

# ‘Second Opinion’ on BKK’s Green Bond framework

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## Summary

*Overall, BKK's green bond framework and environmental policies provide a sound framework for climate-friendly investments in renewable energy. BKK demonstrates a good practice in managing waterways, aquatic resources and adaptation to natural surroundings. The green bond framework lists eligible projects that are supportive of the objective of promoting a transition to low-carbon and climate-resilient growth. BKK will support regular and transparent updates of project activity to investors and the public, but does not include greenhouse gas emissions from contractors which may be significant. Thus we recommend that BKK extend reporting of emissions from its supply chain, including local pollution and waste deposition.*

*On issues not directly related to climate change, we recommend that BKK strengthen its environmental impact analysis and reporting on the scale of landscape disturbances, like areas for new roads, transmission lines and stations in natural surroundings. By reporting on visual effects, pictures might be useful. Finally, we note that there are concerns about the impacts on the natural environment of stone mass deposits. Information on this should be made available to investors.*

### 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'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 for the outcome of investments in eligible projects.

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

Climate change will have a significant impact on economic development, both from the perspectives of sustainable future development pathways and from the perspective of adapting to changing circumstances. The recently released Intergovernmental Panel on Climate Change report

(IPCC, 2013) on the physical science of climate change highlighted the seriousness of human-induced climate effects. The report can be viewed as an immediate call to action on the challenge of reducing greenhouse gas (GHG) emissions. The 195 countries that have ratified the United Nations Framework Convention on Climate Change (UNFCCC) have agreed to reduce GHG emissions to limit global temperature increase to below 2°C above pre-industrial level. Reaching this target requires shifting development pathways towards low- or zero-emitting economies without delay, and avoiding locking-in high-emitting capital.

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.

## 2. Brief description of BKK’s Green Bond framework and environmental policies

BKK is an energy and infrastructure company mainly operating in the West Coast of South Norway, but also in Asia, Central America and Africa through ownership in Himal Power Ltd (Himal 2014) and Agua Imara (Agua Imara 2014). BKK also runs a minor activity within heat production and cogeneration based on waste gas from LNG production.

BKK runs three main business areas Energy, Infrastructure and Customer services. Within Energy the production of hydropower is the major activity through the company BKK Produksjon, ranking as the fifth largest electricity producer in Norway, with 32 fully owned hydro power plants. BKK is owned by Statkraft and 17 municipalities between the Hardangerfjord and the Sognefjord (13).

BKK Green Bonds will fund BKK’s investments in renewable energy (hydropower) within Norway.

Through proactive management BKK will strive to achieve its zero vision of no accidents, no emissions and no violations of concessional conditions (2). BKK will shift to electric cars where feasible and already buys CO<sub>2</sub> quotas for climate emissions.

Proceeds from the BKK Green Bonds will be used exclusively for projects that meet the certification criteria for Eligible Projects.

**Table 1 Documents received from BKK**

Ref. nr.	File name	Content
<b>Policies and guidelines</b>		
1.	BKK Green Bond Framework-document	A brief memo on the Green Bond frame-work and definition of eligible projects.

2	Handbook of the Environment for BKK Produksjon AS	Outlines environmental management system covering environmental aspects, targets, monitoring and reporting
3	Environmental policy of BKK Produksjon AS	Lists obligations of BKK-P concerning sustainability in their activities
4	Plan for the environmental aspects - guidelines	Clarifies responsibilities for parties involved in the project concerning environmental issues.
5	Procedure for linking environmental issues to specific project activities	Brief description of environmental problems associated with defined environmental aspects and BKK project activities.
6	Detailed plan for the environment and the landscape	Registers revisions of environmental plan and the associated responsible unit.
7	Principles of BKK	13 principles for BKK management covering CSR, Strategies and environmental protection.
8	Allocation of roles within internal quality management.	
9	BKK handbook in quality management	
10	Environmental standards for components of hydro power plants for BKK Produksjon	Detailed instructions on tasks that shall be carried out to minimize environmental impacts.
11	Document on the investment decision related to the Matre Haugsdalen power plant.	Presents the background information and trade-offs between alternative strategies for the existing plant.
12	Project report Part A H002 Matre Haugsdalen kraftverk	Status and expectations wrt progress of construction, unwanted episodes, relations to local communities.
13	BKK Annual report 2013	<a href="http://rapport.bkk.no/aarsrapport2013/">http://rapport.bkk.no/aarsrapport2013/</a>
14	BKK Social responsibility report 2013	<a href="http://rapport.bkk.no/samfunnsansvarsrapport/2013">http://rapport.bkk.no/samfunnsansvarsrapport/2013</a>

15	Monthly report dam extension, Grøndalsvatnet	Example of BKK project, extending dam in response to security regulation requirements, no new production capacity
16	Internal BKK note on Matre Haugsdalen stone deposition	Details on the formal procedure behind the plan and approval of intent to depositing stone.

### Environmental policies that guide BKK

Social responsibility is well integrated in BKK's business values. BKK shall conserve biodiversity and ensure a sustainable extraction of natural resources. Further, BKK aims to reduce climate impacts and ensure careful use of nature. BKK considers the environmental impact of all their activities and products, including waste, emissions and esthetic qualities. BKK follows Norwegian law and also take voluntary measures in dialog with local communities. BKK buys CO<sub>2</sub> quotas to compensate for greenhouse gas emissions from transportation, heat production and cogeneration and will shift to electric cars. BKK includes visual effects in their environmental assessments.

BKK Produksjon was ISO 14 001:2014 certified in 2014 and has recently implemented a new and more proactive environmental policy where the company itself will suggest measures for environmental protection rather than wait for government regulations. Other companies within BKK are in the process of similar certification.

BKK states that the whole company shall comply with their environmental policy. In background documents for the BKK Green Bonds there are no specific mentioning of the environmental standard for their activities in developing countries with less elaborate legal environmental regulations than Norway. BKK has an ambitious plan for further investments in hydropower in developing countries.

BKK is exposed to climate risk as the Khimti hydropower asset of Himal LtD is downstream of one of the largest glacial lakes in Nepal, threatening to burst through its dam and flood the valley communities and the power plant. BKK is therefore likely to have an in-house and operational understanding of the challenges of climate change, which might strengthen its climate policy profile in addition to provide renewable energy business opportunities.

BKK emphasize the importance of having sufficient environmental knowledge in-house, and to be open and reliable in case of unwanted environmental damage.

### Eligible projects

BKK Green Bonds will fund renewable energy hydropower projects in Norway. Selection of projects is made by BKK Produksjon and the treasury department of BKK. It is a policy of BKK to have in-house capacity on environmental issues.

### *Transparency and reporting*

Large hydropower plants usually require substantial manipulation of nature and landscape, not the least during the construction period. BKK involves local communities in affected areas through

public meetings for information and discussions, in addition to the formal participation of local and regional authorities in the planning process.

BKK has the obligation to be carefully listening to hearing documents and local knowledge wrt environmental issues and mitigation options (2). Registration of major environmental aspects shall follow the procedure in IDA no. 11306863 (2). Violations of the zero-vision in terms of serious environmental events are registered (2).

BKK will present their social responsibility through annual reports based on the Global Reporting Initiative principles and indicators (7). Environmental monitoring and reporting is submitted through the internal reporting system Mona Lisa.

To enable investors to follow the development and provide insight to prioritized areas, BKK will provide an annual investor letter to investors including 1) a list of projects financed 2) a selection of project examples and 3) a summary of BKK's Green Bond development. The investor letter will be made publically available on BKK's web page.

### **3. Assessment of BKK's Green Bond framework and environmental policies**

Overall, BKK's green bond framework and environmental policies provide a sound framework for climate-friendly investments. The framework and procedures for BKK's renewable energy investments are assessed according to both the project level (micro-level) impacts and the wider (macro-level) impacts in this section.

#### **Strengths**

Norway is practically 100 per cent hydropower based – this industry has developed over a century under increasingly strict environmental regulations and under strong public scrutiny. BKK operates in fjords and mountain areas where nature is a target for recreation and a source of income from tourism. The history and the precious natural surroundings have generated a conscious and careful practice in hydropower production largely driven by public pressure and government environmental policy. BKK has been part of this development since it was established in 1920. The professional environmental management of BKK's approach is visible in the internal procedures for environmental planning, ensuring responsibilities at all levels and in detailed monitoring of development in line with the environmental plan.

A strong emphasis on the environmental aspects is well integrated in the company profile and activities within hydropower production. The fact that BKK will switch to electric cars where feasible and buys CO<sub>2</sub> quotas to compensate for their emissions strengthens the impression of an enterprise concerned with low-carbon, sustainable development.

BKK Produksjon is ISO 14001:2004 certified

Reporting of environmental aspects of core company activities is at a high level. BKK procedures involve detailed environmental reporting from various activities and cover a wide range of indicators in particular related to energy use and emissions.

## Weaknesses

The reporting in the BKK Social responsibility Report 2013 (14) provides hardly any information on the scale and character of landscape disturbances, including visual effects, associated with hydropower investments.

Usually local communities benefit economically from large hydropower investments both in the short and the long term. Hence, the local administration and political institutions might have limited incentives to highlight environmental quality loss and failures. To avoid this potential information bias, BKK planning and reporting needs to be proactive to make up for such incentive failure.

## Pitfalls

The drive for more renewable energy and energy security involves a trend towards more diverse and decentralized energy production and storage. Investments in large hydropower dams and transmission lines with several decades of expected lifetime might be vulnerable to competition from less capital intensive electricity supply, in particular in relatively mature energy markets. Hence, there might be some concern about lock-in of capital intensive investments in hydropower production and transmission in Norway, in particular in building of new dams. Such structural changes in the energy market might have the side effect of rendering large instalments in natural surroundings idle, a natural cost which is not internalized in hydropower investment decisions, but should be considered in a robust strategy for long term sustainability.

## Impacts beyond project boundaries

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.

BKK Green Bond investments will increase supply of low-carbon energy. According to BKK Annual Report 2013, an additional 20 TWh capacity will enter the Swedish-Norwegian certificate market by 2020 (13), generally lowering electricity prices (13). To get a full effect of the Green Bond investments in terms of replacing fossil fuel, the project might depend on the capacity of transmission from Scandinavia to the continent and England. If the export of hydropower from Scandinavia is constrained or demand in Europe is increasingly met by wind and sun, the climate effect might be limited.

## *Environmental issues*

Although BKK core activities perform well in terms of direct regulations and nature conservation, BKK is running projects involving considerable emissions of GHG in the construction phase and in some cases having a significant impact on nature in a life cycle perspective.

Among the projects to be financed through the Green Bonds there is the Matre Haugsdalen project building a new power station 500 m into a mountain, requiring 360 000 m<sup>3</sup> of stone masses to be deposited. In line with preferences of the local municipality stone will be used for creating new agricultural land on current wetland/wilderness and for developing a new industrial park area in Haugsværdalen, where a BKK transmission station also is planned for. These depositions are

controversial and have been the target of environmental protests from NGOs. The transformation of wilderness to agricultural land has been approved at all levels, only after several dispensations. The agricultural department of the local municipality approved the deposition and change of land use, although referring to many and strong signals from the government and the ministry on not giving dispensations (16). The regional department of Norges Naturvernforbund (Friends of the Earth – Norway) has sued BKK (16).

Information about the formal procedure and reference to related documents concerning the deposition plans are found in (16).

### *Climate issues*

BKK takes a lifecycle approach to its sustainability target, taking responsibility for all stages in the process including waste deposition. BKK reports on emissions from core activities, but not from emissions of GHG from transportation and machinery of subcontractors. BKK should include these supply chain emissions in its reporting, and consider how emissions can be reduced through logistics, choice of project profile and choice of fuel/technology.

### **Rebound effects**

Another macro-level concern is the potential for rebound effects. For example, energy efficiency improvements that lower energy costs, inducing more energy use and partially offsetting energy savings. This can have the end result of lower reduction in GHG emissions than anticipated.

While these effects can never be entirely avoided, it is recommended to be aware of possible rebound effects and avoid investing in projects where the risk of such effects is particularly high. We cannot see that the risk for substantial rebound effects is high in the case of BKK Green Bond framework. The BKK investment will increase supply, make electricity cheaper and thus discourage use of fossil fuels.

### **Transparency and monitoring, reporting and verification**

The reporting and validation procedures are thoroughly described in the Green Bond framework and other documents. However, hydropower investments involve many inter-linkages with the environment. BKK reports on many indicators in their Social responsibility Report 2013 (14). However, the data on physical and visual impacts on the landscape are under-communicated. Generally, BKK's policies support regular and transparent updates to investors and the public. Annual reports on green bond investments, a selection of project examples, and a summary of BKK's Green Bond development will be made public on their website.

### **References**

Agua Imara (2014) <http://www.aguaimara.com/> (last accessed 13 August 2014)

Himal Power Limited (2014): [http://www.bkk.no/om\\_oss/anlegg-utbygging/vannkraft-utlandet/article32794.ece](http://www.bkk.no/om_oss/anlegg-utbygging/vannkraft-utlandet/article32794.ece) (last accessed 13 August 2014)

Electric cars, CO<sub>2</sub> quotas: [http://rapport.bkk.no/samfunnsansvarsrapport2013/Energi\\_og\\_milj\\_/](http://rapport.bkk.no/samfunnsansvarsrapport2013/Energi_og_milj_/)