IMPLATS
EXCELLENCE IN PGMs

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Climate Change Report

Supplement to the Annual Integrated Report 30 June 2023

IMPLATS
EXCELLENCE IN PGMs

RESPECT, CARE
AND DELIVER

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For easy navigation and cross-referencing, we have included the following icons within this report:

Information available on our website **www.implats.co.za**

Information available elsewhere in this report

Follow us online at www.implats.co.za

- Direct access to all our reports available on release
- Our website has detailed investor, sustainability and business information.

https://twitter.com/Implats

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https://www.youtube.com/channel/UCgshehA_JCYUeox7lCZw6bw/featured

https://www.facebook.com/implats/

Our 2023 suite

OUR ANNUAL REPORTING SUITE – SUPPLEMENTS TO THE ANNUAL INTEGRATED REPORT

Implats is committed to establishing and maintaining trust through high quality and transparent reporting that is useful to a wide variety of stakeholders:

Annual Integrated Report

- Report explains to providers of financial capital how Implats creates, preserves or erodes value over time.

Audited Annual Financial Statements

- Financial statement assurance, including the audit and risk committee report and directors' report
- Consolidated financial statements
- Company financial statements.

Mineral Resource and Mineral Reserve Statement

- Provides updated estimates and reconciliation of Mineral Resources and Mineral Reserves
- Conforms to the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code) (2016)
- Conforms to Section 12.13 of the JSE Listings Requirements
- Competent Persons sign-off
- Third-party assurance.

ESG Report

- Detail on material economic, social and environmental performance and governance
- GRI G4 core compliance
- Internal reporting guidelines in line with the UN Global Compacts
- Independent assurance report.

Notice to Shareholders

- Notice of annual general meeting
- Notice and proxy.

Remuneration Report

- Background statement
- Remuneration philosophy and policy
- Implementation report.

Tax Transparency and Economic Contribution Report

Prepared in accordance with GRI 207 and provides information on Implats'

- Approach to tax
- Tax governance and risk management
- Tax numbers and performance
- Country-by-country tax and economic contribution.

Welcome to our 2023 Climate Change Report

Recognising climate change as a major challenge, we understand the need for action. Companies must reduce greenhouse gas (GHG) emissions throughout their value chains, adapt and build resilience and engage stakeholders. Simultaneously, we must transition to a low-carbon economy using new technology while ensuring a just and inclusive process.

We are guided by the precepts of the Paris Agreement, by the need to achieve carbon neutrality by 2050, and the need to limit global temperature rise to 1.5°C above pre-industrial levels.

Given the importance of the issue, see topic five on our materiality heat map and our contributions to SDG 13 in the ESG report, Implats has prepared a separate climate change report. The contents have been guided by the Task Force on Climate-related Financial Disclosures (TCFD categories: governance, strategy, risks/opportunities and key performance indicators), and also by the Johannesburg Stock Exchange (JSE) Climate Change Disclosure Guidance.

This climate change report presents an overview of Implats' climate change strategy, risks, opportunities and responses. For more detail on how we manage climate-related issues, please also see our response to the Carbon Disclosure Project Climate Change Questionnaire.

We welcome your feedback to ensure we cover all aspects

Go to **www.implats.co.za** or email **investor@implats.co.za** to provide us with your feedback.

WHAT IS THE PARIS AGREEMENT?

Industrial activities are causing an inordinate amount of GHG emissions into the atmosphere. These gases cause the greenhouse effect, which is the retention of heat in the atmosphere, leading to long-term changes in weather patterns, referred to as climate change. Changes in weather patterns may include increased surface temperatures, changes in rainfall patterns and increased frequency and severity of extreme weather events like floods, droughts and cyclones. These pose health, water, infrastructure and food security risks. Since pre-industrial times, carbon dioxide levels have risen from around 280 parts per million to over 420, and as a consequence global average temperatures have risen by almost 1.2°C.

The Paris Agreement (2015) is an international climate treaty that aims to limit the rise in global average temperature to well below 2°C above pre-industrial levels, and to pursue efforts to limit it to 1.5°C. Earth's climate system is complex — even a small increase in average global temperatures can lead to large changes, and could trigger 'tipping points' – relatively large, abrupt and sometimes irreversible changes such as ice sheet disintegration and forest dieback. In 2018, the Intergovernmental Panel on Climate Change (IPCC) warned that global warming must not exceed 1.5°C to avoid these tipping points and their catastrophic impacts. To achieve this, global carbon emissions must halve by 2030 – and drop to net zero by 2050. Countries across the globe have set Intended Nationally Determined Contributions (NDCs), which outline national efforts towards reducing emissions in pursuit of net zero. Implats' host countries have developed their NDCs and have ratified the Paris Agreement. In their NDCs, our host countries are either developing or have developed decarbonisation pathways that require their respective industries' support.

Net zero is achieving a balance between the amount of GHG produced and the amount removed from the atmosphere. Net zero 2050 refers to the goal of achieving this balance by 2050. Like net zero, **carbon neutrality** refers to limiting the amount of GHG produced through conventional methods such as fuel switching and the adoption of renewable energy but, unlike net zero, allows the use of offsets to compensate for hard-to-remove GHG emissions. Typically, in line with Science Based Target rules, an entity must reduce its GHG emissions by 90% then it can offset the remaining 10% to become carbon neutral. The pursuit of net zero and carbon neutrality has gained significant global attention and support as a critical measures in addressing climate change.

The TCFD was established by the Financial Stability Board, an international body that monitors and makes recommendations about the global financial system. It has developed a framework and guidelines for consistent and transparent disclosure of climate-related financial information by companies. The guidelines are widely recognised and supported by many financial institutions, regulators and organisations around the world.

The King IV Report on Corporate Governance™ has sustainable development as one of its underpinning philosophies. It challenges boards of directors and executive to consider how, among other United Nations Sustainable Development Goals, climate-related risks may impact on the organisation over the medium to long term and calls for the assignment of accountability for these risks.

The JSE Climate Change Disclosure Guidance aims to localise current global best practices in climate-related disclosures to assist those listed on the JSE with climate change reporting.

Who we are

We are a leading producer of platinum group metals (PGMs), structured around seven mining operations located on the Bushveld Complex in South Africa and the Great Dyke in Zimbabwe – the two most significant PGM bearing orebodies in the world – and the Canadian Shield.

OUR OPERATIONS GRI 102-2

South Africa

96% Impala (includes Impala Rustenburg mine complex, Impala Refineries and Impala Refining Services)
4% Employee Share Ownership Trust

73.3% Marula
28.7% Tubatse Platinum (Pty) Ltd, Mmakau Mining (Pty) Ltd, Marula Community Trust, Marula ESOT Company (Pty) Ltd

56.4% Impala Bafokeng (formerly Royal Bafokeng Platinum)*
43.6% Northam Platinum Holdings Limited, minorities

46% Two Rivers
54% African Rainbow Minerals Limited

Zimbabwe

87% Zimplats
13% minorities

50% Mimosa
50% Sibanye-Stillwater

Canada

100% Impala Canada

* *Ownership increased to 99% post year end. While we have a material controlling stake in Impala Bafokeng, due to the timing of the transaction, we have not provided detailed sustainability related disclosure on the operation. For additional information, refer to the Audited annual financial statements and annual integrated report.*

Our products have widespread applications and are sold into various industries in South Africa, Japan, Europe and North America.

PGMs form the often-invisible heart of many everyday items in modern society. They are used in the manufacture of hard disks, mobile phones and aircraft turbines, in anti-cancer drugs and dental implants, in industrial catalysts and ceramic glazes, and in many more products.

By far the largest use of PGMs today is in automobile catalytic converters (autocatalysts), which are pollution-control devices fitted to cars, trucks, motorcycles and other mobile machinery. Catalytic converters reduce outdoor air pollution in cities and rural areas.

POWERING THE FUTURE

A major focus for current PGM innovation and development stems from the global imperative to decarbonise, reduce emissions and create a 'hydrogen revolution'. It is now estimated that green hydrogen could supply up to 25% of the world's energy needs and become a US$10 trillion market by 2050.

The Group participates in AP Ventures, a private equity vehicle supporting Implats' market development activities into key evolving end-uses for PGMs, including hydrogen, fuel cell mobility and energy storage.

Implats is proud to be at the forefront of technology developments related to the hydrogen economy via our research and development of fuel cells. Fuel cells are gaining attention for a range of potential applications, from combined heat and power, to distributed power generation, to transport and portable power for mobile appliances.

WHAT IS GREEN, BLUE, GREY AND BROWN HYDROGEN?

Hydrogen is increasingly being seen as a key component for the low carbon future. It has numerous applications such as energy storage, heavy transportation using fuel cells, industrial processes such as steel manufacturing and the production of synthetic fuels as alternatives to fossil fuels. Hydrogen created through carbon intensive coal processes is termed **brown hydrogen**. Currently global hydrogen is produced from natural gas. Called **grey hydrogen,** it is typically produced using steam methane reformation but without the capture, storage or utilisation of the GHG emissions resulting from the production process. **Blue hydrogen** is essentially the same as grey hydrogen, but includes the capture, storage or utilisation of the GHG emissions resulting from the production process. **Green hydrogen** is produced through electrolysis of water using renewable energy sources. It does produce GHG emissions.

Our operations result in GHG emissions, predominantly through burning coal, diesel, petrol, propane and natural gas (scope 1) and using purchased coal-based grid electricity (scope 2). In addition, we have scope 3 emissions, which occur in our value chain. Our scope 1, 2 and 3 emissions make up our GHG emissions inventory, which is also referred to as our carbon footprint.

WHAT ARE SCOPE 1, 2 AND 3 EMISSIONS?

The Greenhouse Gas Protocol, a widely recognised and widely used accounting tool for quantifying and managing GHG emissions, defines three scopes of emissions:

- **Scope 1** emissions are direct emissions from activities under the control of a company, such as from the use of diesel in vehicles
- **Scope 2** emissions are indirect emissions from the generation of purchased energy, such as electricity purchased from a national grid
- **Scope 3** emissions are all indirect emissions (not included in scope 2) that occur in the value chain of a company, including both upstream and downstream emissions

Our total scope 1 emissions for 2023 were 498 569 tCO_2e (2022: 527 248 tCO_2e). Burning coal accounts for 70% of our scope 1 emissions, followed by diesel which makes up 21%. Natural gas, propane and industrial burning oil (IBO) comprise the remaining 9% of scope 1 emissions. Scope 2 emissions associated with grid electricity amount to 3 523 981 tCO_2e (2022: 4 093 683 tCO_2e). The energy associated with scope 1 and scope 2 emissions is given as direct and indirect energy respectively.

Scope 3 emissions reporting is voluntary under the GHG Protocol but allows us to assess the impacts of our value chain emissions and identify the most effective ways to influence them. Our scope 3 emissions were recorded as 575 285 tCO_2e in our 2022 reporting. In line with CDP reporting, this inventory was based on 2021 activities. This has been restated to 895 689 tCO_2e due to updated emission factors for waste generated at operations and transmission and distribution losses. In 2023, our scope 3 emissions – based on 2022 activities – are estimated at 1 016 177 tCO_2e. In line with our commitment to continuously improve our scope 3 accounting, we have included additional activities related to purchased goods and services, increased our coverage with respect to upstream and downstream transportation of materials, and included the processing of sold products such as PGMs, copper and nickel.

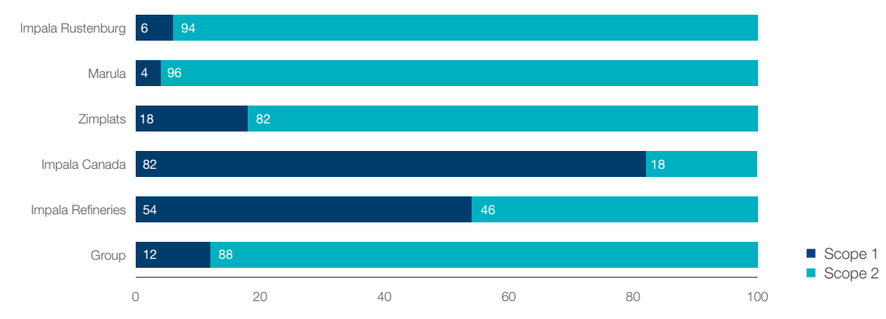
Our Group carbon footprint *(scope 1 + scope 2 + scope 3)* is **5 038 726 tCO_2e**, made up of

10% scope 1 emissions (2022: 11%)

70% scope 2 emissions (2022: 76%)

20% scope 3 emissions (2022: 12%)

Scope 1 and scope 2
(%)



Scope 3 emissions divided according to categories

No.	Scope 3 Category	2023 tCO_2e	2023 % of scope 3	2022 tCO_2e	2022 % of scope 3
1	Purchased goods and services	193 494	19.0	116 211	20.2
2	Capital goods**				
3	Fuel-and-energy-related activities (not included in scope 1 or 2)	565 845	55.7	287 819	50.0
4	Upstream transportation and distribution	13 661	1.3	5 628	1.0
5	Waste generated at operations	4 476	0.4	17	0.0
6	Business travel	226	0.0	311	0.1
7	Employee commuting	74 254	7.3	21 939	3.8
8	Upstream leased assets*				
9	Downstream transportation and distribution	1 053	0.1	562	0.1
10	Processing of sold products**				
11	Use of sold products**				
12	End-of-life treatment of sold products**				
13	Downstream leased assets*				
14	Franchises*				
15	Investments	141 351	13.9	142 798	24.8
	Total	1 016 177	100.0	575 285	100.0

* *Not applicable to Implats.*
** *Work is underway to determine the materiality of GHG emissions arising from capital goods, the processing of the products sold (PGMs), use of sold products and end-of-life treatment of sold products.*

Snow at Impala Canada operations during winter.

Achievements in 2023

Our focus has been on taking concrete steps towards achieving a 30% reduction in our scope 1 and 2 carbon emissions by 2030. Further, we have adopted an internal price of carbon to stress test our investments; subjected our decarbonisation pathway to external independent review, against the SBTi requirements; and embedded climate risks in our risk management frameworks.

Zimplats

- **July 2022:** Commenced with implementation of small scale rooftop solar PV systems (<1 MW) at Impala Rustenburg
- **August 2022:** Initiated pre-feasibility studies for approximately 140MW of solar photovoltaic (PV) power at Impala Rustenburg to abate 344 373 tCO_2e per year
- **May 2023:** Issued a request for proposal (RFP) to procure approximately 200MW electricity from renewable energy sources for our South African operations which will be wheeled through the national grid to our Rustenburg, Impala Refineries and Marula operations to meet the rising demand in electricity. This will abate 624 413 tCO_2e per year
- **April 2023:** Issued RFP for alternatives to coal consumption at our refinery in South Africa, closing in September 2023
- **January 2023:** Initiated bankable feasibility study for a 30MW solar PV plant at Marula to abate nearly 73 794 tCO_2e per year
- **June 2023:** Progressed energy-efficiency projects avoiding 66 000 tCO_2e

South Africa

- **March 2023:** Zimplats signed an off-take agreement for an additional 50MW of hydropower from the Zambia Electricity Supply Corporation Limited (ZESCO), increasing its renewable electricity to nearly 67%. The off-take agreement is projected to abate approximately 256 775 tCO_2e for the duration of the power purchase agreement.
- **March 2023:** Commenced construction of a 35MW solar PV power plant to abate nearly 58 506 tCO_2e per year.

Canada

- **2019:** The Canadian operation has 100% renewable electricity supplied from a hydropower scheme
- **July 2022:** Continued to implement energy efficiency initiatives.

Group

- **June 2022:** Continued work to enhance Group scope 3 accounting (12 out of 14 applicable categories reported in 2023, versus eight out of 15 categories in 2022)
- **November 2022:** Adopted a shadow carbon price
- **June 2023:** Energy efficiency initiatives at Impala Rustenburg and a hydropower off-take agreement at Zimplats abated nearly 120 000 tCO_2e of carbon emissions
- **June 2023:** Achieved 25% renewable electricity in relation to total electricity consumed
- **June 2023:** Committed to SBTi validation process for decarbonisation pathways

During 2023, we reduced some 120 000 tCO_2e through renewable energy off-takes and energy efficiency projects.

This year, we conducted an exercise to review, update, forecast and embed our internal carbon price within our organisation. As a result, the Group adopted a shadow carbon price that aligns with the carbon pricing regimes in the countries in which we operate. Zimplats, which does not currently have a carbon price, adopted the South African carbon price. Our internal carbon price has been built into the capital approval process to inform our investment decisions.

This year, an exercise was completed to determine our Science-Based Targets (SBTs). We anticipate taking these targets through the SBT initiative (SBTi) for formal approval. Our commitment to the SBTi validation process is registered here.

In 2022, we conducted a detailed climate physical risk assessment. This year, we focused on managing the identified risks through various initiatives, many of which relate to water usage, storage and our tailings dams.

WHAT ARE SBTs?
SBTs are targets adopted by companies to reduce GHG emissions in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement.

Executive message

Nico Muller
Group CEO

The unprecedented challenge of climate change creates both risks and opportunities for Implats, and this report provides stakeholders with an understanding of how we will manage this. It consolidates our approach to climate change governance, strategy, risk management, metrics and targets.

We are dedicated to decarbonising our operations and to producing metals that support the global transition to low carbon energy.

We have set a long-term goal to be carbon neutral by 2050, with a 2030 target of reducing the carbon emissions at our operations by 30% from a 2019 baseline. We have spent nearly R710 million on energy efficiency initiatives and renewable energy projects and studies. We also support our host countries' goals to reduce emissions.

Along with decarbonisation, we have set Company-wide targets that relate to water management and energy usage. These targets include timeframes and baselines against which we measure progress.

Carbon neutral by 2050, and a **30% reduction in carbon emissions by 2030** from a 2019 baseline

We acknowledge that further work is needed to advance our understanding of climate change-related risks and opportunities, and that our success will rely on this understanding and on our resilience to the physical, economic and societal impacts of climate change and the coming transition.

Our board has approved several key policy statements that emphasise our commitment to combat and adapt to climate change. Among others, we commit to:

- Including **energy and GHG emission factors** and metrics into the design, planning and operation of all projects, including growth projects at our managed and joint venture operations
- Integrating current and future knowledge about the **health, safety, social and environmental risks,** including climate-related risks, into the effective management of Group tailings storage facilities
- Identifying, reviewing and updating risks impacting our **biodiversity, rehabilitation, and post-closure management** efforts
- **Sourcing** at least 30% of **energy requirements** for new mine developments from renewable sources
- Setting an **internal carbon price**
- Progressively displacing fossil fuels with lower or **zero-carbon alternatives**
- Including **decarbonisation** performance measures in executive remuneration structures
- Engaging in **public policy advocacy** to support low-carbon energy solutions for industry groups and local communities
- Conducting frequent **climate change risk** and opportunities assessments
- Participating in regional clean energy and climate change **policy reform platforms.**

Our approach to governance

Our board is ultimately responsible for providing oversight on the Company responses to climate change, including the identification and management of climate-related risks and opportunities. Implats' board delegates some of its authority to sub-committees. Each sub-committee oversees and monitors key strategic matters and reports back to the board on their activities quarterly. The health, safety and environment (HSE) committee directs strategic developments regarding climate change and assesses the adequacy and appropriateness of climate-related policies and procedures.

BOARD SUB-COMMITTEES

Health, safety and environment (HSE) committee	Nominations, governance and ethics (NGE) committee	Strategy and investment committee (SIC)	Social, transformation and remuneration (STR) committee	Audit and risk (AR) committee
• Developing and implementing the climate change strategy • Identifying and managing climate-related risks and opportunities • Overseeing performance against climate-related targets.	• Ensuring effective governance of climate-related issues • Ensuring the board has the required mix of skills and experience for the effective governance of climate-related issues.	• Ensuring the inclusion of decarbonisation projects in the capital allocation framework • Monitoring decarbonisation projects to ensure key risks are identified and managed.	• Monitoring climate-related activities that impact on stakeholder relations and the communities in which the Group operates.	• Overseeing the risk management system and process, inclusive of climate-related risks and opportunities.

At executive level, climate change is the responsibility of the executive management team (Exco). The Exco is supported by:

ROLE	RESPONSIBILITY
Executive: Sustainable Development	• Develops the ESG framework and strategy, and reviews performance in terms of the Group's non-financial indicators, while also being responsible for the environmental performance • Detailed environmental performance reports are reviewed by the HSE committee on a quarterly basis
Executive: Risk	• Identifies climate-related risks in line with the Group enterprise risk management framework • Group risk reports are reviewed by the board and relevant board sub-committees on a quarterly basis
Executive: Capital Projects	• Stress testing impacts of the internal price of carbon on capital allocation and investments • Capital applications are submitted to the SIC on a quarterly basis
Executive: New Commodities	• Improve Group understanding of potential new markets and technologies associated with the transition to green energy
Executive: Corporate Development	• Evaluates opportunities to incorporate metals that will play a vital role in the energy transition into the Group through potential mergers and acquisitions
Group head: Energy	• Facilitates the development and implementation of our energy security and decarbonisation strategy
Group head: Environment	• Facilitates the development and implementation of our decarbonisation plans
Group head: Sustainable Development	• Aligns climate-related disclosures across the Group suite of reports and also serves as an interface with customers on climate change-related matters
Group head: Social Performance	• Identifies community-related projects that could build resilience to the negative impacts of the changing climate • Social performance reports are submitted to the STR committee on a quarterly basis
Group head: Innovation and Technology	• Identifies technology advancements and potential applications to improve energy efficiency and reduce Group carbon footprint

Just transition

The Paris Agreement recognises 'the need for an effective and progressive response to the urgent threat of climate change' while 'taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities'.

South Africa's Presidential Climate Commission (PCC) is a multi-stakeholder body established by the President of South Africa to advise on the country's climate change response and pathways to a low-carbon climate-resilient economy and society. The PCC notes that 'achieving a just transition is at the core of all climate action in South Africa. The transition towards low-emissions and climate-resilient development will create new and better jobs, grow the economy, help protect the environment, and improve human health. But these changes will also bring risks, particularly for those workers and communities whose livelihoods are tied to fossil fuel industries. The just transition is intended to help those affected not only to survive the transition, but also to thrive, seizing the opportunities presented by a greener and more sustainable society'. Implats is implementing the just transition philosophy in its renewable energy initiatives across all operating jurisdictions.

In choosing our renewable energy supply options, we require that job creation, local procurement, training and local economy stimulation occur in the proximity of our mining operations, and, in the case of wheeling from a remote site, also at the generation site.

We require sellers of renewable energy to be structured in such a manner that at least 35% of the issued shares are held by black/local/indigenous shareholders and/or black/local/indigenous enterprises. Higher levels of ownership are prioritised. Sellers must be committed to supporting the social and economic development of the generation power plant/Implats local community, and must strive to identify opportunities to procure services and/or goods from the local community based entities that are at least 51% black/local/indigenous-owned and with higher levels of youth and women ownership.

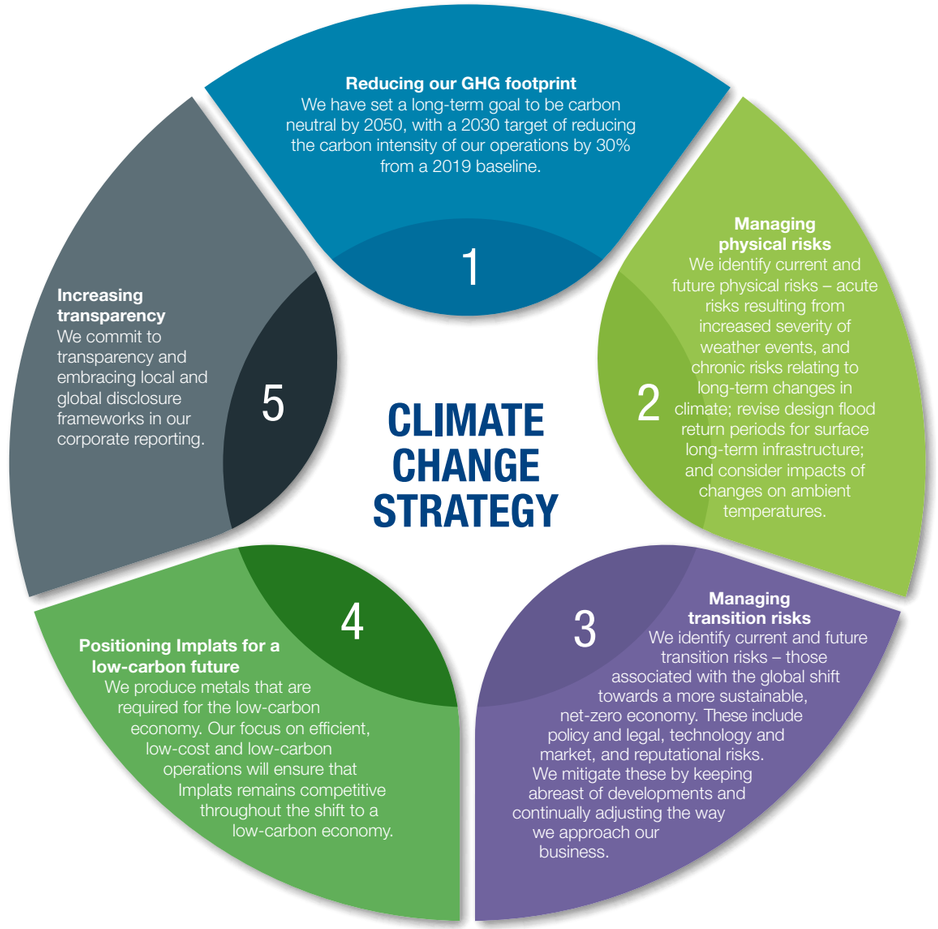
The transition ahead provides southern Africa with many opportunities, including producing green hydrogen using the region's abundant renewable energy resources and PGMs, and many jobs can be created across the hydrogen value chain. Implats is committed to ensuring a reliable supply of PGMs, to mitigating environmental impacts at our operations and across the value chain, and to ensuring a just transition that enriches the lives of all.

Site clearing activities at Zimplats 35MW solar PV facility.

Our climate change strategy

Our operations are already experiencing weather and climate-related disruptions, resulting from changes in ambient temperature, precipitation and prolonged droughts. We must facilitate clear shifts away from fossil fuels, with attendant GHG emissions, towards a low carbon world.

Consequently, our climate change strategy has five main levers:

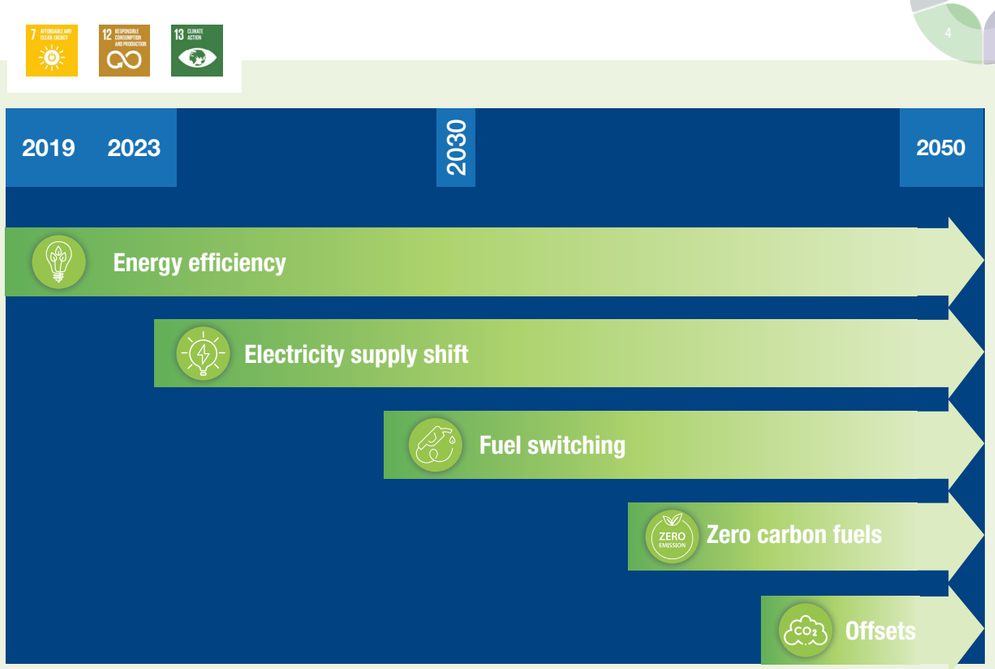


WHAT ARE TRANSITION AND PHYSICAL RISKS?

Transition risks are business-related risks that arise as the world focuses on reducing GHG emissions. Examples include carbon pricing, reputation and relevance in a low-carbon market. **Physical risks** relate to changes in climate patterns such as changes in temperature, precipitation patterns and extreme weather events.

Lever 1: reducing the carbon footprint of our operations

Implats has developed a decarbonisation pathway to guide and track our GHG reductions.

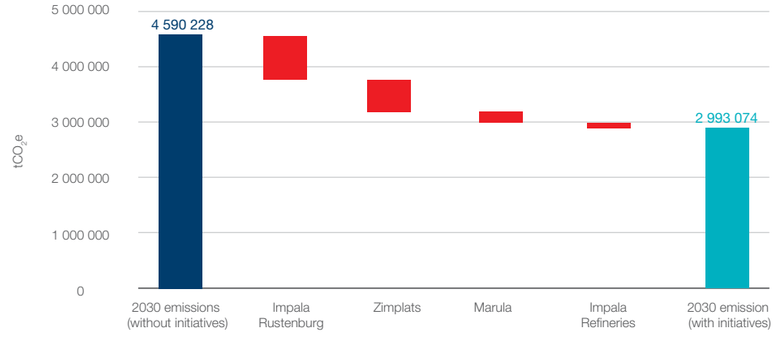


Objectives: 30% reduction in carbon emissions by 2030 against a 2019 base year and achieve carbon neutrality by 2050

To achieve this target, we are focused on:

- Continuous energy efficiency improvements
- Shifting electricity supply away from that produced from thermal coal, especially in southern Africa, to renewable sources
- Fuel switching from thermal coal to lower carbon fuels used for process heating at our minerals processing plants
- Using zero carbon fuels like green hydrogen (in the future) and considering carbon offsets when economically viable.

In the near term, we are focused on energy efficiency and shifting electricity supply to achieve our 2030 target which is a 30% reduction in our scope 1 and 2 emissions from a 2019 baseline. Our Group emissions, based on baseline 2019, will be approximately 4 590 ktCO_2e by 2030 without any carbon reduction initiatives. As such, achieving a 30% reduction will require reducing our emissions by 1 597 ktCO_2e to 2 993 ktCO_2e by 2030. This will be achieved by implementing energy efficiency, electricity supply shift and fuel switching opportunities.



1.1. ENERGY EFFICIENCY

Energy efficiency is often referred to as the 'first fuel' as it offers the cheapest and quickest wins in terms of energy and GHG emissions savings. It also makes sense to reduce energy consumption as much as possible prior to switching to alternative fuels as it can make the switch cheaper. For this reason, Implats continues to prioritise energy efficiency.

In 2023, Impala Rustenburg realised energy savings of 50 357 584kWh, avoiding 66 000 tCO_2e and saving the operation R74 million.

The savings above are verified by a third party and largely comprise compressed air network and electrical equipment optimisation work.

To achieve our target, we plan to realise savings from energy efficiency projects of 50 000 tCO_2e by 2030. Already we have achieved 193 596 tCO_2e since 2019.

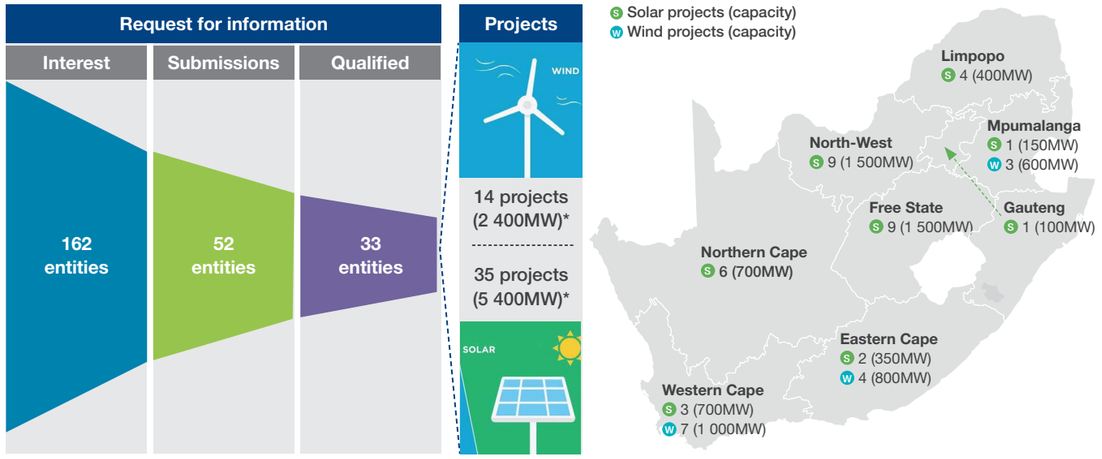
1.2. ELECTRICITY SUPPLY SHIFT

We need to move from grid electricity to renewable energy at our South African and Zimbabwean operations due to the high levels of coal-based power generation in the region. Impala Canada uses 100% renewable electricity supplied from a hydropower scheme.

The South African-based operations are supplied with electricity from Eskom, a large percentage of which is generated from coal. Implats aims to displace this grid electricity with a combination of our own on-site solar PV power and renewable electricity wheeled through the Eskom grid. Wheeling is where renewable electricity is generated in one location and then fed to the user in another location through the national grid. The user pays the generator for this renewable electricity. The generator pays the grid operator a fee to use the national grid to get the renewable electricity to the user.

As highlighted in last year's report, we issued a request for information (RFI) to the market for projects to supply our operations in South Africa with wheeled renewable electricity. The process has now advanced to the request for proposal (RFP) phase with 14 wind and 33 solar projects identified as potentially suitable, for our needs. We plan to procure wheeled renewable electricity through this process by 2025. Wheeling will address the limitations we have at our sites with respect to land availability that makes executing large-scale renewable energy projects a challenge.

Energy Wheeling RFI feedback



* *Projects all at different stages of development considering the following: grid integration, environmental authorisation, grid access, generation licence, etc.*

Several small- and medium-scale on-site solar PV projects are currently operational, under construction or in the development phase. These include rooftop systems at Impala Rustenburg (<1MW) commissioned in 2022, a 140MW on-site solar PV plant at Impala Rustenburg and a 30MW on-site solar PV plant at Marula, both of which have advanced to bankable feasibility phase.

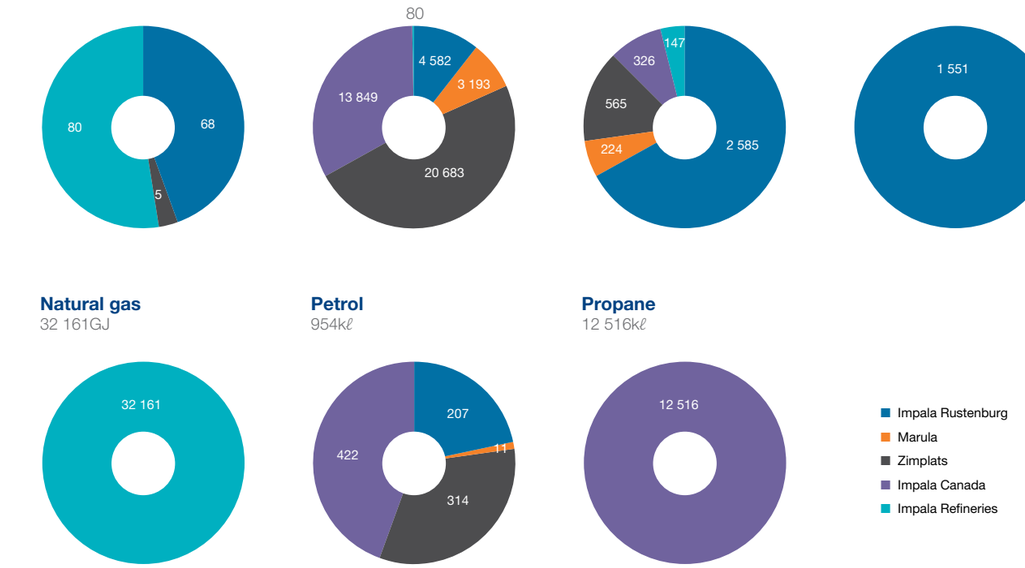
Our Zimplats operations were supplied with approximately 50% of renewable electricity (hydropower scheme) with the rest derived from thermal coal. We have signed an agreement with ZESCO for an additional 50MW of hydropower, increasing the operation's renewable electricity consumption from 50% to nearly 67%. The renewable electricity from ZESCO is wheeled to Zimplats via the national grids. We are in the process of constructing our own on-site solar power (35MW) facility at Zimplats which will be completed in 2024.

ZESCO hydroelectric dam

1.3. FUEL SWITCHING

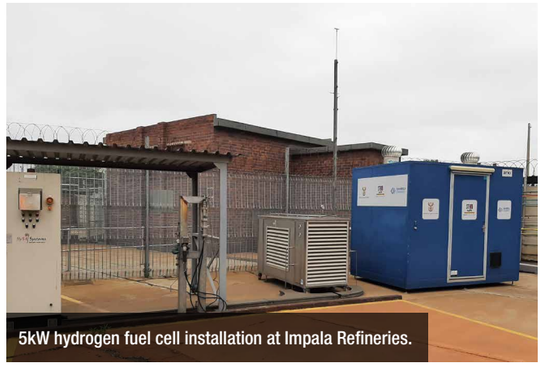
To achieve our carbon neutrality target, we also need to switch to low and zero carbon fuels, with an initial focus on coal consumption, which accounts for 70% of our scope 1 emissions. Coal is a very carbon intensive fuel. Given this, we have initiated a scoping study to replace coal usage with alternative low carbon fuels such as natural gas. Diesel usage for our mobile haulage and transportation fleet accounts for some 21% of our carbon emissions. We are constantly scanning technologies to replace our drive trains for our mobile fleet.

2023 fuel consumption



1.4. USING ZERO CARBON FUELS

We have ambitions to make green hydrogen a feature in decarbonising and powering our own operations. Impala Refineries has grey hydrogen piped to site. We are also testing two 5kW fuel cells under realistic load conditions at the same operation and operating a hydrogen fuel cell powered forklift. In 2023, we successfully refurbished our hydrogen refuelling station and progressed our fuel cell research with the University of Cape Town. Engagements with local government to establish a fuel cell focused local economic development zone near our Impala Refineries operation, are also ongoing.



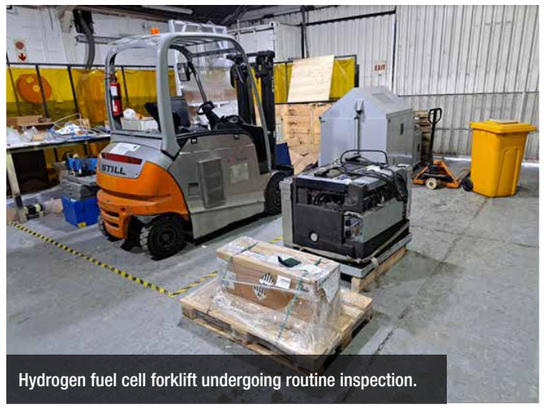
5kW hydrogen fuel cell installation at Impala Refineries.

1.5. CARBON OFFSETS

We believe that carbon offset schemes will allow us to invest in meaningful and effective environmental projects around the world to enable us to balance out our residual carbon footprint. We will consider projects for carbon credits from established and verifiable emissions' trading schemes.

What is a carbon offset?
A carbon offset is a reduction in GHG emissions in one location that is then used to compensate for GHG emissions that occur in another location. One carbon offset is equal to one tCO_2e. Carbon offsets can be purchased in the carbon market.

As highlighted, in accordance with the SBTi rules, a company must reduce its GHG emissions by 90% and then it can offset up to 10% of its GHG emissions to become carbon neutral.



Hydrogen fuel cell forklift undergoing routine inspection.

Lever 2: managing physical risks

Severe weather events appear to be on the increase globally, and our regions were not spared. We identify and mitigate our physical climate-related exposure based on a fundamental understanding of the physical risks facing the different regions in which we operate.

To obtain insights into future climatic global changes and related physical risks, several global climate models were used to simulate the various representative concentration pathways (RCPs) scenarios of how global temperatures will potentially respond to the amount of GHGs in the atmosphere.

At this stage, it is anticipated that current global policies in combination will lead to a warming of 2.7°C by 2100, according to Climate Action Tracker. Hence our analysis of physical risk is based on modelling the higher end of the temperature range (RCP 4.5 and 8.5), as a worst case scenario, to enable adaptation planning.

What are RCPs?
The IPCC, a panel of climate scientist from around the world, developed RCPs for scenarios with differing levels of GHG emissions in the future. These are designated RCP2.6, RCP4.5, RCP6.0 and RCP8.5. They are predicted to result in global average temperature rises by 2100 of around 1.6°C, 2.4°C, 2.8°C and 4.3°C, respectively.

Climate change scenarios from the Intergovernmental Panel on Climate Change (IPCC)

	Medium-low mitigation	Business as usual
Temperature increases	**Middle of the road scenario (RCP 4.5)** 2.4°C temperature increase by 2100	**High emission scenario (RCP 8.5)** 4.3°C temperature increased by 2100
Role of fossil fuels	Very high	Very high
CO_2 concentration	Increasing slightly before starting to decline at 2040	Three to four times higher than pre-industrial levels
Reaching net-zero	Emissions stabilise by 2080	Emissions double by 2050/ continue at current rates
Policy changes	Implementation of the 2015 NDCs followed rapidly by peaking and then reduction of global emissions by 50% by 2080	No policy changes to reduce GHG emissions

Lever 2: managing physical risks (continued)

The top risks emanating from of our physical risk assessment and our approach to managing them are as follows:

Risk	Description of impact	Management actions
Increased risk of overtopping of tailings dams and other water storage areas during extreme rainfall events	In 2023, our South Africa operations (Marula and Impala Rustenburg) operations experienced excessive and unseasonal rainfall which led to four limited environmental impact incidents (Level 3 incidents) relating to the overflow of water storage dams. The Group experienced a production loss of 2 500 6E ounces in the year due to these weather events. The incidents however, did not have a significant negative or lasting impact on employee safety or the environment. The unseasonal rainfall also prolonged the malaria season in southern Africa, leading to a 100% increase in cases recorded at our operations which were all treated successfully.	• All Group tailings facilities are managed in line with Global Industry Standard on Tailings Management (GISTM) • Completion of a 77ha upstream spigotted tailings dam at Marula • Independent tailings review board appointed to review the Group tailings facilities annually • Group tailings geo-technical engineer appointed to oversee compliance with required tailings management practices • Extension of the tailings storage facility at Zimplats • Maintain appropriate freeboard on dams to mitigate the risk of overtopping • Installation of additional rainwater storage capacity at Marula • Installation of level sensors and real-time monitoring of water storage dams • Impala Canada concluded a tailings deposition study at a cost of R50 million, which confirmed safety of current practices. To ensure the ongoing stability of tailings facilities, the operation is installing probe sensors to measure the degree of saturation of the tailings beach. • Updated flood models and stress test existing assets using climate projection data (in progress) • The Group is undertaking a major study to understand projected risk of overflow in all water storage facilities during extreme rainfall events • Review insurance coverage for business interruption due to floods, based on maximum foreseeable loss under different future climate scenarios.

Risk	Description of impact	Management actions
Risk to long-term habitat restoration and rehabilitation	Uncertainty around what post-closure landscape will be under future climate scenarios.	• A Group policy on rehabilitation, closure management and biodiversity is in place • A Group biodiversity framework is to be developed in 2024 • We rehabilitate and re-vegetate disturbed areas, with the land identified for grazing • We support and fund tree planting around our host community schools.

Lever 2: managing physical risks (continued)

BEYOND OUR GATE

The scarcity of water in the southern African region is a top-five strategic risk for the Group. We aim to achieve 70% water recycling and reuse by 2030 and to continuously decrease our freshwater intake from municipal sources. We have developed dynamic water balance models and implemented projects to improve water recycling and reuse. We also collaborate with local governments and social partners to develop solutions to ensure our mine-host communities have sustainable access to water. Water stress and prolonged cyclical droughts may also impact various hydropower schemes in southern Africa, increasing the risk of operational disruptions and other socio-economic impacts. In 2023, Implats invested an estimated R379 million (2022: R324 million) on various projects to improve water management. A comprehensive account of our water management practices, water risks per operation, as well as water security initiatives for communities is available in the 2023 ESG report.

We understand that climate change impacts will be broader than our own operations. As such, we are dedicated to improving climate resilience in our communities through activities such as:

- Donations and essential supplies for communities affected by natural disasters
- Upgraded water infrastructure, bridges and roads in neighbouring areas
- Community involvement in water conservation and tree planting especially with learners from neighbouring schools
- Environmentally friendly housing with solar geysers and boreholes
- Collaboration to enhance community healthcare facilities
- Initiatives to enhance food security through horticulture and provision of food support
- Provision of solar powered boreholes and solar panels at schools.

Lever 3: managing transition risks

Aiming to remain resilient to the changes brought about by new policies, regulations, and product requirements, the top risks from our transition risk assessment, and our approach to managing them, are as follows:

Risk	Description of impact	Management actions
Risk associated with current and future carbon pricing in the countries of operation	Our South African and Canadian operations are currently exposed to carbon taxes. The cumulative annual carbon tax liability for the Impala Rustenburg, Impala Refineries and Impala Canada operations was R15 million for 2023 (2022: R17 million). The direct carbon tax paid excludes fuel taxes/levies paid on diesel, petrol and other fossil fuels, which amounted to R56 million in the same period (2022: R60 million). Both South African and Canadian carbon prices are expected to rise, in line with global carbon prices. During 2023, we commissioned a study of all the information available on carbon prices, consistent with achieving the goals of the Paris Agreement. This revealed that a price of US$100/tCO$_2$e could be expected by 2030, and US$250/tCO$_2$e by 2050. While this applied to developed countries, developing countries prices can be expected to reach over US$50/tCO$_2$e by 2030 and approach US$200/tCO$_2$e by 2050.	• Switch to low and zero carbon fuels, particularly at our South African operations to eliminate coal usage • Reduce our reliance on electricity generated primarily from coal-fired state-owned power stations. This will also reduce our risks associated with the current power generation challenges at our southern African operations. Zimplats has already signed a power purchase agreement for hydropower from ZESCO and a renewable energy wheeling procurement programme is underway for South Africa operations. • The Group is implementing several on-site renewable energy projects. At Zimplats, construction of a 35MW solar PV plant at a cost of US$37 million is underway and will be completed in 2024. At Impala Rustenburg and Marula, studies for a 140MW and 30MW solar PV plant respectively have advanced to the bankable feasibility phase.

Risk	Description of impact	Management actions
Risks associated with the introduction of the Carbon Border Adjustment Mechanism (CBAM)	As the European Union (EU) raises its climate ambition, but less stringent environmental and climate policies prevail in non-EU countries, there is a strong risk of so-called ‘carbon leakage’, which can shift emissions outside of Europe and seriously undermine EU and global climate efforts. The EU is therefore proposing a CBAM for goods imported from outside the EU – a system that puts a price on the carbon emitted during production, and that encourages cleaner industry in non-EU countries. In its first phase, the CBAM will focus on goods most at risk of carbon leakage – cement, iron and steel, aluminium, fertiliser, hydrogen and electricity. This transitional phase will be in place until 2026 and there will be no financial liabilities associated with the application of the CBAM. However, this is expected to change in future.	• Lower the carbon footprint of the PGMs we produce by implementing our decarbonisation plan.

Risk	Description of impact	Management actions
Risks to our reputation if our climate change efforts are seen to be inadequate	Increased stakeholder concerns or negative stakeholder perceptions regarding a company’s climate-related actions, when benchmarked against peers, can introduce reputation risk. The higher the reputation risk a company faces, the more likely it is to face challenges regarding access to capital, talent attraction and retention, customer relationships, and maintaining social and legal licences to operate.	• Switch to low and zero carbon fuels, particularly at our South African operations to eliminate coal usage • Reduce our reliance on electricity generated primarily from coal-fired power stations. This will also reduce our risks associated with the current power generation challenges in South Africa.

Risk	Description of impact	Management actions
Risks associated with changing markets and technologies	With one of the main uses of PGMs being in automobile catalytic converters, the move from conventional internal combustion engine vehicles to electric vehicles is noted as a risk that could contribute to the decline in PGM prices for a protracted period.	• Investing in PGM-friendly future energy technologies, such as fuel cells, a key component to the hydrogen economy • Accessing investment opportunities in global technologies and start-ups that promote the use of PGMs in the hydrogen economy through AP Ventures • Our Executive: New Commodities is researching metals that will play a vital role in the low carbon energy transition • Our Executive: Corporate Development is evaluating opportunities to incorporate metals that will play a vital role in the energy transition into the Group through potential mergers and acquisitions.

Lever 4: positioning Implats for a low-carbon economy

While we have identified and are managing climate-related risks, we also understand that climate change presents opportunities. As such, our climate change strategy focuses on maximising these opportunities by producing and investing in metals and developing technologies that support the global transition to low carbon energy.

COMMODITY REQUIREMENTS FOR ENERGY TRANSITION

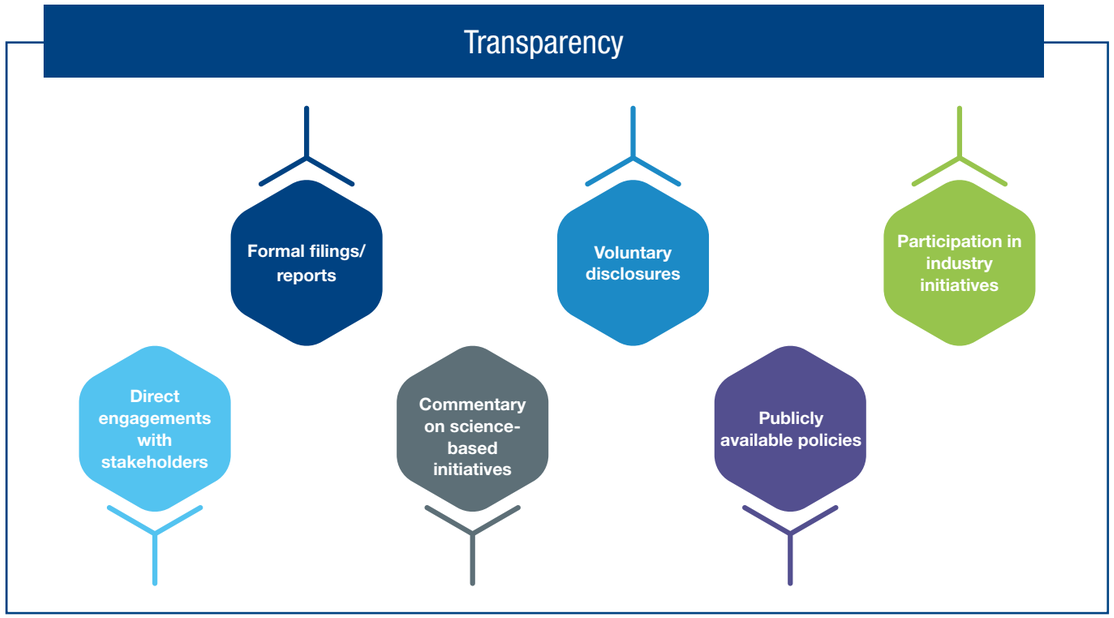
Themes		Electrification of transport	Decarbonisation of energy generation				Energy storage systems
	Technologies	BEV production	Hydrogen	Wind and solar	Other renewables	Power grid	Batteries
Ramp-up of low-carbon technologies	2022	8 mil	5GW	2TW	1.8TW	70 mil km	0.2TW
	↓ 7x / 120x / 4x / 1.2x / 3x / 7x						
	2040	54 mil	572GW	7TW	2.2TW	200 mil km	1.3TW
Commodities required Values in brackets denote commodity demand increase by 2040 relative to 2022	**Key commodities used**	Aluminium (1.4x) Copper (1.4x)					
	Energy transition main driver of demand Other sectors main driver of demand A mix of both	Lithium (4.0x) Graphite (2.3x) Nickel (1.6x) REEs (1.5x) Cobalt (1.5x) Platinum (1.5x) Manganese (1.1x)	Platinum (1.5x)	REEs (1.5x) Nickel (1.6x) Zinc (1.4x) Silver (1.3x)	Nickel (1.6x)		Lithium (4.0x) Graphite (2.3x) Nickel (1.6x) Vanadium (1.5x) Platinum (1.5x)
	Main uses	• Batteries in battery electric, hybrid and plug-in hybrid electric vehicles • Fuel cells in electric vehicles • Other components in electric vehicles	• Various electrolyser technologies used to produce hydrogen	• Solar panels • Wind turbines • Cabling, wiring and heat exchange	• Nuclear • Pumped hydro • Geothermal • Other solid fuels • Other	• Conductors	• Lithium-ion batteries • Flow batteries • Sodium-ion batteries • Other storage (e.g. stationary fuel cells)

Lever 4: positioning Implats for a low-carbon economy (continued)

We continue to evaluate opportunities to incorporate low carbon energy transition metals into our portfolio. We remain confident in the role that PGM-friendly future energy technologies, such as fuel cells and electrolysers, will play in the hydrogen economy. Through our US$67 million investment AP Ventures we have access to early-stage investment opportunities in global technologies and start-ups that promote the use of PGMs.

Lever 5: increasing transparency

We are committed to continuously improving our level of disclosure with respect to climate change. This includes continued communication on the annual progress of our decarbonisation initiatives, the financial impact of climate-related taxes and adaptations, the CDP-aligned annual climate change and water risk disclosures and JSE climate disclosure recommendations, specifically our just transition programmes. We will also continue to engage with investors, analysts and regulators on material issues regarding climate change.



PRIORITIES FOR 2024
In the coming year, our focus will be on the following:

- Commissioning the **35MW solar PV plant** at Zimplats
- Commissioning the additional **rooftop solar PV installations** at Impala Rustenburg
- Moving our other on-site (behind the meter) **renewable energy projects** forward from pre-feasibility to bankable feasibility to board decision-making
- Progressing our feasibility **study on alternative fuels for coal**
- Finalising **wheeling PPA** for our South Africa operations
- **Finalising validation process** of our decarbonisation pathways, in line with SBTi
- **Updating our decarbonisation model** to cater for the portfolio growth
- **Increasing energy** efficiency programmes
- **Updating the water security** of supply risks and strategy
- **Developing opportunities** for supporting our host communities
- Continuing to provide **climate change knowledge** to our engineer on records for our tailings facilities
- Developing a Group **biodiversity framework** that integrates climate change impacts
- Seeking **partnerships** with our **suppliers** and **original equipment manufacturers** on critical technologies to accelerate our decarbonisation effort, especially for scope 1 and 3 emissions
- Continuing to **raise board and executive awareness** of climate governance.

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