

‘Second Opinion’ on Clemens Kraft’s Green Bond Framework

August 31, 2018

Summary

Clemens Kraft (CK) Green Bond Framework provides a sound framework for climate friendly investments. Proceeds will fund renewable energy eligible projects are run of river hydro plants without dam reservoirs.

CK is an integrated small-scale hydro company that is partially owned by the fund Opplysningsvesenets fond, the Norwegian Church Endowment. CK follows endowment's environmental and ethical guidelines and policies, which provide a strong responsible governance structure. Corporate responsibility is core to CK and influences the process of project selection and development.

Small-scale hydro projects can be associated with the risks of negative local environmental and social impacts. CK only operates in Norway, where infrastructure interventions are managed robustly by laws and regulations. The process for obtaining a license to build power plants involves consultations with the local population – including indigenous populations, landowners, and relevant local authorities. The process also requires an Environmental Impact Assessment and Environmental Management plan. The issuer has confirmed that they are not aware of any local opposition to any of the projects to be financed under the first two issuances. CK has a responsible procurement policy that includes a consideration of health safety and environment (HSE) for contractors. CICERO encourages CK to consider additional steps to minimize emissions from the construction phase of new projects.

Impact reporting is an important tool to enhance transparency on the projects risk from climate change and the environmental effectiveness of the projects. The Green Bond framework outlines a procedure for reporting, which includes impact reporting. CICERO is especially encouraged by the commitment to report any instances where projects are non-compliant with regulations or guidelines.

CICERO finds that the framework is aligned with the Green Bond Principles. Based on the overall assessment of the project types that will be financed by the green bond and governance and transparency considerations, Clements Kraft's Green Bond Framework is rated CICERO Dark Green.



°CICERO
Dark Green

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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 Clemens Kraft Green Bonds Framework and policies for considering the environmental impacts of their projects. The aim is to assess the Clemens Kraft Green Bonds Framework as to its ability to support Clemens Kraft's stated objective of promoting the transition to low-carbon and climate resilient growth.

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/ENSO 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. The shading methodology also aims at providing transparency to investors when comparing green bond frameworks exposure to climate risks. A dark green project is less exposed to climate risks than a lighter green investment.

This Second Opinion will allocate a ‘shade of green’ to the green bond framework of Clemens Kraft:

- 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 are also important because they 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. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The overall shading reflects an ambition of having the majority of the project types well represented in the future portfolio, unless otherwise expressed by the issuer.

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

Clemens Kraft (CK) is an integrated small-scale hydro company. CK develops, constructs and operates small-scale hydro power plants (SSHPP's) in Norway. CK is partially owned by the fund, Opplysningsvesenets fond, the Norwegian Church Endowment, and follows the fund's environmental and ethical guidelines and policies¹. CK's second owner is CPV/CAP, a Swiss pension fund, who views the ownership stake as a part of their socially responsible investment strategy.

CK currently has 26 plants in operation, an estimated annual production capacity of 270 GWh. The largest plant the company currently operates is 8 MW. Clemens Kraft's goal is to have an annual production capacity of 600 GWh in hydro energy by 2021.

Use of proceeds:

The proceeds from CK Green Bonds will go towards refinancing of existing debt and the development and construction of new SSHPP's. The Norwegian Water Resources and Energy Directorate (NVE) defines SSHPP as between 1 - 10 MW². CK has so far issued two bonds under this framework and all of the projects financed or to be financed under these issuances are power plants already in operation.

The projects financed under the issuance CK Bond 1 are:

- Ullestad Kraft AS with annual of 31.0 GWh/ 8 MW
- Væla Kraft AS with annual production of 3.2 GWh/ 0.9 MW
- Litj-Hena Kraft AS with annual production of 11.9 GWh/ 4.8 MW
- Nordbøåna Kraft AS with annual production of 3.9 GWh/ 1.6 MW
- Halvdagsåa Kraft AS with annual production of 2.4 GWh/ 0.8 MW
- Midtun Kraft AS with annual production of 2.0 GWh/ 0.7 MW
- Engeset Kraft AS with an annual production of 16.7 GWh/ 5 MW

The projects financed under the issuance CK Bond 2 are:

- Nordvik Kraft AS with annual production of 13.7 GWh/ 4.3 MW
- Ringdal Kraft AS with annual production of 17.8 GWh/ 5.8 MW
- Rodal Kraft AS with annual production of 6.1 GWh/ 1.7 MW

The issuer has explicitly excluded nuclear and fossil energy from the framework.

¹ Opplysningsvesenets fond (Ovf), manages property and financial assets on behalf of the Norwegian Church. Ovf is an independent entity and is regulated in the Norwegian constitution.

² For additional details (in Norwegian) <https://www.nve.no/energiforsyning-og-konsesjon/vannkraft/sma-vannkraftverk/>

Selection:

All Clemens Kraft projects could be eligible under the green bond framework. CK's "core process" is therefore the same as the selection process for the green bonds.

CK has informed us that their two owners' socially responsible investing strategy is taken into account throughout the selection process. In addition, the success of projects are dependent on local landowners, municipal approvals and other local stakeholders. The issuer therefore views it in their best interest to showcase themselves as an environmentally friendly developer and build projects with low impact on the local landscape.

Most CK projects require a concession license from the Norwegian Water Resources and Energy Directorate (NVE). The concessions are based on a holistic assessment of costs and benefits, including the rights of indigenous peoples, environmental sustainability and biodiversity. As a step in the licensing process, an environmental impact assessment (EIA) must be conducted by an independent entity. NVE's licensing process also includes a public hearing of the license, an on-site inspection and EIA prior to decision-making. The license application, including the EIA, is public and can be provided by NVE.

The next phase, project design, includes the development of an Environmental plan that describes environmental- and technical solutions for the project. This plan must be approved by NVE.

The final investment decision is made by the CK Board of Directors, who take into account the owners' socially responsible investing (SRI) strategy together with financial- and risk assessments. The issuer has informed us that there are instances where the Board could reject a project, despite a positive NVE-ruling, due to own assessment of local impact. This decision is followed by a construction decision by the Board of the SPV owned by Clemens Kraft. In this phase, supplier- and loan agreements are detailed. CK has a procurement policy that includes adherence to the UN Global Compact and a consideration of the suppliers past HSE (Health Safety and Environment) behavior.

During the construction phase, the Environmental plan and license agreement set environmental requirements. These could include measures to mitigate impacts on fish stocks and allow for natural fish migration patterns, reduce impact on natural habitat and recreational use of the area as with the Ullestad, Nordvik, Ringdal and Rodal plants. Safety during construction (HSE) and water flow requirements are defined in the license terms from NVE. During the construction phase NVE exercises supervisory authority, a certified project controller must be appointed to report quarterly to NVE during construction phase.

Some of CKs projects do not require a concession from NVE and are subject to a simplified licensing process by the local municipality. This process also includes an assessment of local environmental impacts and impacts on biodiversity. NVE states that projects that do not require a concession are usually "mini-hydro plants" below 1 MW³.

Management of proceeds:

Net proceeds will be placed into an account owned by the issuer, Clemens Kraftverk AS, and use of net proceeds tracked and identified for control and reporting purposes. As a tool to create clear bond reporting lines every

³ More information (in Norwegian) <https://www.nve.no/energiforsyning-og-konsesjon/vannkraft/sma-vannkraftverk/>

refinanced SSHPP is placed its own legal structure (sub-group) within the CK Group, divisions CK Bond I and CK Bond II respectively.

Unallocated proceeds will be placed in liquidity reserves and subject to Ovf SRI guidelines. These guidelines state that investments in that result in serious environmental damages or loss of biological diversity should be avoided and excludes coal companies⁴.

Transparency and Accountability:

Clemens Kraft will report on the use of proceeds and the environmental impact of the Bond portfolios at least on an annual basis until full allocation, and thereafter in the case of material changes to the portfolio. The issuer commits to including:

- Total amount of unallocated proceeds
- Share of proceeds used for refinancing
- Share of proceeds used for financing new SSHPP’s with project details
- A general insight in CK’s development projects, strategy realization and financial standings
- Production of renewable energy (MWh) and installed capacity (MW)
- Any negative deviations including breach of regulations, guidelines or agreements

The issuer has informed us that it is their intention to create a separate section on their website for green bond reporting.

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

Table 1. Documents reviewed

Document Number	Document Name	Description
1	Clemens Kraft's Green Bond Framework 18082018	This document comprises Clemens Kraft’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.
2	https://clemenskraft.no/portfolio-item/ullestad-i-hjelmeland/	Project site for Ullestad Kraft AS

⁴ Specifically, the guidelines exclude companies where over 30 % of the revenue stream is from coal or more than 30 % of the company’s activities are based in coal.

3	https://clemenskraft.no/portfolio-item/vaela-i-tydal/	Project site for Væla Kraft AS
5	https://clemenskraft.no/portfolio-item/nordboani-i-nissedal/	Project site for Nordbøana Kraft AS
9	https://clemenskraft.no/portfolio-item/nordvik-i-surnadal/	Project site for Nordvik Kraft AS
10	https://clemenskraft.no/portfolio-item/ringdal/	Project site for Ringdal Kraft AS
11	https://clemenskraft.no/portfolio-item/rodal-i-halsa/	Project site for Rodal Kraft AS
12	Konsesjonssøknad for ENGESET KRAFTVERK	Concession application to the Norwegian Water Resources and Energy Directorate (NVE) for the Engset power plant
13	Detaljplan for miljø og landskap Vengåa kraftverk	Environment and landscape plan for Vengåa power plant
14	Brev fra NVE angående godkjenning av detaljplan for miljø og landskap for Vengåa kraftverk	Approval letter from NVE for the environment and landscape plan for Vengåa power plant
15	Clemens Kraft Group Policy for procurement	Procurement policy
16	Eierstyring og selskapsledelse Instruks for etablering og styring av datterselskaper, og selskaper kontrollert av Opplysningsvesenets fond	Governance guidelines for companies controlled by the Opplysningsvesenets fund
17	Overordnede grunnverdier for forvaltning av opplysningsvesenets fonds eiendeler	Overarching values for the management of the Opplysningsvesenets fund's assets

18	Opplysningsvesenets fond Årsrapport 2017	Annual report for Opplysningsvesenets fond
19	Retningslinjer for etikk og samfunnsansvar for Opplysningsvesenets fond	Opplysningsvesenets fund guidelines for ethics and social responsibility
20	Retningslinjer for samfunnsansvarlig finansforvaltning	Opplysningsvesenets fund guidelines for socially responsible financial management
21	Halvdagsåa Kraft søknad til NVE (konsesjonsfritt)	Simplified application to NVE for the Halvdagsåa power plant
22	NVE vedtak angående Halvdagsåa kraft	Letter from NVE confirming that the power plant does not require a concession
21	Selbu Kommune - 114/001 Søknad om minikraftverk – Halvdagsåa	Approval letter and protocol for the application to the local municipality for the Halvdagsåa power plant

3 Assessment of Clemens Kraft Green Bond framework and environmental policies

The framework and procedures for Clemens Kraft’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.

Overall shading

Overall, CK green bond framework provides a sound framework for climate-friendly investments. Based on the project category shading detailed below, and consideration of the issuer’s sustainability work and green bond framework more broadly, we rate the framework CICERO Dark Green.

The company’s operations may in the future be affected by climate change. The largest risk is increased volatility of precipitation and likelihood of flooding. The company may also benefit from climate change: recent research indicates that climate change will lead to warmer and wetter winters in the Nordic Region. This will have a positive impact on the hydrology, leading to higher production of power.

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	Small scale hydro power plants (SSHPP’s) in Norway	<p>Dark green</p> <ul style="list-style-type: none"> ✓ Only run of river plants without dam reservoirs are eligible for financing ✓ Also small scale hydro projects can be associated with the risks of negative local environmental and social impacts. The issuer has taken steps to mitigate these risks by conducting EIAs. The public hearings required by NVE allow for stakeholders to voice concerns. The issuer has confirmed that they are not aware of any local opposition to any

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- of the projects to be financed under the first two issuances
 - ✓ CK should take care to minimize emissions from the construction phase of new projects
 - ✓ We encourage the consideration of additional resilience measures when developing new projects
 - ✓ Construction or upgrading of access roads should be kept to a level that ensures the proper functioning of the project but that does not encourage increased car use by the local population.
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Table 2. Eligible project categories

Strengths

Clemens Kraft has a strong responsible governance structure based on Ovf policies and guidelines. CK was wholly owned by Ovf until 2017 and had adopted all relevant Ovf environmental and ethical guidelines. The new owner also views the CK ownership stake as a part of their SRI strategy. This anchoring of corporate strategy in SRI is a strong starting point for green bond issuance.

CK only invests in small-scale hydropower plants. These tend to have manageable environmental consequences, in contrast to large-scale hydropower dams, which can have significant impacts on the natural environment and surroundings. CK also has several safeguards in place that mitigate against local environmental impacts, among them a responsible procurement policy for all contractors.

CK only operates in Norway, where infrastructure interventions are managed robustly by laws and regulations. The process for obtaining a concession to build power plants involves consultations with the local population – including indigenous populations, land owners, and relevant local authorities. The process also requires an EIA and Environmental Management plan, which the regulator oversees the implementation of during the construction phase. The most important way of reducing potential damage to local biodiversity is the maintenance of minimum water flow – a parameter that is regulated through the concession given to the power plant. The concession decisions are made public and provides transparency on the process. The CK power plants that did not require a concession process are classified as mini-hydro below 1 MW. A limited environmental assessment was also conducted for these plants.

CICERO takes a long-term view on climate change, and thus recommends excluding projects that support prolonged use of fossil fuel-based infrastructure that will contribute to emissions in the long run. CK only invests in renewable assets and has explicitly stated in their green bond framework that green bond proceeds will not be used to finance nuclear power or fossil fuel-based projects.

CK has a track record of high transparency towards stakeholders. Due to the Ovf ownership stake they are also subject to some government reporting requirements, as Ovf is regulated under and reports to the Ministry of Culture. Ovf reports on environmental aspects of CK operations, including the greenhouse gas emissions

associated with CK operations. The reporting is at an aggregated level and does not attempt to calculate abated emissions from renewable energy production.

CK has committed to impact reporting for their green bonds. This is an important tool to enhance transparency on the projects risk from climate change and the environmental effectiveness of the projects. CICERO is especially encouraged by the commitment to include any negative deviations.

Weaknesses

No significant weaknesses perceived

Pitfalls

The construction of hydropower assets and related infrastructure are currently considered to be activities that are consistent with a transition towards a low-carbon world. However, as technologies continue to evolve in the energy sector, it is important to consider potential lock-in of obsolete technologies. Run-of-river hydropower projects are often located in pristine environments and any unnecessary interventions should be avoided.

The company's operations may in the future be affected by climate change. While the NVE licensing process considers extreme weather events like floods, CK has no additional safeguards. We encourage CK to consider resiliency planning and the adoption of resiliency measures in new project design.

For small-scale hydro power plants there is a need for transport and communication lines with and to the power station and/ or intake. Construction or upgrading of access roads should in CICERO's view be kept to a level that ensures the proper functioning of the project, but that does not encourage increased car use by the local population. The issuer has informed us that the environmental regulations that govern the construction of these roads often require the deconstruction of the road and rehabilitation of the areas or only allow for simple access roads. We encourage the issuer to work towards zero emissions in both the operation and construction phase (such as electrification of transportation).

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.

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 Second Opinions won several international prizes, including an award from Climate Bonds Initiative for being the biggest second opinion provider (2017) and two awards from Environmental Finance for being the best external review provider (2017, 2018).

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-carbon 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.

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