

Second-Party Opinion

Kemijoki Oy Green Finance Framework



Evaluation Summary

Sustainalytics is of the opinion that the Green Finance Framework is credible and impactful and aligns to the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2021. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Renewable Energy, Climate Change Adaptation, and Environmentally Sustainable Management of Living Natural Resources & Land Use – are aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7, 13, 14 and 15.



PROJECT EVALUATION / SELECTION Kemijoki Oy's internal process in evaluating and selecting projects is performed by the Green Finance Committee, which has responsibilities to keep a register of all Green Projects to ensure traceability and performance monitoring. Kemijoki's risk management system is applicable to all Green Projects. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS Kemijoki Oy's processes for management of proceeds will prioritize timely execution, targeting to fully allocate proceeds within 24 months after the issuance of each Green Finance Instrument. Unallocated proceeds will be placed in liquidity reserves and managed accordingly. This is in line with market practice.



REPORTING Kemijoki Oy intends to report on allocation of proceeds and the impact of financed projects in the Green Finance Report to be published on its website on an annual basis throughout the tenure of the issued Green Finance Instruments. In addition, Kemijoki Oy is committed to reporting on relevant impact metrics. Sustainalytics views Kemijoki Oy's allocation and impact reporting as aligned with market practice.

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Issuer Location	Rovaniemi, Finland

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For inquiries, contact the Sustainable Finance Solutions project team:

Ijeoma Madueke (Toronto)
Project Manager
ijeoma.madueke@sustainalytics.com
(+1) 647 317 3631

Aishwarya Ramchandran (Toronto)
Project Support

Mahesh Krishnamoorthy (Mumbai)
Project Support

Kibii Sisulu (London)
Client Relations
susfinance.emea@sustainalytics.com
(+44) 20 3880 0193

Introduction

Kemijoki Oy (“Kemijoki”, or the “Company”) operates as a power generating company in Finland. The Company generates, develops, and manages electricity through hydropower plants. Kemijoki owns 20 hydropower plants, 16 of which are located at the Kemijoki watercourse area, two at River Lieksanjoki and two at River Kymijoki. In addition, the Company regulates reservoirs in Lokka and Porttipahta, as well as Lake Kemijärvi and Lake Olkkajärvi. Founded in 1954, Kemijoki is headquartered in Rovaniemi, Finland and had 40 employees at end of 2020.

Kemijoki has developed the Green Finance Framework (the “Framework”) under which it intends to issue multiple green bonds and/or loans and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects in clean power generation from hydropower plants and in biodiversity conservation such as fish ways. The Framework defines eligibility criteria in three areas:

1. Renewable Energy
2. Climate Change Adaptation
3. Environmentally Sustainable Management of Living Natural Resources & Land Use

Kemijoki engaged Sustainalytics to review the Green Finance Framework, dated March 2022, and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2021 (GBP)¹ and the Green Loan Principles 2021 (GLP).² This Framework will be published in a separate document.³

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁴ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2021, as administered by ICMA, and the Green Loan Principles 2021, as administered by LMA, APLMA and LSTA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.11, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Kemijoki’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Kemijoki representatives have confirmed (1) they understand it is the sole responsibility of Kemijoki to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Kemijoki.

¹ The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-100621.pdf>

² The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association and are available at <https://www.lsta.org/content/green-loan-principles/>

³ The Green Finance Framework is available on Kemijoki Oy’s website at: www.kemijoki.fi

⁴ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond and loan proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner. The Second-Party Opinion is valid for issuances aligned with the respective Framework for which the Second-Party Opinion was written for a period of twenty-four (24) months from the evaluation date stated herein.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond and loan proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Kemijoki has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Green Finance Framework

Sustainalytics is of the opinion that the Green Finance Framework is credible and impactful and aligns to the four core components of the GBP and GLP. Sustainalytics highlights the following elements of Kemijoki's Green Finance Framework:

- Use of Proceeds:
 - The eligible categories – Renewable Energy, Climate Change Adaptation, and Environmentally Sustainable Management of Living Natural Resources & Land Use – are aligned with those recognized by the GBP and GLP.
 - Under Renewable Energy, Kemijoki may finance and/or refinance the development, construction, installation, M&A, R&D, improvement, operation, repair and maintenance of hydropower projects as well as related infrastructure.
 - For existing hydropower projects Kemijoki will only finance those that are either (i) run-of-river plants; (ii) plants with artificial reservoir having power densities higher than 5W/m²; and/or plants with artificial reservoirs with life cycle GHG emissions intensities lower than 100g CO₂e/kWh. New facilities financed under the Framework will be required to operate at power densities higher than 10W/m² or have lifecycle GHG emissions intensities lower than 50g CO₂e/kWh. Additionally, Kemijoki commits to conducting environmental and social impact assessments for all new hydropower plants. Sustainalytics considers the eligibility criteria and as well as the thresholds specified as aligned with market practice.
 - As part of this category, the Company intends to finance digital solutions that enable the monitoring and optimization of power generation or maintenance of hydropower plants. Furthermore, Kemijoki has confirmed to Sustainalytics that this will make up no more than 5% of net proceeds under the Framework ensuring that majority of capital is targeted towards projects that ensure renewable energy production.
 - In addition, Kemijoki intends to finance battery installations at its hydropower plants as well as fund the research and development of new turbine and other related renewable energy innovations. These investments are aligned with market practice.
 - Within the Climate Change Adaptation category, the Company may finance a range of activities targeted at flood risk mitigation relating to the development and operations of hydropower projects. This may include investments towards fortifying the facilities as well as supporting dams to ensure they can withstand higher levels of precipitation or warmer winters.
 - For the vulnerability risk assessment and adaptation plan for the projects, the Company relies on a report that was developed by the Finnish Meteorological Institute and Finnish Environment Institute that covers Kemijoki's operating area. This report is used

- to assess the climate change impact on operations to analyze estimates for future water flows with respect to increasing impacts of climate change compared to current baseline levels. Kemijoki has confirmed that its fortification efforts are based on this assessment. Sustainalytics views the reliance on a robust study for the implementation of climate change adaptation projects to be in line with market practice.
- Environmentally Sustainable Management of Living Natural Resources & Land Use expenditures relate to projects focused on the conservation and restoration of biodiversity in relation to the infrastructure of hydropower plants that meet the eligibility criteria above to mitigate the impacts of Kemijoki's activities. As part of this category, the Company may finance:
 - Fish passes and guidance structures towards the restoration or development of spawning habitats targeted at migrating fish species impacted by hydropower plant activities.
 - Sustainable afforestation or reforestation, preservation, or restoration of natural landscapes where all eligible projects are certified by the Programme for the Endorsement of Forest Certification (PEFC).^{5,6} Kemijoki has confirmed to Sustainalytics that a sustainable management plan is in place and all tree species used are locally well-adapted to site conditions. Sustainalytics considers the reliance on this third-party scheme in line with market practice.
 - Project Evaluation and Selection:
 - Kemijoki has established a Green Finance Committee (the "Committee") who will be responsible for identifying and evaluating eligible projects ("Green Projects") to be financed under the Framework. The Committee is comprised of the Chief Financial Officer, Head of strategy and development, the Environmental Manager as well as the Head of Corporate and Social Responsibility. In addition, the Committee may rely on Other internal representatives with specific expertise required to assess Green Projects.
 - The Company has a robust risk management system to evaluate the environmental and social risks for the Green Projects. This includes (i) ISO 14001 Environmental Management System procedures; (ii) Compliance with the EU Water Framework Directive 2000/60/EC⁷; and (iii) Environmental Impact Assessments for new projects. Sustainalytics considers these risk processes to be strong and aligned with market expectation. Refer to section 2 for additional details.
 - Based on the presence of a dedicated committee with cross-functional expertise as well as risk management systems, Sustainalytics considers this process to be in line with market practice.
 - Management of Proceeds:
 - Net proceeds raised under the Framework will be monitored by the Chief Financial Officer. The Company intends to allocate proceeds within 24 months after each issuance, which Sustainalytics consider as aligned with market practice. Pending full allocation, proceeds will be managed in line with Kemijoki's liquidity policies.
 - Based on the established process for monitoring and disclosure around temporary use of proceeds, Sustainalytics considers this process to be in line with market practice.
 - Reporting:
 - Kemijoki intends to report on allocation of proceeds via a Green Finance Report published on its website annually until full allocation. Allocation reporting will include the breakdown of proceeds according to project category, amount of allocated proceeds, as well as share of financing vs refinancing.
 - In addition, the Company is committed to reporting annually on relevant impact metrics per category such as annual greenhouse gas (GHG) emissions reduced/avoided, annual renewable energy generated (MWh), estimated lifespan prolonging of the infrastructure as well as number of protected and/or priority species deemed to be sensitive in protected/conserved area.

⁵ Kemijoki has communicated to Sustainalytics that the Company has a PEFC certificate 10000209997-MS-C-FINAS-FIN, which requires that sites must have a sustainable management plan in place. All More information can be found at: <https://cdn.pefc.org/pefc.org/media/2019-01/b296ddcb-5f6b-42d8-bc98-5db98f62203e/6c7c212a-c37c-59ee-a2ca-b8c91c8beb93.pdf>

⁶ PEFC, Standards and Implementation: <https://www.pefc.org/standards-implementation>

⁷ European Commission, "The EU Water Framework Directive - integrated river basin management for Europe", at: <http://data.europa.eu/eli/dir/2000/60/oj>

- Based on the commitment to both impact and allocation reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2021 and Green Loan Principles 2021

Sustainalytics has determined that the Green Finance Framework aligns to the four core components of the GBP and GLP. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Strategy of Kemijoki

Contribution of framework to Kemijoki Oy's sustainability strategy

Sustainalytics is of the opinion that Kemijoki demonstrates a commitment to sustainability with a focus on three key sustainability areas: (i) ensure the well-being of people and the local environment; (ii) move towards a carbon neutral Finland of the future; and (iii) become a pioneer in hydropower expertise. Sustainalytics has focused on the two environmental areas below most relevant to the use of proceeds categories, outlined in Kemijoki's Corporate Responsibility Report 2020:⁸

- Kemijoki's sustainability strategy focuses on improving the state of the environment taking its various stakeholder needs into account. The Company set two environmental goals including the overhaul of its power plants to improve their energy efficiency and the restoration of semi-wild migratory fish stock around their projects.⁹ To accomplish the first goal, Kemijoki has set a target to reduce electricity consumption by 13.6 GWh between 2017 and 2025 through an Energy Efficiency Agreement.¹⁰ The Company also conducts maintenance at plants which has resulted in an increase in annual energy production by two gigawatt hours while reducing the amount of water run-off during floods. In 2020, 82% of the Company's electricity was produced with environmentally friendly water-powered machinery¹¹, equivalent to 952 of 1,116 MW.¹² Towards its efforts to preserve fish stocks in areas where its facilities are located, Kemijoki undertakes voluntary projects on its own and in collaboration with other local stakeholders. In addition, the Company carries out periodic assessments to monitor fish stocks and revitalize migratory fish stocks where such stocks are depleted and use passive integrated transponders ("PIT")¹³ signs alongside radio-telemetry surveys¹⁴ to retrieve salmon populations. In 2020, almost 400 salmonoids, 1,100 other fish and 1,000 terns, a type of bird species, passed through facilities while 101 salmon were tagged in the PIT sign and radiotelemetry survey.¹⁵
- As part of its actions towards Finland's carbon-neutral goal, Kemijoki focuses on the flexible production of hydropower¹⁶ to enable the growth of other forms of renewable energy with a lower environmental footprint, to improve overall energy efficiency, support flood management and maintains carbon sinks. In terms of flood management, Kemijoki prepares for spring floods by working with local authorities leveraging forecasts to develop artificial lakes and basins to catch meltwater generated through the winter season. In 2020, flood levels were in line with the forecasts calculated based on climate scenarios.¹⁷ Accurate forecasting allows for effective flood management and thus, climate change adaptation while catchment areas and basins can sequester

⁸ Kemijoki Oy, "YRITYSVASTUURAPORTTI 2020", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu.html>

⁹ Kemijoki Oy, "HYVINVOIVAT IHMISET JA LUONTO PAIKALLISESTI", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/hyvinvoivat-ihmiset-ja-luonto-paikallisesti.html>

¹⁰ Energy Efficiency Agreements, "Energy Efficiency Agreements", at: <https://energiatehokkuussopimukset2017-2025.fi/en/>

¹¹ Kemijoki has communicated to Sustainalytics that machinery includes turbine hubs that hold water.

¹² Kemijoki Oy, "HYVINVOIVAT IHMISET JA LUONTO PAIKALLISESTI", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/hyvinvoivat-ihmiset-ja-luonto-paikallisesti.html>

¹³ PIT tagging is used for tracking and collecting data on fish migration, age and population. More information can be found at: <https://idfg.idaho.gov/blog/2017/01/clone-history-and-utility-passive-integrated-transponders-pit-tags-fisheries-studies>

¹⁴ Radio telemetry uses radio signals to locate wildlife and track their movements and is useful to understand migration patterns for mitigation efforts. More information on the activity can be found at: <https://nationalzoo.si.edu/migratory-birds/what-radio-telemetry>

¹⁵ Kemijoki Oy, "HYVINVOIVAT IHMISET JA LUONTO PAIKALLISESTI", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/hyvinvoivat-ihmiset-ja-luonto-paikallisesti.html>

¹⁶ Flexible hydropower production: Hydropower offers operational flexibility. It can immediately respond to electricity demand fluctuations and are more efficient and economical when it comes to supporting intermittent sources of renewable energy such as wind and solar. For more information can be found at: https://www.usgs.gov/special-topic/water-science-school/science/hydroelectric-power-advantages-production-and-usage?qt-science_center_objects=0#qt-science_center_objects

¹⁷ Kemijoki Oy, "KOHTI HIILINEUTRAALIA TULEVAISUUDEN SUOMEA", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/kohti-hiilineutraalia-tulevaisuuden-suomea.html>

carbon.¹⁸ Kemijoki also engages a third-party consultant to review the carbon sink of its owned forests. As of 2020, Kemijoki owned 42,000 hectares of forest which have an annual carbon sink impact of 31,000 tCO₂e.¹⁹

Sustainalytics is of the opinion that the Green Finance Framework is aligned with the company's overall sustainability strategy and initiatives and will further Kemijoki's action on its key environmental priorities. Sustainalytics also encourages Kemijoki to set short, medium and long-term quantitative GHG emissions reduction targets.

Well-positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the net proceeds from the bonds and/or loans issued under the Framework will be directed towards eligible projects that are expected to have positive environmental impact, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects could include land use, biodiversity and other ecosystem disturbances, site health and safety associated with its infrastructure development. Risks may also include emissions, effluents and waste generated during construction and maintenance projects, violation of contractor health and safety codes as well as community relations.

Sustainalytics is of the opinion that Kemijoki is able to manage and/or mitigate potential risks through implementation of the following:

- The Company has established a Code of Conduct aligned with local legislation and regulations. All partners and stakeholders must comply with the Code of Conduct which includes compliance with environmental laws and permits for dam safety, usage of water courses and other fish-related regulations. The Code of Conduct also outlines the practices in place to ensure personnel safety during operations in accordance with internal monitoring programmes.²⁰ Additionally, all hydropower plants developed and operated by Kemijoki are certified according to the ISO 14001:2015 (Environmental Management Systems) standard and all service contractor partners must also meet the requirements set forth in the standard.²¹
- Kemijoki's Climate Policy is in line with the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD").²² The policy is also aligned with the EU climate reporting guidelines which requires that companies report on corporate impact on climate and the TCFD recommendations.²³ Kemijoki's Board of Directors are responsible for the final approval of the climate policy.²⁴
- Risks related to biodiversity, invasive species and ecosystem disturbances are managed through compliance with Finland's Nature Conservation Act.²⁵ This Act enforces EU legislation within Finland regarding the protection of different natural habitat types and native species in order to ensure a favorable conservation status.²⁶ The EU legislation covered under the Act include the Habitats Directive, Birds Directive and Environmental Liability Directive.²⁷ Enforcing this Act also ensures a balanced and resilient ecosystem structure in the long-term.²⁸
- To ensure that risks associated with the emissions, effluents and waste generated during projects are managed and/or mitigated, Kemijoki complies with various local regulations as follows:

¹⁸ Cecco, L. (2019), "Glacial rivers absorb carbon faster than rainforests, scientists find", The Guardian, at:

<https://www.theguardian.com/environment/2019/oct/25/scientists-glacial-rivers-absorb-carbon-faster-rainforests>

¹⁹ Kemijoki Oy, "KOHTI HIILINEUTRAALIA TULEVAISUUDEN SUOMEA", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/kohti-hiilineutraalia-tulevaisuuden-suomea.html>

²⁰ Kemijoki Oy, "Our Code of Conduct", (2015). Document shared with Sustainalytics from Kemijoki Oy.

²¹ Kemijoki Oy, "YMPÄRISTÖPERIAATTEET", at: <https://www.kemijoki.fi/toimintamme/toimintamme-periaatteet/ymparistoperiaatteet.html>

²² Kemijoki Oy, "ILMASTOLINJAUS – Kesäkuu 2020", at: https://www.kemijoki.fi/media/raportit-ja-selvitykset/ilmastolinjaus_kemijoki_oy.pdf

²³ European Commission, "New Guidelines on Reporting Climate-related Information – Summary", at:

https://ec.europa.eu/info/sites/default/files/business_economy_euro/company_reporting_and_auditing/documents/190618-climate-related-information-reporting-guidelines-overview_en.pdf

²⁴ Kemijoki Oy, "KOHTI HIILINEUTRAALIA TULEVAISUUDEN SUOMEA", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/kohti-hiilineutraalia-tulevaisuuden-suomea.html>

²⁵ Kemijoki Oy, "SÄÄNTELY JA VELVOITTEET", at: <https://www.kemijoki.fi/vesivoima/saantely-ja-velvoitteet.html>

²⁶ Ministry of the Environment, "Nature Conservation Legislation", at: <https://ym.fi/en/nature-conservation-legislation>

²⁷ Kemijoki Oy, "ÄÄNTELY JA VELVOITTEET", at: <https://www.kemijoki.fi/vesivoima/saantely-ja-velvoitteet.html>

²⁸ Ministry of Justice – FINLEX, "Nature Conservation Act", (2021), at: <https://finlex.fi/fi/laki/ajantasa/1996/19961096#L1P3>

- The Company is required to obtain a permit for the construction and operation of hydropower plants in accordance to Finland's Water Act to ensure effective water management.²⁹
- In addition, Kemijoki must also obtain a permit in accordance with Finland's Environmental Protection Act for the construction of a hydropower plant which addresses pollution prevention related to emissions released into air, water and land and wastewater.³⁰
- The Company also complies with Finland's Environmental Impact Assessment Procedure Act which requires the Kemijoki to conduct an environmental impact assessment to assess potential adverse environmental impacts.³¹
- To manage contractor health and safety, Kemijoki has implemented its Safety Rules Policy. This policy outlines the measures and actions to be taken at sites including electrical safety, personal protective equipment procedures for partners and subcontractors before arriving and while working at the plants.³² Partners and subcontractors are required to submit a safety plan for their project scope.³³ Additionally, the Company has a Builder's Safety Document which allows Kemijoki to review projects risk assessments and security plans.³⁴ All stakeholders are required to undergo the review including contractors, designers and safety coordinators.³⁵
- Kemijoki undertakes direct and indirect engagement to ensure effective community relations and stakeholder participation. The Company works with local actors through events and engages with residents on a regular basis to ensure that river conditions meet the needs of the community. Each operating region also has a dedicated regional manager who is responsible for liaising with the local community and participating in local debates.³⁶ The stakeholder engagement process entails ongoing dialogue and meetings, surveys and power plant visits as well as indirect engagement by publishing newsletters. Kemijoki has implemented a web-based stakeholder feedback system to process and log feedback and initiate dialogue with the feedback provider.³⁷

In addition to the above, Sustainalytics notes that financing under the Framework will take place in Finland, which is categorized as a Designated Country under the Equator Principles. This indicates the presence of strong environmental and social governance legislation systems and institutional capacity to mitigate common environmental and social risks.³⁸

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Kemijoki has implemented adequate measures and is well-positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

Section 3: Impact of Use of Proceeds

All three use of proceeds categories are aligned with those recognized by the GBP and GLP. Sustainalytics has focused on the impact below specifically relevant in the local context.

Importance of supporting further growth in renewable energy production in Finland

The energy sector is one of Finland's largest sources of GHG emissions accounting for about 71.8% of the country's total emissions in 2020.³⁹ As such, reducing the sector's emissions will drastically improve the country's emissions profile and thus, environmental footprint. Between 2019 and 2020, total GHG emissions decreased by 9% due to key structural changes made to Finland's electricity production mix including a

²⁹ Kemijoki Oy, "SÄÄNTELY JA VELVOITTEET", at: <https://www.kemijoki.fi/vesivoima/saantely-ja-velvoitteet.html>

³⁰ Kemijoki Oy, "SÄÄNTELY JA VELVOITTEET", at: <https://www.kemijoki.fi/vesivoima/saantely-ja-velvoitteet.html>

³¹ Kemijoki Oy, "SÄÄNTELY JA VELVOITTEET", at: <https://www.kemijoki.fi/vesivoima/saantely-ja-velvoitteet.html>

³² Kemijoki Oy, "KEMIJOKI OY: N TURVALLISUUSSÄÄNNÖT", (2021), at: <https://www.kemijoki.fi/media/kemijoki-oy-turvallisuussaannot.pdf>

³³ Kemijoki Oy, "TURVALLISUUS", at: <https://www.kemijoki.fi/toimintamme/turvallisuus.html>

³⁴ Kemijoki Oy, "TURVALLISUUS", at: <https://www.kemijoki.fi/toimintamme/turvallisuus.html>

³⁵ Kemijoki Oy, "Rakennuttajan turvallisuusasiakirja – hankkeen nimi tämän tilalle", (2016), at: https://www.kemijoki.fi/media/kemijoki-oy_rakennuttajan-turvallisuusasiakirja.pdf

³⁶ Kemijoki Oy, "HYVINVOIVAT IHMISET JA LUONTO PAIKALLISESTI", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/hyvinvoivat-ihmiset-ja-luonto-paikallisesti.html>

³⁷ Kemijoki Oy, "HYVINVOIVAT IHMISET JA LUONTO PAIKALLISESTI", at: <https://www.kemijoki.fi/viestinta/yritysvastuuraportin-etusivu/hyvinvoivat-ihmiset-ja-luonto-paikallisesti.html>

³⁸ Equator Principles, "Designated Countries", (2020), at: <https://equator-principles.com/designated-countries/>

³⁹ Official Statistics of Finland (OSF), "Greenhouse gas emissions decreased by 9 per cent", (2021), at: https://www.stat.fi/til/khki/2020/khki_2020_2021-05-21_tie_001_en.html

transition from fossil to renewable fuels.⁴⁰ Over the period, the share of total energy consumption from renewable sources grew to 40% while fossil fuel sources fell to 37% of the total share in 2020.⁴¹

The EU has committed to a clean energy transition to fulfill the goals on limiting climate change set out in the Paris Agreement.⁴² These commitments include binding climate and energy targets for member states such as reducing GHG emissions by at least 40% and increasing energy efficiency by 32.5%.⁴³ As a part of its Integrated Energy and Climate Plan under the EU targets, Finland’s government established the Government Programme with an objective to reach carbon neutrality by 2035 and become carbon negative soon after.⁴⁴ One of the targets the Finnish government established to achieve these objectives is to bring the renewable energy share of the final energy consumption to at least 51% by 2030.⁴⁵ As a result, the Energy Aid Scheme was developed to provide investment subsidies for projects and technologies that promote the production or use of renewable energy, energy savings or increase energy efficiency and the transition to a low-carbon energy system.⁴⁶ A budget of EUR 30-40 million has been allocated with an additional EUR 40 for large demonstration projects and EUR 90 million to phase out coal use in energy production.⁴⁷ As of 2020, small hydroelectric power projects, for example, received up to 15% to 20% in subsidy aid.⁴⁸

While Finland has made significant progress, Sustainalytics believes that Kemijoki’s investments into renewable energy projects will support the further growth of renewable energy production and will contribute to Finland’s and the EU’s GHG targets.

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The bonds and/or loans issued under the Green Finance Framework advances the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Climate Change Adaptation	13. Climate Action	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
Environmentally Sustainable Management of Living Natural Resources & Land Use	14. Life below Water 15. Life on Land	14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

⁴⁰ OSF, “Greenhouse gas emissions decreased by 9 per cent”, (2021), at: https://www.stat.fi/til/khki/2020/khki_2020_2021-05-21_tie_001_en.html

⁴¹ OSF, “Renewable energy surpassed fossil fuels and peat in total energy consumption in 2020”, (2021), at: https://www.stat.fi/til/ehk/2020/04/ehk_2020_04_2021-04-16_tie_001_en.html

⁴² European Commission, “Finland – Summary of the Commission assessment of the draft National Energy and Climate Plan 2021-2030”, at: https://ec.europa.eu/energy/sites/default/files/documents/necp_factsheet_fi_final.pdf

⁴³ European Commission, “Finland – Summary of the Commission assessment of the draft National Energy and Climate Plan 2021-2030”, at: https://ec.europa.eu/energy/sites/default/files/documents/necp_factsheet_fi_final.pdf

⁴⁴ Ministry of Economic Affairs and Employment of Finland, “Finland’s Integrated Energy and Climate Plan”, (2019), at: https://ec.europa.eu/energy/sites/ener/files/documents/fi_final_necp_main_en.pdf

⁴⁵ Ministry of Economic Affairs and Employment of Finland, “Finland’s Integrated Energy and Climate Plan”, (2019), at: https://ec.europa.eu/energy/sites/ener/files/documents/fi_final_necp_main_en.pdf

⁴⁶ Ministry of Economic Affairs and Employment of Finland, “Energy aid”, at: <https://tem.fi/en/energy-aid>

⁴⁷ Ministry of Economic Affairs and Employment of Finland, “Finland’s Integrated Energy and Climate Plan”, (2019), at: https://ec.europa.eu/energy/sites/ener/files/documents/fi_final_necp_main_en.pdf

⁴⁸ Business Finland, “Energy Aid”, at: <https://www.businessfinland.fi/en/for-finnish-customers/services/funding/energy-aid>

Conclusion

Kemijoki has developed the Green Finance Framework under which it will issue green bonds and/or loans and the use of proceeds to finance and/or refinance, in whole or in part, existing and/or future projects in clean power generation from hydropower plants and in biodiversity conservation. Sustainalytics considers that the projects funded by the green finance proceeds are expected to have positive environmental impact.

The Green Finance Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the Green Finance Framework is aligned with the overall sustainability strategy of the company and that the green use of proceeds categories will contribute to the advancement of the UN SDG 7, 13, 14 and 15. Additionally, Sustainalytics is of the opinion that Kemijoki has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Kemijoki Oy is well-positioned to issue green bonds and/or loans that the Green Finance Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2021.

Appendix

Appendix 1: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	Kemijoki Oy
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	Green Finance Framework
Review provider's name:	Sustainalytics
Completion date of this form:	March 25, 2022
Publication date of review publication:	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible categories for the use of proceeds – Renewable Energy, Climate Change Adaptation, and Environmentally Sustainable Management of Living Natural Resources & Land Use – are aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7, 13, 14 and 15.

Use of proceeds categories as per GBP:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Renewable energy | <input type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input checked="" type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input checked="" type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input type="checkbox"/> Other <i>(please specify)</i> : |

If applicable please specify the environmental taxonomy, if other than GBP:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section *(if applicable)*:

Kemijoki Oy's internal process in evaluating and selecting projects is performed by the Green Finance Committee, which has responsibilities to keep a register of all Green Projects to ensure traceability and performance monitoring. Kemijoki's risk management system is applicable to all Green Projects. Sustainalytics considers the project selection process in line with market practice.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other <i>(please specify)</i> : |

Information on Responsibilities and Accountability

- Evaluation / Selection criteria subject to external advice or verification In-house assessment
- Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

Kemijoki Oy's processes for management of proceeds will prioritize timely execution, targeting to fully allocate proceeds within 24 months after the issuance of each Green Finance Instrument. Unallocated proceeds will be placed in liquidity reserves and managed accordingly. This is in line with market practice.

Tracking of proceeds:

- Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- Other (please specify):

Additional disclosure:

- Allocations to future investments only Allocations to both existing and future investments
- Allocation to individual disbursements Allocation to a portfolio of disbursements
- Disclosure of portfolio balance of unallocated proceeds Other (please specify):

4. REPORTING

Overall comment on section (if applicable):

Kemijoki Oy intends to report on allocation of proceeds and the impact of financed projects in the Green Finance Report to be published on its website on an annual basis throughout the tenure of the issued Green Finance Instruments. In addition, Kemijoki Oy is committed to reporting on relevant impact metrics. Sustainalytics views Kemijoki Oy's allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

- Project-by-project On a project portfolio basis
- Linkage to individual bond(s) Other (please specify):

Information reported:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Green Bond financed share of total investment |
|
 | |
| <input checked="" type="checkbox"/> Other (<i>please specify</i>):
Breakdown of proceeds according to project category;
Share of financing vs refinancing. | |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
|
 | |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Impact reporting:

- | | |
|--|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported (expected or ex-post):

- | | |
|---|--|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input type="checkbox"/> Energy Savings |
| <input type="checkbox"/> Decrease in water use | <input checked="" type="checkbox"/> Other ESG indicators (<i>please specify</i>):
Annual renewable energy generation (electricity) (MWh/GWh) and GJ/TJ (other energy); Capacity of renewable energy plant(s) constructed or rehabilitated in MW; Enabled renewable energy production (MW or MWh); Estimated lifespan prolonging of the infrastructure in years; Reduction in flood damage costs (EUR) or qualitative explanation; Reduction in number of operating days lost to floods; Absolute number of predefined target organisms and species per km ² (more diverse fauna) or m ² (smaller fauna and flora) before and after project; Absolute number of protected and/or priority species that are deemed sensitive in protected/conserved area before and after project; Maintenance/safeguarding/increase of natural landscapes area (including forest) in km ² and in % for increase |

Frequency

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
|
 | |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Means of Disclosure

- | | |
|---|--|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input checked="" type="checkbox"/> Other (please specify): Green Finance Report |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): | |

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|--|--|
| <input type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. **Second-Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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