°CICERO Shades of Green

Envipco Holding NV
Green Finance Second Opinion

November 2, 2022

Executive Summary

Envipco is a circular economy services and equipment manufacturing company based in the Netherlands and operating in Europe, North America, and Australia. It facilitates plastic, glass, and aluminium beverage container recycling through reverse vending machine (RVM) manufacturing, sales and leasing, and maintenance support and accounting services.

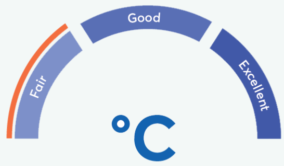
Under its green finance framework, Envipco seeks to finance or refinance reverse vending machine production and sale, R&D, and market development. OPEX as well as CAPEX will be eligible, including relevant staff salaries for market development and R&D initiatives as well as material procurement for RVM manufacturing. The issuer informs us that fossil fuel-based energy purchasing is excluded.

We rate the framework **CICERO Dark Green** and give it a governance score of **Fair**. Envipco's RVMs are well-aligned with circular economy solutions and a low-carbon future, leading to a Dark Green shading. Allocation among subcategories is to be determined depending on market and policy developments. While Envipco's climate, energy, and transportation targets and disclosures could be strengthened, its selection processes include environmental competence on deposit return systems and its impact reporting will include transparency on calculation methodologies.

SHADES OF GREEN

°CICERO Dark Green

GOVERNANCE ASSESSMENT



GREEN BOND AND LOAN PRINCIPLES

Based on this review, this framework is found aligned with the principles.

Strengths

By improving material recovery for recycling and reuse, Envipco's RVMs are an important contribution to the climate transition, a more circular economy, and improved waste management. Envipco's plans to expand RVMs to additional markets and products has the potential to create positive impacts beyond the company itself. This includes both avoiding climate emissions from raw material extraction and end of life as well as preventing the harmful environmental, biodiversity, and human health impacts of plastic pollution and other waste.

Pitfalls

Envipco's business model, sustainability strategy, green finance framework, and market development activities are oriented towards improved waste management rather than waste prevention. While waste sorting that facilitates recycling is positive, preventative measures should be prioritized first under a waste management hierarchy. Licensing effects are a risk, in that consumers may feel more comfortable initially generating waste knowing it will later be recycled rather than seeking waste-free alternatives. We encourage Envipco to incorporate waste prevention into its outreach efforts whenever possible.

Although Envipco's products and services help avoid climate emissions beyond its value chain, its Scopes 1, 2, and 3 emissions require additional mitigation measures. Fossil fuel-based energy is currently used during RVM manufacturing and operation, ground transportation of service technicians and collected materials, and in material recycling processes. Upstream emissions are also generated during the production of RVM components, such as steel, aluminium, and electronics. We encourage Envipco to increase the ambition and comprehensiveness of its climate targets and strengthen its value chain engagement efforts on climate issues.

While recycling and reusing plastics is positive compared to using new materials, incineration, or landfilling, plastics are derived from fossil fuel feedstocks. Even if plastics are collected by Envipco and recycled by its partners, they typically require additions of new plastic materials during processing, maintaining links to fossil fuels. Where feasible, we encourage Envipco to support alternatives to plastic.

Envipco has not yet fully integrated physical climate risk, adaptation, and resilience into its processes and strategies. While Envipco informs us that it believes these risks are not material the nearer term and notes forthcoming regulations may require additional disclosures, it has not yet undertaken a robust physical climate risk assessment or scenario analyses. Physical climate risk assessment processes, risk management measures, targets, and reporting on this topic could be strengthened.

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1 Envipco's environmental management and green finance framework

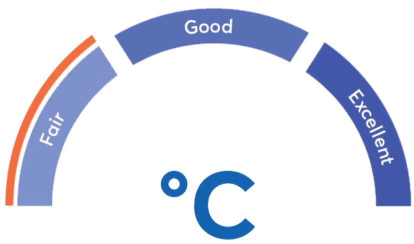
Company description

Envipco Holding NV ("Envipco") is a circular economy services and equipment manufacturing company headquartered in the Netherlands. Founded in 1982, its business activities fall under four main categories related to beverage container recycling:

- The design, manufacturing, and sale or leasing of reverse vending machines (RVMs) that enable automated used plastic, aluminium, and glass beverage container collection.
- RVM technical support, maintenance, and material collection accounting services.
- Provision of deposit, handling fees, scrap reconciliations, commodity brokerage, clearing house functions, and accounting.
- In the Northeastern United States, collected materials handling services for distribution to recycling partners.

Envipco's 8,000 RVMs globally process around 2 billion beverage containers each year. It reported EUR 38.4 million in revenues in 2021. North American operations accounted for around 80% of those revenues compared to 19% from Europe, and 70% were from its program services including RVM leasing and material pick up while 30% were from machine and part sales. Envipco has around 215 employees and is listed on the Amsterdam and Oslo stock exchanges. It hopes to grow by a factor of four to five over the next three to four years.

Governance assessment



Envipco is in the early stages of formalising its sustainability governance and procedures. It has relevant climate, energy, and transportation targets, but these are largely normalized to company revenues, do not cover Scope 3 emissions, and do not ensure alignment with a net zero by 2050 scenario. While Envipco provides some public sustainability disclosures, it has not yet fully integrated this transparency on baselines, performance, and strategies into its annual reporting. Its supplier engagement strategy on climate and environmental topics as well as its physical climate risk and resilience approach could also be strengthened. Envipco informs us it plans to undertake many of these steps in the near term to comply with the EU Corporate Sustainability Reporting Directive (CSRD).

Envipco's selection process includes environmental competence with a focus on industry experience in environmental management and deposit return systems, and decisions are taken on a consensus basis. Screening is undertaken for alignment with framework criteria, but not additional environmental or social factors.

The issuer has committed to annual public reporting on allocation and impact. Impact reporting will include transparency on calculation methodologies and may include relevant indicators, though these have not been fully confirmed. Indicators related to aspects that are more difficult to measure, such as the impacts of R&D or market development investments, are not explicitly included. Allocation but not impact reporting will be reviewed by a third party.

The overall assessment of Envipco's governance structure and processes gives it a rating of **Fair.**

Sector risk exposure

Physical climate risks. Increasingly frequent extreme weather events, such as storms, flooding, or droughts, may impact Envipco's facilities and operations. Transportation associated with machine installation and servicing as well as material collection and distribution by Envipco or its partners may also be disrupted.

Transition risks. Due to the profound changes needed to limit global warming to well-below 2ºC, transition risk affects all sectors. Envipco is exposed to transition risks from stricter climate policies that may increase the costs of waste management processes and collection and distribution transportation that rely on fossil fuels. Whether through policy or consumer behaviour changes, a greater emphasis on waste prevention, rather than recycling and recovery, to avoid emissions could also impact demand for Envipco's products and services. Changes in regulations or consumer demand may also decrease use of plastics in particular to avoid links to fossil fuel feedstocks and reduce harmful environmental and wildlife impacts from plastic pollution.

Environmental risks. While recycling and material recovery has many benefits, these processes can also create local air and water pollution and associated community health risks.

Environmental strategies and policies

Envipco does not currently report on its climate emissions footprint or energy consumption. It informs us that emissions are generated during RVM assembly, transport, and operation, as well as in upstream component manufacturing and downstream collected material recycling. As a publicly listed company, Envipco plans to begin emissions accounting and disclosures over the course of 2023-2024 to comply with the EU Corporate Sustainability Reporting Directive (CSRD).

In 2022, Envipco established five climate, energy, and transportation targets:

- Reduce Scope 1 and 2 climate emissions (tonnes CO_2e) per company revenues by 10% per year relative to a 2021 baseline.
- Increase climate emissions avoidance from use of products and services (tonnes CO_2e) per company revenues by three times relative to a 2021 baseline by 2025. Envipco estimates it currently facilitates 170,000 tonnes avoided CO_2e each year. Its calculation methodology is based on tracking collected materials and avoided emissions factors based on industry data.
- Reduce energy consumption (kWh) per company revenues 5% per year relative to a 2021 baseline.
- Achieve at least 25% renewable energy procurement by 2024.
- Reduce direct energy consumption in transport (kWh) per company revenues by 5% per year compared to a 2021 baseline.

Target baselines and implementation measures will be established and reported as part of EU CSRD compliance but are not currently available. Envipco informs us that it does not plan to set absolute climate emissions mitigation targets in the near term due to its plans for rapid growth over the coming years. Other environmental targets include reducing packaging waste and office paper use as well as achieving ISO 14001 certification at all operational sites by 2024.

According to the issuer, it designs its products to minimize power usage during operation and idle mode and to facilitate component reusability or recyclability at end of life. In its own operations, it implements energy efficiency measures, raises employee awareness on sustainability topics, and works to minimize waste and water consumption. In terms of transportation impacts, lower emissions vehicles are being evaluated as part of fleet renewal and preventative maintenance and remote diagnostics and services are prioritized over on-call maintenance.

Envipco informs us it works with its suppliers on ESG topics, primarily in the initial screening phase. By 2023, it aims to clarify environmental, social, and governance (ESG) criteria and complete annual assessments and action plans for all its vendors to ensure CSRD compliance. This may include reducing embodied emissions of machine components such as metals and electronics and ensuring lower emissions transportation options are used.

Sustainability responsibilities and activities are integrated across business units and overseen by the CEO and executive management team, which provides regular updates to the Board of Directors. There is not a specific head of sustainability at this time. Relevant policies include a Code of Conduct for employees and board members covering safety, ethics, non-discrimination, and human rights as well as a Group Environmental, Social and Governance Policy outlining sustainability targets and strategies.

Company risk reviews incorporate climate, environmental, and energy risks. Envipco's 2021 company risk assessment process concluded that climate-related risks do not have material impacts on accounts and disclosures in financial statements. It is not currently undertaking climate scenario analysis or any adaptation or resilience measures to manage physical climate risks. As part of EU CSRD compliance, Envipco will further define targets and strategies related to potential climate risks and incorporate Taskforce on Climate-Related Financial Disclosures (TCFD) guidance into its annual reporting.

Envipco will provide public sustainability disclosures such as progress towards targets beginning with its 2022 Annual Report. Its reporting will be informed by standards including the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), UN Sustainable Development Goals (SDGs), and Euronext ESG Reporting Guide 2022.

Green finance framework

Based on this review, this framework is found to be aligned with the Green Bond Principles and Green Loan Principles. For details on the issuer's framework, please refer to the green finance framework dated 2022.

Use of proceeds

For a description of the framework's use of proceeds criteria, and an assessment of the categories' environmental impacts and risks, please refer to section 2.

Selection

Eligible projects under the framework will be evaluated, selected, and monitored by Envipco's Green Finance Committee (GFC), which includes the CTO, CEO, CFO, and Vice President of Manufacturing. These members have experience on environmental management and deposit return systems and will make decisions on a consensus basis. The GFC will also make determinations on the inclusion of new asset categories.

Envipco will evaluate potential projects to ensure alignment with the environmental and sustainability objectives of the framework, including emissions avoidance, on a best-effort basis.

Management of proceeds

Green finance proceeds are tracked by the issuer through a register of green eligible investments managed by the CFO. Envipco will work to ensure an amount equivalent to the net proceeds raised under the framework are allocated to eligible projects. Unallocated proceeds will be placed in an escrow account, Envipco's ordinary bank account, or short-term money markets.

Reporting

Envipco's financial planning and analysis team will develop annual allocation and impact reporting, which will be published on the company website as long as there are green finance instruments outstanding. Allocation reporting will include a summary of all projects financed, an outstanding green finance instrument breakdown, and share of any unallocated proceeds. Allocation reporting will be verified by a third party and these reviews will also be published on the company website annually.

Impact reporting will depend on data availability and will be undertaken using an aggregated approach. Calculations will be made on a best-intention basis. According to the issuer, it will provide transparency on methodologies and assumptions. Impact reporting will not be verified by a third party. Envipco has not committed to specific indicators, but these may include:

- Number of sold and leased machines
- Number of cans, PET[1] bottles, and glass bottles recycled
- Tons of aluminium, PET, and glass recycled
- CO_2 emissions avoided through aluminium, PET, and glass recycling

[1] Polyethylene terephthalate, a type of plastic.

2 Assessment of Envipco's green finance framework

The eligible projects under Envipco's green finance framework are shaded based on their environmental impacts and risks, based on the "Shades of Green" methodology.

Shading of eligible projects under Envipco's green finance framework

- Envipco will use framework proceeds to finance or refinance eligible investments and expenditures, in whole or in part. According to the issuer, OPEX as well as CAPEX will be eligible, including relevant staff salaries for market development and R&D initiatives as well as material procurement for RVM manufacturing.
- The share of financing vs. refinancing and lookback period is to be determined. Allocation among project subcategories will depend on deposit return system policy developments in different markets.
- Explicit exclusions include fossil fuel energy production, storage, or transportation, nuclear generation, weapons and defence industries, potentially harmful resource extraction, gambling, tobacco, or other drugs.

Category	Eligible project types	Green Shading and considerations
Pollution prevention and control	Working capital investments related to the production and sale (direct or leasing) of Reverse Vending Machines (RVMs) to customers. Financing R&D investments related to continuously improving and extending Envipco's RVM technology platform. Market development investments and general corporate expenses related to selling or supporting the sale of RVMs worldwide.	**Dark Green** ✓ Circular solutions involving improved plastic, aluminium, and glass recycling are an important part of the low carbon future. By reducing upstream demand for raw material extraction through high levels of material recovery as well as preventing downstream waste from going to directly to landfill or incineration, RVM solutions have the potential to limit climate emissions, local pollution, and harmful biodiversity impacts. ✓ Beyond climate emissions, these systems that support collecting and recycling plastic bottles have the potential to alleviate the significant harmful impacts of plastic pollution on wildlife and ecosystems as well as human health. ✓ At the same time, be aware that recycling undertaken by Envipco's downstream partners entails energy consumption, emissions, and discharges to the environment that require mitigation strategies. Additionally, plastic is a material derived from fossil fuel feedstocks that can only be recycled a limited number of times. ✓ Note that waste prevention should be prioritized in the waste hierarchy, followed by reuse and then recycling. Consider potential licensing effects

	that could increase beverage consumers' comfort with generating waste rather than pursuing potential waste prevention options knowing that bottles and cans will then be recycled. ✓ Be aware that fossil fuels may be used across RVM value chains and operations, creating associated climate impacts from Envipco and its partners. According to the issuer, financing for fossil fuels used in RVM manufacturing or transportation is excluded. Emissions may be generated from energy used during RVM manufacturing (from natural gas and non-renewable electricity) and operation (non-renewable electricity) as well as during transportation. Fossil fuels may also be used by Envipco's suppliers during RVM component manufacturing (e.g., steel, aluminium, electronics) and downstream partners during transportation and processing of materials after collection. Envipco has climate, energy and transportation goals that will address some of these concerns if achieved. ✓ The issuer informs us that R&D investments will focus on extending the range of products RVMs can accept and reducing energy consumption, both of which are positive from an environmental and climate perspective. ✓ According to the issuer, market development investments are focused on engaging the beverage industry producing the containers that might become part of deposit return systems as well as the retailers who may house RVMs. Envipco notes that it provides those groups with practical advice on understanding regulations and developing recycling systems. Envipco does not engage in direct political lobbying.

Table 1. Eligible project categories

3 Terms and methodology

This note provides CICERO Shades of Green's second opinion of the client's framework dated 2022**.** This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Shades of Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

'Shades of Green' methodology

CICERO Shades of Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

Shading	Examples
Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	Solar power plants
Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	Energy efficient buildings
Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	Hybrid road vehicles

The "Shades of Green" methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised, including potential macro-level impacts of investment projects.

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Shades of Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

Assessment of alignment with Green Bond Principles

CICERO Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed. The selection process is a key governance factor to consider in CICERO Shads of Green's assessment. CICERO Shades of Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Shades of Green places on the selection process. CICERO Shades of Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	Envipco Holding NV Green Finance Framework 2022	
2	Group Environmental, Social and Governance Policy	Envipco's ESG policy dated 2022
3	Envipco Holding NV Annual Report 2021	Envipco's most recent annual report
4	Code of Conduct and Business Ethics	Version dated 1 April 2021
5	Corporate Governance	Dated 2019
6	Company Presentation 2022	Overview of Envipco

Appendix 2:
About CICERO Shades of Green

CICERO Shades of Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Shades of Green.

CICERO Shades of Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Shades of Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Shades of Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University, the International Institute for Sustainable Development (IISD) and the School for Environment and Sustainability (SEAS) at the University of Michigan.

Environmental Finance
Bond Awards
2022
Winner
External assessment provider of the year

- **2021 Largest External Reviewer,** Climate Bonds Initiative Awards
- **2020 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2020 Largest External Review Provider In Number Of Deals,** Climate Bonds Initiative Awards
- **2019 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2019 Largest Green Bond SPO Provider,** Climate Bonds Initiative Awards
- **2018 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2018 Largest External Reviewer,** Climate Bonds Initiative Awards
- **2017 Best External Assessment Provider,** Environmental Finance Green Bond Awards
- **2016 Most Second Opinions,** Climate Bonds Initiative Awards