

CO₂ Performance Ladder Reduction Plan – 2022: Fastned



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1. Description of the Organization

1.1 Fastned

Fastned is a company primarily engaged in developing and operating a public high speed charging network for electric vehicles across Europe. With its headquarters based in Amsterdam, the Netherlands, it has established entities and already developed charging stations in Germany, France, the United Kingdom, Belgium, and Switzerland. As of 2023, Fastned has plans to expand into Denmark, Italy and Spain as a result of winning tenders.

In addition to providing charging infrastructure, Fastned is also committed to environmental sustainability, which is at the core of its business model. Fastned believes that clean energy and a balanced interplay between ecology and economy lead to a sustainable society. Furthermore, the use of electric vehicles significantly reduces the carbon footprint associated with car transport and contributes to cleaner air, thus fostering a more sustainable environment.

Fastned aims to be a leader when it comes to pure play EV charging and building high speed EV charging infrastructure. The company's focus is on creating and executing projects sustainably and responsibly while excelling in the EV charging space. Fastned's dedicated team relentlessly works towards this goal.

To meet the requirements and expectations of all the organization's stakeholders, Fastned is committed to continuous innovation and maintaining high standards.

To communicate these sustainable business practices to our customers, Fastned has prepared a CO₂ footprint according to the NEN EN ISO 5001 and ISO 14064–1 standards. These international standards enable transparency between different companies.

1.2 Responsibilities

The CFO oversees the Reporting team, on which a full-time sustainability manager sits. This new role at Fastned was filled in August 2022. The CFO meets regularly with the Sustainability Manager and Head of Financial Control to discuss a wide variety of sustainability topics including reporting, strategy and Fastned's CO2 footprint/impact. The CFO is responsible for relaying the Sustainability Manager's progress to the Management Board (consisting of the CEO and CFO), as well as the Supervisory and Foundation boards. The CFO also communicates about sustainability initiatives and progress to Fastned's Executive Team, which sits one level below him. The CFO, together with support from the Sustainability Manager, will also hold Fastned accountable for setting CO2 emissions reduction targets and meeting these targets, as well as earmarking a budget for sustainability-related initiatives.

Also, an external specialist from Dutch Carbon Consultants is involved in the process of Performance Ladder certification.

1.3 Definition of size

To determine the size category in which Fastned falls as an organization, we refer to the definition according to the CO₂ Performance Ladder 3.1 Handbook. Chapter 4.2 "Determining the size of the company" indicates that Fastned is considered part of the "Offices and business premises" category.

Fastned's carbon footprint shows that the emissions from scope 1 resulted in 15.1 tonnes of CO₂ in 2022. The electricity consumption of the offices resulted in an emission of 51.3 tonnes CO₂ in 2022 for scope 2. Business travel emissions were 27 tonnes of CO₂.

From the above insight, it can be concluded that our scope 1 and 2, plus business travel emissions, remain below the threshold of 500 tonnes of CO₂. According to the categorization, Fastned is a "small company."

1.4 The Described Period and Baseline Year

This year's assessment regarding the CO₂ Performance Ladder covers the period beginning in 2022. As this is Fastned's first year implementing this plan, the base year is set as 2022. The CO₂ emission figures for this year serve as the starting point.

As this is our first reduction plan, we have established our objectives in consultation with the Management Team. These objectives are both achievable and ambitious, providing a roadmap for our energy management efforts.

The reduction plan and the energy management plan will be updated annually with the latest data available.

2. Organizational Boundaries

2.1 Organizational Boundaries

An organization can consist of one or more parts, and there can be various emission sources within these parts. ISO 140064 provides two approaches to bundle these emissions: the "control" approach and the "equity" approach. The control approach takes as its boundary where the organization has financial or operational control. The equity approach pertains to the part of an organization that it owns. In Fastned's case, the control approach is most appropriate because the company is wholly owned and operated. The various business units are centrally managed by the Executive Team and Management Board, and there are no independently operating businesses.

2.2 Operational Boundaries

Within the operational boundaries, a distinction is made between direct emissions (Scope 1), indirect emissions (Scope 2), and other indirect emissions (Scope 3). The conclusion to be drawn here is that Fastned, according to the definitions in the CO₂ Performance Ladder 3.1, falls within the category of a small company.

3. Identification & methods of calculation

3.1 Identification

The energy assessment primarily focuses on Fastned's current consumption. For the projects where CO₂-related tender advantages are obtained, the emissions are recorded and monitored. Insight into energy consumption has been gained through metering and/or calculating consumption based on specifications. The whole process is based on paragraph 4.4.3 from ISO 50001, which focuses on identifying and assessing energy consumption.

To determine total emissions, emissions sources must first be identified. Table 4.1 provides this for scope 1, scope 2 and scope 3.

Emission Categories					
	Category	Definition			
Scope 1	Company facilities	Includes emissions from combustion in owned or controlled boilers, furnaces, vehicles.			
	Company vehicles	Direct emissions from vehicles owned or controlled by the company.			
Scope 2 and business	Purchased electricity (heat, steam for own use)	Indirect GHG emissions from the generation of purchased electricity, heat, or steam consumed by the company.			
travel (scope 3)	Business travel	Emissions from business travel by employees (included with scopes 1 and 2)			
	Purchased goods and services	Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in other categories.			
Scope 3	Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year (e.g. Charging stations owned by Fastned).			
	Employee commuting	Emissions from employees commuting to and from work.			

3.2 Methods of calculation

Fastned calculates emissions by multiplying the emission sources with emission factors, as actual measurements aren't applicable. Based on this, data has been selected and collected. You can find this information in the provided tables.

The emission factors used mainly come from the CO₂ performance ladder by SKAO. These can be found at www.CO2emissiefactoren.nl.

The calculations of the various emissions have been made using a tool called SmartTrackers. (For future reference, Fastned will be moving these calculations to sustainability reporting platform Position Green.) In SmartTrackers, emissions are categorized into scope 1, scope 2 and scope 3. The results will be presented in the following chapters.

3.3. Data limitations

Almost all the data used for the calculation of the CO₂ footprint are based on invoices or measured quantities, which minimizes the margin of uncertainty. However, there are opportunities for improvement, which are described below:

- Heat and electricity usage data (FY 2022): We made the following assumptions ..
 - o London office sharing heating (and electricity) with rest of office building (usage prorated at one third of total use)
 - o UK warehouse no official measurements for heating were available, this was an estimation. It has since been corrected as of July 2023.
- Heat and electricity usage data (H1 2023): We made assumptions based on 2022 data due to traditional year-end data sharing timelines of landlords and electricity suppliers.
 - o Data acquisition improvements: Actively pursuing earlier data retrieval in collaboration with landlords and suppliers for future reporting.

3.4 Verification by external specialist DCC

Fastned works closely with Dutch Carbon Consultants (DCC) to strengthen our sustainability efforts.

DCC verifies our emissions inventory and ensures transparency in our calculations. They also have been contributing to the analysis of our scope 3 emissions. Moreover, our commitment to thorough research is validated as our scope 3 analyses receives DCC's endorsement.

3.5 Report according to ISO 14064-1

This report has been prepared in accordance with the requirements of ISO 14064-1 section 9.3.1. The cross-reference table below shows that all components from ISO 14064-1 and the chapters in this document are accounted for.

In this section, we address a few points that we would like to clarify following the ISO 14064 standard.

3.5.1. Biomass Combustion

Biomass combustion was not applicable for Fastned in 2022.

3.5.2. GHG Removal

There was no removal of greenhouse gases at Fastned.

3.5.3 Exclusion of Sources

There are no exceptions to report on the GHG protocol.

3.6 ISO 14064-1 cross reference

ISO 14064-1		
§9.3.1	DESCRIPTION	CHAPTER
А	Reporting organization	1.1
В	Responsible person	1.2
С	Reporting period	1.4
D, E	Organizational boundaries	2
F	Direct GHG emissions	4.1
G	Biomass combustion	3.5.1
Н	GHG removal	3.5.2
1	Exclusion of sources	3.5.3
J	Indirect GHG emissions	4.2
K	Base year	1.4
L	Changes or recalculations	3.2
M, T	Methods	3.2
N	Changes in methods	3.2
0	Used emission factors	3.2
P, Q	Uncertainties	3.3
R	Statement according to ISO 14064-1	3.6
S	Verification	3.4

4. Energy Assessment

The purpose of an energy assessment is to map Fastned's energy consumption. For this initial audit, we do not conduct an assessment over the years, but insight is gained into the largest energy consumers within the organization. The CO₂ Performance Ladder requires an understanding of the top 80% of energy consumers, enabling the effective targeting of key processes, buildings, and/or activities that contribute to CO₂ emissions.

In this chapter we focus on both the input (m3, kWh, etc.) and the CO₂ emissions.

4.1 Scope 1

The direct GHG emissions consist of different main categories. For scope 1, the total emissions are **15.12 tonnes** CO₂. Below is a table with the CO₂ emissions per category. See the information provided below the table for a further assessment.

Gauge	Entity	2022		
		Value	Conversion factor	CO2 emissions (kg)
Scopes > Scope 1				
Aardgas (m³)	Fastned België BV	482.611	2,085 g/m ³	1,006.244
Aardgas (m³)	Fastned B.V. (Nederland / HQ)	3,964.147	2,085 g/m ³	8,265.246
Aardgas (m³)	Fastned Deutschland GmbH & Co KG	0	2,085 g/m ³	0
Aardgas (m³)	Fastned France SAS	0	2,085 g/m ³	0
Aardgas (m³)	Fastned Switzerland AG	0	2,085 g/m ³	0
Aardgas (m³)	Fastned UK Ltd	0	2,085 g/m ³	0
Aardgas (m³)	UK warehouse (as of Nov. 2022)	0	2,085 g/m ³	0
Company cars - EV (kWh)	Fastned België BV	50,000	o g/kWh	0
Company cars - EV (kWh)	Fastned B.V. (Nederland / HQ)	215,600	o g/kWh	0
Company cars - EV (kWh)	Fastned Deutschland GmbH & Co KG	42,000	o g/kWh	0
Company cars - EV (kWh)	Fastned France SAS	42,000	o g/kWh	1 0
Company cars - EV (kWh)	Fastned Switzerland AG	4,000	o g/kWh	0
Company cars - EV (kWh)	Fastned UK Ltd	43,400	o g/kWh	1 0
Company cars - non-EV (km)	Fastned B.V. (Nederland /	30,319.95	193 g/km	5,851.75

Heating

All Fastned offices are located in buildings where, most of the time, heating options are a decision taken by the landlord. Therefore, Fastned has very little control over heating options and also very few opportunities to steer on this topic.

Our Belgian and Dutch offices use gas for heating as a result of landlord preferences. Our German office moved in 2022--it was previously using gas but now uses

stadsverwarming/district heating. The Swiss office also uses stadsverwarming/district heating. (Those categories are included in scope 2.)

Company cars

Out of principle, Fastned has an EV fleet. This includes pool cars, company cars driven by employees as a benefit, and maintenance vehicles. However, in 2021 and 2022 there was one non-EV maintenance vehicle in the company fleet. This has since been retired in spring 2023.

4.2 Scope 2

The indirect GHG emissions consist of different main categories. For scope 2, the total emissions are **51.37 tonnes**. CO₂ Below is a table with the CO₂ emissions per category. See the information below the table for a further assessment.

Scopes > Scope 2				
Elektra (kWh)	Fastned België BV	5,830	144.27 g/kWh	841.094
Elektra (kWh)	Fastned B.V. (Nederland / HQ)	64,695	523 g/kWh	33,835.49
Elektra (kWh)	Fastned Deutschland GmbH & Co KG	3,772	498.4 g/kWh	1,879.964
Elektra (kWh)	Fastned France SAS	5,549	75.42 g/kWh	418.506
Elektra (kWh)	Fastned Switzerland AG	2,355.6	30.6 g/kWh	72.081
Elektra (kWh)	Fastned UK Ltd	32,137.88	o.365 kg/kWh	11,735.152
Elektra (kWh)	UK warehouse (as of Nov. 2022)	1,295	o.365 kg/kWh	472.869
Stadsverwarming (STEG) (GJ)	Fastned België BV	0	26.84 kg/GJ	0
Stadsverwarming (STEG) (GJ)	Fastned B.V. (Nederland / HQ)	0	26.84 kg/GJ	0
Stadsverwarming (STEG) (GJ)	Fastned Deutschland GmbH & Co KG	69.955	26.84 kg/GJ	1,877.592
Stadsverwarming (STEG) (GJ)	Fastned France SAS	0	26.84 kg/GJ	0
Stadsverwarming (STEG) (GJ)	Fastned Switzerland AG	8.72	26.84 kg/GJ	234.045
Stadsverwarming (STEG) (GJ)	Fastned UK Ltd	0	26.84 kg/GJ	0
Stadsverwarming (STEG) (GJ)	UK warehouse (as of Nov. 2022)	0	$26.84\mathrm{kg/GJ}$	o

Electricity

The Netherlands and UK have the largest electricity usage, followed by Switzerland. Some of our offices use electricity for heating—in this case, the UK (and warehouse) and France. Although we try to choose sustainable/green energy plans, we were not able to substantiate these with GvOs for 2022.

District heating

The German and Swiss offices use district heating.

4.3 Business travel (Note: Labeled as "Air traffic business travel" in SmartTrackers)

0	157 g/km	0	Fastned België BV	Vliegreis > 2500 km (km)
3,431.392	157 g/km	21,856	Fastned B.V. (Nederland / HQ)	Vliegreis > 2500 km (km)
0	157 g/km	0	Fastned Deutschland GmbH & Co KG	Vliegreis > 2500 km (km)
0	157 g/km	0	Fastned France SAS	Vliegreis > 2500 km (km)
0	157 g/km	0	Fastned Switzerland AG	Vliegreis > 2500 km (km)
0	157 g/km	0	Fastned UK Ltd	Vliegreis > 2500 km (km)
157.896	172 g/km	918	Fastned België BV	Vliegreis 700 - 2500 km (km)
2,964.936	172 g/km	17,238	Fastned B.V. (Nederland / HQ)	Vliegreis 700 - 2500 km (km)
302.892	172 g/km	1,761	Fastned Deutschland GmbH & Co KG	Vliegreis 700 - 2500 km (km)
646.032	172 g/km	3,756	Fastned France SAS	Vliegreis 700 - 2500 km (km)
154.456	172 g/km	898	Fastned Switzerland AG	Vliegreis 700 - 2500 km (km)
4,975.1	172 g/km	28,925	Fastned UK Ltd	Vliegreis 700 - 2500 km (km)
521.352	234 g/km	2,228	Fastned België BV	Vliegreis < 700 km (km)
4,134.078	234 g/km	17,667	Fastned B.V. (Nederland / HQ)	Vliegreis < 700 km (km)
298.116	234 g/km	1,274	Fastned Deutschland GmbH & Co KG	Vliegreis < 700 km (km)
1,102.608	234 g/km	4,712	Fastned France SAS	Vliegreis < 700 km (km)
1,667.25	234 g/km	7,125	Fastned Switzerland AG	Vliegreis < 700 km (km)
6,695.676	234 g/km	28,614	Fastned UK Ltd	Vliegreis < 700 km (km)
35.086	0.002 kg/km	17,543	Fastned België BV	Zakelijk Trein (km)
191.534	0.002 kg/km	95,767	Fastned B.V. (Nederland / HQ)	Zakelijk Trein (km)
88.428	0.002 kg/km	44,214	Fastned Deutschland GmbH & Co KG	Zakelijk Trein (km)
96.968	0.002 kg/km	48,484	Fastned France SAS	Zakelijk Trein (km)
9.448	0.002 kg/km	4,724	Fastned Switzerland AG	Zakelijk Trein (km)

For business travel, the total emissions are 27.05 tonnes.

For longer flights over 2500 km, our Netherlands office has an emission of 3,341.39 kg CO₂, indicating a significant amount of long-distance travel from this location in 2022. This can be attributed to the one-time relocations of new employees from countries like Brazil and Chile to The Netherlands. Other branches such as Belgium, Germany, France, and the UK report no emissions for this distance. Interestingly, in the <700 flight category, all our offices have emissions, but our UK office has the highest at 6,695.68 kg CO₂.

Our Netherlands office also traveled the most kilometers by train of all Fastned offices in 2022, totalling to 191.53 kg CO₂. The France and Germany offices follow, traveling 48,484 km (96.97 kg CO₂) and 44,214 km (88.42 kg CO₂) respectively.

5. Further analysis

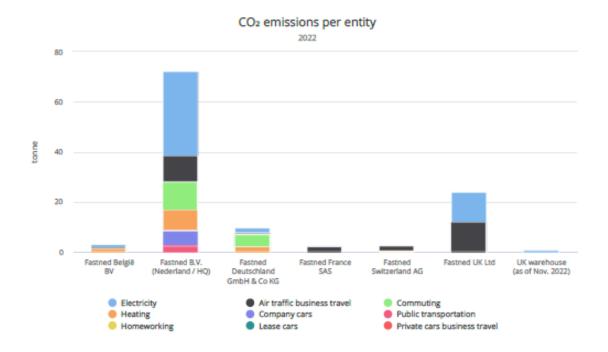
In this review, we'll dive into Fastned's 2022 emissions data, focusing on the main emissions sources. This will provide a thorough understanding on the topic, and will lead to the measures that can be taken to reduce Fastned's CO₂ impact.

Fastned has operations in multiple countries, each contributing differently to the company's overall carbon footprint. The total emissions for scope 1, 2, Business Travel (3) and Employee Commuting* (3) in 2022 amounted to 112.30 tonnes of CO₂. This figure represents the combined emissions from the headquarters in the Netherlands, as well as its entities in Belgium, Germany, France, Switzerland, and the UK. Significant emissions are evident from the company's headquarters in the Netherlands and its UK entity.

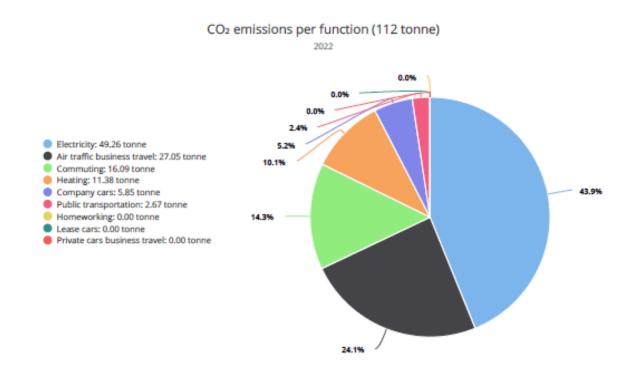
(*Note: For Ladder certification purposes, Employee Commuting is grouped with the Capital Goods category when discussing CO₂ emissions reduction objectives. However, SmartTrackers has grouped Business Travel and Employee Commuting into this calculation, which is mentioned above and shared in the table below, as a default.)

CO2 emissions (tonne)	2022
Fastned B.V. (Nederland / HQ)	72.08
Fastned België BV	2.56
Fastned Deutschland GmbH & Co KG	9.32
Fastned France SAS	2.26
Fastned Switzerland AG	2.14
Fastned UK Ltd	23.93
Total	112.30

For both of these countries, the electricity usage and emissions resulting from business travel play a significant role here, which can be seen in the chart on the next page.



In 2022, Fastned's most significant CO₂ emissions came from electricity consumption, amounting to 49.26 tonnes. Business travel followed, amounting to 27.05 tonnes, highlighting the extensive movement of the company's staff. Commuting to/from offices (only personal cars, excluding public transportation) and facility heating contributed 16.09 and 11.38 tonnes respectively.



6. Scope 3 emissions

The Ladder certification process requires the selection of a topic associated with the most substantial emissions, focusing on relevant emissions within the context of scope 3 (excluding business travel) as outlined in the GHG Protocol Scope 3 Standard.

For Fastned, the entire focus is on delivering premium, public, high-speed charging stations that are accessible for all EV drivers, without differentiating among user groups. Consequently, there is a single, relevant Product-Market Combination (PMC): **Fast charging stations for electric vehicles.**

This aligns with the GHG scope 3 category "Capital Goods." This category encompasses the environmental impact associated with the production and installation of the capital goods required to construct and operate the charging stations. Given that the construction and expansion of charging station infrastructure are central to Fastned's business, it directly correlates with the Capital Goods category, thus making it a focal point for Fastned's Scope 3 emissions analysis and reduction strategies.

Capital Goods

To gain deep understanding of the largest contributor to our emissions, we have made a life cycle assessment (LCA) for Fastned's charging stations to thoroughly evaluate their environmental impact throughout their lifespan. The LCA takes into account all stages from transport to production and use of materials, giving us a comprehensive understanding of the emissions related to our capital goods.

Employee commuting

Another scope 3 category which is applicable to Fastned is "Employee Commuting." We have calculated the emissions, which can be seen below together with the emissions for Capital Goods.

Scope (1, 2, 3)	Category	GHG description	Remarks	tonnes CO ₂
Scope 3 Upstream	Capital Goods	Final products that have an extended life and are used by the company to manufacture a product; provide a service; or sell, store, and deliver merchandise. In financial accounting, capital goods are treated as fixed assets or as plant, property, and equipment (PP&E).	Emissions from the construction of charging stations for year 2022. Hybrid method is applied, which involves a combination of supplier-specific activity data (as available) and using secondary data to fill the gaps.	7165.2
Scope 3 Upstream	Employee Commuting	Emissions from the transportation of employees between their homes and their worksites	Emissions from employees commuting to and from work.	18.76

6.1 Chain Analysis

In the context of the CO₂ Performance Ladder, smaller enterprises (based on total CO₂ emission) like Fastned may opt to focus their efforts on a single chain analysis targeting one of their top two emission sources. Clearly it remains important to maintain a clear understanding of the emission profiles and to actively pursue viable reduction strategies wherever possible.

For the chain analysis, we have conducted an LCA on charging stations focusing on the emissions related to the whole process of station construction: from purchased materials to transportation and to construction itself.

In 2022, we built 57 stations across different European countries. By applying the emissions data to these 57 stations, we estimated the total carbon footprint for the 2022 Fastned stations to be approximately 7,165 tonnes of CO₂. This figure reflects the environmental impact of our expansion and is a significant aspect of our overall sustainability evaluation. And, we have calculated that approximately 98.5% of Fastned's carbon footprint is linked to station construction.

7. Objectives and measures

The CO₂ Performance Ladder requires the establishment of reduction targets that are both ambitious and realistic. In determining the ambition level of the organization's goals and measures, a comparison with industry peers is typically considered. However, given the absence of direct sector peers for Fastned, making such a comparison is challenging. Despite this, the lack of comparable entities does not deter us from setting ambitious reduction targets for each scope.

7.1 Main objectives

Fastned's scope 1,2 and business travel (3) objectives

By 2025, CO₂ emissions/kWh sold reduced by 60% (2022 as base year)

By 2030, CO₂ emissions/kWh sold reduced by 80% (2022 as base year)

To be certain this is clear, we want to highlight that the above-mentioned objectives **are related to the kWh sold**. More specifically, the targets for scopes 1, 2 and business travel (3) are as follows:

- Scope 1: 5% reduction by 2025 compared to 2022; 10% reduction by 2030.
- Scope 2 and business travel (3): 55% reduction by 2025 compared to 2022; 70% reduction by 2030.

Scope 1:

In scope 1, heating and fossil fuel used by the organization's car fleet are, in general, the material emissions in this category. As Fastned does not have any fossil fuelled cars in their fleet as of spring 2023, there is barely reduction to be achieved for this category. For heating, we will aim to achieve energy efficiency for Fastned offices via landlord negotiation, as much as possible. By the start of 2024, for the Dutch office we are moving to a new location that has achieved the highest energy efficiency rating.

Scope 2 and business travel (3):

For the scope 2 reduction objective, our goal is to transition entirely to green electricity, including securing Guarantees of Origin (GoOs) for office electricity use in cases where the energy providers are not able to supply the GoOs themselves.

For business travel, we aim to decrease air travel by considering the distance of trips in relation to the number of full-time equivalents (FTEs). Additionally, a new booking system will be implemented to monitor business travel and encourage alternatives to flying.

7.2 Objective scope 3 categories

Fastned's scope 3 objectives

By 2025, CO2 emissions/kWh sold reduced by 30% (2022 as base year)

By 2030, CO₂ emissions/kWh sold reduced by 60% (2022 as base year)

- Sub-objective: Capital goods 25% reduction by 2025 compared to 2022;
 50% by 2030
- Sub-objective: Employee commuting 5% reduction by 2025 compared to 2022; 10% by 2030

Also here, the above-mentioned objectives are related to kWh sold.

We aim to reduce our footprint through measures like using sustainable materials, optimizing design, sourcing efficient equipment, and employing energy-efficient construction methods. We refer to our chain analysis document for further details.

Additionally, for employee commuting, the focus is on reducing the distance travelled by internal combustion engine vehicles by shifting to public transport and prioritizing hiring candidates who live near offices and are willing to use public transport or drive an electric vehicle if needed.