

moeve

# This future has a future

BioOils ISO 14064-1:2018  
carbon  
footprint  
report **2025**



# Contents

<b>01.</b>	<b>Strategy .....</b>	<b>2</b>
<b>02.</b>	<b>Reporting topics .....</b>	<b>4</b>
	2.1. Boundaries.....	4
	2.2. Scope .....	5
<b>03.</b>	<b>Data and methodology .....</b>	<b>7</b>
	3.1. Emission data .....	7
	3.2. Methodology .....	10
	3.3. Exclusions and uncertainty .....	13
	3.4. Base year.....	16
<b>04.</b>	<b>Reduction and removal.....</b>	<b>18</b>
	4.1 Emissions reduction action .....	18
	4.2 Emissions removal actions.....	18

01

Strategy

# 01. Strategy

BioOils report this year 2025 for first time their inventory verification at the organizational level of Greenhouse Gas (GHG) emissions under the framework of ISO 14064- 1:2018. Even though their emissions have been part of the Moeve Group Report since 2024.

The verification includes the emissions of the following GHGs: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFC) and hydrochlorofluorocarbons (HCFC).

The process of inventory verification has been carried out in Sustainability & Energy Transition Area of Moeve with the accreditation of AENOR with a limited level of assurance and a threshold of maximum relative importance of 5%.

## With this report:

- Under our strategy and commitment to reduce our CO<sub>2</sub> emissions, we adopt rigorous monitoring and volunteer audit of these emissions to enhance our transparency and rigor in communication of emissions.
- BioOils Huelva plays a key role in supporting the decarbonization of road transport providing low-carbon fuel alternatives. In this context, verification under ISO 14064 further strengthens the credibility and robustness of the way BioOils communicates the greenhouse gas emissions associated with its operations, ensuring transparent, consistent and reliable carbon reporting.

## Our Commitments:

- **Establish, monitor, and validate by a third-party CO<sub>2</sub> emission.**
- **Integrate climate change in the company strategy and in all businesses decision-making processes.**
- **Design carbon mitigation and adaptation plan considering the entire value chain.**
- **Keep climate-related objectives as a monetary reward parameter.**

# 02

## Reporting topics



## 02. Reporting topics

### 2.1. Boundaries

#### Following emissions are reported under this report

- This report groups **direct GHG emissions** (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and refrigerant gases) from the facilities, including combustion, process, fugitive emissions, and emissions from mobile sources. Emissions from facilities's wastewater treatment plants have also been included (Category 1).
- **Indirect emissions** by purchased electricity of the facilities included in the scope of this verification (Category 2).
- Likewise, this 2025 report includes the **indirect emissions** of the **value chain** corresponding to scope 3 under the GHG Protocol Methodology and under ISO 14.064-1:2018 (Categories 3-6).

Greenhouse gas emissions sources have been identified and grouped in accordance with the ISO 14064-1:2018 standard. This standard lists six categories of emissions and differs somewhat from earlier categorization in line with the Greenhouse Gas Protocol's Scopes 1 through 3.

- **Category 1:** Direct GHG emissions and removals
- **Category 2:** Indirect GHG emissions from imported energy
- **Category 3:** Indirect GHG emissions from transportation
- **Category 4:** Indirect GHG emissions from products used by the organization
- **Category 5:** Indirect GHG emissions associated with the use of products from the organization

- **Category 6:** Indirect GHG emissions from other sources

This report, although drawn up in parallel, is developed within the framework of the principles established by Moeve regarding the quantification of GHG and the establishment of objectives to reduce GHG emissions.

#### Significance and Materiality

It is necessary to define and explain our own pre-determined criteria for the significance of indirect emissions, considering the intended use of the inventory.

Factors for consideration in assessing significance and materiality include:

- Magnitude or Size of the emissions
- Level of Influence on the emission source
- Difficulty in obtaining data
- Poor validity in available estimation approaches

Whilst all of the above would be considered in materiality assessments, the criteria that would mandate disclosure of emissions sources as significant is:

**a)** Where there is a single source with estimated emissions likely to be at least 1% of its category. In this case, that emissions source must be included.

**b)** Where the total of 'insignificant' sources has estimated emissions likely to be at least 5% of total emissions. In this case, enough of the 'insignificant' emissions must be included until the estimate of excluded emissions is below 5%.

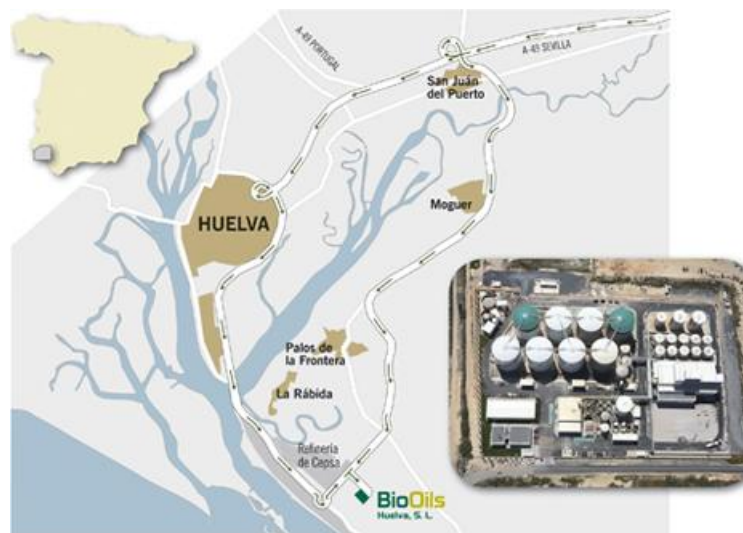
## 2.2. Scope



### BioOils Huelva production site

**Bio-Oils Huelva plant** is located in the Port of Huelva, very close to the Moeve's Energy Park La Rábida. This plant has a **capacity of 500,000 tons per year**, and the storage volume for raw materials and finished products is 100,000 m<sup>3</sup>. Bio-Oils produces biodiesel in different qualities, meeting the most widely used specifications worldwide: EN 14214 and ASTM D6751, as well as the specific requirements of different customers. As by-products of the production process, glycerin and gums are obtained, which are also commercialized for different uses.

The plant is directly connected by pipelines to the Energy Park La Rábida and to the "Reina Sofía" jetty, benefiting from an outstanding logistical position.



Biofuels produced at BioOils Huelva plant are derived from **raw materials certified under the ISCC Sustainability Standard**, ensuring compliance with recognized sustainability criteria and enabling a demonstrable reduction of GHG emissions in the production process when compared to fossil fuels. In addition, the use of renewable and low-carbon fuels is aligned with the **Italian National Certification System**, established under the Inter-Ministerial Decree of 7 August 2024 and consistent with the EU Renewable Energy Directives (RED II and RED III).

This carbon footprint assessment reflects the operational performance of the facility within this certified sustainability framework.

In February 2024, **MOEVE** formalized a business agreement with **APICAL** for the **production and marketing of second-generation (2G) biofuels**, through the incorporation of **Bio-Oils Huelva, S.L.U.** and **Bio Oils Waste, S.L.U.**, both with a **55% ownership stake**.

This report presents the **quantification and reporting of the organizational greenhouse gas (GHG) emissions** of the **BioOils Huelva production site**, prepared in accordance with the requirements of **ISO 14064-1**. The purpose of the study is to provide a **transparent, consistent and verifiable assessment** of the GHG emissions associated with the activities carried out at the facility during the reporting period, supporting emissions management, regulatory compliance and decision-making related to decarbonization strategies.

# 03

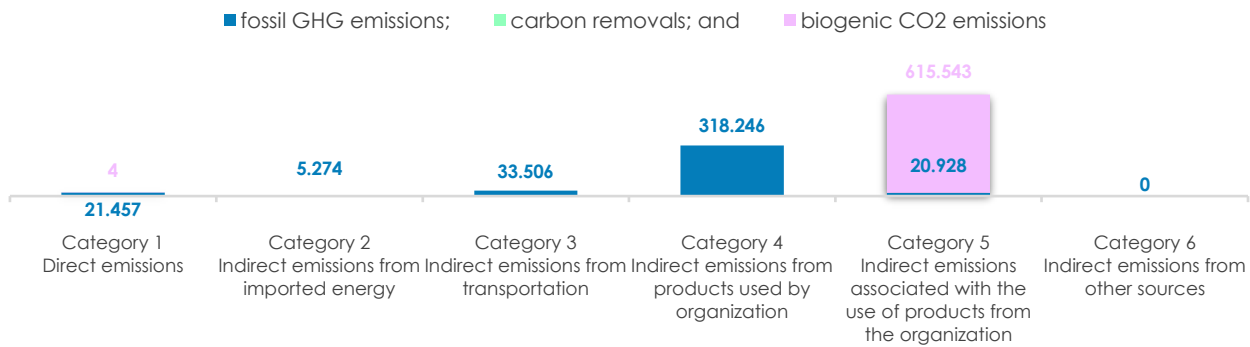
**Data and  
methodology**

## 03. Data and methodology

### 3.1. Emission data

The general distribution of emissions among the above mentioned ISO 14064-1:2018 for the year 2025 categories is shown in the following graph, according to the materiality criteria.

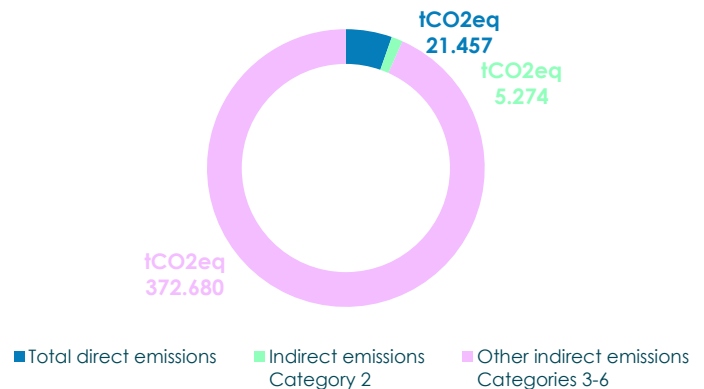
#### GHG emissions by category (tCO<sub>2</sub>eq)



#### Where,

- **Total fossil GHG emissions account to 399,411 tonnes of CO<sub>2</sub>eq.** This sum of emissions excludes the **biogenic emissions which account to 615,547 tonnes of CO<sub>2</sub>eq.**
- It is seen that **Category 4 contributes to the most emissions**, specifically the emissions from purchased products. This is followed by Category 3, 1 and 5.
- Indirect emissions corresponding to Category 2, emissions from purchased energy is shown in the graph as **market-approach calculation**. This category accounts for 2,381 tonnes of CO<sub>2</sub>eq under location-approach calculation.

Now, the percentage distribution graphs for carbon footprint by scope show that **indirect emissions account for the largest percentage** of emissions calculated.



The breakdown of **direct emissions** is shown in the following table:

Direct emissions per source, GHG tonnes	Total CO <sub>2</sub> e emissions	CO <sub>2</sub>	CH <sub>4</sub> as CO <sub>2</sub> e	N <sub>2</sub> O as CO <sub>2</sub> e	Refrigerant gases as CO <sub>2</sub> e
Combustion stationary sources	19.831	19.722	11	99	
Flaring	0	0	0	0	
Process emissions	0	0	0	0	
Combustion mobile sources	65	64	0	1	
Wastewater treatment facilities	139	0	130	9	
Gas post-meter leakage	1.421	1	1.421	0	
Fugitive refrigerant	5				5
<b>Where, total fossil GHG emissions; and biogenic CO<sub>2</sub> emissions</b>	<b>21.457</b>	<b>19.782</b>	<b>1.561</b>	<b>109</b>	<b>5</b>
	<b>4</b>	<b>4</b>			

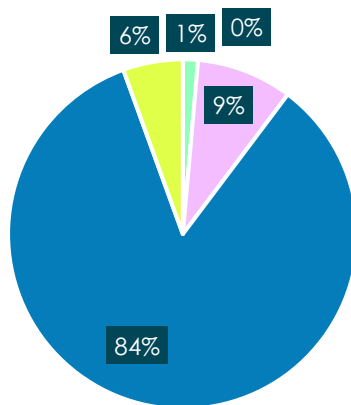
**Indirect emissions** associated with Categories 2-6 are summarized in the following table, differentiating between location- based and market-based methods

Category		GHG emissions (tCO <sub>2</sub> e)	
		Market approach	Location approach
Category 2 Indirect emissions from imported energy	fossil GHG emissions;	5.274	2.381
	carbon removals; and		
	biogenic CO <sub>2</sub> emissions		
	<b>Total</b>	<b>5.274</b>	<b>2.381</b>
Category 3 Indirect emissions from transportation	fossil GHG emissions;	33.506	33.506
	carbon removals; and		
	biogenic CO <sub>2</sub> emissions		
	<b>Total</b>	<b>33.506</b>	<b>33.506</b>
Category 4 Indirect emissions from products used by organization	fossil GHG emissions;	318.246	318.246
	carbon removals; and		
	biogenic CO <sub>2</sub> emissions		
	<b>Total</b>	<b>318.246</b>	<b>318.246</b>
Category 5 Indirect emissions associated with the use of products from the organization	fossil GHG emissions;	20.928	20.928
	carbon removals; and		
	biogenic CO <sub>2</sub> emissions	615.543	615.543
	<b>Total</b>	<b>20.928</b>	<b>20.928</b>
Category 6 Indirect emissions from other sources	fossil GHG emissions;	0	29
	carbon removals; and		
	biogenic CO <sub>2</sub> emissions		
	<b>Total</b>	<b>0</b>	<b>29</b>
<b>Total</b>	<b>fossil GHG emissions and carbon removals</b>	<b>377.954</b>	<b>375.091</b>
	<b>biogenic CO<sub>2</sub> emissions</b>	<b>615.543</b>	<b>615.543</b>

1. Total GHG emissions consider fossil GHG emissions and carbon removals

Within the section of **indirect emissions**, the following graph shows the distribution of indirect emissions from Category 2 to Category 6. As previously indicated, the results of emissions associated with electricity have been carried out according to the market-approach methodology

### Indirect GHG emissions by category (tCO<sub>2</sub>eq)



- Category 2  
Indirect emissions from imported energy
- Category 3  
Indirect emissions from transportation
- Category 4  
Indirect emissions from products used by organization
- Category 5  
Indirect emissions associated with the use of products from the organization
- Category 6  
Indirect emissions from other sources

## 3.2. Methodology

### Category 1. Direct emissions

- Combustion emissions in stationary sources; activity data coming from invoices and national inventory emission factors.  
 Emissions of CH<sub>4</sub> and N<sub>2</sub>O in stationary sources are also calculated in accordance with the EU-PRTR Concawe Methodology. GWP of CH<sub>4</sub> and N<sub>2</sub>O GHG according to IPCC AR6 Global Warming Potentials.
- Combustion emissions in mobile sources: activity data coming from internal registers, and national inventory emission factors for considered GHG.
- Wastewater treatment plant emissions. Methane produced in the anaerobic reactor and nitrous oxide as intermediate in the nitrification-denitrification process. The quantification methodology is based on own discharge parameters and IPCC Guidelines for wastewater treatment and discharge default factor.
- Gas post-meter leakage. Activity data reported according to the same methodologies as those described for combustion emissions at stationary sources and gas leakage at industrial plants emission factors from 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
- Fugitive emissions of refrigerant gases. GHG according to IPCC AR6 GWPs (100-years). Activity data reported under refill and maintenance evidence.

### Category 2. Indirect emissions from imported energy

Associated emissions to purchased electricity in facilities under scope. Activity data are reported under carbon markets verified data or invoices.

Emission factors for power are chosen under market-based and location-based criteria.

### Categories 3-6. Indirect emissions from value chain

Following subcategories as energy and purchased fuels, raw materials and services (category 4), upstream transportation of raw material and downstream transportation and distribution (category 3), use of sold products and waste management (category 5), upstream leased asset (category 6) have consistent activity data for their calculation as they are verified in other categories to carry out emission calculations.

### Category 3. Indirect GHG emissions from transportation



#### 3.1. Subcategory Indirect emissions by transport and distribution upstream

The quantification methodology used for calculating emissions is based on raw, auxiliary and final products activity data and emission factors from Ecoinvent database.

It accounts for **24,242 tonnes of CO<sub>2eq</sub>**.



#### 3.2. Subcategory Indirect emissions by transport and distribution downstream

The quantification methodology used for calculating emissions is based on the sold products activity data and emission factors from Ecoinvent database.

Fossil GHG emissions in this subcategory accounts for **9,072 tonnes of CO<sub>2eq</sub>**.



**3.3.** Subcategory Indirect emissions caused by employees commuting to work

The quantification methodology used for calculating emissions is based on activity data from commuting survey (2022) and emission factors from DEFRA database.

Fossil GHG emissions in this subcategory accounts for **180 tonnes of CO<sub>2eq</sub>**, but due to the materiality criteria it has been considered **non-significant**.




**3.4.** Subcategory Indirect emissions caused by business travel

The quantification methodology used for calculating emissions is based on activity data from site reports and emission factors from DEFRA database.

It accounts for **12 tonnes of CO<sub>2eq</sub>**, but due to the materiality criteria it has been considered **non-significant**.

**Category 4. Indirect GHG emissions from products used**

**4.1.** Subcategory Indirect emissions from purchased products 

The quantification methodology is based on the same basis as the upstream transport subcategory, with vegetable products and renewable raw materials being purchased products. Additionally, for auxiliary products, we have used emission factors from Ecoinvent database.


It accounts for **313,283 tonnes of CO<sub>2eq</sub>**.

**4.2.** Subcategory Indirect emissions from purchased energy 

As upstream emissions of purchased fuels and electricity and transmissions and distribution losses

The quantification methodology used for calculating emissions is based on diesel and electricity consumption activity data and emission factors from DEFRA database.


It accounts for **4,764 tonnes of CO<sub>2eq</sub>**.

**4.3.** Subcategory Indirect emissions from third-party disposal and treatment of waste generated in operations 

The quantification methodology used for calculating emissions is based on official declaration of managed wastes, internal register or/and water discharged to third party treatment plant as activity data and emission factors from DEFRA database.


It accounts for **199 tonnes of CO<sub>2eq</sub>**, but due to the materiality criteria it has been considered **non-significant**.

**Category 5. Indirect GHG emissions from use of products**

**5.1.** Subcategory Indirect emissions from the use of sold products 

The quantification methodology used for calculating emissions is based on sold energy products as activity data and national emissions inventory for emission factors. The methodology distinguishes between fossil and biogenic emissions, reflecting the fossil emissions of biofuel combustion. Additionally, calorific values have been updated using reputable sources.

Fossil GHG emissions in this subcategory account for **7,163 tonnes of CO<sub>2eq</sub>**. Biogenic GHG emissions in this subcategory account for **615,543 tonnes of CO<sub>2eq</sub>**.

**5.2.** Subcategory Indirect emissions from the processing of sold products 

The quantification methodology used for calculating emissions is based on pretreated vegetable oil sold products as activity data. For the processing of those vegetable oils, the emission factors used are the actual

processing ratios from calculated and verified ISO 14067 Moeve Energy Park La Rábida.

It accounts for **13,765 tonnes of CO<sub>2eq</sub>**.

**Category 6. Indirect GHG emissions from other sources**

**6.1.** Subcategory Indirect emissions from the upstream leased assets.



Involving emissions in BioOils headquarters in Madrid.

The quantification methodology used for calculating emissions is based on electricity invoices as activity data and national emissions inventory and electricity labeling for emission factors.

It accounts for **0 tonnes of CO<sub>2eq</sub>**, under market-based approach.

## 3.3. Exclusions and uncertainty

### Exclusions

In the 2025 exercise there are no exclusions in emissions reporting.

### Uncertainty

The uncertainty in emissions stems from inaccuracy in activity data, inconsistencies in the primary data used for different emission types, and variations in emission factors. The data for elementary flows is then qualitatively evaluated, considering criteria such as precision, integrity, representativeness, and coherence, among others. A scale from 0 to 100 is used for this evaluation.

### Where,

#### Grade A – Score 100 (Best available data)

**Activity data** classified as Grade A corresponds to **verified and highly reliable data**, including:

- Data collected under a **regulatory framework**, applicable to flows measured using **regulated metering devices**.
- Activity data derived from **invoices**, where billing is based on regulated or verified measurements.

**Emission factors** classified as Grade A include:

- Emission factors derived from **analyses conducted by accredited laboratories**.
- **Third-party-specific emission factors**, such as those provided by electricity retailers or suppliers, including factors derived from **Life Cycle Assessments (LCA)** or supplier-specific electricity mix emission factors.

This category represents the highest level of data quality and is considered to reflect the **best available data**.

#### Grade B – Score 75 (High-quality data)

**Activity data** classified as Grade B includes:

- Flow data not subject to a formal regulatory scheme but measured using **calibrated metering systems**.
- **Supplier-provided primary data**, where the service provider or supplier directly reports activity data based on operational records.

**Emission factors** classified as Grade B include:

- **Activity-specific emission factors** sourced from recognized and **official databases** (e.g. Defra, Ecoinvent, MITERD), which are regularly updated.
- Emission factors derived from **ISO 14067-compliant sources**.

This category represents **high-quality data** with a strong level of technical robustness, although not fully regulated.

### **Grade C – Score 50 (Medium-quality / estimated data)**

**Activity data** classified as Grade C corresponds to:

- **Estimated consumption data**, supported by partial records, technical assumptions or auxiliary documentation.

**Emission factors** classified as Grade C include:

- **Non-activity-specific emission factors** obtained from recognized databases (e.g. Defra, Ecoinvent, MITERD), even if officially updated and validated.
- Emission factors based on **annual or project-level data**, not subject to periodic analytical verification.
- Emission factors derived from **monetary input-output models** or expenditure-based approaches.

This category reflects a **reasonable but less precise level of data quality**, used when higher-quality data is not available.

### **Grade D – Score 25 (Low-quality data)**

**Activity data** classified as Grade D includes:

- **Estimated data without supporting documentation**, assumptions or verifiable evidence.

**Emission factors:**

- Not applicable (N/A), as emission factors of this quality level are not considered suitable for robust GHG quantification.

This category represents the **lowest data quality level** and is only used when no alternative data sources are available.

	Emission Source	Grade	Data	Category Grade
<b>Category 1. Direct emissions</b>	Combustion stationary sources, Flaring and process emissions	88	Invoices and specific EF	<b>87</b>
	Fleet Vehicles	75	Site monitoring and specific EF	
	Site Vehicles	88	Invoices and specific EF	
	Fugitive: Wastewater treatment facilities	88	Verified E-PRTR data and specific EF	
	Gas distribution fugitive emissions	88	Invoices and specific EF	
	Fugitive refrigerant	88	Supplier-provided primary data and specific EF	
<b>Category 2. Indirect emissions from imported energy</b>	Electricity (market approach)	100	Invoices and electricity labelling EF	<b>100</b>
	Steam net imported	0	N/A	
<b>Category 3. Indirect emissions from transportation</b>	Raw Materials	88	Invoices and specific EF	<b>87</b>
	Auxiliary Materials	75	Production site monitoring and specific EF	
	Finished Product	88	Invoices and specific EF	
	Downstream Transportation and Distribution	88	Invoices and specific EF	
	Business Travel	75	Supplier-provided primary data and specific EF	
	Employee Commuting	75	Site monitoring and specific EF	
<b>Category 4. Indirect emissions from products used by organization</b>	Natural gas (distribution)	88	Invoices and specific EF	<b>86</b>
	Steam (distribution)	0	N/A	
	Electricity (distribution)	88	Invoices and specific EF	
	Waste Generated in Operations	75	Verified annual waste declaration and no specific EF	
	Raw Materials	88	Invoices and specific EF	
	Auxiliary Materials	75	Production site monitoring and specific EF	
	Finished Product	88	Invoices and specific EF	
<b>Category 5. Indirect emissions associated with the use of products from the organization</b>	Use of sold products	88	Invoices and specific EF	<b>88</b>
	Processing of sold products	88	Invoices and specific Energy Park ISO14067 EF	
<b>Category 6. Indirect emissions from other sources</b>	Upstream Leased Assets	88	Invoices and specific EF	<b>88</b>

## 3.4. Base year

As this represents the first year of ISO 14064-1 certification for BioOils Huelva, 2025 has been defined as the base year for the carbon footprint. Emissions quantified for the reporting period 2025 therefore constitute the reference baseline against which future performance, emission trends and potential GHG reductions will be assessed. No recalculations of the base year are applicable at this stage, in accordance with the requirements of ISO 14064-1.

# 04

## Reduction and removal



## 04. Reduction and removal

### 4.1 Emissions reduction action

In 2025, potential GHG emission reduction measures are currently being assessed; however, no specific actions have been formally defined or implemented at this stage, as these measures remain under internal evaluation and discussion.

Beyond the implementation of specific reduction measures, the core activity of BioOils Huelva, the production and commercialization of biofuels— inherently contributes to the decarbonization of road transport by enabling the substitution of fossil fuels with renewable alternatives that deliver lower life-cycle GHG emissions.

### 4.2 Emissions removal actions

During 2025, no removal actions have been carried out.



**moeve**