

# Solör Bioenergi AB Green Finance Second Opinion

October 1, 2020

Solör Bioenergi Holding AB is a provider of renewable energy and district heating based on biomass forest waste. Its main country of operation is Sweden, but it also has plants in Norway and Poland. In Poland, its biomass is replacing coal and thus contributing to making that country's energy supply more sustainable.

Solör's bioenergy production is based on a sustainable supply of locally produced tree thinnings, cuttings, and other wood waste – not on whole logs. This is important from a sustainability perspective, due to the potential environmental footprint and uncertain net carbon benefits of forest plantations for industrial pellet production. The company's biomass feed generally comes from local sources (<200 km distance) and no supplies are shipped from overseas.

The green financing framework covers bonds and loans and will support investments along the whole value chain through the financing of new assets as well as refinancing. Investments include biomass energy production in the form of district heating, industrial steam, and electricity, as well as sorting and recycling of the (biomass) feedstock. The first transaction is expected to be 100% refinancing.

Investors should be aware that Solör's energy production takes place in cogeneration facilities where fossil fuels are part of the energy mix. However, it is the company's mission to move fully into biomass and the proceeds from the green instruments under this framework will be deployed solely to aid in this conversion effort.

The framework outlines robust procedures for selecting and reporting on green assets – including limited external assurance - but at the corporate level, the company's sustainability profile has the potential to be stronger. The company has not considered the recommendations of the TCFD nor undertaken independent resiliency analysis of its assets. We encourage Solör to be more proactive in its corporate targets and to continue the deployment of biodiesel (HVO) and other green alternatives in its operations and those of its suppliers

Based on the overall assessment of eligible assets and governance considerations, Solör Bioenergi Holding AB's green financing framework receives a CICERO Medium Green shading and a governance score of Good. To improve the governance score, the company could increase its corporate sustainability ambition, for example by mapping lifecycle GHG emissions and creating corporate sustainability targets.

### **SHADES OF GREEN**

Based on our review, we rate the Solör Bioenergi AB's Green Finance framework CICERO Medium Green.

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



## GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the Green Bond Principles and Green Loan Principles (ICMA, 2018).





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## 1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated September 17, 2020. 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:

### CICERO Shades of Green Examples Dark green is allocated to projects and solutions that correspond to the long-term Wind energy projects with a strong vision of a low carbon and climate resilient future. Fossil-fueled technologies that governance structure that lock in long-term emissions do not qualify for financing. Ideally, exposure to integrates environmental concerns transitional and physical climate risk is considered or mitigated. Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-Bridging technologies such as term emissions do not qualify for financing. Physical and transition climate risks might be plug-in hybrid buses considered. Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant Efficiency investments for fossil short-term GHG emission reductions, but need to be managed to avoid extension of fuel technologies where clean equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the alternatives are not available physical and transitional climate risk without appropriate strategies in place to protect them. **Brown** is allocated to projects and solutions that are in opposition to New infrastructure for coal the long-term vision of a low carbon and climate resilient future.

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 finance 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 finance 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 Solör Bioenergi Holding AB's green finance framework and related policies

Solör Bioenergi Holding AB (henceforth Solör Bioenergi) is a Swedish provider of renewable energy and district heating based on forestry waste. The holding group consists of a number of subsidiaries providing energy services primarily in Sweden and to a smaller extent in Norway and Poland. Solör Bioenergi Holding AB is owned by the Switzerland-based BE Bio Energy Group AG (majority share) and by Swedish and North American pension funds.

Solör Bioenergi produces wood-based bioenergy for private households, industrial customers and local and regional governments. It has some 200,000 daily customers. The Group operates throughout the entire value chain, from procurement, production and distribution of biomass to sale of energy in the form of district heating, industrial steam, and electricity. The group's focus is on district heating (responsible for some 80% of net sales in 2019), but also offers local heating solutions (a heat plant that only serves one or a few buildings). As of 2019, the company had 56 power plants, 95 local heat plants, 3 environmental terminals, 4 pellets plants and 1 briquette plant.

The green finance framework covers the issuance of Green Loans and Green Bonds, collectively referred to as Green Finance Instruments, issued by BE Bio Energy Group AG, Nordic Infrastructure AG and the Solör Group, including Solör Bioenergi Holding AB and any of its wholly-owned subsidiaries.

## **Environmental Strategies and Policies**

Solör Group's overarching aim is to have a fossil-free production of energy. By producing renewable energy and recycling hazardous wood waste, it seeks to promote the transition towards an environmentally sustainable society. It strives to increase the proportion of biofuels in the energy mix, minimize the share of fossil fuels, reduce electricity consumption, and increase efficiency in its production of energy.

Solör produces pellets and briquettes from forestry waste such as fir and pine cutter shavings and thinnings. It also undertakes energy recovery by converting impregnated and treated wood waste, primarily from railroad and construction sectors. The wood waste is collected to dedicated environmental terminals where it is sorted into recycled wood products for sale or biomass for energy production.

The company benchmarks its production facilities to identify improvement areas and implement best practice processes for all plants. The latest benchmark is from 2019 and includes optimisation with respect to water consumption, electricity consumption, overall boiler efficiency and distribution losses. To reduce electricity use, the company has installed metering devices to monitor electricity use, enhanced the efficiency of existing flue gas condensers, pumps, fans and compressors, and installed LED lighting. A solar PV system has been installed on one plant and further roll-out will be considered in the future.

Biodiesel is currently used for on-site transportation at two sites. Transportation of biomass to the sites is the responsibility of the suppliers: they are currently asked to self-assess with respect to fuel economy and fuel switching. The company's employee car policy includes an incentive (monetary) to purchase low-emission (<61g/km) vehicles.



The issuer has identified the following Sustainable Development Goals as relevant for its operations:

- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy
- SDG 13: Take urgent action to combat climate change and its impacts
- SDG 3: Ensure healthy lives and promote well-being for all at all ages
- SDG 8: Promote inclusive and sustainable economic growth, employment and decent work for all

The company does not currently monitor its GHG emissions.

## Use of proceeds

An amount equal to the net proceeds from issued Green Finance Instruments will be used to finance, in whole or in part, a portfolio of assets and projects within the Solör Group, that promote the transition toward low-carbon and climate-resilient development. Eligible project categories are presented in Table 1.

The use of proceeds also include investments by the owners in share capital in the Solör Group, financing and refinancing of Green Projects as defined below, and where proceeds will be directly linked to the book value of the Green Projects, adjusted for the share of equity acquired.

Proceeds may be used for the financing of new assets and projects as well as for refinancing purposes. The first transaction is expected to be 100% refinancing.

The issuer states that 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 defence, potentially environmentally negative resource extraction, gambling or tobacco.

### Selection

A Green Finance Committee has been established and is responsible for the evaluation and selection of projects. The Green Finance Committee consists of members from the management team (MD and CFO) of Solör Bioenergi Holding AB. It will meet on an annual basis, or more often if needed. Decisions will be made through consensus.

Only such assets and projects that comply with the Green Project criteria defined in the Use of Proceeds section of this Framework are eligible to be financed with Green Finance Instruments. The Green Finance Committee will keep a register of all Green Projects, and to ensure transparency and traceability, all decisions made by the committee will be documented and filed.

The Green Finance Committee is also in charge of potential future oversight and updates of this Framework

## **Management of proceeds**

An amount equal to the net proceeds from issued Green Finance Instruments will be earmarked for financing and refinancing of Green Projects as defined in the Green Finance Framework.

Solör Bioenergi Holding AB will endeavor to ensure that the amount of Green Projects at all times exceed the total amount of Green Finance Instruments outstanding. 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 this Framework, it will be replaced by another qualifying Green Project if deemed necessary by the company (e.g. if the portfolio of Green Assets would otherwise not cover the volume of outstanding Green Finance Instruments).



Net proceeds from Green Finance Instruments awaiting allocation to Green Projects will be managed according to the overall liquidity management policy of the relevant issuer and may be invested in short term money market instruments or held as cash.

## Reporting

The issuer will annually publish a Green Finance Report which will be made available to relevant stakeholders on its website. The Report will include an Allocation Report and an Impact Report and will be published annually as long as there are Green Finance Instruments outstanding.

The allocation report will include the following information.

- Amounts invested in each of the Green Project categories
- The share of new financing versus refinancing.
- Examples of Green Projects that have been funded
- The nominal amount of Green Finance Instruments outstanding, split into Green Loans and Green Bonds.
- The amount of net proceeds awaiting allocation to Green Projects (if any).

The impact report may be on an aggregate (category) level and - depending on data availability – may include calculations made on a best intention basis. Possible metrics are listed below:

## Renewable energy:

- Volume of produced biofuel
- Annual renewable energy generation capacity
- Annual renewable energy generation
- GHG savings

Pollution prevention and control:

- Volume of recycled wood waste
- Energy recovered from wood waste
- Types and quantity of emissions/pollutants reduced

An independent auditor will on an annual basis provide a limited assurance report. If the company decides to calculate GHG savings, it will follow the guidance of Nordic Public Sector Issuers<sup>1</sup>.

<sup>1</sup> Position Paper on Green Bonds Impact Reporting, February 2020, available here.



## 3 Assessment of SOLÖR BIOENERGI Holding AB's green finance framework and policies

The framework and procedures for Solör Bioenergi's green 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 Solör Bioenergi 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 Solör Bioenergi's green financing framework, we rate the framework CICERO Medium Green.

## Eligible projects under the Solör Bioenergi green finance 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 finances 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





- -Biofuel production: Facilities for producing biofuel based on forestry waste and residues as well as from recycled wood waste, such as impregnated and treated wood
- -Heat, electricity and steam generation: Facilities for district heating and local heating that use at least 95% wood-based biofuel as defined above, or facilities for ✓ recovering and distributing waste heat from nearby industries This category includes investments in converting facilities currently running on fossil fuel to reach the 95% threshold.
- -Transport: Rail related infrastructure needed for the transport, loading, offloading and storage of biomass to and from our production plants.
- -Transmission and distribution: Distribution systems connecting endusers with district and local heating.

## Medium to Dark Green

- Bioenergy is widely seen as a renewable energy source due to its reliance on tree growth which absorbs CO<sub>2</sub> in the growing phase. However, bioenergy assets emit CO<sub>2</sub> at combustion often at levels comparable to coal.
- Solör's bioenergy production is based on tree thinnings, cuttings, and other wood waste not on whole logs. This is important from a sustainability perspective, due to the potential environmental and land-use footprint and uncertain net carbon benefits -of forestry dedicated to industrial pellet production
- ✓ The company's biomass feed generally comes from local sources (<200 km distance). No supplies are shipped from overseas.

- Investors should be aware that Solör's energy production takes place in cogeneration facilities where fossil fuels are part of the energy mix. In Sweden, fossil fuels have made up around 2% of the energy mix in the past three years, whereas in Poland one of Solör's cogenerating plants has a 50-50 split biomass-coal. However, it is the company's mission to move fully into biomass and any proceeds from green instruments would be deployed solely to aid in this conversion effort and not to finance coal-based generation. The issuer has confirmed that it would be practically unfeasible to revert to using coal in any of its biomass facilities.
- Carbon capture and storage is not a viable option for Solör Bioenergi due to the small size of its plants.
- We understand that the issuer's investments in transport and transmission assets would be limited to those directly under the control of Solör and exclusively used to enable the production and sale of bioenergy

and Control



- Pollution Prevention Waste management: Recycling facilities, such as environmental terminals handling impregnated and treated wood waste enabling recycling as well as energy recovery
  - -Reduction of air and water pollutants: Technologies and systems that reduce emissions to air and water, including nitrogen oxides, flue gas, sulphur, particle pollution and other toxic pollutants.

## Dark Green

Although recycling has a positive environmental purpose, the process itself – like any manufacturing process - releases emissions and waste. Care should be taken to minimize impacts on the surroundings.

Table 1. Eligible project categories

## **Background**

Global electricity demand increased 4% in 2018, with low-carbon generation expanding 6% to meet a considerable share of this growth. Nevertheless, power sector CO<sub>2</sub> emissions rose by 2.5%, with coal responsible for 80% of this increase. In 2018, 42% of all energy-related CO<sub>2</sub> emissions came from the power sector, causing it to remain the largest source of energy-related CO<sub>2</sub> emissions. Investments in the rapid transition to renewable energy powered economies are therefore increasingly critical.

Despite the positive trends in the expansion of renewable electricity generation, additional efforts are needed in renewable power generation to meet the targets set out in the IEA's Sustainable Development Scenarios. According to the IEA, the share of renewables in global electricity generation must reach 47% by 2030, up from



25% in 2017<sup>2</sup>. Sweden and Norway have a power sector which is predominantly renewables-based, whereas in Poland coal still accounts for almost 80%<sup>3</sup>.

Electricity based on biomass has been labelled "carbon neutral", the idea being that the CO<sub>2</sub> emitted at combustion is compensated by the CO<sub>2</sub> absorbed during the growth period of a tree. However, the carbon accounting principle of bioenergy is highly technical and context specific (temporality, geography, etc.). Bioenergy can be controversial from a land-use perspective (competing uses, e.g. with growing food crops) and because of the potential impacts on biodiversity from dedicated plantations. Due to resource constraints (land, alternative uses), biomass is unlikely to represent a significantly scalable solution from a 2050 decarbonized energy perspective. The climate benefits of bioenergy also depend on the alternative source of energy in the system: In Scandinavia, the electricity alternative is majority renewables-based and so the benefits from biomass are lower than e.g. in Poland which is mainly fossil-fuel based. It should be noted over the past 40 years, biomass has replaced oil as the main energy source for district heating in Sweden – leading to significant decreases in GHG emissions from the sector.

Biomass energy with carbon capture and storage (BECCS) is a much-discussed technology in European policy circles as it could represent a carbon negative solution. However, the viability of BECCS is very site and context specific and depends on parameters such as location, size, costs and technology alternatives.

## **EU Taxonomy**

The European Union has published a taxonomy to classify sustainable activities. The final taxonomy was published on March 9, 2020 and contains implementation guidance for companies and financial institutions – including technical criteria for a range of sectors.

The Taxonomy contains guidance on Manufacture on Biomass, Biogas or Biofuels. The taxonomy warns that 'The manufacture of Biomass, Biogas and Biofuel has the potential to be a key mitigation technology but, if done poorly, can have no net positive impact or even a negative impact'. Production of biomass is eligible if produced from the advanced bioenergy feedstock listed in Annex IX of Directive (EU) 2018/2001. Since Solör uses biomass waste and not primary products (crops or logs) we consider it likely that the eligible categories of this framework are aligned with the EU Taxonomy.

For power generation, the Taxonomy has criteria for most energy generation technologies and the focus is on supporting the development of renewable energy with Life Cycle Emissions below 100g CO<sub>2</sub>e / kWh (the threshold will be reduced every five years in line with a trajectory to net-zero CO<sub>2</sub>e in 2050).

By operating with regulatory licenses in Sweden, Norway and Poland we also consider that the probability of the company complying with the Taxonomy's Do No Significant Harm principle to be very high (environmental parameters identified for this sector include impact on local water (consumption and sewage), the fulfilment of the applicable waste and recycling criteria, and the avoidance of direct impacts on sensitive ecosystems, species or habitats).

### **Governance Assessment**

Four aspects are studied when assessing the Solör Bioenergi AB's governance procedures: 1) the policies and goals of relevance to the green finance 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

<sup>&</sup>lt;sup>2</sup> http://ww.iea.org/tcep/power/renewables

<sup>&</sup>lt;sup>3</sup> https://www.iea.org/countries/poland



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.

The company's planned selection and reporting procedures are relatively robust. However, at the corporate level, its sustainability profile has the potential to be stronger. It is in the business of producing 'green' energy and therefore arguably has an environmental *license to operate*. However, there is always room for improvement – in Solör's case such measures could include being more proactive in understanding its lifecycle GHG emissions (even if this faces particular technical challenges in the case of bioenergy) creating corporate sustainability targets, and increasing the deployment of green fuels and technologies in its operations (shifting the fuel for on-site

transportation vehicles to bio-diesel (HVO) and making real progress on the dialogue with suppliers on their transportation choices). Due to capacity constraints, the company has not considered the recommendations of the TCFD or undertaken independent resiliency analysis of its assets – being more ambitious in this area can be seen as another 'stretch goal'. The overall assessment of Solör Bioenergi AB's governance structure and processes gives it a rating of **Good** 



## **Strengths**

Bioenergy has the potential to make a positive contribution to a decarbonized energy supply, especially if based on waste and fitted with CCS technology. In the issuer's countries of operations, it is widely seen as part of the circular economy-largely thanks to the reliance on locally and sustainably harvested wood and wood waste. The company has shown commitment to deploying the most resource-efficient and low-carbon technologies, where technologically and economically feasible. As such, Solör can be seen as a sustainable model for others to emulate.

The company's green finance framework has clear eligibility criteria which include an intention of using proceeds to convert the remaining coal-fired units in its fleet to sustainable biomass. This has the potential of highlighting the benefits of change and of green forms of energy in Poland – which is a renewables-laggard compared to its European peers.

Solör Bioenergi AB's framework has robust plans for reporting, which include external limited assurance of the allocation report.

## Weaknesses

We find no obvious weaknesses in the framework.

## **Pitfalls**

Bioenergy emits GHG emissions at the point of combustion, and although proponents of the technology correctly point to the source (trees) as absorbing GHG in the growing phase much debate remains around the conditions under which biomass is truly a net-zero technology. Timescales, the type of biomass and feedstock transportation are some of the parameters which play a role. The IPCC sees biomass with carbon capture (BECCS) as one of the carbon-removal technologies needed to stay below 2C global warming, It should be noted that widespread deployment of BECCS is constrained by cost and availability of biomass and that full demonstration of BECCS



has so far been limited to a few cases<sup>4</sup>. We understand that BECCS is currently not a relevant technology for Solör Bioenergi AB, due to the size and location of its plants, but we encourage the company to continue monitoring technology developments to ensure their solutions are aligned with a net-zero future and do not remain locked into outdated technologies.

By offering an off-take for wood waste, Solör may indirectly encourage the production of more waste – to the detriment of other uses for the wood- and the harvesting of trees beyond what would have happened in the absence of this demand. We understand that currently this is not a challenge since the value of wood for other purposes is higher than for waste, and indeed as the trend for using wood for more purposes (buildings, furniture) expands globally more wood waste will also be created. Nonetheless, the possible unintended consequences of waste-based industries should be kept in mind as circular economy technologies expand globally.

The Green Bond Committee will not include a dedicated environmental expert. Whilst the company argues that all senior managers have the required knowledge, there may arise situations where decision making would benefit from having deep expertise in potentially controversial areas such as GHG accounting, and where independence of thought would strengthen the process.

The allocation report will contain examples of the green projects that have been funded – not the full list. Only listing a sub-set of projects may lead to a misrepresentation of the portfolio if the report highlights the ones with best environmental credentials. If the issuer decides to report on GHG savings, there is a possibility that these will be overestimated, given the high grid factor used in the Nordic Public Sector Issuer Guidance and the controversy surrounding the emission factor of bioenergy.

<sup>&</sup>lt;sup>4</sup> Source: Global CCS Institute, <a href="https://www.globalccsinstitute.com/wp-content/uploads/2019/03/BECCS-Perspective FINAL 18-March.pdf">https://www.globalccsinstitute.com/wp-content/uploads/2019/03/BECCS-Perspective FINAL 18-March.pdf</a>



# Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	SOLÖR BIOENERGI AB Green Finance Framework DRAFT 2020-09-30	
2	SOLÖR BIOENERGI AB ÅR 2019 – Svenska	Annual Report 2019
3	Bilpolicy miljöbil SBF mm_	Company's Car Policy
4	HMS Policy	Company policy on health, environment and safety
5	Miljöpolicy AO Fjärrvärme	Environmental Policy for Solör's district heating company
6	Using a Life Cycle Assessment Approach to Estimate the Net Greenhouse Gas Emissions of Bioenergy	Study published by IEA Bioenergy. Available at https://www.ieabioenergy.com/wp-content/uploads/2013/10/Using-a-LCA-approach-to-estimate-the-net-GHG-emissions-of-bioenergy.pdf
7	Snapshot Solör Poland	Overview of assets in Poland
8	Org chart	Organisational Chart SOLÖR BIOENERGI AB



# **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 and the International Institute for Sustainable Development (IISD).

