berkelanjutan;
2. Pembentukan Panitia Pembina Keselamatan dan Kesehatan Kerja (P2K3) di setiap area yang beranggotakan perwakilan manajemen dan perwakilan pekerja. Melalui P2K3, perwakilan pekerja menyampaikan berbagai hal kepada Perseroan untuk peningkatan pengelolaan K3. Sampai akhir 2025, jumlah pekerja yang menjadi anggota P2K3 adalah 95 orang atau 16,93% dari total pekerja PGE.

Participation, Consultation, and OHS Communication with Workers [GRI 403-4]

PGE encourages workers to participate in OHS management as part of HSSE implementation. We also provide opportunities for workers to consult and communicate on OHS management. Several activities carried out in 2025 include:

1. National OHS Month implementation, aimed at strengthening awareness, ownership, and active participation among all workers and contractor partners in applying OHS principles consistently and sustainably;
2. Establishment of Occupational Health and Safety Committee (OHSC) in each area, comprising management and worker representatives. Through OHSC, worker representatives raise inputs to support improvements in OHS management. By the end of 2025, 95 workers, equal to 16.93% of PGE's total workforce, were OHSC members.

Pelatihan Pekerja terkait HSSE [GRI 403-5]

PGE secara rutin memberikan pelatihan K3 kepada Perwira dan pekerja mitra kerja/vendor/pemasok untuk membangun budaya keselamatan serta meningkatkan kesadaran dan kepedulian akan tanggung jawab dalam menciptakan tempat kerja yang lebih aman. Selama 2025, PGE menyelenggarakan 79 pelatihan HSSE untuk pekerja, terdiri atas pelatihan umum dan pelatihan mengenai bahaya terkait pekerjaan tertentu, yang diikuti oleh 1.502 peserta. PGE mewajibkan seluruh kontraktor yang akan memasuki wilayah kerja untuk memiliki HSE *Passport*, yang mengharuskan kontraktor untuk mengisi dokumen persyaratan, termasuk mengerjakan pertanyaan mengenai CLSR. Adapun pelaksanaan pelatihan HSSE bagi kontraktor secara khusus menjadi tanggung jawab masing-masing pihak kontraktor.

Adapun pelatihan terkait HSSE yang dilaksanakan pada 2025 antara lain:

1. **Keselamatan Kerja**: *basic process safety management*; SUPREME; perilaku dasar keselamatan; *Corporate Life Saving Rules* (CLSR); sertifikasi *gas safety inspector*; sertifikasi kompetensi tenaga teknik kelistrikan, HSSE *culture*; dan lainnya.
2. **Kesehatan Kerja**: pertolongan pertama; pelatihan ahli *hygiene industry* muda, *stress management*; dan lainnya.
3. **Keamanan**: pelatihan *awareness* dan auditor untuk ISO 27001:2022 Sistem Manajemen Keamanan Informasi.
4. **Lingkungan**: pengelolaan limbah B3 dan non-B3; *life cycle assessment*; pencemaran air; pencemaran udara; lokakarya keanekaragaman hayati; dan lainnya.

Worker Training Related to HSSE [GRI 403-5]

PGE regularly provides OHS training to Perwira and business partner/vendor/supplier workers to build a safety culture and strengthen awareness of shared responsibility for creating a safer workplace. During 2025, PGE delivered 79 HSSE training sessions for workers, covering both general training and job-specific hazard training, with 1,502 participants. PGE requires all contractors entering its work areas to hold an HSE Passport, which requires contractors to complete required documents, including answering questions on CLSR. HSSE training delivered specifically for contractors is the responsibility of each contractor.

HSSE-related training conducted in 2025 included:

1. **Work Safety**: basic process safety management; SUPREME; basic safety behavior; Corporate Life Saving Rules (CLSR); gas safety inspector certification; electrical engineering competency certification, HSSE culture; and others.
2. **Occupational Health**: first aid; training for young industrial hygiene experts, stress management; and others.
3. **Security**: awareness and auditor training for ISO 27001:2022 Information Security Management System.
4. **Environment**: management of hazardous and non-hazardous waste; life cycle assessment; water pollution; air pollution; biodiversity workshops; and others.

Pencegahan dan Mitigasi Dampak K3 terkait **Hubungan Bisnis** [GRI 403-7]

Prevention and Mitigation of OHS Impacts in Business Relationships

Penerapan K3 sebagai bagian dari pengelolaan HSSE meliputi seluruh proses bisnis PGE untuk mencegah atau mengurangi dampak K3 pada aspek operasi, produk, dan layanan. Selain pekerja dan manajemen, PGE menerapkan CSMS guna memastikan mitra kerja/vendor/pemasok mematuhi standar HSSE yang ditetapkan, sehingga potensi bahaya dapat diminimalkan dan operasional berjalan dengan aman. PGE berinovasi dalam penerapan K3 melalui penerapan *Process Safety & Asset Integrity Management System* (PSAIMS) di Area Lumut Balai, yang memantau integritas peralatan dengan skala 1–10 sebagai dasar perencanaan tindakan perbaikan (*corrective maintenance*) atau pencegahan (*preventive maintenance*). Penerapan sistem ini meningkatkan keselamatan kerja dengan meminimalkan risiko kerusakan peralatan yang berpotensi menyebabkan kecelakaan.

As part of HSSE management, OHS implementation spans all PGE business processes to prevent or reduce OHS impacts across operations, products, and services. Beyond workers and management, PGE applies the CSMS to ensure partner/vendor/supplier compliance with established HSSE standards, helping minimize hazards and keep operations safe. PGE also advances OHS practices through the Process Safety & Asset Integrity Management System (PSAIMS) in the Lumut Balai Area, which monitors equipment integrity on a 1–10 scale to support planning for corrective maintenance or preventive maintenance. This system strengthens workplace safety by reducing the risk of equipment failures that could lead to accidents.

Pencegahan Insiden Skala Besar

Kami memastikan kepatuhan terhadap standar operasional prosedur serta menerapkan Pedoman Penanggulangan Keadaan Darurat dan Krisis Nomor A-005/PGE400/2025-S9 dalam menghadapi dan menangani potensi kejadian besar, termasuk meminimalisasi risiko insiden seperti pelepasan zat berbahaya, kebakaran, dan ledakan. Salah satu risiko utama PGE adalah *geohazard* yang berpotensi menimbulkan insiden besar. Untuk memitigasi risiko tersebut, PGE menerapkan *Geohazard Emergency Response Readiness* (GERRAT) sebagai sistem pemantauan dini di seluruh wilayah operasional, didukung dengan pembentukan tim tanggap darurat, pemasangan alat peringatan dini, simulasi penanganan bencana secara berkala, serta pedoman khusus penanggulangan keadaan darurat geohazard, yaitu TKO Pengelolaan Risiko *Geohazard* No. B-001/PGE410/2023-S9.

Sepanjang 2025, Perseroan telah menerapkan berbagai tindakan keselamatan proses untuk meminimalisasi risiko insiden/kejadian besar yang mungkin terjadi, antara lain:

1. Melakukan penilaian risiko secara teratur untuk mengidentifikasi dan memprioritaskan potensi bahaya serta menerapkan langkah-langkah untuk mengendalikannya;
2. Menerapkan sistem manajemen keselamatan, termasuk prosedur dan protokol tanggap darurat, untuk memastikan bahwa setiap insiden dikelola secara efektif dan efisien;
3. Memastikan bahwa peralatan dirawat dan dioperasikan dengan cara yang aman dan andal, dengan inspeksi rutin serta penerapan program perawatan.
4. Memberikan pelatihan dan pendidikan kepada pekerja tentang keselamatan proses, termasuk penanganan bahan berbahaya yang tepat, prosedur tanggap darurat, dan praktik kerja yang aman;
5. Membangun budaya keselamatan dengan mendorong komunikasi terbuka dan peningkatan berkelanjutan, dengan fokus kuat pada pencegahan insiden.

Prevention of Large-Scale Incidents

We comply with standard operating procedures and apply the Emergency and Crisis Management Guidelines No. A-005/PGE400/2025-S9 to prepare for and manage potential major events, including minimizing risks such as hazardous substance releases, fires, and explosions. One of PGE's key risks is geohazard, which could trigger large-scale incidents. To mitigate this risk, PGE implements Geohazard Emergency Response Readiness (GERRAT) as an early monitoring system across all operating areas, supported by emergency response teams, early warning devices, regular disaster-response simulations, and dedicated geohazard emergency guidance, namely TKO Pengelolaan Risiko Geohazard No. B-001/PGE410/2023-S9.

Throughout 2025, the Company has implemented various process safety measures to minimize the risk of major incidents/events that may occur, including:

1. Conducting regular risk assessments to identify and prioritize potential hazards and implement measures to control them;
2. Implementing a safety management system, including emergency response procedures and protocols, to ensure that any incidents are managed effectively and efficiently;
3. Ensuring that equipment is maintained and operated safely and reliably through regular inspections and maintenance programs.
4. Providing training and education to workers on process safety, including proper handling of hazardous materials, emergency response procedures, and safe work practices;
5. Building a safety culture by encouraging open communication and continuous improvement, with a strong focus on incident prevention.



PGE juga menerapkan tindakan untuk mencegah insiden/kejadian besar yang dapat berdampak signifikan terhadap manusia, lingkungan, dan operasional, antara lain:

1. Melakukan pelatihan dan latihan rutin untuk menguji respons sistem tanggap darurat Perseroan;
2. Menjalin kemitraan yang kuat dengan masyarakat setempat, lembaga pemerintah, dan pemangku kepentingan lainnya untuk memastikan komunikasi dan kerja sama yang efektif jika terjadi insiden;
3. Menerapkan sistem pemantauan dan pengawasan yang efektif, seperti pemantauan kualitas udara dan air untuk mendeteksi dan menanggapi potensi insiden dengan cepat;
4. Memastikan bahwa semua pekerja memahami pentingnya pencegahan insiden dan peran mereka dalam mempromosikan lingkungan kerja yang aman dan nyaman.

PGE also implements measures to prevent major incidents/events that could have a significant impact on people, the environment, and operations, including:

1. Conducting regular training and exercises to test the Company's emergency response system;
2. Establishing strong partnerships with local communities, government agencies, and other stakeholders to ensure effective communication and cooperation in the event of an incident;
3. Implementing effective monitoring and surveillance systems, such as air and water quality monitoring, to quickly detect and respond to potential incidents;
4. Ensuring that all workers understand the importance of incident prevention and their role in promoting a safe and comfortable working environment.



PGE juga memantau *Process Safety Event* (PSE) atau potensi terlepasnya material secara tidak terkendali, baik material berbahaya maupun material tidak beracun dan material tidak mudah terbakar dari sebuah fasilitas produksi, distribusi, penyimpanan, dan utilitas. Berdasarkan standar API RP 754 dan IOGP Report 456, PSE dibagi menjadi empat kategori, yaitu:

1. ***Process safety event Tier* 1:** PSE yang memiliki dampak negatif paling besar;
2. ***Process safety event Tier* 2:** PSE yang memiliki dampak lebih rendah;
3. ***Process safety event Tier* 3:** Permasalahan pada sistem instrumentasi keselamatan proses, namun tidak sampai menimbulkan *process safety event Tier* 1 dan 2;
4. ***Process safety event Tier* 4:** Kinerja sistem manajemen untuk mencegah insiden keselamatan proses.

PGE also monitors Process Safety Events (PSE) or the potential for uncontrolled release of materials, whether hazardous, non-toxic, or non-flammable, from a production, distribution, storage, or utility facility. Based on API RP 754 and IOGP Report 456 standards, PSEs are divided into four categories, namely:

1. **Process safety event Tier 1:** PSEs that have the most negative impact;
2. **Process safety event Tier 2:** PSEs that have a lower impact;
3. **Process safety event Tier 3:** Problems with the process safety instrumentation system, but do not cause Tier 1 and 2 process safety events;
4. **Process safety event Tier 4:** Performance of the management system to prevent process safety incidents.

Sampai akhir 2025, PGE tidak menerima laporan peristiwa yang masuk dalam keempat tingkatan tersebut, yang menunjukkan bahwa kinerja PGE telah berjalan sesuai dengan strategi dan langkah mitigasi yang diterapkan.

By the end of 2025, PGE had not received reports of events falling under these four tiers, indicating performance aligned with the strategies and mitigation measures implemented.

Kinerja **Pengelolaan K3** [GRI 403-9]

OHS Management Performance

Pencapaian KPI terkait K3 akan disampaikan setiap tiga bulan sekali kepada Fungsi Performance. Hasil pengelolaan kinerja K3 akan memengaruhi besaran insentif yang diterima oleh General Manager di masing-masing area. Sepanjang 2025, PGE mampu mengelola K3 dengan baik di seluruh proses bisnis yang dijalankan Perseroan, dibuktikan dengan tidak adanya kejadian yang bersifat fatal atau menimbulkan korban jiwa, serta jumlah jam kerja aman yang mencapai 6.316.295 jam. Namun demikian, terdapat satu kasus *medical treatment case* yang dialami oleh pekerja dan langsung ditangani oleh petugas kesehatan.

OHS-related KPI achievements are reported quarterly to the Performance Function. OHS performance results also affect the incentive levels received by each area's General Manager. Throughout 2025, PGE maintained strong OHS performance across its business processes, as reflected in zero fatal incidents or loss of life and a total cumulative working hours of 6,316,295. Nevertheless, there was one medical treatment case involving a worker, which was handled immediately by health personnel.

Rerata Jumlah Hilang Hari Kerja
Average Number of Lost Work Days



Korban Kecelakaan Kerja
Victims of Workplace Accidents

2025	2024	2023
1	2	4

(Orang | People)



Kecelakaan yang Mengakibatkan Kehilangan Hari Kerja
Accidents Resulting in Lost Work Days

2025	2024	2023
0	1	0

(Kasus | Cases)



Kecelakaan yang Tidak Mengakibatkan Kehilangan Hari Kerja
Accidents Not Resulting in Lost Work Days

2025	2024	2023
1	1	4

(Kasus | Cases)



Jumlah Jam Kerja Kumulatif
Total Cumulative Working Hours

2025	2024	2023
6.316.295	5.583.707	6.139.303

(Jam | Hours)



Jumlah Hilang Hari Kerja
Total Lost Work Days

2025	2024	2023
0	33	0

(Hari | Days)



Lost Time Injury Rate (LTIR)

2025	2024	2023
0,00	0,036	0,00

(%)

Keterangan | Note:
Data statistik kecelakaan pada 2023 dihitung berdasarkan satu juta jam kerja, sementara untuk data 2024 dan 2025 dihitung berdasarkan dua ratus ribu jam kerja.
Accident statistics for 2023 are calculated based on 1 million working hours, while those for 2024 and 2025 are calculated based on 200,000 working hours.

Jumlah Insiden pada Pekerja PGE dan Kontraktor
Number of Incidents Involving PGE Workers and Contractors

Kategori Category	2025		2024		2023	
	PGE	Kontraktor Contractors	PGE	Kontraktor Contractors	PGE	Kontraktor Contractors
Kejadian Fatal Fatality	0	0	0	0	0	0
Jumlah Kejadian Kehilangan Waktu Kerja Total Lost Time Cases	0	0	0	1	0	0
Hari Kerja Terbatas Restricted Work Days	0	0	0	0	0	0
Penanganan Medis Medical Treatment	0	1	0	0	0	3
Pertolongan Pertama First Aid	0	0	0	1	0	1
Jumlah **Total**	**0**	**0**	**0**	**2**	**0**	**4**

Penyakit Akibat Kerja [GRI 403-10]

Sampai akhir 2025, kami tidak menerima laporan adanya Perwira PGE maupun pekerja mitra kerja/vendor/pemasok yang menderita penyakit akibat kerja (PAK). Informasi tersebut diperoleh dari analisis berdasarkan hasil MCU, DCU, dan kunjungan ke fasilitas kesehatan yang ada di Perseroan. Sesuai Peraturan Presiden No. 7 Tahun 2019 tentang Penyakit Akibat Kerja (PAK) yang dimaksud terdiri dari penyakit akibat pajanan faktor yang timbul dari aktivitas pekerjaan, penyakit berdasarkan sistem target organ, penyakit kanker akibat kerja, serta penyakit spesifik lainnya. Kondisi ini menandakan bahwa PGE telah mampu mengelola risiko-risiko yang membahayakan kesehatan pekerja, baik dari aktivitas pekerjaan, lingkungan kerja, maupun gaya hidup.

Work-related Ill Health [GRI 403-10]

As of the end of 2025, we have not received any reports of PGE workers or partner/vendor/supplier workers suffering from work-related ill health. This information was obtained from an analysis based on the results of MCU, DCU, and visits to health facilities within the Company. In accordance with Presidential Regulation No. 7 of 2019 concerning Occupational Diseases (ODs) consist of diseases caused by exposure to factors arising from work activities, diseases based on target organ systems, work-related cancers, and other specific diseases. This condition indicates that PGE has been able to manage risks that endanger workers' health, whether from work activities, the work environment, or lifestyle.

Mengelola Sumber Daya Manusia **yang Unggul**

Managing Excellent Human Resources

Pengelolaan SDM berperan penting dalam mendukung pencapaian tujuan Perseroan, termasuk dalam penerapan transisi energi dan mengatasi perubahan iklim. Pengelolaan SDM dilakukan dengan memetakan kebutuhan disertai pengembangan kompetensi para Perwira dan dukungan lingkungan kerja yang kondusif.

HR management plays an important role in supporting the achievement of the Company's objectives, including in implementing energy transition and addressing climate change. HR management is carried out by mapping needs, upskilling Perwira's competencies, and supporting a conducive work environment.

Ketenagakerjaan [GRI 401-1, 401-3]

Employment

Sejalan dengan penguatan peran panas bumi dalam transisi energi nasional, PGE menambah kapasitas produksi uap dan listrik melalui pengoperasian PLTP Lumut Balai Unit 2 pada 2025 serta pengembangan proyek Hululais dan Sungai Penuh, yang didukung dengan perekrutan pekerja baru yang ditempatkan di PGE. Jumlah pekerja baru pada 2025 tercatat 46 orang, terdiri dari 38 orang atau 83% laki-laki dan 8 orang atau 17% perempuan. Adapun total pekerja PGE pada 2025 bertambah menjadi 561 orang, dari sebelumnya 523 orang di 2024.

As PGE strengthens geothermal's role in Indonesia's energy transition, the Company increased steam and power capacity through the operation of PLTP Lumut Balai Unit 2 in 2025 and the development of the Hululais and Sungai Penuh projects, supported by new hiring across PGE. In 2025, PGE hired 46 new workers: 38 male or 83% and 8 female or 17%. As a result, PGE's total headcount rose to 561 workers in 2025, up from 523 in 2024.

Jumlah Pekerja Baru PGE Berdasarkan Status Kepegawaian dan Gender
Number of New PGE Workers Based on Employment Status and Gender

Status Kepegawaian Employment Status	2025			2024			2023		
	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total
Pekerja Waktu Tidak Tertentu (PWTT) Permanent Worker	37	7	44	17	7	24	7	0	7
Pekerja Waktu Tertentu (PWT) Non-permanent Worker	1	1	2	1	0	1	0	0	0
Jumlah **Total**	**38**	**8**	**46**	**18**	**7**	**25**	**7**	**0**	**7**

Jumlah Pekerja Baru PGE Berdasarkan Penempatan dan Gender
Number of New PGE Workers Based on Placement and Gender

Penempatan Placement	2025			2024			2023		
	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total
Kantor Pusat Head Office	11	4	15	6	5	11	1	0	1
Area Kamojang Kamojang Area	2	0	2	2	2	4	4	0	4
Area Lahendong Lahendong Area	4	0	4	4	0	4	1	0	1
Area Ulubelu Ulubelu Area	9	0	9	4	0	4	0	0	0
Area Karaha Karaha Area	4	2	6	0	0	0	0	0	0
Area Lumut Balai Lumut Balai Area	9	1	10	2	0	2	1	0	1
Area Sibayak Sibayak Area	0	0	0	0	0	0	0	0	0
Proyek Lumut Balai Unit 2 Lumut Balai Unit 2 Project	0	0	0	0	0	0	0	0	0
Proyek Hululais Hululais Project	0	0	0	0	0	0	0	0	0
Proyek Gunung Tiga Gunung Tiga Project	0	0	0	0	0	0	0	0	0
Jumlah Total	**38**	**8**	**46**	**18**	**7**	**25**	**7**	**0**	**7**

Jumlah Pekerja Baru PGE Berdasarkan Kelompok Usia dan Gender
Number of New PGE Workers Based on Age Group and Gender

Kelompok Usia (Tahun) Age Group (Years)	2025			2024			2023		
	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total	Laki-laki Male	Perempuan Female	Jumlah Total
<30	36	7	43	16	7	23	6	0	6
31-50	2	1	3	2	0	2	1	0	1
>50	0	0	0	0	0	0	0	0	0
Jumlah Total	**38**	**8**	**46**	**18**	**7**	**25**	**7**	**0**	**7**

Selama 2025, tujuh pekerja meninggalkan PGE bukan dikarenakan pembinaan dan penugasan dari Perseroan; terdiri atas 5 pekerja yang pensiun, satu pekerja mengundurkan diri dengan alasan tertentu, serta satu pekerja melakukan pemutusan hubungan kerja (PHK) karena alasan mendesak. Dari jumlah tersebut, enam orang merupakan pekerja laki-laki dan satu orang perempuan, sehingga tingkat pergantian pekerja 1,28%.

During 2025, seven workers left PGE for reasons unrelated to the Company's training and deployment programmes; these comprised five workers who reached retirement age, one worker who resigned for personal reasons, and One worker underwent termination of employment (layoff) due to urgent reasons. Of this total, six were male workers and one was a female worker, resulting in an worker turnover rate of 1.28%.

Berdasarkan kelompok usia, pekerja yang meninggalkan PGE didominasi kelompok usia di atas 50 tahun, sebanyak 5 orang atau 0,91%. Sementara berdasarkan area operasi, jumlah terbanyak di Kantor Pusat dan Lahendong, masing-masing 3 orang atau 0,55%.

By age group, workers leaving PGE were predominantly in the over-50 age group, totalling five people or 0.91%. Meanwhile, by operational area, the largest number came from the Head Office and Lahendong, with three people each or 0.55%.

Sementara itu, sepanjang 2025, PGE melakukan pemindahan tugas 187 pekerja dari Kantor Pusat maupun Proyek Pengembangan ke Area Operasi, sebagai bagian dari peningkatan kemampuan dalam penerapan transisi energi dan penanganan perubahan iklim. Mereka terdiri dari 165 orang atau 88% laki-laki dan 22 orang atau 12% perempuan, dengan jumlah terbanyak yakni 162 orang atau 87% berada di kelompok usia 31-50 tahun. Sebagian besar dari mereka, yakni 97 orang atau 52%, ditempatkan di Kantor Pusat.

Meanwhile, throughout 2025, PGE reassigned 187 workers from the Head Office and Development Projects to Operational Areas to strengthen capabilities to deliver the energy transition and address climate change. The group comprised 165 males or 88% and 22 females or 12%, with the largest share of 162 workers or 87% in the 31–50 age group. Most of them 97 workers or 52% were placed in the Head Office.

Kesetaraan Kesempatan, Keberagaman, **dan Kesejahteraan Pekerja** [OJK F.18][GRI 202-2, 405-1, 405-2, 406-1]

Equal Opportunity, Diversity, and Worker Welfare

PGE menjamin penerapan prinsip non-diskriminasi di seluruh lingkungan kerja melalui berbagai kebijakan, termasuk melalui Kebijakan Keberagaman dan Inklusivitas PGE dan *Respectful Workplace Policy* PGE yang mendukung keberagaman, kesetaraan, dan inklusivitas. Kebijakan ini memastikan seluruh pekerja memiliki akses yang setara terhadap pengembangan karier, remunerasi yang adil, serta lingkungan kerja yang aman tanpa membedakan gender, suku, agama, maupun latar belakang lainnya, termasuk pekerja yang hidup dengan HIV/AIDS. Salah satu upaya Perseroan dalam mendukung kebijakan tersebut, dilakukan melalui penetapan target 15% representasi perempuan serta 1% pekerja lokal dan pekerja disabilitas pada 2030.

PGE ensures the implementation of non-discrimination principles throughout the workplace through various policies, including the PGE's Diversity and Inclusion Policy and PGE's Respectful Workplace Policy, which support diversity, equality, and inclusion. These policies ensure that all workers have equal access to career development, fair compensation, and a safe work environment without discrimination based on gender, ethnicity, religion, or other backgrounds, including workers living with HIV/AIDS. One of the Company's efforts to support these policies is the establishment of a target of 15% representation of women, as well as 1% for local employees and employees with disabilities by 2030.

Sepanjang 2025, seluruh pekerja telah mengikuti sosialisasi dan *workshop* terkait kebijakan tersebut, dan tidak terdapat laporan maupun kasus diskriminasi kerja. Komitmen tersebut juga tercermin dalam komposisi pejabat tata kelola PGE yang beragam berdasarkan gender, usia, dan latar belakang lainnya. Pada 2025, terdapat 85 Perwira yang menduduki posisi manajemen senior, empat berasal dari masyarakat lokal di sekitar area operasi atau sebesar 4,7% dari total manajemen senior.

Throughout 2025, all workers participated in socialization and workshops related to this policy, and there were no reports or cases of workplace discrimination. This commitment is also reflected in the diverse composition of PGE's management based on gender, age, and other backgrounds. By 2025, there were 85 workers holding senior management positions, four originating from local communities around the operational area or 4.7% of the total senior management.

Komposisi Pejabat Badan Tertinggi Tata Kelola PGE Berdasarkan Gender dan Kelompok Usia
Composition of PGE's Highest Governance Body Officials Based on Gender and Age Group

Dewan Komisaris Board of Commissioners	5	0	tahun | years <30	30-50	>50
			0	4	1

Komposisi Pejabat Tata Kelola PGE Berdasarkan Gender dan Kelompok Usia
Composition of PGE's Governance Body Officials Based on Gender and Age Group

Manajemen Management	73	12	tahun | years <30	30-50	>50	**Asisten Manajer** Assistant Manager	91	24	tahun | years <30	30-50	>50
			0	73	12				0	107	8
Staf Staff	326	35	tahun | years <30	30-50	>50						
			95	243	23						

Jumlah Total	490	71	tahun | years <30 95	30-50 423	>50 43

Pekerja Penyandang Disabilitas

Sesuai Undang-Undang Nomor 8 Tahun 2016 tentang Penyandang Disabilitas serta sebagai bagian dari PT Pertamina (Persero) selaku badan usaha milik negara (BUMN), PGE berkewajiban mempekerjakan penyandang disabilitas paling sedikit 2% dari total pekerja. Pemenuhan ketentuan tersebut akan dilakukan secara bertahap. Rekrutmen PWT dan PWTT disabilitas berdasarkan keputusan PT Pertamina (Persero) selaku Holding, sementara tenaga alih daya penyandang disabilitas direkrut sesuai keputusan PGE. Sampai akhir 2025, PGE telah mempekerjakan satu PWT di Fungsi Operation & Engineering serta tiga tenaga alih daya penyandang disabilitas di Fungsi Human Capital, Corporate Secretary, dan Corporate Finance.

Workers with Disabilities

In line with Law No. 8 of 2016 on Persons with Disabilities and PGE's position within PT Pertamina (Persero) as a state-owned enterprise (SOE). PGE is required to employ persons with disabilities at a minimum of 2% of total workers. Compliance with this requirement is being implemented in stages. Recruitment of workers with disabilities under PWT and PWTT follows decisions by PT Pertamina (Persero) as the Holding, while outsourced workers with disabilities are recruited based on PGE's decisions. By the end of 2025, PGE employed one PWT in the Operation & Engineering Function and three outsourced workers with disabilities in the Human Capital, Corporate Secretary, and Corporate Finance Functions.

Kebebasan Berserikat dan Perjanjian Kerja Bersama (PKB) [GRI 2-30, 407-1]

Kami menghormati kebebasan berserikat seluruh pekerja PGE. Sejak 22 Februari 2010, pekerja PGE telah membentuk Serikat Pekerja PGE (SP PGE), dengan jumlah anggota mencapai 499 pekerja atau 88% dari total pekerja Perseroan. Kami memberikan dukungan bagi pekerja yang menjadi pengurus SP PGE dan memfasilitasi kegiatan SP PGE, sehingga selama 2025, tidak ada hal signifikan yang mengurangi dan/atau membatasi kebebasan berserikat untuk pekerja. SP PGE mewakili pekerja melakukan perundingan dengan Perseroan dalam penyusunan PKB yang berlaku setiap dua tahun. Saat ini, PKB yang berlaku adalah PKB periode 2026-2027 dan telah disahkan Kementerian Tenaga Kerja Republik Indonesia melalui Keputusan Direktur Jenderal Pembinaan Hubungan Industrial dan Jaminan Sosial Tenaga Kerja No KEP. 4/HI.00.01/00.0000.260105008/B/I/2026.

Selain itu, sesuai PKB, PGE berkewajiban memberikan batas waktu minimal kepada pekerja untuk setiap perubahan operasi. Untuk perubahan operasi yang diikuti PHK maka waktu minimal pemberitahuan kepada pekerja memperhatikan ketentuan perundang-undangan yang berlaku, sementara untuk mutasi dan rotasi penugasan adalah 30 hari kalender. Selama 2025, tidak ada perubahan operasi yang diikuti PHK, sementara untuk rotasi/mutasi jabatan dilakukan kepada 167 pekerja dan mereka telah mendapatkan pemberitahuan sebelumnya. [GRI 402-1]

Freedom of Association and Collective Labor Agreements (CLA) [GRI 2-30, 407-1]

We respect the freedom of association of all PGE workers. Since February 22, 2010, PGE workers have formed the PGE Labor Union (SP PGE), with a membership of 499 workers or 88% of the Company's total workers. We provide support for workers who are SP PGE administrators and facilitate SP PGE activities, so that during 2025, there will be no significant reduction and/or limitation of workers' freedom of association. SP PGE represents workers in negotiations with the Company in the preparation of the CLA which is valid every two years. Currently, CLA in effect is the CLA for the 2026-2027 period and has been approved by the Ministry of Manpower of the Republic of Indonesia through the Decree of the Director General of Industrial Relations and Social Security for Workers No. KEP. 4/HI.00.01/00.0000.260105008/B/I/2026.

In addition, under the CLA, PGE is required to provide workers with minimum notice for any operational changes. Where operational changes are followed by layoffs, the minimum notice period follows applicable laws and regulations; for transfers and job rotations, the minimum notice period is 30 calendar days. During 2025, there were no operational changes followed by layoffs, while job rotations/transfers were carried out for 167 workers, all of whom received prior notice. [GRI 402-1]

Pekerja Anak dan Pemaksaan Bekerja [OJK F.19][GRI 408-1, 409-1]

PGE memastikan seluruh kegiatan operasional dan rantai nilai tidak melibatkan pekerja anak maupun kerja paksa dalam bentuk apapun, dengan menerapkan batas usia minimum pekerja sesuai usia kelulusan pendidikan tingkat SMA/sederajat sesuai ketentuan yang berlaku di PGE, yakni pengisian posisi level terendah PRL 08. Hingga akhir 2025, tidak terdapat insiden maupun risiko kerja paksa, serta tidak ditemukan pekerja anak atau pekerja muda yang terlibat dalam operasional maupun rantai pasok Perseroan. Sesuai Undang-Undang Ketenagakerjaan dan PKB, Perseroan juga telah menerapkan ketentuan jam kerja selama 8 jam per hari atau total 40 jam per minggu dan waktu istirahat. Lembur dibatasi maksimal 3 jam per hari atau 13 jam dalam seminggu, memberikan kompensasi atas kelebihan jam kerja, sehingga tidak terdapat pemaksaan kerja.

Child Labor and Forced Labor [OJK F.19][GRI 408-1, 409-1]

PGE ensures that its operations and value chain do not involve child labor or forced labor in any form. The Company applies a minimum working-age threshold aligned with senior high school (or equivalent) graduation, in accordance with PGE provisions for filling the lowest position level, PRL 08. As of the end of 2025, there were no incidents or risks of forced labor, and no child or young workers were found to be involved in the Company's operations or supply chain. In line with the Manpower Act and the CLA, PGE implements standard working hours of 8 hours per day or 40 hours per week, along with rest periods. Overtime is capped at 3 hours per day or 13 hours per week and is compensated accordingly, ensuring there is no forced labor.

PGE juga memastikan seluruh mitra kerja/vendor/pemasok mematuhi ketentuan ketenagakerjaan yang berlaku, termasuk jam kerja, upah minimum, dan pemenuhan hak normatif pekerja yang tertuang dalam CSMS.

PGE also requires all partners/vendors/suppliers to comply with applicable labor provisions, including working hours, minimum wages, and workers' normative rights, as set out in the CSMS.

Remunerasi dan Tunjangan Pekerja

Pemberian imbal jasa, kompensasi, dan manfaat di PGE mengacu pada ketentuan internal sesuai status kepegawaian. Seluruh pekerja memperoleh hak sesuai ketentuan, dengan pengecualian tertentu bagi pekerja tidak tetap serta kompensasi khusus bagi Perwira PGE yang ditempatkan di lokasi operasi tertentu. PGE juga telah menerapkan remunerasi setara tanpa membedakan gender atau faktor nonrelevan lainnya, dengan rasio upah pokok laki-laki dan upah pokok perempuan 1:1. Beberapa manfaat seperti bantuan fasilitas istirahat tahunan, program pensiun, serta program kesehatan tidak berlaku bagi pekerja tidak tetap, sementara kompensasi tambahan diberikan kepada Perwira di lokasi operasi tertentu sesuai kriteria dan kebijakan yang berlaku.

Worker Remuneration and Benefits

Remuneration, compensation, and benefits at PGE follow internal provisions based on employment status. All workers receive entitlements in line with these provisions, with certain exceptions for non-permanent workers and special compensation for workers assigned to specific operating locations. PGE states that it applies equal remuneration without regard to gender or other non-relevant factors, with a 1:1 ratio of men's and women's basic wages. Certain benefits, such as annual leave facility assistance, pension programs, and health programs, do not apply to non-permanent workers, while additional compensation is provided to workers in specific operating locations in line with applicable criteria and policies.



Rasio Upah Pokok dan Remunerasi Pekerja Perempuan dan Laki-laki [OJK F.20][GRI 405-2]
Ratio of Basic Wages and Remuneration of Female and Male Workers

Tingkat Jabatan Position Level	2025			2024			2023		
	Laki-laki Male	Perempuan Female	Rasio Ratio	Laki-laki Male	Perempuan Female	Rasio Ratio	Laki-laki Male	Perempuan Female	Rasio Ratio
Manajemen Management	1	1,1	1,1	1	1	1	1,1	1	0,89
Asisten Manajer Assistant Manager	1	1	1	1	1	1	1,1	1	0,94
Staf Staff	1	1,1	1,1	1	1,6	0,62	0,7	1	1,49

Izin Meninggalkan Pekerjaan dengan Upah Karena Melahirkan [GRI 401-3]

Sesuai UU Nomor 13 Tahun 2003 tentang Ketenagakerjaan Pasal 82 yang mewajibkan perusahaan memberikan cuti melahirkan, PGE memberikan izin meninggalkan pekerjaan dengan upah karena melahirkan (cuti melahirkan) selama 90 hari kalender kepada pekerja perempuan yang melahirkan dan 5 hari kalender kepada pekerja laki-laki untuk mendampingi istri melahirkan (di luar dari izin keadaan tertentu untuk mendampingi keluarga yang menjalani rawat inap, selama maksimal 3 hari). Selama 2025, ada 3 pekerja perempuan (2 dari Kantor Pusat dan 1 dari Area Kamojang) yang menjalani cuti melahirkan, dan ada 14 pekerja laki-laki yang menjalani cuti mendampingi istri melahirkan.

Leave with Pay for Maternity [GRI 401-3]

In accordance with Law No. 13 of 2003 on Manpower, Article 82, which requires companies to provide maternity leave, PGE grants 90 calendar days of leave with pay for maternity (maternity leave) for female workers who give birth and 5 calendar days of leave for male workers to accompany their spouse during childbirth (excluding special leave to accompany hospitalised family members, for up to 3 days). During 2025, 3 female workers (2 from the Head Office and 1 from the Kamojang Area) took maternity leave, and 14 male workers took leave to accompany their spouse during childbirth.

Seluruh (100%) pekerja yang telah selesai menjalani cuti melahirkan, telah kembali bekerja pada posisi/jabatan semula dan tidak ada yang mengundurkan diri dalam 12 bulan terakhir dari masa akhir cuti melahirkan.

All (100%) workers who completed maternity leave returned to their original positions/roles, and none resigned within 12 months following the end of their maternity leave.

Pelatihan dan Pengembangan **Kemampuan Pekerja** [OJK F.22][GRI 404-1, 404-2]

Worker Training and Development

Perseroan telah menyiapkan berbagai program pendidikan dan pelatihan untuk meningkatkan kapasitas dan kompetensi pekerja. Program pelatihan terbagi ke dalam empat kategori, yaitu kepemimpinan/manajerial, teknikal/fungsional, general/umum, serta Tugas Belajar. Sepanjang 2025, Perseroan telah melaksanakan 2.455 kegiatan pengembangan kompetensi melalui 238 judul pelatihan, baik secara luring maupun daring, yang diikuti oleh 567 peserta, dengan rata-rata jam pelatihan mencapai 73 jam per pekerja. PGE mengalokasikan biaya pengembangan dan pelatihan sebesar Rp26,72 miliar pada 2025, bertambah dari 2024 yang mencapai Rp13,18 miliar.

The Company offers education and training programs to strengthen worker capacity and competence. Training is grouped into four categories: leadership/managerial, technical/functional, general, and Tugas Belajar. Throughout 2025, the Company delivered 2,455 competency development activities across 238 training titles, through both in-person and online formats, with 567 participants and an average of 73 training hours per worker. PGE allocated Rp26.72 billion for development and training in 2025, up from Rp13.18 billion in 2024.

Kami memberikan cuti khusus dan beasiswa bagi pekerja yang menjalani tugas belajar untuk sekolah lanjutan (S2/S3), disertai jaminan bekerja kembali di PGE setelah selesai menjalani studi mereka. Hingga akhir 2025, terdapat 9 pekerja yang menjalani tugas belajar dan 1 orang Tugas Belajar Dalam Negeri, sementara yang sudah selesai tugas belajar dan kembali bekerja di PGE sebanyak 1 orang.

We provide special leave and scholarships for workers who are pursuing further education (Master/Doctoral Degrees), accompanied by a guarantee of reemployment at PGE after they complete their studies. By the end of 2025, there were 9 workers pursuing further education and 1 worker pursuing further education domestically, while 1 worker had completed their studies and returned to work at PGE.

Rerata Jam Pelatihan Berdasarkan Gender
Average Training Hours by Gender

Tahun Year	Total Jam Pelatihan Total Training Hours	Pekerja Laki-laki Male Workers			Pekerja Perempuan Female Workers		
		Jumlah Peserta Number of Participants	Jumlah Jam Number of Hours	Rerata Average	Jumlah Peserta Number of Participants	Jumlah Jam Number of Hours	Rerata Average
2025	41.664	496	35.920	72	71	5.744	81
2024	34.670	459	31.090	67,73	60	3.580	59,67
2023*	24.724	464	21.480	46*	55	3.244	59*

Keterangan | Notes:
*Penyajian kembali informasi karena perubahan metode perhitungan. [GRI 2-4]
*Restatement of information due to a change in the measurement methodologies.

Sepanjang 2025, PGE juga menyelenggarakan program G-Leaders, yakni program *leadership* untuk mengisi jabatan di level manajerial di PGE maupun Pertamina. Pelatihan ini dilaksanakan selama 6 bulan dengan jumlah peserta sebanyak 25 orang. Selain itu, terdapat pelatihan teknikal melalui program G-Elevate terkait *geothermal* di level Staf dan Asisten Manajer selama 5 bulan. Pelaksanaan program ini bekerja sama dengan University of Auckland (UOA) dan Universitas Pertamina (UPER) sebanyak tujuh orang. Informasi lebih lanjut mengenai program G-Leaders dan G-Elevate dapat dilihat pada Laporan Tahunan 2025 halaman 156-157.

Throughout 2025, PGE also organized the G-Leaders program, a leadership program to fill managerial positions at PGE and Pertamina. This training was conducted over 6 months with 25 participants. In addition, there is technical training through the G-Elevate program related to geothermal energy at the Staff and Assistant Manager levels for five months. This program is carried out in collaboration with University of Auckland (UOA) and Pertamina University (UPER) for seven people. Further information regarding the G-Leaders and G-Elevate programs can be found on pages 156–157 of the 2025 Annual Report.

Peningkatan keterampilan juga diberikan kepada pekerja yang berada dalam masa transisi memasuki usia pensiun, yakni minimal 50 tahun. PGE memiliki program pelatihan Persiapan Masa Purna Karya (PMPK) yang mencakup persiapan *soft skill* menjelang pensiun, kewirausahaan, dan perencanaan keuangan. Selama 2025, ada 17 pekerja yang memasuki pensiun dan mengikuti PPMK.

Skill enhancement is also provided to workers who are in the transition period to retirement, namely those who are at least 50 years old. PGE has a Pre-Retirement Preparation (PMPK) training program that covers soft skills preparation for retirement, entrepreneurship, and financial planning. During 2025, there were 17 workers who retired and participated in PPMK.

Penilaian dan Pengembangan Karier Pekerja [GRI 404-3]

PGE melakukan penilaian kinerja terhadap seluruh (100%) pekerja guna mengevaluasi pencapaian individu, mendukung pengembangan kompetensi, dan perencanaan karier pekerja. Proses penilaian kinerja dilakukan melalui penilaian mandiri (*self-assessment*) masing-masing pekerja, dengan mengukur pencapaian target yang telah ditentukan pada awal tahun melalui sistem *People Review*. Pada akhir tahun, Perseroan melalui line manager masing-masing akan menjalankan proses evaluasi menyeluruh terhadap individu, mencakup pencapaian target, faktor eksternal yang memengaruhi pencapaian target, serta perbandingan prestasi dengan rekan kerja lainnya. Pada 2025, terdapat 129 pekerja yang mendapatkan promosi jabatan, atau 23% dari total pekerja yang dinilai. Dari jumlah tersebut, 114 orang (88%) adalah pekerja laki-laki dan 15 orang (12%) adalah pekerja perempuan.

Worker Performance Appraisal and Career Development [GRI 404-3]

PGE conducts performance evaluations for all (100%) workers to assess individual achievements, support competency development, and inform career planning. The evaluation process includes self-assessments by each worker, measuring progress against targets set at the beginning of the year through the People Review system. At the end of the year, the Company, through each worker's line manager, conducts a comprehensive evaluation covering target achievement, external factors affecting performance, and comparisons with peers. In 2025, a total of 129 workers received promotions, representing 23% of the workers evaluated. Of this number, 114 (88%) were male workers and 15 (12%) were female workers.

Dukungan Kesehatan Mental

Perseroan mengimplementasikan program Geothermal Productivity, Engagement, Resilience, and Optimization for Maximum Output (G-Perform) untuk memperkuat budaya kinerja sekaligus mendukung *mental wellness* dan meningkatkan *engagement* pekerja.

Mental Health Support

The Company implements the Geothermal Productivity, Engagement, Resilience, and Optimization for Maximum Output (G-Perform) program to strengthen a performance-driven culture while supporting mental wellness and enhancing employee engagement.

Program ini bertujuan mendorong produktivitas berkelanjutan di tengah dinamika bisnis melalui berbagai kegiatan, seperti sharing session dan sesi psikologis bersama psikolog, bekerja sama dengan Research of Community Mental Health Initiative (RoCMHI) Fakultas Psikologi Universitas Indonesia.

The program aims to drive sustainable productivity amid dynamic business changes through various activities, such as sharing sessions and psychological consultations with psychologists, in collaboration with the Research of Community Mental Health Initiative (RoCMHI) of the Faculty of Psychology, Universitas Indonesia.

Tingkat Kepuasan Pekerja

Perseroan rutin menyelenggarakan survei kepuasan pekerja sejak 2015, sebagai upaya peningkatan kualitas lingkungan kerja yang mendukung kesejahteraan dan produktivitas pekerja. Survei ini dikumpulkan tanpa identitas pribadi dan hanya mencantumkan lokasi kerja untuk menjaga kerahasiaan. Aspek yang dinilai mencakup pemahaman rekrutmen, pengupahan, pembinaan dan pengembangan pekerja, hubungan industrial, layanan kesehatan, hingga tingkat *engagement*.

Pada 2025, survei ini melibatkan 285 responden dari 561 pekerja PGE dengan tingkat skor kepuasan pekerja mencapai 4,35 atau tercapai 11,5% dari target yang ditetapkan sebesar 3,9. Hasil survei ini akan menjadi acuan dalam evaluasi dan perumusan peningkatan kinerja Fungsi Human Capital pada tahun berikutnya.

Worker Satisfaction Level

The Company has routinely conducted worker satisfaction surveys since 2015, as part of its efforts to improve the quality of the work environment that supports worker welfare and productivity. These surveys are collected anonymously and only include the work location to maintain confidentiality. The aspects assessed include understanding of recruitment, remuneration, worker training and development, industrial relations, health services, and engagement levels.

In 2025, the survey included 285 respondents out of 561 PGE workers, with an worker satisfaction score of 4.35, achieving 11.5% of the target of 3.9. The survey results served as a reference for evaluating and formulating improvements to the Human Capital Function's performance in the following year.

Hasil Survei Kepuasan Pekerja Tahun 2025

2025 Worker Satisfaction Survey Results





Membangun Kesejahteraan **Bersama Masyarakat**

Building Shared Prosperity with the Community

PGE menargetkan akselerasi pertumbuhan yang memberikan manfaat bagi masyarakat guna meningkatkan kesejahteraan dan memperoleh dukungan dalam pengembangan bisnis panas bumi.

PGE aims to accelerate growth that delivers ongoing benefits for communities, supporting local well-being and building trust for geothermal business development.

Dampak Operasi terhadap Masyarakat dan **Pengaduan Masyarakat** [OJK F.23, F.24]

Impacts of Operations on the Community and Community Complaints

PGE menyadari bahwa kegiatan operasi yang dijalankan memberikan dampak terhadap masyarakat, termasuk penduduk asli/masyarakat adat di sekitar wilayah operasi Perseroan. Beberapa dampak negatif terhadap masyarakat yang timbul selama ini, di antaranya konflik lahan, hilangnya mata pencaharian diikuti beralihnya pekerjaan mereka, dan terganggunya tatanan sosial. Kami mengelola dampak tersebut dengan membangun dialog, termasuk membuka akses pengaduan dari masyarakat, untuk kemudian ditindaklanjuti bersama guna mendapatkan solusi terbaik. Kami juga melibatkan mereka dalam program/kegiatan pemberdayaan melalui pemenuhan TJSL yang berpedoman kepada standar ISO 26000 Guidance on Social Responsibility.

PGE recognizes that its operations affect surrounding communities, including indigenous peoples/customary communities near the Company's operating areas. Potential adverse impacts include land conflicts, loss of livelihoods, followed by shifts in employment, and disruptions to the social fabric. We manages these impacts through ongoing dialogue, including accessible community complaint channels that are followed up collaboratively to identify the most appropriate solutions. We also involves communities in empowerment programmes through its corporate CSR, guided by ISO 26000 Guidance on Social Responsibility.

Hak Penduduk Asli/Masyarakat Adat [GRI 411-1]

Kami menghormati keberadaan penduduk asli/masyarakat adat serta menghargai seluruh hak penduduk asli. Dalam setiap kegiatan pengembangan panas bumi, PGE menerapkan pendekatan sosialisasi dan konsultasi yang inklusif dan sesuai prosedur, dengan melibatkan pemangku kepentingan setempat melalui mekanisme komunikasi yang relevan. Sepanjang 2025, Perseroan tidak mencatat adanya insiden maupun tuduhan pelanggaran terhadap hak penduduk asli/masyarakat adat yang berkaitan dengan kegiatan operasional Perseroan.

Indigenous Peoples/Indigenous Communities Rights [GRI 411-1]

We respect the presence of indigenous peoples/customary communities and uphold their rights. In every geothermal development activity, PGE applies an inclusive and procedurally sound approach to outreach and consultation, engaging local stakeholders through relevant communication mechanisms. Throughout 2025, the Company recorded no incidents or allegations of violations of indigenous peoples'/customary communities' rights related to its operations.

Pelibatan Masyarakat [OJK F.25][GRI 413-1, 413-2]

Pelibatan masyarakat dilakukan di seluruh (100%) wilayah operasi PGE, termasuk proyek pengembangan dan Kantor Pusat, melalui dialog dan survei untuk memetakan potensi serta kebutuhan masyarakat, termasuk kelompok rentan. Berdasarkan hasil tersebut, Perseroan menyusun dan melaksanakan program pemberdayaan yang disesuaikan dengan kondisi tiap wilayah, melibatkan Fungsi Corporate Secretary di Kantor Pusat dan Fungsi Government & Public Relation di area operasi, serta dilengkapi mekanisme evaluasi dengan melibatkan masyarakat penerima manfaat, termasuk penyampaian keluhan, pengaduan, serta tindakan perbaikan.

Community Engagement [OJK F.25][GRI 413-1, 413-2]

Community engagement is carried out in all (100%) of PGE's operating areas, including development projects and the Head Office, through dialogue and surveys to map the potential and needs of the community, including vulnerable groups. Based on these results, the Company develops and implements empowerment programs tailored to the conditions of each region, involving the Corporate Secretary Function at the Head Office and the Government & Public Relations Function in the operational areas, and is equipped with an evaluation mechanism involving beneficiary communities, including the submission of complaints, reports, and corrective actions.



PGE menerapkan TJSL dengan konsep ekosistem hijau sebagai wujud komitmen terhadap praktik bisnis ramah lingkungan dan pemberdayaan masyarakat. Melalui TJSL, Perseroan mengelola dampak operasional dan meningkatkan manfaat bagi masyarakat setempat, yang tercermin dari respons positif masyarakat serta tidak adanya keluhan signifikan terkait dampak operasi. Dampak program pemberdayaan diukur melalui *social return on investment* (SROI) dan survei indeks kepuasan masyarakat (IKM). Kami menargetkan nilai SROI mencapai 5,5 di seluruh area pemberdayaan masyarakat PGE pada 2030.

PGE implements CSR through a green ecosystem concept, reflecting its commitment to environmentally friendly business practices and community empowerment. Through CSR, the Company manages operational impacts and increases benefits for local communities, as reflected in positive community responses and the absence of significant complaints related to operational impacts. The impact of empowerment programs is measured through social return on investment (SROI) and community satisfaction index (CSI) surveys. We are targeting an SROI value of up to 5.5 across all PGE community empowerment areas by 2030.

Hasil SROI dan IKM 2025
SROI and CSI 2025 Results

	Kamojang	Ulubelu	Lahendong	Karaha	Lumut Balai
SROI	**5,10** (510%)	**3,90** (390%)	**2,82** (282%)		
IKM CSI	**3,59** (Sangat Baik Very Good)	**3,75** (Sangat Baik Very Good)	**3,33** (Sangat Baik Very Good)	**3,79** (Sangat Baik Very Good)	**3,49** (Sangat Baik Very Good)

Peta Jalan dan Pilar Utama TJSL

Kami telah menyusun Peta Jalan TJSL 2023-2027 untuk memperkuat penerapan TJSL di PGE. Sesuai peta jalan, penerapan TJSL pada 2025 memasuki tahapan integrasi atas program TJSL yang mencakup aspek pemberdayaan, ekonomi, lingkungan, keanekaragaman hayati, perlindungan terhadap kelompok rentan, dan perlindungan terhadap penduduk asli.

Roadmap and Main Pillars of CSR

We have developed the 2023-2027 CSR Roadmap to strengthen CSR implementation at PGE. According to the roadmap, the implementation of CSR in 2025 entered the integration stage of the CSR program, covering empowerment, the economy, the environment, biodiversity, the protection of vulnerable groups, and the protection of indigenous peoples.

Pilar TJSL | CSR Pillar

- Peningkatan Kualitas Pendidikan (Education Quality Improvement)
- Peningkatan Kualitas Kesehatan (Healthy Quality Improvement)
- Pembangunan Infrastruktur dan Sosial (Infrastructure Development)
- Pemberdayaan Masyarakat (Community Economic Empowerment)
- Peduli Lingkungan (Environmental Care)

Dukungan Biaya Investasi dan Penerima Manfaat TJSL

PGE mengalokasikan biaya investasi TJSL pada 2025 sebesar Rp13,04 miliar, mencapai 103,17% dari target yang telah ditetapkan. Total penerima manfaat untuk program dan kegiatan TJSL pada 2025 sebanyak 31.233 orang. Sumber dana untuk investasi TJSL berasal dari anggaran PGE dan sinergi program TJSL Pertamina.

CSR Investment Costs and Beneficiaries

PGE allocated CSR investment costs in 2025, amounting to Rp13.04 billion, reaching 103.17% of the set target. The total number of beneficiaries of CSR programs and activities in 2025 was 31,233 people. The source of funds for CSR investments comes from the PGE budget and the synergy of Pertamina's CSR program.

Program Unggulan **Pemberdayaan Masyarakat**

Flagship Community Empowerment Program

Selama 2025, PGE melanjutkan program unggulan pemberdayaan masyarakat sebagai wujud komitmen terhadap transisi energi dan adaptasi perubahan iklim, yang memberikan dampak positif bagi masyarakat, serta meningkatkan akses terhadap energi bersih. Dalam pelaksanaannya, PGE menerapkan *Green Ecosystem* yang merupakan wujud penerapan prinsip bisnis yang ramah lingkungan. Konsep ini mengintegrasikan antara tujuan ekonomi, sosial, dan lingkungan secara bersamaan di dalam program-program TJSL Perseroan.

During 2025, PGE continued its flagship community empowerment program as a manifestation of its commitment to energy transition and climate change adaptation, which has a positive impact on the community and improves access to clean energy. In its implementation, PGE applies the Green Ecosystem, which embodies environmentally friendly business principles. This concept integrates economic, social, and environmental objectives simultaneously in the Company's CSR programs.

Program Unggulan Area Kamojang: Kanyaah

Kamojang *Agri-Aquaculture, Energized by Geothermal for All's Harmony* (Kanyaah) merupakan model pembangunan sosial berbasis budaya lokal yang adaptif terhadap perubahan iklim, melalui inovasi pemanfaatan langsung energi panas bumi (*direct-use geothermal*) dan pendekatan ekonomi sirkular untuk memperkuat ketahanan sosial-ekonomi masyarakat dataran tinggi Kamojang, Bandung. Pada klaster *Agriculture Energized by Geothermal*, program dikembangkan melalui tiga pilar utama yaitu:

Kamojang Area Flagship Program: Kanyaah

Kamojang Agri-Aquaculture, Energized by Geothermal for All's Harmony (Kanyaah) is a locally rooted social development model designed to respond to climate change, leveraging direct-use geothermal energy and a circular economy approach to strengthen socio-economic resilience in the Kamojang highlands community in Bandung. In the Agriculture Energized by Geothermal cluster, the program is structured around three main pillars, namely:



Geothermal Organic Fertilizer (GeO-Fert)

Geothermal Organic Fertilizer (GeO-Fert) diproduksi dari limbah organik pertanian dan domestik yang dikeringkan menggunakan panas bumi, sehingga menghasilkan pupuk berkualitas stabil, mempercepat proses produksi, serta tidak bergantung pada kondisi cuaca. Pupuk ini dimanfaatkan oleh kelompok tani hutan, kelompok tani perempuan, dan petani kopi arabika Kamojang.

Geothermal Organic Fertilizer (GeO-Fert) is produced from agricultural and household organic waste dried using geothermal heat, delivering more consistent fertilizer quality, speeding up production, and reducing dependence on weather conditions. The fertilizer is used by forest farmer groups, women farmer groups, and Kamojang arabica coffee farmers.

Geothermal Farming

Geothermal Farming mengintegrasikan penggunaan GeO-Fert dengan pemanfaatan limbah non-B3 operasional geothermal sebagai media tanam serta sistem *green watering* berbasis restorasi mata air Situ Cibeureum.

Geothermal Farming integrates GeO-Fert with non-hazardous waste from geothermal operations as planting media, alongside a green-watering system built on spring restoration at Situ Cibeureum.



Geothermal Food

Pada tahap hilir, hasil pertanian diolah dan dikeringkan melalui *geothermal food* menggunakan *geothermal dehydrator*, sehingga meningkatkan nilai tambah produk, mengurangi susut pascapanen, dan membuka peluang usaha baru, khususnya bagi kelompok perempuan.

Downstream, agricultural products are processed and dried into geothermal food products using a geothermal dehydrator, increasing value added, reducing post-harvest losses, and creating new business opportunities, particularly for women's groups.

Pada klaster *Aquaculture Energized by Geothermal*, program *Geothermal Fishery* memanfaatkan panas bumi untuk menjaga suhu kolam optimal sehingga meningkatkan kelangsungan hidup dan produktivitas ikan. Inisiatif ini didukung *Geothermal Feed* berbahan limbah organik yang dikeringkan dengan *geothermal dry house* guna menekan biaya dan menghasilkan produk bernilai tambah, membentuk ekosistem ekonomi sirkular yang saling terintegrasi. Program ini melibatkan kelompok tani hutan, perempuan, pembudidaya ikan, petani kopi, dan pemuda lokal untuk mendorong peningkatan kapasitas, produktivitas, dan kohesi sosial.

In the Aquaculture Energized by Geothermal cluster, the Geothermal Fishery program uses geothermal energy to maintain optimal pond temperatures, improving fish survival rates and productivity. This is supported by Geothermal Feed made from organic waste dried in a geothermal dry house to reduce costs while creating value added products, forming an integrated circular economy ecosystem. The program involves forest farmer groups, women, fish farmers, coffee farmers, and local youth to strengthen capacity, productivity, and social cohesion.

Capaian 2025 (*Sustainability Compass*)
2025 Achievements (Sustainability Compass)

Nature

- **127,53 ton CO_2e** per tahun reduksi emisi
- **232.424 ton** sampah organik dan **18,2 ton** sampah anorganik dimanfaatkan melalui panas bumi dan penerapan ekonomi sirkular

- **127.53 t CO_2e** per year emission reduction
- **232,424 tonnes** of organic waste and **18.2 tonnes** of inorganic waste utilized through geothermal energy and the application of a circular economy

Economy

- **Rp3.089.488.456** total penghasilan
- **Rp208.999.647** penghematan biaya yang diperoleh dari peningkatan produktivitas, efisiensi energi, dan hilirisasi produk

- **Rp3,089,488,456** total income
- **Rp208,999,647** cost savings obtained from increased productivity, energy efficiency, and product downstreaming

Well-being

- **1.608** orang teredukasi terkait energi bersih
- **5,10** skor SROI
- **89,85%** mitra UMKM naik kelas
- **216** kelompok rentan terintegrasi dalam kelompok usaha
- **102** petani berpartisipasi dalam ajang pameran
- **29** penghargaan nasional dan internasional

- **1,608** people educated about clean energy
- **5.10** SROI score
- **89.85%** of MSMEs partners upgraded
- **216** vulnerable groups integrated into business groups
- **102** farmers participated in the exhibitions
- **29** national and international awards

Society

- **4.397** penerima manfaat
- **18** mitra eksternal
- **2.111** individu kelompok rentan
- **4** kebijakan desa terbentuk

- **4,397** beneficiaries
- **18** external partners
- **2,111** vulnerable individuals
- **4** village policies established

Program Unggulan Area Ulubelu: Sai Bumi Jejama

Program Sai Bumi Jejama merupakan inovasi sosial terintegrasi PGE di wilayah Ulubelu untuk menjawab tantangan pemenuhan gizi, keterbatasan ekonomi dan lahan, fluktuasi iklim, serta pemanfaatan sisa energi panas bumi dan sampah operasional. Melalui pendekatan *geothermal solutions*, program ini membangun sistem pertanian berkelanjutan dari hulu ke hilir dan berfokus pada kelompok rentan seperti perempuan, anak di bawah garis merah (BGM), lansia berisiko hipertensi, pemuda pengangguran, dan penyandang disabilitas.

Dalam implementasinya, program dikembangkan melalui tiga inovasi utama sebagai *geothermal solutions* yaitu:

1. Pertaganik Bestari: pemanfaatan sampah operasional PLTP berupa *filler cooling tower* sebagai struktur pendukung kolam ikan air tawar, rumah pembibitan, sekat kebun hortikultura, dan rumah produksi pupuk organik. Inovasi ini mampu menghasilkan stabilitas produksi dengan produktivitas ikan mencapai 8 ton/tahun, sayuran 674 kg/bulan, serta pupuk Pertaganik Bestari 120 ton/tahun, sekaligus mengurangi emisi 1,2 ton CO_2e.
2. Pemanfaatan sisa energi panas bumi (*hot brine water*) untuk mengontrol suhu otomatis dalam rumah kaca, memungkinkan budidaya sepanjang tahun tanpa tergantung fluktuasi suhu dataran tinggi. Hasilnya, komoditas percontohan melon *geothermal* mampu dipanen hingga 6.800 kg, dengan pengurangan emisi 2,32 ton CO_2e.
3. Penguatan *healthy food management system* melalui pelatihan memasak bersama *chef*, edukasi gizi oleh dokter perusahaan, modul menu sehat anak, serta penyediaan pemberian makanan tambahan (PMT) dan *extra food* bagi 453 penerima manfaat, mendorong replikasi inisiatif pangan sehat di 30 posyandu di Ulubelu.

Ulubelu Area Flagship Program: Sai Bumi Jejama

Sai Bumi Jejama is PGE's integrated social innovation in Ulubelu, designed to address nutrition needs, economic and land constraints, climate fluctuations, and the use of remaining geothermal energy and operational waste. Through a geothermal solutions approach, the program builds a sustainable upstream to downstream agricultural system and prioritizes vulnerable groups, including women, children classified as below the poverty line (BMG), older people at risk of hypertension, unemployed youth, and persons with disabilities.

In its implementation, the program is delivered through three core innovations as geothermal solutions:

1. Pertaganik Bestari: using PLTP operational waste in the form of cooling tower fillers as supporting structures for freshwater fish ponds, nurseries, horticulture plot partitions, and organic fertilizer production facilities. This innovation supports stable production, with fish productivity reaching 8 tonnes/year, vegetables 674 kg/month, and Pertaganik Bestari fertilizer 120 tonnes/year, while reducing emissions by 1.2 t CO_2e.
2. Using remaining geothermal energy (hot brine water) to automatically control greenhouse temperatures enables year-round cultivation without relying on highland temperature fluctuations. As a result, the pilot geothermal melon crop achieved harvests of up to 6,800 kg, with emissions reduced by 2.32 t CO_2e.
3. Strengthening the healthy food management system through cooking training with chefs, nutrition education by company doctors, healthy children's menu modules, and the provision of supplementary feeding and extra food for 453 beneficiaries has encouraged the replication of healthy food initiatives in 30 health posts in Ulubelu.

Capaian 2025 (*Sustainability Compass*)
2025 Achievements (Sustainability Compass)

Nature

520 lembar *filler cooling tower* atau **41%** dikelola menjadi sumber daya produktif

520 cooling tower filler sheets or **41%** managed as productive resources

Economy

- **Rp25.580.000** penghematan biaya konstruksi dengan memanfaatkan material sampah
- **Rp1.597.593.675/tahun** peningkatan pendapatan masyarakat

- **Rp25,580,000** in construction cost savings by utilizing waste materials
- **Rp1,597,593,675/year** in increased community income

Well-being

- **Memperkuat** jejaring dan kohesi sosial
- **Meningkatkan** pengetahuan dan keterampilan perempuan dalam mengelola pangan sehat bagi rumah tangga

- **Strengthening** social networks and cohesion
- **Improving** women's knowledge and skills in managing healthy food for households

Society

- **30** posyandu mereplikasi praktik konsumsi pangan sehat
- **437** masyarakat rentan
- **3** kelompok terlibat aktif
- Surat Izin Kelola Tanah Desa diterbitkan oleh Desa

- **30** health posts replicating healthy food consumption practices
- **437** vulnerable communities
- **3** groups are actively involved
- Village Land Management Permit issued by the Village

Program Unggulan Area Lahendong: Maesa Manguni

Program Maesa Manguni diimplementasikan PGE sejak 2023 di Area Lahendong sebagai respons atas degradasi lahan dan rendahnya produktivitas pertanian. Melalui pendekatan *Geothermal Bioeconomy for Sustainable Agriculture*, PGE mengintegrasikan pemanfaatan panas bumi tidak hanya untuk pembangkitan listrik, tetapi juga sebagai solusi inovatif dalam mendukung pertanian berkelanjutan dan ketahanan pangan lokal.

Implementasi program menghasilkan dua inovasi utama, yakni *Booster* Katrili dan *Dryer Geothermal*. *Booster* Katrili merupakan *booster* cair alami berbahan endapan silika *geothermal* yang diproses dengan teknologi nano dan dikombinasikan kitosan, hasil kolaborasi dengan Fakultas Teknik, Fakultas Farmasi, dan Fakultas Teknologi Pertanian dari Universitas Gadjah Mada (UGM). Sementara itu yang kedua, *Dryer Geothermal* memanfaatkan panas *brine geothermal* untuk pengeringan pascapanen yang lebih efisien, higienis, dan rendah emisi, dengan kedua inovasi terintegrasi dalam ekosistem pemberdayaan yang memperkuat produksi, pascapanen, kelembagaan petani, dan ekonomi lokal.

Lahendong Area Flagship Program: Maesa Manguni

PGE has implemented the Maesa Manguni program in the Lahendong Area since 2023 in response to land degradation and low agricultural productivity. Through the Geothermal Bioeconomy for Sustainable Agriculture approach, PGE positions geothermal energy not only for power generation but also as an innovative solution to support sustainable agriculture and local food security.

Program implementation has delivered two key innovations, Booster Katrili and Dryer Geothermal. Booster Katrili is a natural liquid booster made from geothermal silica deposits processed using nanotechnology and combined with chitosan, developed in collaboration with the Faculty of Engineering, Faculty of Pharmacy, and the Faculty of Agricultural Technology at Gadjah Mada University (UGM). Dryer Geothermal uses geothermal brine heat for more efficient, hygienic, and low-emission post-harvest drying. Both innovations are integrated into an empowerment ecosystem designed to strengthen production, post-harvest practices, farmer institutions, and the local economy.

Capaian 2025 (*Sustainability Compass*)
2025 Achievements (Sustainability Compass)

Nature

- **21 ton/bulan** pengurangan limbah endapan silika fluida panas bumi melalui pemanfaatan sebagai bahan baku *booster* Katrili
- **4.052,84 ton CO_2e** penurunan emisi GRK dari penggunaan *Dryer Geothermal*

- **21 tonnes/month** reduction in hot fluid silica sediment waste through utilization as raw material for Katrili booster
- **4,052.84 t CO_2e** reduction in GHG emissions from the use of Geothermal Dryer

Economy

- **3,6 ton/tahun/kelompok** atau **Rp240 juta/tahun/komoditas** pengurangan penggunaan pupuk kimia
- **Rp5 juta/panen** penurunan biaya pascapanen dari pemanfaatan *Dryer Geothermal*
- **60%/komoditas** peningkatan kualitas dan nilai jual hasil pertanian

- **3.6 tonnes/year/group** or **Rp240 million/year/commodity** reduction in chemical fertilizer use
- **Rp5 million/harvest** reduction in post-harvest costs from the use of Geothermal Dryer
- **60%/commodity** increase in the quality and selling value of agricultural products

Well-being

Peningkatan kapasitas manajemen keuangan, diversifikasi sumber pendapatan, dan sistem tabungan serta dana bergulir kelompok

Improved financial management capacity, diversified income sources, and group savings and revolving fund systems society

Society

- **351 penerima manfaat** dalam 8 kelompok tani
- **Kolaborasi multipihak** antara PGE, Universitas Gadjah Mada, pemerintah, dan masyarakat

- **351 beneficiaries** in 8 farmer groups
- **Multi-stakeholder collaboration** between PGE, Gadjah Mada University, the government, and the community

Program Unggulan Area Karaha: Eco Eduwisata Kampung Kopi dan Inovasi Pupuk *Compost Brine* (COMBINE)

Program COMBINE dikelola Kelompok Arjuna Jaya Sena Farm di Kampung Ciselang, Desa Kadipaten, Tasikmalaya, sebagai respons atas keterbatasan akses pupuk subsidi yang membuat petani bergantung pada pupuk nonsubsidi berbiaya tinggi. PGE mengembangkan inovasi pupuk berbasis potensi lokal dengan memanfaatkan mineral *brine geothermal* dan rumput liar dari area operasional (±110 ton per tahun), bekerja sama dengan Universitas Siliwangi. Uji coba pada cabai dan kopi menunjukkan hasil setara pupuk kimia dan pupuk kandang sekaligus menjadi alternatif NPK yang lebih terjangkau dan mengurangi ketergantungan pada pupuk kimia.

Selain menekan biaya produksi, pupuk COMBINE meningkatkan kualitas tanah, bahan organik, dan keseimbangan mikroorganisme, serta mendukung prinsip ekonomi sirkular melalui pemanfaatan sumber daya *geothermal* dan limbah hayati.

Karaha Area Flagship Program: Eco-Educational Coffee Village Tourism and Compost Brine Fertilizer Innovation (COMBINE)

The COMBINE program is managed by the Arjuna Jaya Sena Farm Group in Ciselang, Kadipaten Village, Tasikmalaya, in response to limited access to subsidized fertilizer, which has forced farmers to rely on high-cost non-subsidized fertilizer. PGE developed fertilizer innovations based on local potential by utilizing geothermal brine minerals and wild grass from the operational area (±110 tonnes per year), in collaboration with Siliwangi University. Trials on chili and coffee showed results equivalent to chemical and manure fertilizers, while also providing a more affordable alternative to NPK and reducing dependence on chemical fertilizers.

Beyond reducing production costs, COMBINE fertilizer improves soil quality, organic matter, and microbial balance, while supporting circular economy principles through the use of geothermal resources and biological waste.

Inovasi ini juga dikembangkan sebagai sarana edukasi melalui Eco Eduwisata Kampung Kopi, menjadi media transfer pengetahuan tentang pertanian berkelanjutan, pemanfaatan energi panas bumi, dan kolaborasi multipihak.

The innovation is also positioned as an educational platform through Eco Eduwisata Kampung Kopi, enabling knowledge transfer on sustainable agriculture, geothermal energy use, and multi-stakeholder collaboration.

Program Unggulan Area Lumut Balai: *Circular Innovation & Community Livelihood Optimization* (Ciclo Lab)

Program Ciclo Lab merupakan program yang diimplementasikan di Area Lumut Balai dengan pendekatan *Green Ecosystem*. Program ini dijalankan untuk merespons permasalahan pengelolaan sampah organik dan keterbatasan peluang ekonomi masyarakat di Desa Pulau Panggung, Kecamatan Semende Darat Laut, Kabupaten Muara Enim. Untuk itu, kami mengelola sampah organik rumah tangga dimanfaatkan sebagai pakan maggot, yang selanjutnya digunakan sebagai bahan baku pakan ternak ayam petelur.

Lumut Balai Area Flagship Program: Circular Innovation & Community Livelihood Optimization (Ciclo Lab)

The Ciclo Lab program is implemented in the Lumut Balai Area with a Green Ecosystem approach. This program is run to respond to the problems of organic waste management and limited economic opportunities for the community in Pulau Panggung Village, Semende Darat Laut District, Muara Enim Regency. To that end, we manage household organic waste to be used as maggot feed, which is then used as raw material for laying hen feed.

Capaian 2025 (*Sustainability Compass*)
2025 Achievements (Sustainability Compass)

Nature	**6 ton** sampah organik dari TPS diolah menjadi maggot dengan rata-rata produksi sekitar 170 kg/bulan	**6 tonnes** of organic waste from the TPS are processed into maggots, with an average production of around 170 kg/month
Economy	• **Rp11,5 juta/panen** penghematan pakan ayam telur • **Rp5,48 juta** pendapatan tambahan dari penjualan telur	• **Rp11.5 million/harvest** in savings on lying-hen feed • **Rp5.48 million** in additional income from egg sales
Well-being	• **Peningkatan kesadaran masyarakat** terhadap pemilahan sampah • **Terciptanya** aktivitas ekonomi produktif baru • **Penguatan kapasitas** BUMDes Sebimbing melalui pelatihan teknis dan manajerial	• **Increased community awareness** of waste sorting • **Creation** of new productive economic activities • **Strengthened the capacity** of BUMDes Sebimbing through technical and managerial training
Society	• **Keterlibatan aktif masyarakat**, khususnya pemuda desa dan kelompok ibu PKK, dalam pengelolaan bank sampah, budidaya maggot, dan peternakan ayam • **Kolaborasi multipihak** antara PGE, pemerintah desa, kelompok TPS3R, dan masyarakat	• **Active community involvement**, especially village youth and PKK women's groups, in waste bank management, maggot cultivation, and chicken farming • **Multi-stakeholder collaboration** between PGE, the village government, the TPS3R group, and the community

Pembangunan Infrastruktur dan Dampak Ekonomi Tidak Langsung [GRI 203-1, 203-2]

PGE juga mengimplementasikan berbagai inisiatif lainnya untuk memberikan dampak ekonomi tidak langsung kepada masyarakat melalui pembangunan infrastruktur. Secara tidak langsung, pembangunan ini berkontribusi kepada pemenuhan kesejahteraan masyarakat di wilayah operasional Perseroan. Adapun program pembangunan infrastruktur yang dilakukan antara lain pembangunan *guardrail*, perbaikan jalan untuk peningkatan akses, pembuatan sumur bor, serta pemasangan PLTS yang dapat dirasakan manfaatnya oleh lebih dari 200.000 orang.

Infrastructure Development and Indirect Economic Impact [GRI 203-1, 203-2]

PGE also implements various other initiatives to provide an indirect economic impact on the community through infrastructure development. Indirectly, this development contributes to the fulfilment of community welfare in the Company's operational areas. The infrastructure development programs carried out include the construction of guardrails, road repairs to improve access, the drilling of wells, and the installation of solar power plants, which benefit more than 200,000 people.

Asesmen Pemasok Baru Menggunakan **Kriteria Sosial** [GRI 414-1, 414-2]

Assessment of New Suppliers Using Social Criteria

PGE mendorong mitra kerja dalam rantai nilai untuk meminimalkan dampak sosial kegiatan mereka melalui asesmen kriteria sosial dalam *Contractor Safety Management System* (CSMS), di antaranya terkait status kepegawaian pekerja, penerapan K3 (mitigasi potensi bahaya dan risiko pada pekerjaan terkait) pencegahan pekerja anak dan pemaksaan bekerja, pemberian imbal jasa pekerjaan dan perlindungan/jaminan sosial pekerja, serta kepatuhan terhadap HAM. Asesmen dilakukan sejak penawaran kontrak pekerjaan dan evaluasi berkala selama pelaksanaan pekerjaan. Sampai akhir 2025, seluruh (100%) pemasok telah memenuhi CSMS. Tidak adanya mitra kerja/vendor/pemasok yang mendapatkan sanksi perbaikan pekerjaan maupun sanksi pemutusan kontrak kerja.

PGE encourages partners in the value chain to minimize the social impact of their activities through social criteria assessments in the Contractor Safety Management System (CSMS), including those related to worker employment status, implementation of OHS (mitigation of potential hazards and risks in related work), prevention of child labor and forced labor, provision of work compensation and worker social protection/security, and compliance with human rights. Assessments are carried out from the time of the work contract offer and periodic evaluations during the work implementation. By the end of 2025, all (100%) suppliers have complied with the CSMS. No work partners/vendors/suppliers have received sanctions for work improvement or sanctions for termination of work contracts.



Verifikasi Pihak **Independen** [OJK G.1][GRI 2-5]

Independent Verification Party

Independent Assurance Statement

The 2025 Sustainability Report PT Pertamina Geothermal Energy Tbk

Number	: 06/000-758/III/2026/SRAI
Assurance Type	: Type 1 and Type 2 for the specific topic of Occupational Health and Safety and Climate Change Action and Emission Reduction.
Assurance Level	: Moderate
Reporting Standards	: GRI Sustainability Reporting Standards
Reporting Regulation (Indonesia)	: Otoritas Jasa Keuangan Regulation (POJK) Number 51/POJK.03/2017 and SEOJK No. 16/SEOJK.04/2021

Dear stakeholders,

PT Sejahtera Rambah Asia or "SRAI" is issuing an **Independent Assurance Statement** ("the Statement") of **the 2025 Sustainability Report** ("the Report") of **PT Pertamina Geothermal Energy Tbk** ("the Company"). The Company operates in the geothermal energy exploitation for indirect use. The Report presents the Company's commitment and efforts in managing its sustainability performance for the **January 1 to December 31, 2025** reporting period. As agreed with Management, SRAI's responsibility is to make an assessment based on the data and content of the Report for the year.

Intended User and Purpose

The purpose of the Statement is to present our opinion, including the findings and recommendations based on the results of assurance work to the Company's stakeholders. The assuror team following specific procedures and a particular scope of work carried out the assessment. Except for the areas covered in the scope of the assurance, we encourage all NOT to solely interpret the Statement as the basis to conclude the Company's overall sustainability performance.

Responsibilities

Our obligations to the Management involve assessing the Report's content, generating findings, and recommendations, and issuing a Statement. Additionally, we are tasked with establishing conclusions and recommendations according to agreed-upon standards, methods, and approaches. Consequently, SRAI's evaluation is solely based on the most recent editorial and data received as of March 18, 2026, regarding the final draft. SRAI's responsibility lies exclusively in providing assurance work, distinct from an audit, under the Non-Disclosure Agreement, the Assurance Engagement Agreement, Representation Letter, and Subsequent Event Testing. Management bears the sole responsibility for presenting data, information, and disclosures within the Report. Therefore, any parties relying on the Report and Statement must assume and manage their own risk.

Independence, Impartiality, and Competency

SRAI confirms that there are NO relationships between the assuror team and the clients that can influence their independence and impartiality in conducting the assessment and generating the statements. The assuror team is mandated to follow a particular assurance protocol and professional ethical code of conduct to ensure their objectivity and integrity. We carried out a pre-engagement assessment before the assurance work was taken to verify the risks of engagement as well as the

independence and impartiality of the team. The assuror team members have knowledge of ISO 26000, AA1000 AccountAbility standards and principles, and also have experience in sustainability report assessment based on various reporting regulations and standards.

Type and Level of Assurance Service

1. **Type 1 assurance** on the Report content.
2. **Type 2 assurance** on Occupational Health and Safety and Climate Change Action and Emission Reduction
3. **A moderate level of assurance** to the procedure on the Report content and evidence, where the risks of information and conclusions of the Report being error is reduced, but not to very low, but not zero.

Scope and Limitation of Assurance Service

1. Data and information in the Report for the period of **January 1 to December 31, 2025.**
2. Material topics presented in the Report: **Occupational Health and Safety, Economic Performance, Ethics and Good Corporate Governance, Climate Change Action and Emission Reduction, Community Engagement and Indirect Economic Impact, and Conservation of Biodiversity and Land Use.**
3. Evaluation of publicly disclosed information, system, and process of the Company to ensure adherence of the Report content to the reporting principles.
4. SRAI does NOT include financial data, information, and figures in the Report content. We assumed that the Company, independent parties, or other parties associated with the Company have verified and/or audited financial statements, data, and information.
5. Adherence to the following reporting principles, standards, and regulations:
   a) Regulation of Otoritas Jasa Keuangan (OJK) No.51/POJK.03/2017 regarding the Implementation of Sustainable Finance for Financial Service Institutions, Listed, and Public Companies (POJK 51) as well as OJK Circular Letter (SEOJK) 2022 No.16/SEOJK.04/2021.
   b) GRI Sustainability Reporting Standards issued by Global Reporting Initiative.

Exclusion

1. The expression of opinion, belief, expectation, advertisement, and also forward-looking statements, including future planning of the Company as specified in the Report content.
2. Analysis or assessment against regulations, principles, standards, guidelines, and indicators other than those indicated in the Statement.
3. Topics, data, and information outside the reporting period, or in the public domain not covered in the reporting period.
4. Financial performance data and information as presented in the Company's financial statements and documents, other than those mentioned in the Report.

SRAI Reaching Great

AA1000 Licensed Assurance Provider 000-758

Methodology and Source Disclosure

1. Form an Assuror Team whose members are capable in sustainability report development and assurance.
2. Perform the pre-engagement phase to ensure the independence and impartiality of the Assuror Team.
3. Hold a kick-off meeting and initial analysis of the Report draft based on the SRAI Protocol on Assurance Analysis refers to the standards, principles, and indicators of AA1000AS v3, AA1000APS (2018), and standards/regulations used in the Report.
4. Discuss online the results of the analysis with the Management and data contributors.
5. Verify evidence and trace data and information as covered in the Report.
6. Conducted the On-Site Engagement (OSE) through direct interviews with both internal and external stakeholders.
7. The Company incorporated our recommendations in the draft Report and released the final Report content.
8. Prepare the Statement and send it to AA1000 AccountAbility for review to get approval before submitting it to the Company.
9. Prepare a Management Letter detailing all aspects seen, recorded, and observed during the assurance work to the Management of the Company for further improvement of sustainability processes.

Adherence to AA1000AP (2018) and GRI Universal Standards

Inclusivity – Internal stakeholders are involved in the materiality assessment process through benchmarking, input integration, and scoring assessments. Nonetheless, direct and inclusive engagement with external stakeholders has yet to be established. However, in the future the Company expects to involve external stakeholders in future cycles to capture a wider range of perspectives and strengthen its comprehensive assessment process.

Materiality – The Company adopts a double materiality approach to identify its material topics, systematically capturing and evaluating impact materiality both positive and negative alongside financial materiality, which encompasses potential risks and opportunities.

Responsiveness – The Company has addressed the needs, concerns, and expectations of its stakeholders. These responses have been integrated into relevant operational activities. Furthermore, the Company has conducted evaluations to ensure the implementation of these responses by incorporating relevant indicators into Key Performance Indicators (KPIs).

Impact – The Company employs a process to identify, assess, and manage the impacts of its activities. These impacts are incorporated into its operational policies, programs, and decision-making processes, ensuring alignment with the sustainability context.

Statement of Use: "In Accordance to the GRI Standards" – We evaluated the Report content in adherence to the GRI Universal Standards principles, disclosures, and requirements for reporting. The Company has referred to the requirements: apply the reporting principles, report the disclosures in GRI 2: General Disclosures 2021, determine material topics, report the disclosures in GRI 3: Material Topics 2021, report disclosures from the GRI Topic Standards for each material topic, provide reasons for omission for disclosures and requirements that the organization cannot comply with, publish a GRI content index, provide a statement of use, and notify GRI.

On Site Engagement: On-Site Engagement (OSE) constitutes one of our procedures performed to assess the Company's adherence to the AA1000 Principles (Inclusivity, Materiality, Responsiveness, and

Impact), based on a sample of material topics and significant stakeholders. Based on the OSE performed, we conclude that the Company has implemented the process in a generally sufficient and appropriate manner, covering the aspects of Inclusivity, Materiality, Responsiveness, and Impact as identified, mapped, and applied in its engagement with stakeholders.

GRI Standards Principles – As the assurance work was taken, the report content sufficiently indicates its adherence to the Reporting principles (accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness, and verifiability). The Management provided sufficient support during the assurance work by submitting evidence/documents as requested.

Type 2 Assurance – Based on our assessment of material topics Occupational Health and Safety (OHS) and Climate Change Action and Emission Reduction, the Company manages its OHS aspects through a structured implementation of international standards and internal management systems. These efforts are supported by digital platforms for real-time monitoring and specialized qualification systems for contractor Health, Safety, Security, and Environment (HSSE) requirements. Similarly, regarding climate change action, the Company has adopted a double materiality approach and conducts emission inventories covering Scopes 1, 2, and 3, although the verification process currently remains internal. All performance metrics, including the achievement of HSSE targets and emission reductions, have been integrated into the Board of Directors' Key Performance Indicators (KPIs) and are periodically monitored by top management through Board of Directors (BoD) and Board of Commissioners (BoC) meetings.

Recommendation

1. To enhance the inclusivity of its reporting, the Company is encouraged to involve external stakeholders in future assessment cycles to capture a broader range of viewpoints and validate its double materiality findings.
2. To enhance data reliability, the Company needs to integrate a unified sustainability data system capable of accommodating and updating real-time information across all operational areas.

The assurance provider,
Jakarta, March 18, 2026

AA1000
Licensed Report
000-758/V3-5UPZY

Dr. Lim Hendra, LCSAP
Assurance Director
PT Sejahtera Rambah Asia (SRAI)

Referensi POJK 51/POJK.03/2017 dan Indeks Isi Standar GRI [OJK G.4]

Reference POJK 51/POJK.03/2017 and GRI Standard Content Index

Peraturan Otoritas Jasa Keuangan (POJK) Nomor 51/POJK.03/2017 dan Surat Edaran Otoritas Jasa Keuangan (SEOJK) Nomor 16/SEOJK.04/2021
Financial Services Authority Regulation (POJK) Number 51/POJK.03/2017 and Financial Services Authority Circular Letter (SEOJK) Number 16/SEOJK.04/2021

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Indeks Isi Standar Global Reporting Initiative (GRI)

Global Reporting Initiative (GRI) Standards

Pernyataan Penggunaan
Statement of use

PT Pertamina Geothermal Energy Tbk telah melaporkan informasi yang terdapat dalam indeks konten GRI ini untuk periode 1 Januari sampai dengan 31 Desember 2025 sesuai dengan Standar GRI.
PT Pertamina Geothermal Energy Tbk has reported the information cited in this GRI content index for the period January 1 to December 31, 2025 in accordance to the GRI Standards.

GRI 1 yang digunakan
GRI 1 used

GRI 1: Fondasi 2021
GRI 1: Foundation 2021

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				Persyaratan yang Tidak Dicantumkan Requirement(s) Omitted	**Alasan** Reason	**Penjelasan** Explanation
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Feedback Form

Laporan Keberlanjutan 2025 PT Pertamina Geothermal Energy Tbk telah memberikan gambaran mengenai kinerja keberlanjutan Perseroan. Kami mengharapkan masukan dari Bapak/Ibu/Saudara sekalian atas Laporan Keberlanjutan ini, baik melalui e-mail atau formulir ini.

The 2025 Sustainability Report of PT Pertamina Geothermal Energy Tbk has provided an overview of the Company's sustainability performance. We look forward to receiving inputs from you on this Sustainability Report either by email or on this form.

Profil Anda **Your Profile**

Nama (bila berkenan) | Name (if you please): .....

Institusi/Perusahaan | Institution/Company: .....

E-mail: .....

Golongan Pemangku Kepentingan | Stakeholders Group

- Pemegang Saham dan Obligasi | Shareholders and Bondholders [ ]
- Masyarakat dan Lembaga Swadaya Masyarakat | Communities and Non-Governmental Organizations [ ]
- *Top Management* dan Pekerja | Top Management and Workers [ ]
- Pemerintah dan Pembuat Kebijakan | Government and Policy Makers [ ]
- Mitra Usaha (KOB) | Business Partners (JOC) [ ]
- Pelanggan | Customers [ ]
- Vendor dan Manajemen Gedung | Vendors and Building Management [ ]

Mohon pilih jawaban yang paling sesuai: **Please choose the most appropriate answer:**

a. Laporan ini mudah dimengerti: | This report was easy to understand:
O Tidak Setuju | Disagree O Netral | Neutral O Setuju | Agree

b. Laporan ini sudah menggambarkan informasi aspek material yang sesuai dengan kegiatan usaha Perseroan:
The report describes the Company's relevant material topics according to its business:
O Tidak Setuju | Disagree O Netral | Neutral O Setuju | Agree

c. Mohon berikan penilaian untuk topik material yang paling penting menurut anda (nilai 1 = paling tidak penting s/d 5 = paling penting)
Please score the material topics you consider as important (score 1 = least important to 5 = most important)

- Keselamatan dan Kesehatan Kerja | Occupational Health and Safety [ ]
- Kinerja Ekonomi | Economic Performance [ ]
- Etika dan Tata Kelola Perusahaan yang Baik | Ethics and Good Corporate Governance [ ]
- Aksi Perubahan Iklim dan Pengurangan Emisi | Climate Change Action and Emission Reduction [ ]
- Keterlibatan Masyarakat dan Dampak Ekonomi Tidak Langsung | Community Engagement and Indirect Economic Impact [ ]
- Konservasi Keanekaragaman Hayati dan Penggunaan Lahan | Conservation of Biodiversity and Land Use [ ]

d. Saran atau informasi terkait Laporan: | Other suggestions or information related to the Report:

Terima kasih atas masukan anda. Mohon lembar umpan balik dapat dikirim melalui surat elektronik kepada kontak yang tertera di Laporan ini, atau langsung ke:

Thank you for your feedback. Please send the feedback form via email to the contact mentioned in this Report, or directly send to:

Corporate Secretary
PT Pertamina Geothermal Energy Tbk

Grha Pertamina - Tower Pertamax Lt. 7 | 7th Floor,
Jl. Medan Merdeka Timur No. 11-13 Gambir, Jakarta Pusat 10110

: (021) 3983 3222 : commpge@pertamina.com : www.pge.pertamina.com

2025 LAPORAN KEBERLANJUTAN
SUSTAINABILITY REPORT

LEADING THE WAY

PERTAMINA
GEOTHERMAL ENERGY

PT PERTAMINA GEOTHERMAL ENERGY TBK
Grha Pertamina – Tower Pertamax Lantai 7 | 7th Floor
Jl. Medan Merdeka Timur No. 11 - 13
Central Jakarta 10110
Indonesia