

OSG Corporation Green Bond Framework

March 2023

1- Introduction

OSG Corporation has set up its Green Bond Framework (“the Framework”), as the world’s first framework by a cutting-tool manufacturer.

The Framework is fully aligned with the ICMA Green Bond Principles (“GBP”) 2021 and the Green Bond Guidelines 2022 published by the Ministry of the Environment of Japan and Japan Credit Rating Agency (JCR) issues Second-party Opinion to confirm the alignment of the Framework to the ICMA GBP and the Green Bond Guidelines 2022.

In accordance with the Framework, OSG will issue green bonds.

1-1. OSG’s Overview

Since its establish in Tokyo in 1938, OSG has grown in the global cutting tool market with innovative products derived from the development of a range of proprietary technologies, such as tap grinding with grindstones, and the pioneering of new sales channels. The OSG spirit of meeting and overcoming any challenge and difficulty, which we have pursued since our founding, has been the driving force behind our unique advanced technologies, global network spanning 33 countries, and every aspect of our current corporate value. We will continue to take up new challenges as we seek to further expand globally.

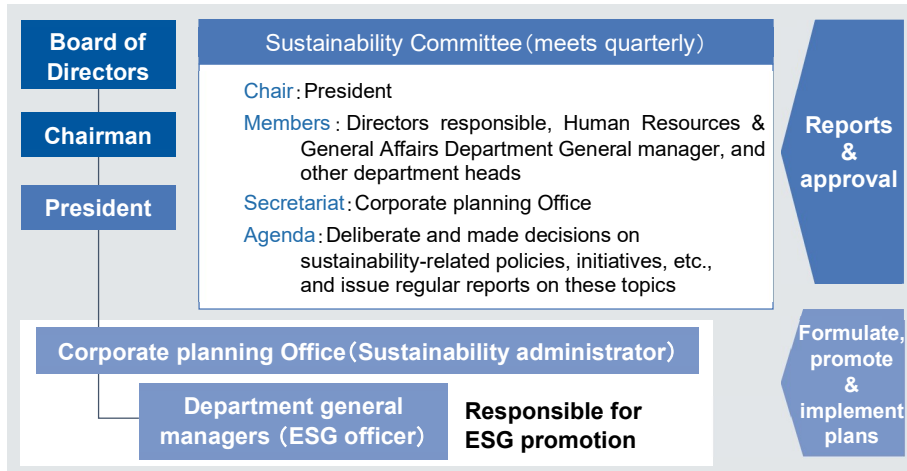
1-2. ESG Management

OSG Group has designated key issues as ‘material’ from the ESG perspective, in order to realize our medium-term management plan, Beyond the Limit 2024. We aim to maximize the corporate value generated by linking growth strategies with ESG initiatives.

1-2.1. Basic Sustainability Policy

OSG Group aims to be instrumental in the sustainable development of society. We will be an essential player contributing to sustainable manufacturing industries worldwide by delivering proprietary high value-added products and services.

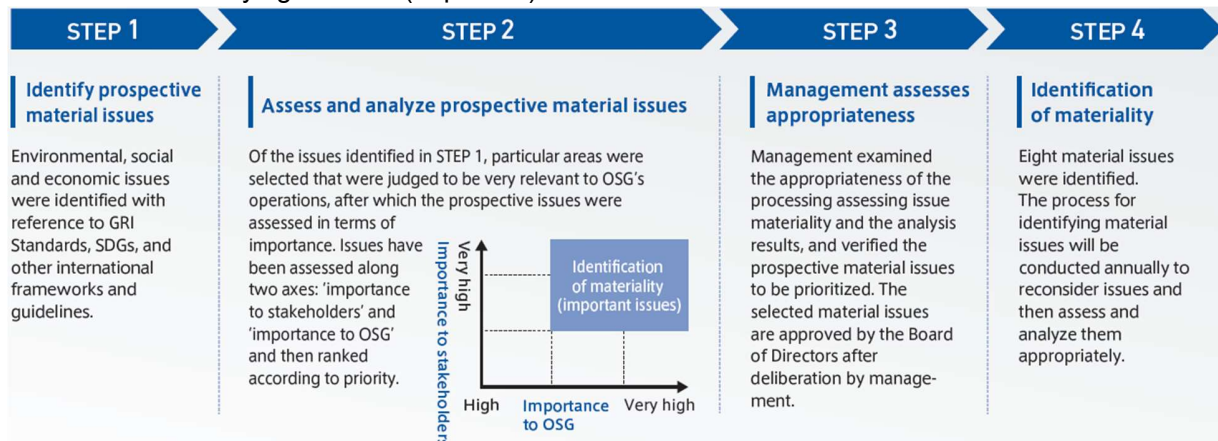
The Sustainability Committee deliberates ESG-related issue, policy and vision consistency, priority measures, and other matters, and regularly reports on its activities to the Board of Directors. Measures for promoting sustainability are implemented by department heads (ESG officers) and facilitators in each organization based on decisions made by the President, who chairs the Sustainability Committee.



1-2.2. OSG Group's Material (Important) issues

As we aim to achieve the SDGs, we have identified eight material issues the OSG Group will prioritize.

【Process for Identifying Material (Important) Issues】



【OSG Group's Material (Important) issues】

Climate Change Initiatives

OSG has expressed support for the TCFD and will strive to adapt to climate change effects on our operations, and we will endeavor to promote business activities that contribute to a carbon-free society and reduce greenhouse gas emissions.



Community Sustainable Development ①: Sports Promotion Initiatives

OSG is a top sponsor of Higashimikawa's professional basketball team San-en NeoPhoenix and we support other local professional sports. We have held events and invited guests to watch the games free, which has helped to energize the community.



Development of a Rewarding Workplace Environment

OSG will develop and maintain an environment in which each and every employee can find pride and fulfillment, leverage diversity, and demonstrate their abilities to their full potential.



Community Sustainable Development ②: Support for Healthcare Institutions & Facilities

As part of our support for combating the Covid-19, OSG has donated protective gear and masks to healthcare workers and cooperated with the administration of workplace vaccination programs in nearby communities. We contribute to creating a heartwarming community through such activities as regularly donating furniture and other furnishings to facilities assisting people with disabilities.



Initiatives for Employing People with Disabilities

OSG sketched our future vision which is to establish a special affiliate company, and we set up the Special Affiliate Company Preparation Team in June 2021. We are developing an environment attentive to the aptitude of and conditions faced by people with disabilities so as to enable all of us to work collaboratively.



Improvement of Corporate Governance

The Board of Directors is a governing body of which the majority of seats are held by highly-independent outside directors and is capable of sufficiently exercising its management oversight functions. Guidelines for conduct to comply with corporate ethics are shared throughout the entire group to raise awareness as part of our systems for enhancing corporate governance.



Health & Safety Management

As a health-conscious company, we understand that keeping our employees safe and healthy is an important management concern, and we promote employee health as well as facilitate the creation of a workplace environment that is both comfortable and safe.



Sustainable Finance

OSG has signed an agreement for ESG Assessment-Type Financing Procurement in order to monitor the status of KPI achievement and disclose such information. We are considering adopting sustainability-linked loans, green bonds, and other forms of sustainable finance when investment financing is procured, and we are striving to practice more sophisticated ESG/SDGs management.



1-3. Medium-term Management Plan, Beyond the Limit 2024

We have reported our management structure from fiscal year 2021 started a medium-term management plan, Beyond the Limit 2024. The three-year plan runs from the current period November 2022 until the term ending November 2024. Under this new plan, OSG's aim will be to commit ourselves to further enhancing the efficiency of our operations, improve profitability, create a robust corporate culture, and contribute to the global manufacturing industry as we advanced toward the era of carbon neutrality.

【Basic Policy】

- To transform OSG into an essential player contributing the global manufacturing industry, our long-term vision is divided into three stages. The first three-year period is Beyond the limit 2024, We will strengthen our corporate structure.
- Over the course of these three stages up to the year 2030, OSG will change the composition of customer portfolio for better address social and environmental changes.
- As we advanced toward the carbon neutral era, the entire OSG Group will strive together to enhance corporate value with the aim of achieving overall optimization.

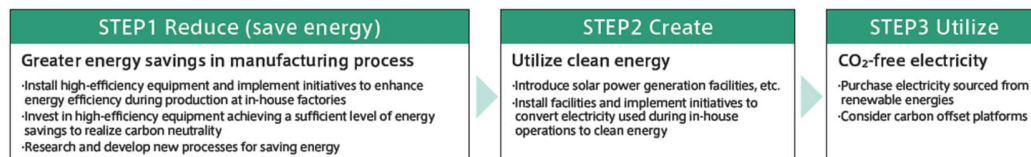
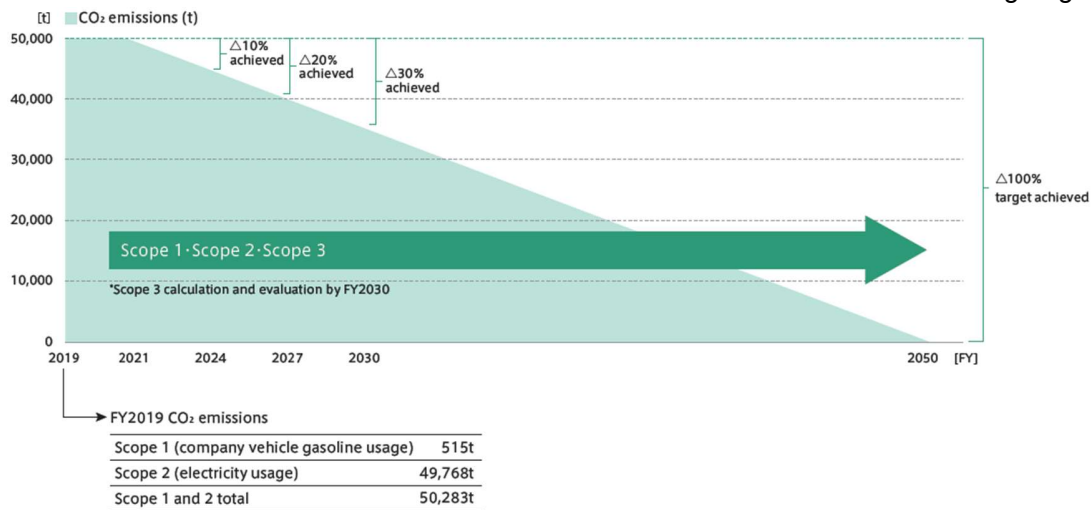
1-4. Initiatives against Climate Change

OSG set the following targets in the medium-term management plan Beyond the Limit 2024, which was announced in January 2022.

- FY2030 target : 30% reduction from FY2019 level
- FY2050 target : Achievement of carbon neutrality

In addition, OSG plans to conduct the Scope 3 calculation and evaluation by FY2030, and we are working to reduce CO2 emission across the entire supply chain.

【Carbon Neutral Declaration】 (Illustration of CO2 reductions made toward achieving target)



1.4.1 Plans to save energy and improve efficiency

OSG Group develops and suggests new products and services which save energy and improve efficiency in production. OSG is making efforts to “promote saving resources and energy”, “reduce waste” and “recycle carbide products” to reduce environmental impact, aiming at improve carbon productivity by 14.2% by FY2024 from the levels in FY2021. OSG has adopted a companywide theme of reducing our electric power usage, and we have rolled out activities that promote more efficient energy use and develop energy-saving equipment alternatives. More specifically, we have upgraded thermal source devices, transformers, and air conditioning equipment so that we now use the leading models. Companywide, we have also promoted a conversion of LED lighting, done away with equipment using fuel oil, and implemented other similar efforts. “Renewal of aging machines” and “Expansion of machines to increase capacity and improve efficiency” will be carried out continuously as, not only adaptation to climate change, but also the future growth opportunities. By reducing CO2 emissions in production process, creating added value and reducing negative environmental effect can be realized together.

- **Renovation of Oike Factory**

OSG Group plans renovation of Oike Factory as a part of its plans to save energy and improve efficiency. The renovation is scheduled between May 2024 and April 2028 and the site of the factory is approximately 16,800 m². Solar panels and EV stands will be equipped in the factory after the renovation and it will obtain Rank B+ under CASBEE certification. OSG Group will intend further to utilize renewable energy and reduce CO2 emissions by saving energy at production bases.

※**Image of Oike Factory after renovation**



- **Cutting-simulation using CAE analysis**

Cutting-simulation reduces production of prototypes, which are traditionally made repeatedly in production process, and also reduces waste. It contributes to efficient energy use by reducing prototypes.

1.4.2 Eco-efficiency Products

OSG is striving to create eco-friendly products and provide these to our customers. We are actively working to reduce environmental footprint through development and utilizing products which realize to save resources and to shorten production process of such products.

【Examples of Products】

- **Drills**

OSG has developed a drill with holes which enables efficient oil supply while existing drills require more high-pressure coolant for stable drilling. The new drill is enable to reduce power consumption by 56% compared to conventional products.

※Image of the product



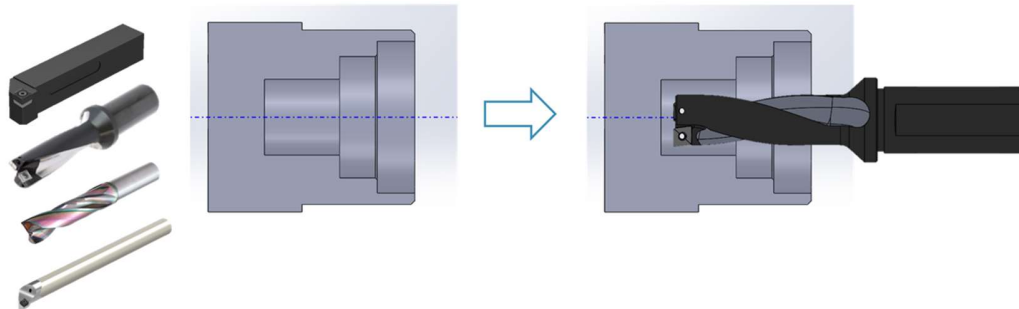
- **PDZ**

PDZ enabled production with only one tool compared to four tools required currently. Shorter cycle-time realized to reduce power consumption and to reduce losses from scrapping tools.

※Image of the product

※Currently, Four tools required

※PDZ enables to consolidate production process



1.5 Significance of Issuing Green Bonds

Sustainable financing is one of the material themes for OSG Group and will be utilized as a financing tool for investments to achieve a goal of carbon neutral in 2050.

Through the issuance of the Green Bonds, OSG will raise funds to build green buildings for production bases, to utilize renewable energies and to save energy and improve efficiency in production. We aim to strive to practice more sophisticated ESG/SDGs management by showing the efficacy of our investments through the reporting after green bond issuing.

2 Green Bond Framework

The framework conforms to align with the ICMA Green Bond Principles and the Green Bond Guidelines of the Ministry of the Environment 2022, and defines the following four core components:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

OSG will issue green bonds in accordance with the Framework

2-1. Use of Proceeds

An amount equivalent to net proceeds of each Green Bond will be allocated to finance or refinance new or existing eligible projects. In the case of existing projects, the proceeds will be allocated to projects implemented within two years prior to the issuance.

Eligible projects refer to the following capital investment and operational costs which meet eligible criteria.

【Green Bond Eligible Projects】

Category	GBP Category	Eligible Criteria and Projects
Save Energy	<ul style="list-style-type: none"> ■ Green Building 	<ul style="list-style-type: none"> ■ Building of which environment building certification was acquired or renewed prior to 24 months of issuance of the Green Bonds. Or, such building of which certification will be acquired or renewed in the future <ul style="list-style-type: none"> · CASBEE Construction (New, Existing, Renovated), CASBEE Real Estate Certification : Rank B+, A and S · ZEB, Nearly ZEB, ZEB Ready, ZEB Oriented under ZEB Certification · BELS : 3 stars, 4 stars and 5 stars · DBJ Green Building Certification : 3 stars, 4 stars and 5 stars <Project example> <ul style="list-style-type: none"> ■ Costs for Oike Factory renovation (CASBEE Certification : Rank B+ (Expected))
	<ul style="list-style-type: none"> ■ Energy Efficiency in product development process 	<ul style="list-style-type: none"> ■ Costs for introduction and maintenance of systems which realize improvement of energy efficiency by more than 30% current efficiency by reducing prototypes. <Project example> <ul style="list-style-type: none"> ■ Cutting simulating using CAE analysis
Eco-efficient Products	<ul style="list-style-type: none"> ■ Eco-efficient Products, Production Technologies, and Processes 	<ul style="list-style-type: none"> ■ Costs for research and development and introduction of related production equipment to realize improvement of energy efficiency by more than 30% current efficiency <Project example> <ul style="list-style-type: none"> ■ Environmentally-friendly product which helps saving energy (Drills) ■ Products which helps saving energy and reduce waste by streamlining manufacturing process (PDZ)

Energy Consumption	<ul style="list-style-type: none"> ■ Renewable energy 	<ul style="list-style-type: none"> ■ Costs to introduce equipment of renewable energy plants ■ Costs to purchase electric power from renewable sources
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Exclusion Criteria

- Proceeds from the Green Bond will not be allocated to projects related to the following,
- Unfair transactions that do not comply with the laws and regulations of the location or inappropriate acts including bribery, corruption, blackmail and embezzlement
 - Transactions that may cause social problems relating to human rights, the environment, etc.

2-2. Process for Project Evaluation and Selection

For eligible projects, to which proceeds from the Green Bond will be allocated, Finance Department will select candidate projects according to their alignment with the project eligibility criteria. The Finance and Quality Assurance Department will discuss the matter before Sustainability Committee which the President chairs will make the final decision.

In order to reduce environmental and social risks, all the eligible candidate projects are confirmed to have met conditions as follows:

- Complying with environmental-related laws, regulations and rules required in the areas where projects are conducted as well as carrying out environmental impact assessments if necessary
- Providing sufficient explanation to local residents before projects are conducted
- Material procurement, prevention of pollution and consideration of working environment and human rights in line with OSG Group’s sustainable procurement guidelines

2-3. Management of Proceeds

The proceeds will be allocated to eligible projects and managed by the Accounting Department. The Accounting Department will track and manage the proceeds using Excel so that the same amount of bonds issued based on the framework will be allocated to any of eligible projects.

The Company will manage the unallocated proceeds in cash or cash equivalent until the full amount of the proceeds will be allocated, and the proceeds will be fully allocated within five years from issuing.

2-4. Reporting

OSG will report the status of allocation of green bond proceeds to eligible projects and effects on the environment annually on OSG’s annual report and website.

2-4.1. Allocation Report

Until the proceeds from the Green Bonds are fully allocated, OSG will publish the following allocation status of the proceeds to eligible projects annually to the extent practically possible.

- Total amount of the proceeds allocated to eligible projects
- Amount of allocated and unallocated proceeds by eligible criteria
- Allocation schedule if any unallocated proceeds
- Proportion of finance and refinance

Should a significant change occur following the allocation of proceeds, it will be disclosed in a timely manner.

2-4.2. Impact Report

OSG will publish Impact Report on following indicators and projects to the extent practically possible, until redemption of the Green Bonds. In addition, we will disclose in a timely manner when conditions have changed significantly.

【Green Bond Eligible Projects】

Category	GBP Category	Impact Indicators (examples)
Save Energy	<ul style="list-style-type: none"> ■ Green Building 	<ul style="list-style-type: none"> ■ Overview of the building ■ Progress of capital investment ■ Type and rank of environmental certifications obtained (or schedule of certification progressed) ■ Volume of CO2 emissions
	<ul style="list-style-type: none"> ■ Energy Efficiency in product development process 	<ul style="list-style-type: none"> ■ Reduced quantity of prototypes by introducing systems ■ Reduction volume of power consumption by reducing prototypes
Eco-efficient Products	<ul style="list-style-type: none"> ■ Eco-efficient Products, Production Technologies, and Processes 	<ul style="list-style-type: none"> ■ Overview of Project and its estimated performance ■ Reduction volume of power consumption ■ Reduction volume of CO2 emissions by improvement of energy efficiency ■ For R&D purposes; <ul style="list-style-type: none"> · Overview of the R&D plan and its progress · Overview of targeted business and target effect (expected purposes, products, effects)
Energy Consumption	<ul style="list-style-type: none"> ■ Renewable Energy 	<ul style="list-style-type: none"> ■ Overview of Project ■ Reduction volume of CO2 emissions by using renewable energy ■ Renewable energy generating capacity (actual volume) ■ Volume of purchased energy from renewable sources