

'Second Opinion' on Eidsiva's Green Bond Framework

12. September 2017

Summary

Overall, Eidsiva's Green Bond Framework together with its supporting climate and environmental policy, implementation and supply chain requirements and other environmental conscious elements such as climate adaptation planning in its management protocols, provide a sound base for climate-friendly investments. The Green Bond Framework lists eligible projects that support their objectives to promote the transition to low carbon, climate resilient growth and a sustainable economy. Eidsiva is a well-managed company with a high credit rating and procedures which support sound management of proceeds, as well as regular and transparent reporting about green bond project achievements to investors and the public.

The framework promotes renewable energy and energy efficiency projects in the form of district heating and grid improvements and excludes direct investments in fossil fuel and nuclear energy generation projects. Eidsiva Bioenergi is ISO 14001 certified and uses next to no (i.e. less than 0.9%) fossil as fuel. In addition, several other branches are certified as "Miljøfyrtårn" (a Norwegian environmental certification scheme). Given Norway's predominantly renewable energy mix, Eidsiva's investments in transmission and distribution networks are unlikely to lock-in or otherwise promote fossil fuel use. Eidsiva's Green Bonds can be used to finance both new projects as well as refinance existing eligible projects.

Based on the overall assessment of the project types that will be financed by the green bonds and governance and transparency considerations, Eidsiva's Green Bond Framework receives a **Dark Green** shading.



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1 Introduction and background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides Second Opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives. The Second Opinion is based on documentation of rules and frameworks provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

CICERO 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 has established the global Expert Network on Second Opinions (ENSO), a network of independent non-profit research institutions on climate change and other environmental issues, to broaden the technical expertise and regional experience for Second Opinions. CICERO works confidentially with other members in the network to enhance the links to climate and environmental science, building upon the CICERO model for Second Opinions. In addition to CICERO, ENSO members currently include Basque Center for Climate Change (BC3), International Institute for Sustainable Development (IISD), Stockholm Environment Institute (SEI), and Tsinghua University's Institute of Energy, Environment and Economy. A more detailed description of CICERO can be found at the end of this report. ENSO encourages the client to make this Second Opinion publically available. If any part of the Second Opinion is quoted, the full report must be made available.

CICERO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. CICERO does not validate or certify the climate effects of single projects, and thus, has no conflict of interest in regard to single projects. CICERO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor the outcome of investments in eligible projects.

This note provides a Second Opinion of Eidsiva's Green Bond Framework and policies for considering the environmental impacts of their projects. The aim is to assess the Eidsiva's Green Bond Framework as to its ability to support their stated objective of climate mitigation.

This Second Opinion is based on the green bond framework presented to CICERO by the issuer. Any amendments or updates to the framework require that CICERO undertake a new assessment. CICERO takes a long-term view on activities that support a low-carbon climate resilient society. In some cases,

activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run. Proceeds from green bonds may be used for financing, including refinancing, new or existing green projects as defined under the mechanisms or framework. CICERO assesses in this Second Opinion the likeliness that the issuer's categories of projects will meet expectations for a low carbon and climate resilient future.

Expressing concerns with 'shades of green'

CICERO Second Opinions are graded dark green, medium green or light green, reflecting the climate and environmental ambitions of the bonds and the robustness of the governance structure of the Green Bond Framework. The grading is based on a broad qualitative assessment of each project type, according to what extent it contributes to building a low-carbon and climate resilient society.

This Second Opinion will allocate a 'shade of green' to the green bond framework of Eidsiva:

- Dark green for projects and solutions that are realizations today of the long-term vision of a low
 carbon and climate resilient future. Typically, this will entail zero emission solutions and
 governance structures that integrate environmental concerns into all activities.
- Medium green for projects and solutions that represent steps towards the long-term vision, but are not quite there yet.
- **Light green** for projects and solutions that are environmentally friendly but do not by themselves represent or is part of the long-term vision (e.g. energy efficiency in fossil-based processes).
- **Brown** for projects that are irrelevant or in opposition to the long-term vision of a low carbon and climate resilient future.

The project types that will be financed by the green bond primarily define the overall grading. However, governance and transparency considerations also factor in, as they can give an indication whether the institution that issues the green bond will be able to fulfil the climate and environmental ambitions of the investment framework.

2 Brief Description of Eidsiva's Green Bond Framework and rules and procedures for climate-related activities

Eidsiva is a regional energy group located inland in Norway with four business areas. These are energy production (hydro, wind and district heating), energy distribution, energy retail and telecom (broadband). Ownership of Eidsiva is distributed among the two local counties and 27 municipalities. Eidsivas annual turnover is approximately 4 billion NOK, the total number of employees is around 1000 and the energy production is approximately 4TWh per year. Eidsiva Nett (distribution grid) has a customer base of 160 000, and the extension of the grid is 22 000 km. Eidsiva bredbånd (broadband) is continuously growing its customer base, the current level being 58 000 customers. 30 000 of these are connected through optic fibre. New homes connected in 2017 is estimated to be 10.000.

Eidsiva has 50% ownership of the two brands Eidsiva Marked and Gudbrandsdal Energi in the retail market in a joint venture (Innlandskraft AS) with Gudbrandsdal Energi Holding AS. Total customer base for the two brands is 230 000.

Definition:

Projects eligible under the Green Bond Framework are limited to a selected pool of projects in Norway funded, in whole or in part, by Eidsiva or its subsidiaries that promote the transition to low carbon and climate resilient growth and a sustainable economy as determined by Eidsiva. Eligible Projects are:

- Renewable energy including hydro, wind power and related infrastructure.
- Energy efficiency including district heating, connection of renewable energy to transmission networks, upgrading of transmission and distribution networks and smart grids.

Eidsiva Green Bonds will not finance nuclear or fossil energy generation projects. Eidsiva Green Bonds can be used to finance the acquisition and development of new Eligible Projects, to renovate and upgrade existing Eligible Projects and to refinance existing Eligible Projects. The division of the allocation of Green Bond proceeds between new projects and refinancing will be included in the annual Green Bond Investor Letter.

Selection:

Eligible Projects will be selected, evaluated and approved in consensus by the Finance Department and the relevant production unit at Eidsiva (i.e. the environmental specialists in the Eidsiva production units have a veto).

Eidsiva will only approve projects which meet the eligibility criteria and that have a high likelihood for positive, net, long-term environmental effects.

Management of proceeds:

An amount equal to the net proceeds of the issue of the Green Bonds will be credited to a special account that will support Eidsiva's funding of Eligible Projects. As long as the Green Bonds are outstanding and the special account has a positive balance, at the end of every fiscal quarter, funds will be deducted from the special account and added to Eidsiva's Green Project Portfolio in an amount equal to all disbursements made during such quarter in respect of financing and/or refinancing of Eligible Projects. Until disbursement to Eligible Projects, the special account balance will be placed in liquidity reserves and managed accordingly. If, for any reason, a financed Eligible Project no longer meets the eligibility criteria, it will be removed from the Green Project Portfolio.

Transparency and Accountability:

To enable investors to follow the development and provide insight to prioritized areas, Eidsiva will provide an annual Green Bond Investor Letter to investors including:

- a) a list of the projects financed including a brief description and expected impact;
- b) information about the division of the allocation of Green Bond proceeds between new projects and refinancing;
- c) a summary of Eidsiva's Green Bond development.

Eidsiva recognizes the importance of transparency and investors' interest in impact reporting on projects financed with Green Bonds. It is Eidsiva's ambition to report on the expected amount of renewable energy capacity added/restored for renewable projects and on the expected efficiency gains achieved for the same output/service in energy efficiency projects when feasible.

The internal tracking method, the allocation of funds from the Green Bond proceeds and the Investor Letter will be verified by Eidsiva's internal compliance function. The Investor Letter and the opinion of the internal compliance function will be made publically available on Eidsiva's website.

The table below lists the documents that formed the basis for this Second Opinion:

Document Number	Document Name	Description
1	Eidsiva - Green Bonds Framework (28 August 2017)	This document comprises Eidsiva's Green Bonds Framework and how the company intends to use proceeds, how it plans to evaluate and select eligible projects, manages the proceeds and reports to investors.
2a-b	Årsrapport 2016 Halvårsrapport 2017	Annual report 2016 and bi-annual report for the two first quarters of 2017.
3a-g	Styrende dokumenter – Ytre rammer: a) Vedtekter for Eidsiva Energi AS b) Instruks for konsernstyret c) Eierstyring for Eidsiva Nett d) Fullmaktsstruktur e) Instruks for konsernsjef f) Regler for god etisk adferd g) Organisering og styring i Eidsiva	Governing documents of Eidsiva regarding external affairs: Statuses for Eidsiva, instructions for the board and CEO, authorization structures, ethical behavior, organization.
4a-h	Styrende dokumenter – Indre rammer: a) Sikkerhet og etikk b) Innkjøp I. Krav til leverandører II. Standard vilkår for kjøp III. Generelle miljøkrav, krav til dokumentasjon og miljøsertifisering IV. Krav til leverandører – eksempel c) Forsikring	Governing documents of Eidsiva regarding internal affairs: Standards and demands to suppliers, environmental requirements, certifications and documentations, insurance, risk management and internal control, investment and project management, contracts, climate and the environment and information.

	d) Risikostyring og internkontroll	
	e) Investering og prosjektstyring	
	f) Avtaler	
	g) Klima og miljø	
	h) Informasjon 	
5a-f	Instrukser:	Instructions regarding: Mapping
	a) Instruks kartlegging miljø	environmental problems, project
	problemområder	descriptions, detailed plans and public
	b) Instruks prosjektbeskrivelse	permits, environmental follow-up,
	c) Instruks detaljplan og offentlige	construction phase and terminated
	tillatelser	projects.
	d) Instruks miljøoppfølgingsprogram	
	e) Instruks byggefase	
	f) Instruks avslutte prosjekt	
∂a-g	Maler, notater og skjemaer:	Templates, notes and forms:
	a) Mal kontrollskjema avtaler	Agreements, public permits and
	b) Mal kontrollskjema offentlige	information to stakeholders, project
	tillatelser og informasjon til	descriptions, environmental follow-up,
	interessenter	environmental assessments, mapping o
	c) Mal prosjektbeskrivelse	environmental problems and control of
	d) Miljøoppfølgning – presentasjon	the external environment.
	e) Notat – miljøtilsyn	
	f) Skjema for kartlegging av	
	problemområder	
	g) Skjema for kontroll av ytre miljø	
7а-с	Prosjekteksempler:	Two project examples with a map.
	a) Prosjekteksempel - Nedre Vinstra	
	miljøtilsynsskjema	
	b) Prosjekteksempel - Dam	
	Hornsjø_Landskaps- og miljøplan	
	c) Prosjekteksempel - Oversiktskart	
	verneområder	

Table 1 Documents reviewed

3 Assessment of Eidsiva's Green Bond framework and environmental policies

Overall, Eidsiva's green bond framework provides a detailed and sound framework for climate-friendly investments.

The framework and procedures for Eidsiva's green bond 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, whereas the weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where issuers should be aware of potential macro-level impacts of investment projects.

Eligible projects under the Green Bond 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 certainty to investors 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	Including:	Dark Green.
	- Hydro power	Should consider climate and
	- Wind power	environmental impacts of large
	- Related infrastructure	hydro projects as well as
		installation of related
		infrastructure.
Energy efficiency	Including:	Dark Green.
	- District heating	Should consider climate and
	- Connection of renewable	environmental impacts of bio-
	energy to transmission	

networks

fuels.

 Upgrading of transmission and distribution networks

- Smart grids

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Table 2 Eligible project categories

Eidsiva Green Bonds will not finance nuclear or fossil energy generation projects.

Strengths

Overall, we find Eidsiva's Green Bond Framework to be in compliance with the 2017 Green Bond Principles.

Established management and governance structures

Eidsiva has a solid management and governance structure indicated by their existing corporate management and reporting processes, supported by clear company wide policies for the climate and the environment. Internal Codes of Conduct, as well as a Supplier Code of Conduct further support the environmental consciousness of Eidsiva operations. Eidsiva is aware of and actively mitigating the local and global environmental impacts (climatic effects, changes in landscape, restrictions on land use, and impacts on nature) of its operations. Eidsiva Bioenergi is ISO 14001 certified and uses next to no (i.e. less than 0.9%) fossil as fuel. In addition, several other branches are certified as "Miljøfyrtårn" (a Norwegian environmental certification scheme).

Process for project evaluation and selection

Eligible Projects will be selected, evaluated and approved in consensus by the Finance Department and the relevant production unit at Eidsiva (i.e. the environmental specialists in the Eidsiva production units have a veto). The environmental specialists have background in e.g. biology, ecology and natural resource management.

Reporting and Review

Related to its green bonds, Eidsiva has an annual reporting process in place which includes annual Green Bond Investor Letter to investors with a list of the projects financed including a brief description and expected impact, information about the division of the allocation of Green Bond proceeds between new projects and refinancing and a summary of Eidsiva's Green Bond development. This letter will be verified by Eidsiva's internal compliance function.

Furthermore, it is Eidsiva's amibition to report on the expected amount of renewable energy capacity

added/restored for renewable projects and on the expected efficiency gains achieved for the same output/service in energy efficiency projects when feasible. The information will be verified by The Norwegian Water Resources and Energy Directorate (NVE).

The Investor letter, together with the verification by the internal compliance function, will be made available online on the company website.

Weaknesses

We find no obvious weaknesses in the Eidsivas Green Bond Framework.

Pitfalls

Impacts beyond the project boundary

Due to the complexity of how socio-economic activities impact the climate, a specific project is likely to have interactions with the broader community beyond the project borders. These interactions may or may not be climate-friendly, and thus need to be considered with regards to the net impact of climate-related investments.

Rebound effects

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced there will be incentives to do more of the same activity. From the project categories in Table 2, an example is investment to reduce network losses, which decrease emissions from losses but may not decrease the consumption of energy. Eidsiva should be aware of such effects and possibly avoid Green Bond funding of projects where the risk of harmful rebound effects is particularly high. Given that Eidsiva produce and deliver renewable energy, any harmful impact of increased energy use is expected to be small, but should nevertheless be taken into account in electing eligible projects.

Appendix: About CICERO

CICERO Center for International Climate Research is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international climate cooperation. We collaborate with top researchers from around the world and publish in recognized international journals, reports, books and periodicals. CICERO has garnered particular attention for its work on the effects of manmade emissions on the climate and the formulation of international agreements and has played an active role in the UN's IPCC since 1995.

CICERO is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO received a Green Bond Award from Climate Bonds Initiative for being the biggest second opinion provider in 2016 and from Environmental Finance for being the best external review provider (2017).

CICERO Second Opinions are graded dark green, medium green and light green to offer investors better insight in the environmental quality of green bonds. The shading, introduced in spring 2015, reflects the climate and environmental ambitions of the bonds in the light of the transition to a low-car-bon society.

CICERO works with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions. Led by CICERO, ENSO is comprised of trusted 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). ENSO operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

cicero.oslo.no/greenbonds



