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FOR GENE

GENERATIONS

FOR GENERATION

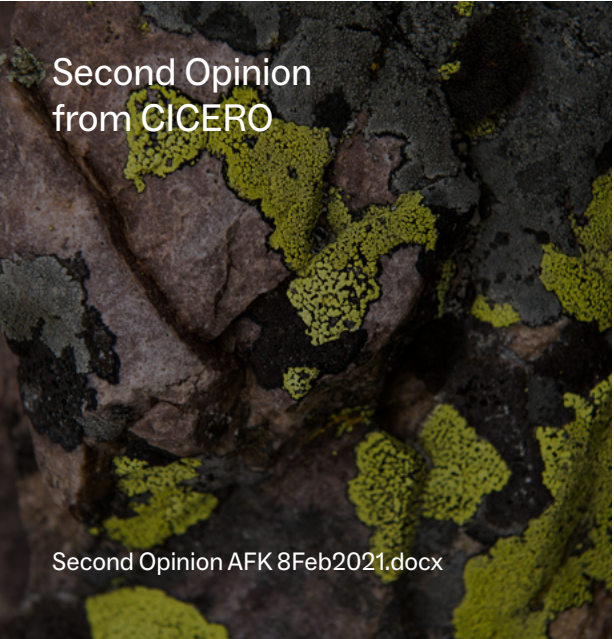
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# Executive Summary

In 2021, Arendals Fossekompani introduced a Green Bond Framework with specific criteria for issuing green bond loans to fund projects. The Green Bond Framework aligns with the Green Bond Principles and has received the ratings, Dark Green and Governance Assessment Good from the independent climate research centre CICERO. According to our Green Bond Framework, a minimum of 90 percent of the proceeds generated from the issuance of green bonds will be devoted to Category 1 investments. This category comprises hydropower, solar energy, and green hydrogen. Accordingly, a maximum allocation of 10 percent of the green bond proceeds will be directed towards Category 2 investments, which include eco-efficient and/or circular economy adapted products, production technologies, and processes. This report pertains to green bond investments conducted before December 31, 2023, along with information about intended future investments funded by green bond loans.

To access Arendals Fossekompani Green Bond Framework or the Second Opinion from CICERO, please click on the following links:



# Reallocation of Old Bonds

An amount equal to the net proceeds of the green bonds will finance or refinance, in whole or in part, investments undertaken by Arendals Fossekompani or its subsidiaries that promote the transition towards a low-carbon and environmentally sustainable society. Approximately NOK 410 million has been used to refinance the bond AFK01 PRO, including a related swap that was put in place in 2011 according to Arendals Fossekompani's hedging policies for currency risk management related to the bond. Given the development in currencies and interest rates, the swap had a negative value which was repaid in full when refinanced with the proceeds from green bond AFK01 PRO. The previous bond (AFK01 PRO) was used to finance green energy investments in hydropower, solar wafer production, and tidal power production.

## KILANDSFOSS

According to the Green Bond Framework, a small-scale hydropower development project in Norway, Kilandsfoss, will be classified as a Category 1 project, indicating significant environmental benefits. This project is financed by the green bond. Equity contributions of NOK 10 million were made in 2023 and an additional NOK 5 million has been allocated for both 2025 and 2026. This leads to a future equity contribution of NOK 10 million for hydropower development. Therefore, the total amount of green bonds allocated towards Kilandsfoss will be NOK 20 million.

## COMMEO

Commeo is a German company specializing in energy storage and energy management solutions. Commeo provides solutions for commercial and industrial energy storage by manufacturing battery modules and rack systems, including control units and software for monitoring and data logging. This investment will fall under the Category 2 classification, which imposes a 10% cap on the allocation of green bonds. Essentially, the company will be restricted to utilizing a maximum of NOK 50 million from the green bond.

## NORSUN

NorSun is a Norwegian solar energy company that manufactures and markets high performance mono-crystalline silicon ingots and wafers for the global solar energy industry. As it is a company that provides key components to the solar power industry, it is classified as a Category 1 investment. The total amount of green bonds allocated to NorSun in 2022 was NOK 15 million.





# Allocation of Proceeds and Green Savings



Year	Amount granted (MNOK)	Category	Project name, Project type	Outstanding (MNOK)
2021	410	Refinance of old bond (AFK01 PRO)	Documentation, Cicero 2nd Opinion	90
2022	15	Green Energy, Category 1	NorSun, Refinancing	75
2022	50	Energy Storage, Category 2	Commeo, New project	25
Year end 2022 total	475			25
2023	10	Green Energy, Category 1	Kilandsfoss, New project	15
End of July 2023 total	485			15

Note:  
The outstanding amount of 15 MNOK is planned to be allocated towards Kilandsfoss and one other Category 1 project in the coming years. 5 + 5 MNOK will be allocated towards Kilandsfoss in 2025 and 2026. The remaining 5 MNOK will probably be allocated to another Category 1 project.

# CEO Statement

We are pleased to present our Green Bond Report, which highlights our company's commitment to sustainability. We recognize the need to address climate change and reduce our carbon footprint. We believe that it is not only our responsibility, but also our opportunity to contribute to a more sustainable future.



Arendals Fossekompagni is making progress in developing a high-value portfolio that is aligned with the global sustainable development goals for 2030. With over a century of experience in renewable energy production, we have diversified our portfolio to include investments in: Hydro, wind and solar power, battery technology, software for renewable energy management, electrification, satellite communication solutions, and additive manufacturing.

Our companies contribute in several ways to the UN Sustainable Development Goals, and we remain committed to the climate targets of the Paris Agreement. As a UN Global Compact member, we continue to support its principles for responsible business policies for human rights, labour, environment, and anti-corruption.

Sustainability and corporate social responsibility are integral to our strategy of creating long-term value for our shareholders, employees, and society at large. We have identified clear opportunities to strengthen and build our position in selected segments and markets, and we will continue to serve our global customer base in the best possible manner.

Our green bond reflects our commitment to invest in sustainable projects and to reduce greenhouse gas emissions. The proceeds from this bond will be used to fund renewable energy projects such as Kilandsfoss, a new hydropower plant, Commeo, a German company specializing in energy storage and energy management solutions and NorSun, a Norwegian solar energy company.

A handwritten signature in black ink, appearing to read 'Ben Golding'.

Benjamin Golding,  
CEO, Arendals Fossekompagni



# Green Project Profiles



SDG 7:  
Affordable and clean energy



SDG 13:  
Climate action

## Kilandsfoss


Arendals Fossekompani has started the construction phase of the new hydro-power plant, Kilandsfoss. The project is in line with key market drivers such as the Norwegian need for 40 TWh new power production by 2030; a significant increase from the current production level of 157 TWh. It is necessary to meet the demands of an ever-increasing population and activity level, which results in increased consumption from households and for the transportation sector. Kilandsfoss, is planned to be operational in 2026 and will produce 38 GWh. Kilandsfoss is located in Arendal Watercourse between the hydropower plants Flatenfoss and Bøylefoss. It has a strategic location with 30% regulation in the watercourse due to the regulation of upstream water, enabling more winter production. The plant is constructed such that any future eel population may be preserved.

Furthermore, it will facilitate for outdoor activities such as hiking, canoeing, and kayaking, with the construction of a kayaking trail and a recreational area nearby. The project will be measured on the following sustainability KPIs:

### IMPACT METRICS FOR RENEWABLE ENERGY PROJECTS (CATEGORY 1) KILANDSFOSS

KPI	Result	Comments
1. Yearly renewable energy production	38 GWh	Estimate per year (Not yet in production, reporting will start when power production begins in 2026)
2. Potential GHG emissions related to the project or asset	N/A	Construction phase started; reporting will start in 2024.
3. Potential GHG emissions avoided by investing in the project or asset	N/A	Not yet in production, reporting will start when power production begins in 2026





SDG 7:  
Affordable and clean energy



SDG 9:  
Industry, innovation and infrastructure

Commeo

In 2022, Arendals Fossekompagni established the battery technology company Ampwell which consisted of the newly acquired company Commeo, a German establishment specializing in energy storage and energy management solutions. Commeo’s energy storage solutions could be used for “peak-shaving” purposes (using energy from the battery racks during peak price periods to avoid steep tariffs charged by the energy system operators) or time shifting (to reduce energy costs by shifting energy consumption to low price periods.)

Commeo has over the years developed its proprietary energy storage system and is now in a position where the product can be manufactured on an industrial scale. Commeo systems typically range from 50 kWh to 1 MWh, but the modular plug and play setup allows for even larger systems. A recently launched product is a new, fast-charging station designed for trucks and lorries, catering specifically to logistics and car dealerships. The company is on a strong growth trajectory and has started the construction of a new production facility which will be one of Germany’s largest. Production at the new facility is scheduled to commence in Q2 2024, boasting a capacity of up to 1 GWh. Furthermore, there are plans for two additional expansion phases, targeting a production exceeding 4 GWh annually by 2030.

Ampwell has the potential to become an attractive partner in the green transition based on the company’s fully integrated energy storage services. Commeo’s battery solutions are enabling increased use of intermittent renewable energy. Ampwell did its first assessment of activities against the EU Taxonomy, where Commeo’s activities were assessed. 100% of Commeo’s revenue was found to be aligned with the activity, ‘storage of electricity’.

Hydrogen, especially “green hydrogen” (CO<sub>2</sub>-free hydrogen produced using renewable energy sources) is considered one of the most important energy sources of the future. In 2023, Commeo and WIL0 Projects presented their H2Powerplant, a scalable container and building-integrated emergency power system for customers from industry and commerce. This system allows surplus electricity to be utilized for generating hydrogen through electrolyzers. The produced H2 is subsequently stored temporarily and can serve as an energy source through a fuel cell. Commeo will contribute to the batteries and control electronics of the system.

The project will be measured on the following relevant sustainability KPIs:

IMPACT METRICS FOR RENEWABLE ENERGY PROJECTS (CATEGORY 2)  
COMMEO

KPI	Results 2022	Results 2023	Comments
1. Yearly renewable energy production	N/A	N/A	Not relevant
2. Potential GHG emissions related to the project or asset	76,4 tCO <sub>2</sub> eq	144,9 tCO <sub>2</sub> eq	Included scope 1, scope 2, and scope 3 (Business travel, waste, fuel, and energy related activities) CO <sub>2</sub> emissions
3. Potential GHG emissions avoided by investing in the project or asset	N/A	N/A	Not relevant

NorSun

NorSun is a Norwegian solar energy company that manufactures and markets high performance mono-crystalline silicon ingots and wafers for the global solar energy industry. Dedicated to high efficiency n-type wafers and sustainable production with low CO<sub>2</sub> emissions, NorSun is an established supplier to tier-one cell manufacturers. NorSun operates a modern production facility located in Årdal in western Norway, pursuing a detailed and fast-paced technology development and cost road map which ensures a competitive price model. The NorSun plant is powered by low-cost renewable hydropower, enabling very low emissions from production. The company’s current production capacity of 1 GW from 88 ingot pullers and wafering capacity from 16 diamond wire saws. Furthermore, the plant has readily available cooling water which reduces electricity consumption. In 2023, NorSun was awarded a grant from the EU Innovation Fund for a 3 GW expansion of their current production capacity in Årdal in Vestland.

However, the past few years has been challenging for the solar energy industry in Europe and in Norway. Tougher competition due to a rapid solar industry scale-up in China with the influx of low-price products in Europe. Significantly higher production volumes from China have made it difficult for the solar energy industry in Europe to compete on price. As a result, in 2023 the mono-crystalline silicon ingots producer Norwegian Crystals filed for bankruptcy, making NorSun the only remaining producer of high-performance mono-crystalline silicon ingots and wafers in Norway, and one of few in Europe. The global geopolitical situation also impacts and increases the supply-chain risks for solar PV-products.

In 2023, NorSun has expansion plans in USA to construct a factory with a planned production capacity of 5 GW, helped by the introduction of the Inflation Reduction Act. The next milestone for the US expansion is the selection of the factory site, scheduled for Q1 2024.

The project will be measured on the following sustainability KPIs:

IMPACT METRICS FOR RENEWABLE ENERGY PROJECTS (CATEGORY 2)  
NORSUN

KPI	Results 2022	Results 2023	Comments
1. Yearly renewable energy production	N/A	388 GWh	Rough estimation of electricity production from a standard 60-cell solar panel in Europe. Based on estimated number of solar panels available from the total annual wafer production in NorSun EPD.
2. Potential GHG emissions related to the project or asset	N/A	60,180 tCO <sub>2</sub> eq	Estimate based on NorSun mono-crystalline silicon wafer EPD 2021
3. Potential GHG emissions avoided by investing in the project or asset	N/A	90,320 tCO <sub>2</sub> eq	Rough estimate using NorSun produced wafers compared to wafers produced in China (Not including transportation emissions).

Note: Estimations based on data from NorSun mono-crystalline silicon wafer EPD 2021 and Carbon emissions analysis of two crystalline silicon components throughout the life cycle. These numbers are only estimations, but the environmental benefit of NorSun’s mono-crystalline silicon wafers is unquestionable.

# Appendix



A limited assurance engagement in accordance with ISAE 3000 involves assessing the suitability in the circumstances of management's use of the Criteria as the basis for the preparation of the Subject Matter Information, assessing the risks of material misstatement of the Subject Matter Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Subject Matter Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgment and, among others, included an assessment of whether the criteria used are appropriate. Our procedures also included making inquiries primarily of persons responsible for the management of bond proceeds and the process for selection of eligible green projects and meetings with representatives from the Company who are responsible for the allocation reporting; obtaining and reviewing relevant information that supports the preparation of the allocation reporting; assessment of completeness and accuracy of the allocation reporting; performing substantive testing on a selective basis through inspection of documents; and testing (or reviewing) various supporting documentation.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the Subject Matter Information has been prepared, in all material respects, in accordance with the Criteria.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

**Conclusion**

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the section «Allocation of Proceeds and Green Savings» disclosed in the Green Bond Report 2023 is not prepared, in all material respects, in accordance with the applicable Criteria.

Arendal, 05 April 2024  
**PricewaterhouseCoopers AS**

Lars Ole Lindal  
State Authorised Public Accountant  
(This document has been signed electronically)





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Arendal, 05 April 2024  
**PricewaterhouseCoopers AS**

Lars Ole Lindal  
 State Authorised Public Accountant  
 (This document has been signed electronically)

# Green Bond Framework

## Use of proceeds

### REFINANCING OF AFK01 PRO

In total approximately NOK 410 million will be used towards refinancing of the existing bond AFK01 PRO, including a related swap that was put in place in 2011 according to AFK's hedging policies. The previous bond was used to finance green energy investments in hydropower, solar wafer production and tidal energy production.

### SELECTION OF ELIGIBLE NEW PROJECTS FOR USE OF PROCEEDS

AFK will identify and nominate future projects and assets for new investments within the Green Bond Framework for the following two eligible categories below.



SDG 7:  
Affordable and clean energy



SDG 13:  
Climate action

## Renewable energy (Category 1)

### A) HYDROPOWER

Investments in hydropower plants or upgrades on existing hydropower plants, including but not limited to grid connections, electric substations, networks or foundations. Infrastructure investments related to roads or fossil fuel related infrastructure will be excluded. Typical investment for hydropower production can be the potential new hydropower plants Kilandsfoss and Glomsdam, or upgrade of the Bøylefoss, Flatenfoss and Haugsjå hydropower plants and dams. The share of investment in upgrades or new developments will depend on the development of future power prices and the attractiveness of the relevant investment.

### B) SOLAR ENERGY

Financing of eligible renewable solar energy projects such as in NorSun. NorSun is a Norwegian solar energy company that manufactures and markets high performance mono-crystalline silicon ingots and wafers for the global solar energy industry. Dedicated to high efficiency n-type wafers, NorSun is an established supplier to tier-one cell manufacturers.

### C) GREEN HYDROGEN OR AMMONIA

Financing of projects for production of green hydrogen or ammonia, such as in relation to our hydropower plant facilities. Geography for investments in Category 1: Norway.

## Minimum 90%

of the proceeds from the Green Bonds shall be invested in and allocated to this Category 1 type of investments.



SDG 7:  
Affordable and clean energy



SDG 13:  
Climate action



SDG 12:  
Responsible consumption and production

## Eco-efficient and/or circular economy adapted products, production technologies and processes (Category 2)

### A) INVESTMENTS IN BEYONDER

Established in 2016, Beyonder is a Norwegian company that has developed and produces the next step battery cells needed in battery technology for industry and commercial infrastructure. Beyonder has currently established a smaller production facility in Forus, Norway, but has ambitions to create a full scale battery factories in the future. AFK has today a strategic ownership stake in Beyonder and is prepared to further increase investments to support the ambitions of the company.

### B) INVESTMENTS IN SILICON

#### NANOPOWDER-PRODUCTION IN TEKNA

Tekna is a Canada based technology company, specializing in ICP plasma systems and advanced material powders, typically used within additive manufacturing. One of Tekna's business segments specializes in production of Silicon Nanopowder. Silicon Nanopowder has multiple applications within Li-Ion batteries and has the potential to increase the battery charge and cycles available, while also reducing weight. At this stage, Tekna has sent a selected number of test batches to various battery producers, who will be the future costumers for the Silicon Nanopowder production. Tekna will potentially need substantial investments for the development and industrialization of this battery technology. In the event proceeds from the Green Bond are allocated to Tekna, it shall only be allocated to the Silicon Nanopowder segment of Tekna.

### C) OTHER INVESTMENTS IN BATTERY

#### TECHNOLOGY OR GREEN STORAGE TECHNOLOGY

The proceeds may also be used to invest in other projects or companies within the battery technology, or other green storage technologies or battery supplier industry with very similar characteristics as those described in a) and b) in Category 2 above. Geography for investments in Category 2: Canada and Europe.

## A maximum of 10%

of the proceeds from the Green Bonds shall be invested in and allocated to this Category 2 type of investments.



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