Arise
Green Financing Second Opinion

February 15, 2022

Arise is a Swedish renewable energy company that develops, constructs, sells, and manages projects that produce renewable electricity mostly from wind farms. Arise has 139 MW of own wind power operations, 1,400 of assets under management (including own operations and 473 MW under construction) in Sweden, Norway and Finland. Additionally, Arise has more than 2,600 MW in its current project pipeline across the Nordics and the United Kingdom.

More than 90% of the proceeds are expected to be attributed to the development and construction of renewable energy production from wind and solar energy in the Nordics, United Kingdom, and Poland which are key in a low-carbon transition. Proceeds can also be attributed to operational costs relating to the management of farms owned or managed by Arise. The issuer informed us that it aims to increase the share of proceeds attributed to energy storage solutions in the future. Most of the proceeds (between 75-100%) are expected to be attributed to the financing of new projects and assets, with the remainder refinancing existing projects.

Arise would benefit from reporting on emissions, as well as from setting specific climate and environmental targets (including for scope 1 and 2 emissions). Arise has relevant environmental requirements for contractors and suppliers, for example contractors must have an ISO-compliant environmental management system and provide a plan of measures to reduce emissions (e.g., by reducing concrete use). Arise demonstrates a good approach to biodiversity considerations – including the use of environmental impact assessments – and shows a willingness to engage early and compromise with local opposition. While wind and solar power projects are key in a low-carbon transition, there are risks associated with the end-of-life treatment of wind and solar materials, while seeking to reduce emissions associated with materials is best practice. Arise currently does not have strong policies on those issues. The issuer foresees limited exposure of physical climate risk and has no policies in place to address these, nor uses climate scenarios in project development. CICERO Green believes that science shows that assets across all sectors and jurisdictions are at risk of physical climate change, and therefore we encourage Arise to increase its considerations in this respect. The governance of the company could also be strengthened by having an external review on the impact reporting.

Based on the overall assessment of the eligible green assets under this framework and governance and transparency considerations, Arise's green finance framework receives a **CICERO Dark Green** shading and a governance score of **Good**. The issuer could improve the framework by undertaking climate risk and life cycle assessments for all projects.

SHADES OF GREEN

Based on our review, we rate the Arise's green financing framework **CICERO Dark Green.**

Included in the overall shading is an assessment of the governance structure of the green financing framework. CICERO Shades of Green finds the governance procedures in Arise's framework to be **Good**.

GREEN BOND AND LOAN PRINCIPLES

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

°CICERO Shades of Green

Contents

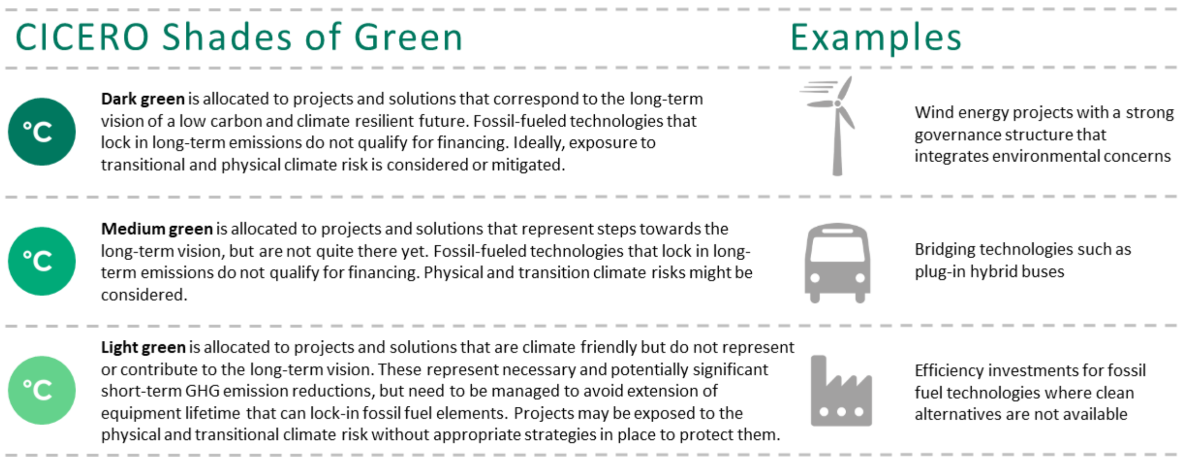
1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated **February 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 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.

Expressing concerns with 'Shades of Green'

CICERO 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:



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 Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green financing 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.

2 Brief description of Arise's green financing framework and related policies

Arise is a Swedish renewable energy company that was founded in 2007 and is listed on Nasdaq Stockholm. Arise develops, constructs, sells, and manages projects that produce renewable electricity from wind power. Arise also produces its own renewable electricity. Arise has 139 MW of own wind power operations, 1,400 of assets under management (including own operations and 473 MW under construction) in Sweden, Norway and Finland. Additionally, Arise has more than 2,600 MW in its current project pipeline across the Nordics and the United Kingdom.

Arise's clients are financial investors looking to deploy capital in renewable generation capacity, and so it does not directly provide electricity to industries. All wind farms are connected to the grid according to the issuer.

Environmental Strategies and Policies

The company has the overall goal to produce as much renewable energy as possible with the least possible environmental impact. No metrics are however given in respect of increased energy production. The issuer reports the emissions related to its own wind farms, however, the company is not reporting on scope 1, 2 and 3 emissions. Further, it is mentioned in the company's sustainability report[1] that Arise compensates its scope 1 emissions through a Gold Standard certified project. The issuer has also informed us that the offices' electricity is powered by renewable electricity, and that the company car fleet has been expanded with four electric cars and one hybrid car during the year 2020.

The company aims to increase the durability of its projects, by extending the economic lifetime of turbines from 25 to around 30 years at its wholly owned wind farms. Furthermore, the issuer mentioned that it strives to optimize the use of raw materials such as by using local quarries and gravel pits in the project area for rock crushing. The sustainability report also highlights that some foundations related to the wind farms are anchored in bedrock, leading to a reduction in concrete used. During the construction of the farms, existing premises in remote areas that are no longer occupied by tenants could be used as office spaces, and most of the materials used for roads construction and crane pads are taken from the area. When a wind farm reaches end of life, Arise informed us that it will recycle any recyclable material, such as steel and copper, and that it will restore the project area.

Arise has set a code of conduct for its suppliers, which requires them to comply with all applicable environmental laws and regulations. Further, before establishing a new wind farm, Arise sets requirements for the contractors, such as a quality management system that complies with ISO standards; a person responsible for environmental matters; an environmental plan for the management of excavated material, fill and shipments to be approved by Arise before beginning work at the site, as well as measures for reducing CO_2 emissions. Also, Arise requires suppliers and contractors to have efficient waste handling, on which they must report. Based on its sustainability report, Arise has chosen to work only with large, reputable and well-established companies. However, Arise does not assess life cycle emissions related to its projects, such as the emissions from the production of materials delivered by its suppliers.

The issuer informed us that projects require necessary environmental permits prior to development, and that, if granted, the permits always include certain conditions which must be met by the owner of renewable energy project. The environmental permits are governing the location of the wind turbines, flickering shadows, and noise,

[1] 202104085543-1.pdf (arise.se)

as well as the impact on wildlife, natural values, the cultural environment, and archaeology. Deforestation can be involved for roads construction, crane pads and turbine positions, however, environmental impact assessments are carried out by the relevant authorities prior to the development of the project, according to the issuer. The project development process also includes dialogue and discussion forums with governmental bodies, nearby residents, and other relevant local stakeholders to manage potential controversies and resistance.

Arise does not conduct or require physical climate risk assessments. The issuer mentioned that it does not plan to report in line with the TCFD, and it does not carry climate scenario analysis (with the exception of a flood risk analysis at its proposed solar farm in England). Further, the issuer is not reporting in line with GRI/Global Compact standards.

Use of proceeds

An amount equal to the net proceeds from green finance instruments issued under the green financing framework will be used to finance a portfolio of assets and projects, in whole or in part, that promote the transition towards low carbon and climate-resilient development.

Only the assets and projects that comply with the criteria stated in the table 1 below are eligible to be financed by green finance instruments. More than 90% of the proceeds are expected to be attributed to the development and construction of renewable energy production, however the issuer informed that it aims to increase the share of proceeds attributed to energy storage solutions in the future. Most of the proceeds (between 75-100%) are expected to be attributed to the financing of new projects and assets (those taken into operation less than 12 months prior to the issuance of a green finance instrument), and the remaining to the refinancing of existing projects. For operating expenditures, the issuer will use a maximum look-back period of three years.

Green finance instruments will not be used to finance investments linked to fossil energy generation, nuclear energy generation, research and/or development within weapons and defense, potentially environmentally negative resource extraction, gambling, or tobacco.

Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO 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 Green places on the governance process.

Arise has established a green finance committee which is responsible for the evaluation and selection process. The green finance committee consists of the CEO, CFO and COO. Arise informed that it is setting up a sustainability board which will be consulted by the green finance committee. The group will meet at least twice yearly, and all decisions will be made in consensus.

The green finance committee will identify eligible assets/projects to be financed under the framework. The green finance committee will keep a register of all green projects, and all decisions made by the committee will be documented and filed. The green finance committee holds the right to exclude any green project already funded by green finance instruments.

Ahead of the construction of new projects, a consultation meeting is held to give the residents affected by the project an opportunity to present their views. Furthermore, Arise generally tries to avoid projects with strong local opposition, however, the issuer informed that it faces some opposition in most of its projects. In order to increase local acceptance, Arise interacts with local stakeholders, as part of the development process, and a portion of the project's revenue from some wind farms is directed towards funds to support local society projects for the purpose of promoting the development of the local community.

Management of proceeds

CICERO Green finds the management of proceeds of Arise to be in accordance with the Green Bond/ Green Loan Principles.

An amount equal to the net proceeds from issued green finance instruments will be earmarked for financing and refinancing of green projects. Arise aims to ensure that the aggregate amount of potential projects and assets that may be approved by the green finance committee in the future always exceeds the aggregate net proceeds of all outstanding green instruments issued under the framework. If a green project already funded by green finance instruments is sold, or for other reasons loses its eligibility in line with the criteria in the framework, such funds will become unallocated until allocated to a qualifying green project.

Net proceeds from green finance instruments awaiting allocation to green projects will be managed according to Arise's overall liquidity management policy and may be invested in short term money market instruments, such as short-term interest-bearing instruments, or held as cash. The issuer mentioned that the current project portfolio caters for significant allocation of net proceeds, although exact timing is uncertain. Net proceeds may not at any time be invested in fossil fuel related assets according to the issuer.

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

For as long Arise has green finance instruments in the debt capital market outstanding, Arise's green finance committee will make a report available on its website and update it on a yearly basis. The report will include allocation reporting and impact reporting. The impacts reported will be measured when possible, or otherwise estimated. All methods and assumptions forming the basis of any calculation will be disclosed, including transparency on the grid factor.

The allocation report will include: nominal amount of green finance instruments outstanding, divided into green bonds and green loans; the allocation of the proceeds of issued green finance instruments to a portfolio of eligible projects and assets, including a breakdown of the allocation to specific use of proceeds categories; examples of assets and projects financed by means of green instruments; if any, the net proceeds awaiting disbursement to green projects.

The aggregated impact report based on a portfolio basis will include: total renewable energy generation and storage capacity of wind and solar projects financed by green finance instruments; expected annual renewable energy generation for wind and solar projects financed by green finance instruments; annual renewable energy generated by commissioned wind and solar power plants financed by green finance instruments.

An independent auditor appointed by Arise will, on an annual basis, provide a limited assurance report confirming that an amount equal to the net proceeds from issued green finance instruments have been allocated to green projects. However, the impact reporting will not be externally verified.

3 Assessment of Arise's green financing framework and policies

The framework and procedures for Arise's green financing investments are assessed and their strengths and weaknesses are discussed in this section. 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 in this section to note areas where Arise should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in Arise's green financing framework, we rate the framework **CICERO Dark Green.**

Eligible projects under the Arise's green financing framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

Category	Eligible project types	Green Shading and some concerns
Renewable Energy	Proceeds may be allocated to the following: i. Development and construction of renewable energy production, i.e., wind and solar power production and ancillary storage solutions. ii. Operational costs relating to the management of renewable energy production of farms wholly or partially owned by Arise. iii. Operational costs relating to the management of renewable energy production of farms owned by an entity other than Arise.	**Dark Green** ✓ More than 90% of the proceeds are expected to be attributed to the development and construction of renewable energy production from wind and solar. ✓ Wind and solar power are key in a low-carbon transition. ✓ Most of the projects are located in the Nordics, United Kingdom and Poland, according to the issuer. ✓ Current wind farm project portfolio only includes onshore, but offshore could be a long-term option, according to the issuer. Wind projects can have adverse local environmental impacts and impacts on local communities. However, EIAs are carried out by the relevant authorities prior to the development of the project, and the issuer holds consultation meetings with the local population before project initialization. ✓ The solar power production is related to solar farms only. No rooftop projects are considered. ✓ Investors should note there are no life cycle emissions threshold, and no express requirements on materials, recyclability, or durability.

	✓ The issuer informed us that operating costs are project related, and relate to personnel costs (e.g., wind engineers, environmental specialists), as well as costs such as service and maintenance, and land lease fees. The operating costs of own production and those managed for third party owners are similar according to the issuer. ✓ The issuer informed that the construction of new on-site roads can be included under the framework, as well as fossil fuel maintenance machinery, and transport of, e.g., wind turbines or solar panels, which can be energy and emissions intensive. Fossil fuel construction equipment is excluded from the framework, however, project contractors will most certainly use such equipment on sites, according to the issuer. ✓ For the ancillary storage solutions, the issuer informed us that it plans to install batteries in co-location with solar farms. Energy storage solutions can help mitigate the volatility of solar systems, including against climate risks e.g., extreme changes in weather. However, battery storage requires high volumes of environmentally sensitive materials. The supply chains for these materials need to be appropriately managed and LCA need to be conducted to avoid creating new adverse social and environmental impacts.

Table 1. Eligible project categories

Background

Global energy demand increased by 4.6% in 2021 - more than offsetting a 4% contraction in 2020 - and pushing demand 0.5% above 2019 levels. In 2021, demand for renewables increased across all key sectors, while renewables are set to provide more than half of the increase in global electricity supply[2]. In 2019, global renewable electricity generation grew 7% and reached a quarter of global power output, due to the continued growth of solar PV and wind technologies accounting for 65% of this increase. Despite this increase in renewable energy generation, renewable power still needs to expand significantly to meet the IEA's net zero by 2050 scenario, which aims for almost 90% of electricity generation to come from renewable sources, where wind power must increase 11-fold between now and 2050[3].

In 2020, the total electricity generation in Sweden represents 160 898 GWh, from which 45% comes from hydro power, 17% from wind power, 0,65% from solar power, and 29% from nuclear power[4]. Sweden has adopted the target of generating all electricity from renewable sources by 2040[5]. In the same period, power demand is expected to grow by 19%. More than half of this increase is driven by the electrification of transport. A smaller share of this increase is driven by new data centers. The increase in renewable energy generation is expected be mostly met by wind power, which is expected to increase by a factor of almost 3.8.

[2] Global Energy Review 2021 – Analysis - IEA
[3] Net Zero by 2050 - A Roadmap for the Global Energy Sector (windows.net)
[4] Electricity supply and use 2001–2020 (GWh) (scb.se)
[5] Energy Policies of IEA Countries: Sweden 2019 Review – Analysis - IEA

Energy storage is a key enabling technology for rolling out renewable energy further, as can help mitigate the volatility of solar systems, including against climate risks e.g., extreme changes in weather. In 2019, 2.9 GW of storage capacity were added to electricity systems globally – however this was almost 30% less than in 2018. The roll-out of storage systems is fragile and dependent on policy support.

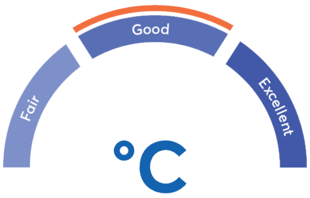
Governance Assessment

Four aspects are studied when assessing Arise's governance procedures: 1) the policies and goals of relevance to the green financing framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: 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.

Arise would benefit from having more detailed emissions reporting, and setting specific climate and environmental targets, such as express targets for reductions in scope 1 and 2 emissions. Arise has numerous and relevant environmental requirements for contractors and suppliers. However, Arise could benefit from assessing life cycle emissions, and from making environmental considerations and emissions a bigger factor in supplier selection. Arise's demonstrates a good approach to biodiversity considerations – including the use of environmental impact assessments. Physical climate risk considerations are currently not part of its strategies, nor the use of climate scenarios.

Arise has a green finance committee, which assesses the environmental impacts of the projects, screens against controversies, and has a clear selection process. Environmental competence is included in the process, and decisions are taken by consensus. The project development process also includes dialogue and discussion forums with governmental bodies, nearby residents, and other relevant local stakeholders to manage potential controversies and resistance, which shows a willingness to engage early and compromise with local opposition.

The allocation and impact reporting will be available on the company's website, however the issuer should report CAPEX and OPEX split, and provide examples of operational expenditure. An external review for financial data will be provided, but not for the impact reporting. The methods and assumptions forming the basis of any calculation will be disclosed, including transparency on the grid factor.



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

Strengths

It is a clear strength that Arise focuses exclusively on low-carbon solutions. Electricity generated from solar PV and wind farms should increase the share of renewable energy in the European grid and is an important contribution to EU's renewable energy targets. Production of electricity from solar PV and investments in wind farm companies are considered to contribute substantially to climate change mitigation and represent a key in a low-carbon transition.

It is a strength that Arise focuses on increasing the durability of its projects by extending the economic lifetime of turbines from 25 to around 30 years at its wholly owned wind farms. This extended lifetime allows the production of more renewable energy from the same facility, the reduction of material waste as well as the reduction of emissions related to the construction/exploration of new sites.

It a strength in the development process that Arise includes dialogue and discussion forums with governmental bodies, nearby residents, and other relevant local stakeholders to manage potential controversies and resistance. These discussions and dialogues in which Arise are involved with relevant stakeholders, including indigenous groups, go beyond what is required in the environmental permits process required to projects development according to Arise, and show the willingness of Arise to compromise with communities affected by its projects.

Weaknesses

We find no material weaknesses in Arise's green finance framework.

Pitfalls

While solar and wind power are generally low-carbon and are considered to have a very positive climate mitigation impact, there are nevertheless emissions associated with the construction and the demolition process. Also, both solar PV cells and batteries can be energy-intensive to produce, transport and install/remove. CICERO Green encourages Arise to conduct life cycle assessments of its projects, which should extend to the recycling, re-use or disposal phase. Supply chain considerations should extend, where feasible, to social risks and local environmental impacts where raw materials are sourced. Life cycle assessments will provide valuable information on the environmental and climate impacts of the projects and point to suppliers that can lead to a reduction in emissions.

Arise's governance approach of the framework includes a few pitfalls. Arise has the overall goal to produce as much renewable energy as possible with the least possible environmental impact, however the issuer would beneficiate from having more specific environmental targets and goals at the company level. The issuer is compensating its emissions, but is not reporting on scope 1, 2, and 3 emissions, which could represent a challenge for the company. The governance of the company could also be strengthened by having an external review on the impact reporting for better transparency.

Arise could demonstrate greater consideration and preparedness with regards to the potential physical climate risks that the new solar PV farms and wind farms might be facing in the future. Arise should introduce a more systematic approach to climate risk assessments, clearly implement adaptation measures where needed, as well as discuss adaptation solutions with suppliers potentially exposed to climate risk. Considering the physical climate risks could improve the durability and sustainability of Arise's projects. CICERO Green further encourages Arise to implement the TCFD recommendations and climate scenario analysis for better assessment of physical climate risks, such as flooding, wildfire, landslide, erosion, etc.

Notwithstanding Arise's approach to engaging with potential local oppsition, specifically in the Nordic context risks remain around the interference of wind farms with indigenous rights, in particular with regards to reindeer herding: in 2021, the Norwegian Supreme Court stripped two Norwegian wind farms of their licenses given the interference with the rights of the indigenous Sami people[6], with similar decisions possible in other Nordic jurisdictions.

[6] Naturvernorganisasjoner og samiske interesser har gått sammen for å stanse Øyfjellet Wind i Vefsen – NRK Nordland

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	Arise Green Financing Framework	Dated February 2022
2	Arbetsmiljörutiner för arbete i vindkraftparker	Work environment routines for work on wind farms
3	Arbetsmiljöplan	Work environment plan dated 24.03.2021
4	HSE schematic	Health and safety process
5	Project example EHS plan 2021	Environmental, health and safety plan dated 2021
6	Arbetsmiljöpolicy Arise 20181108	Working environment policy dated 08.11.2018
7	Arise Code of Conduct suppliers	Dated June 2018
8	Jämställdhetspolicy Arise 20181108	Gender equality policy dated 08.11.2018
9	Miljöpolicy	Environmental policy dated 16.09.2014

10	Personal policy Arise 20181108	Dated 08.11.2018
11	Uppförandekod Arise 20181108	Code of conduct dated 08.11.2018

Appendix 2:
About CICERO Shades of Green

CICERO 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 Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO 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 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.