

REDUCTION TARGETS, REDUCTION MEASURES AND ENERGY MANAGEMENT PLAN

FOR



Make every drop count.

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GREENFISH

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Descriptive information

This report concerns the social and operational facilities of Hydroko Belgium.

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|---------|--|-------------------------------|
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GLOSSARY

ABBREVIATION

GHG

GoO

SBTi

TTW

WTT

MEANING

Greenhouse gas

Guarantees of Origin

Science Based Targets Initiative

Tank-to-Wheel

Well-to-Tank

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1. INTRODUCTION

In line with the axis A of the CO₂ Performance Ladder, which entails a comprehensive analysis of Hydroko's energy consumption and Greenhouse Gas (GHG) emissions, this report describes Hydroko's energy management action plan along with the corresponding measures and responsibilities. In this way, Hydroko follows the reporting process in accordance with the PDCA cycle (Plan, Do, Check, Act), as outlined in the ISO50001 standard.

| | | |
|--|---------|--|
| ISO 50001 | PDCA | Link with CO ₂ Performance ladder |
| §6.3 Energy assessment | PLAN | 2A3 |
| §6.2 Energy objectives, targets, and action plans for energy management | PLAN/DO | Axis B/ 2C2 |
| §6.6 and §9.1 Monitoring, metering, analysis and evaluation of energy performance and energy management system | CHECK | 3C1 |
| §10.1 deviating and correcting measures | ACT | Continue improvement |

The selected measures in this document originate from a reduction workshop facilitated by Greenfish part of Accenture (hereafter: Greenfish). Prior to this workshop, a comprehensive list of potential reduction opportunities was generated based upon the results of the energy assessment and the CO₂ inventory. During the workshop session, these measures were subjected to thorough evaluation and discussion, leading to the identification of the most ambitious yet feasible measures for implementation. Furthermore, specific reduction targets were set during the workshop.

2. REDUCTION TARGETS

Having a positive impact on our planet is the core mission of Hydroko’s business. With the aim to reduce the environmental impact of our activities, we’ve set ambitious targets to reduce our emissions. A target is set both in the short term (2026) and long term (20230) in comparison to the base year 2022. The following sections provide an explanation of the reduction targets on Scope 1 (direct emissions from company vehicles, heating oil and refrigerant leakage), Scope 2 (indirect emissions from purchased electricity and solar PV-self consumption) and Business Travel.

2.1. What does the Science-Based Targets Initiative recommend?

To maintain a good balance between ambition level and feasibility, the criteria established by the Science Based Targets Initiative (SBTi)¹ were implemented as the guiding principle for the reduction targets within the context of Hydroko. This approach allows the reduction targets to be aligned with an ambition that focuses on ensuring the limitation of global warming to 1,5°C.

Following SBTi, a 25,2% Scope 1 & 2 reduction by 2026 (Figure 1) and a 42% Scope 1 & 2 reduction by 2030 (Figure 2) must be achieved in comparison to the base year 2022 in order to be in line with the 1,5°C limitation of global warming.

1.5 degree scenario (1.5C)

[Review all target modelling data](#)

| | Base year (2022) | Same as base year | Target year (2026) | % Reduction to date | % FLA Adjustment | % SBT reduction |
|-----------------------------|------------------|-------------------|--------------------|---------------------|------------------|-----------------|
| Scope 1 emissions (tCO2e) | 14 | ----- | 11 | ----- | Not required | 25.2% |
| Scope 2 emissions (tCO2e) | 11 | ----- | 9 | ----- | Not required | 25.2% |
| Scope 1+2 emissions (tCO2e) | 26 | ----- | 19 | ----- | ----- | 25.2% |

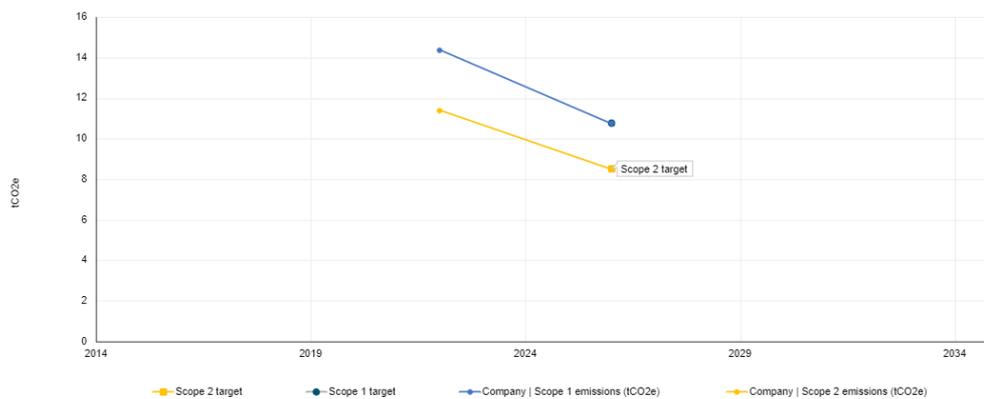


Figure 1: Science-Based Targets recommended reduction ambition by 2026

¹ Science Based Targets Initiative, [\[online\]](#).

1.5 degree scenario (1.5C)

[Review all target modelling data](#)

| | Base year (2022) | Same as base year | Target year (2030) | % Reduction to date | % FLA Adjustment | % SBT reduction |
|-----------------------------|------------------|-------------------|--------------------|---------------------|------------------|-----------------|
| Scope 1 emissions (tCO2e) | 14 | ----- | 8 | ----- | Not required | 42.0% |
| Scope 2 emissions (tCO2e) | 11 | ----- | 7 | ----- | Not required | 42.0% |
| Scope 1+2 emissions (tCO2e) | 26 | ----- | 15 | ----- | ----- | 42.0% |

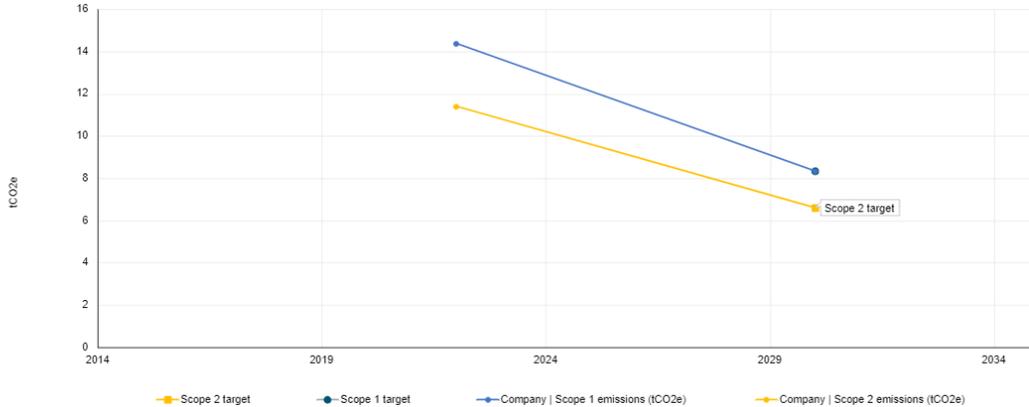


Figure 2 : Science-Based Targets recommended reduction ambition by 2026

2.2. Hydroko's Scope 1 & 2 reduction target

When setting a target, it is crucial to consider how a company's growth might impact its emissions. Hydroko aims to have a growth of 50% turnover by 2028. The growth will be within the existing boundaries of Hydroko, meaning no significant increase in employees, company cars or expansion of the buildings.

For this reason, Hydroko aims to be more ambitious than the SBTi. The following Scope 1 & 2 reduction targets were set:

- Scope 1: 50% reduction by 2026 relative to 2022.
- Scope 1: 80% reduction by 2030 relative to 2022.
- Scope 2: 100% reduction on the Tank-to-Wheel (TTW)² emissions by 2026 relative to 2022.

2.3. Hydroko's Business Travel reduction target

Although Hydroko acknowledges the environmental impact of business travel (almost 30% of Hydroko's emissions in 2022), it is currently difficult to set a reduction target on this category. Due to Hydroko's unique product and the expected internationalisation, business travel will likely increase again as of 2023 for e.g. international conferences, client and partner facings, etc. (the base year 2022 was still impacted by COVID-19 and, therefore, not representative).

For this reason, Hydroko will re-assess the emissions related to business travel in 2023 and 2024, in order to set a reduction target in the next coming years.

Hydroko is, however, committed to addressing the associated challenges and will already make efforts today to replace short haul flights by train or car travelling.

² The Well-to-Tank (WTT) emissions from energy production and distribution are under the control of the energy producers, hence Hydroko cannot directly influence these emissions. For this reason, Hydroko commits to reduce its Tank-to-Wheel (TTW) emissions by consuming renewable energy.

2.4. Alternative fuels and green energy targets

Hydroko is eager to minimise the environmental impact of their activities aiming to operate carbon neutral buildings. In this regard, Hydroko has set the following objectives on alternative fuels and green energy:

- 100% electrification by 2023³.
- 100% green electricity by 2026 relative to 2022 by concluding green energy contracts with Belgian Guarantees of Origin (GoO) and expanding the local solar PV production.

2.5. Qualitative energy reduction targets

Hydroko has the following qualitative measures to reduce energy:

- Improve the energy performance of the installations.
- Replace conventional lighting with LED lighting.
- Enforce an office policy that encourages employees to be mindful of energy usage (e.g. turning off equipment when not in use, switching of lights when there is sufficient natural light, closing doors, and practicing conscious heating).

2.6. Relative position and level of ambition

To have an indication of the level of ambition of the targets of Hydroko, a benchmarking analysis on other Belgian small enterprises with a level 3 certificate of the CO₂ Performance Ladder was performed. It is important to note that none of these companies have similar activities as Hydroko and are mostly general contractors. Hydroko offers a distinctive product and occupies a singular market niche, thereby it was chosen to compare with companies of comparable scale and size.

The conclusion of this benchmarking exercise is that most companies have the following targets:

- Short term (~2025) target: Achieving reductions of 25-30-50%
- Long-term (~2030) target: 50% reduction
- Business Travel neglectable

Hydroko's targets in the short-term are therefore in line with other Belgian small enterprises while their long-term target is more ambitious.

³ This objective was fulfilled mid 2022 by installing electric heat pumps thanks to which heating oil could be replaced by electric heating.

3. ACTION PLAN

To reach the targets on emissions and energy consumption, Hydroko identified a few measures that will be taken between now and 2030. Hereafter, the action plans for (1) the Scope 1 & 2 and Alternative fuels & Green Energy, (2) energy reduction and (3) business travel are discussed.

Where possible, the expected reduction is quantified in absolute terms and as a percentage. Additionally, the planned execution date and the responsible person for the implementation are indicated.

These measures are based on the outcomes of the energy assessment performed by Greenfish and the actions identified during reduction workshop. Some measures have already been implemented. Hydroko will implement other measures in the coming years to achieve its targets.

3.1. Action plan for Scope 1 & 2 and alternative fuels & green energy

| Emission category | Measure | Reduction potential | Implementation period | Responsible |
|------------------------------|---------------------------|---|-----------------------|-----------------|
| Scope 1 Company cars | Car fleet electrification | Hydroko commits to move away from petrol cars. Since 2018, the fleet is getting replaced with hybrid cars. By 2024, 3 out of 6 cars will even be electric cars. The remaining 3 hybrid cars will be replaced by electric cars between 2026-2030 (exact timing to be determined). A simulation shows that this leads to a CO ₂ -reduction is possible of: <ul style="list-style-type: none"> • ~2,03 tCO₂e (14%) of Scope 1 emissions by 2024. • ~7,71 tCO₂e (54%) of Scope 1 emissions by 2030. | 2024 and 2026-2030 | Quality Manager |
| Scope 1 Company cars | Bike commuting | Hydroko will encourage its employees to commute by bike at least twice per week (e.g. bike allowance) and will inform its employees about the positive impact of cycling (e.g. through workshop, mailing...). A simulation shows that this leads to an additional CO ₂ -reduction of: <ul style="list-style-type: none"> • ~2,76 tCO₂e (19%) of Scope 1 emissions by 2024. • ~0,97 tCO₂e (7%) of Scope 1 emissions by 2030. | 2023-.... | Quality Manager |
| Scope 1 Company cars | Tire pressure check | Hydroko commits to check the tire pressure more frequently in order to reduce the fuel and energy consumption of its fleet. Keeping the tire at the required pressure can reduce the fuel/energy consumption by 2-5% (~0.02 tCO ₂ e) ⁴ . | 2023-... | Quality Manager |
| Scope 2 Green electricity | Green energy contracts | Hydroko commits to increase its consumption of green electricity by investing in green electricity contracts with electricity produced in Belgium. This will lead to a TTW Scope 2 reduction of 100% . | 2024 | Quality Manager |
| Scope 2 Green electricity | Solar PV consumption | Hydroko commits to increase local solar PV production. In 2023, Hydroko installed already a second solar PV installation at the Oudemanstraat 55. The next years, Hydroko will look into battery systems to increase self-consumption. At this moment, the CO ₂ reduction is not quantifiable. | 2023-... | Quality Manager |

⁴ Klimaatplein, Bandenspanning controleren: hoe, waar, wanneer en waarom?, [\[online\]](#).

3.2. Action plan for energy reduction

| Energy category | Measure | Reduction potential | Implementation period | Responsible |
|-------------------|-----------------------------------|---|-----------------------|-----------------|
| Energy | Submeters | To get more insights into the exact energy consumption and energy hotspots, Hydroko will investigate the feasibility of submeters. This way, more concrete energy reduction measures can be identified. | 2025-2030 | Quality Manager |
| Energy | Frequency variator on compressors | A conservative estimate shows a reduction of 20% of the electricity consumption of the compressor at the Oudemansstraat 14 (~0,5 MWh / year) when installing a frequency variator. | 2025-2030 | Quality Manager |
| Energy | LED Lighting | LED lamps are 30% more efficient than TL lamps. By installing LEDs at the Oudemansstraat 14, more than 6 MWh per year could be saved. | 2025-2030 | Quality Manager |
| Energy | Replacement of old heatpumps | The heat pumps at the Oudemansstraat 14 are around 11 years old. In the coming years, Hydroko foresees to replace them by more efficient models. A study on the potential change of heat pump source is also strongly advised to further improve efficiency. 20% of energy can be saved (~2,4 MWh / year). | 2025-2030 | Quality Manager |
| Energy | Energy efficient office supplies | The replacement of the office appliances (e.g. screens, laptop, printers, etc.), has the potential to yield significant energy savings, amounting to 30% of the actual consumption following the estimation of Greenfish. This results to an annual saving of more than 2 MWh per year . | 2023-... | Quality Manager |
| Energy | Warm Sweater Day | Hydroko commits to organise a “warm sweater day” at least once per year to reduce the energy consumption for heating. The energy reduction is today not quantifiable. | 2024-... | Quality Manager |
| Fuel for cars | Stimulate eco-driving | Hydroko commits to stimulate its employees to drive more eco-friendly (e.g. workshop, mailing, etc.). The fuel reduction is today not quantifiable. | 2024-... | Quality Manager |
| Climate awareness | Onboarding of new employees | Hydroko commits to integrate sustainability within the onboarding process of new employees by making them aware of the emissions targets and actions to be taken. The aim is to stimulate employees to decrease their energy consumption where possible, both at office and at home. At this moment, the CO ₂ reduction is not quantifiable. | 2024-... | Quality Manager |

3.3. Action plan for business travel

| Emission category | Measure | Reduction potential | Implementation period | Responsible |
|-------------------|---|--|-----------------------|-----------------|
| Business travel | Reduction target | As stated before, business travel emissions are expected to increase in the coming years. Therefore, Hydroko commits to reassess the emission from business travel in 2023 and 2024 in order to set an emission reduction plan and target based on more representative data. | 2023-2024 | Quality Manager |
| Business travel | Alternative travelling for short haul flights | Although will concentrate efforts on reducing emissions from short haul flights through sustainable alternatives (e.g. train or car). When 10% of the short haul flights are replaced by train, a 5% CO ₂ reduction is possible. | 2024-... | Quality Manager |
| Business travel | Economy class travelling | Hydroko currently predominantly utilises economy class for air travel and remains committed to this approach as a means to mitigate plane emissions. At this moment, the CO ₂ reduction is not quantifiable. | 2023-... | Quality Manager |
| Business travel | Avoid layovers | Non-stop routes result in a reduction of approximately 100 kgCO ₂ e per person ⁵ . Since the exact number of flights taken with layovers is unknown, the CO ₂ reduction is today not quantifiable. Nevertheless, Hydroko will consider this in their flight selection. | 2024-... | Quality Manager |
| Business travel | Use 'eco-friendly' airlines | Hydroko will identify which airlines serve the routes their employees usually fly and create a list of the most carbon-friendly ones. The criteria that Hydroko will use to identify which airlines are more carbon-friendly are: <ul style="list-style-type: none"> • Amount of CO₂ generated by a specific flight and airline. • If the airline offers the possibility to offset your carbon footprint. • If the airline has a sustainability policy. At this moment, the CO ₂ reduction is not quantifiable. | 2023-... | Quality Manager |

⁵ Debbage K. G. & Debbage, N. (2019). Aviation carbon emissions, route choice and tourist destinations: Are non-stop routes a remedy?, [[online](#)].