Metsä Group
Green Finance Framework

Funds allocation and impact report Q1 2021 – Q1 2023

31 May, 2023

Green Bank Loan EUR 100 mln

Financed assets consist of three target areas: Sustainable Water Management, Pollution Prevention and Control, and Renewable Energy

ELIGIBLE ASSETS AND PROJECTS

Green Bond Principles Categories	Metsä Group description of projects	Linkage to the UN SDGs
Renewable Energy	Renewable energy means energy produced of the biomass generated from harvesting residues, or resource-efficient energy production from side streams of the bioproduct and pulp mills, sawmills and other mechanical wood engineering operations, board mills or tissue paper mills. Examples of eligible uses are projects that • increase the production or share of renewable energy instead of fossil-based energy • renew the equipment or process for renewable energy production at mills	
Energy Efficiency	Energy efficiency projects develop production technology and processes to reduce the consumption of energy in relation to production. Examples of eligible uses are projects that • develop production processes to reduce energy consumption • replace equipment with more energy efficient solutions. Typically, the improvement in these projects is over 25 % • renew the production line entirely or partially to improve specific energy consumption per production • develop the energy recovery of processes • develop closed loop processes (e.g. water systems) • are "Green field investments" for the production unit utilising best available technology (BAT) compared to the earlier practices.	
Pollution Prevention and Control	Projects related to improving the environmental performance of our operations as well as improving the utilisation of all resources. Examples of eligible uses are projects that • prevent and/or decrease emissions to air • prevent and/or decrease emissions to water • improve the utilisation of industrial side streams • reduce the amount of landfill waste	
Environmentally sustainable management of living natural resources and land use	Projects that develop sustainable forest management practices, such as harvesting, regeneration and transportation of wood from sustainably managed forests. Examples of eligible uses are projects that • improve sustainable forest management practices and safeguard biodiversity based on international sustainable forest management schemes, such as PEFC and/or FSC • increase the amount of carbon stored in forests	
Sustainable Water (and waste water) Management	Projects that improve sustainable use of water. Water is globally a key resource. Even though Metsä Group operates in areas with abundant surface water resources, we aim to reduce water use even further. Examples of eligible uses are projects that • reduce the intake of water and the use of process water • improve the recycling and reuse of process water • use cooling water to heat raw waters	
Circular Economy Adapted Products, Production Technologies and Processes	Projects that explore new sustainable, wood-based alternatives to be commercialised and to broaden the product portfolio of forest industry. Examples of eligible uses are projects that • take ideas from the R&D to production and full commercialisation • enable more sustainable and more resource-efficient production. • improve material efficiency	

Plan from November 2020; Green Bank Loan target assets and their cost estimate

Assets for Green Bank Loan	Category under Metsä Group Sustainable Finance Framework	Estimated total investment
Effluent Treatment Plant	Sustainable Water (and waste water) Management	EUR 39.7m
Sulphuric Acid Plant	Pollution Prevention and Control, and/or Sustainable Water (and waste water) Management	EUR 15.6m
Cooling towers	Sustainable Water (and waste water) Management	EUR 18.1m
Total water preservation		**EUR 73.4m**
Bark drying and gasification	Renewable Energy	EUR 26.2m
Sludge handling and pelletizing	Pollution Prevention and Control, and/or Renewable Energy	EUR 16.1m
Total renewable energy		**EUR 42.3m**
Total		**EUR 115.7m**

Part 1:
Sustainable water (and waste water) management

Financed assets:

- Effluent treatment plant
- Cooling towers

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Estimated impacts to be achieved

Sustainable water and waste water management

As of May, 2023 actual impacts can not be verified as industrial plants and structures financed have not yet been finalized, thus are not operative

- **Effluent treatment plant. Estimated cost 40 M€**
  - Purpose: to reduce waste water load to the sea
  - Impact: To achieve the below permit limits
    - COD < 30 000 -> 25 000 kg/d
    - P < 30 -> < 20 kg/d
    - N < 700 -> < 600 kg/d

- **Cooling towers. Estimated cost 18 M€**
  - Purpose: to reduce water heat load to sea
  - Impact: 470 MW -> 20 MW. Total load heat load remains below the current level (130 MW)

Part 2: Renewable Energy & Pollution Prevention and Control

Financed assets:

- Bark drying and gasification
- Sludge handling and pelletizing
- Sulphuric acid plant

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Estimated impacts to be achieved

Renewable energy & Pollution prevention and control

As of May, 2023 the actual impacts can not be verified as industrial plants and structures financed have not yet been finalized, thus are not operative

- **Bark drying and gasification. Estimated cost 25 M€**
  - Purpose: Reduce Co2 emissions from fossil fuels
  - Impact: fossil Co2/year emissions after investment to be zero tonnes Co2/year

- **Sludge handling and pelletizing. Estimated cost 16 M€**
  - Purpose: to reduce solid waste to the sea and produce biopellets from the sludge
  - Impact: Solid waste to the sea current 3000 kg/day. Solid waste to the sea will not grow despite of the larger mill production volumes.

- **Sulphuric acid plant. Estimated cost 15 M€**
  - Purpose: to reduce sulphate load to the sea
  - Impact: Reduces the use of purchased sulfuric acid 18 000 t/a (- 33 %) and sulfate emission 17 000 t/a

Allocation of funds per 31.3.2023

Eligible investments	Category in Green Finance Framework	Budgeted funds EUR millions	Completion % 31.3.2023
Effluent treatment plant	Sustainable Water (and waste water) Management	39,7	95
Sulphuric acid plant	Pollution prevention and control	15,6	97
Cooling towers	Sustainable Water (and waste water) Management	18,1	94
Bark drying and gasifiction	Renewable energy	26,2	91
Sludge handling and pelletizing	Pollution prevention and control	16,1	92
Total		115,7	

Category in Green Finance Framework	Budgeted expenses (EUR millions)	Allocated proceeds EUR mln (of EUR 100m€ Green Term Loan
Renewable energy (*Bark drying and gasification*)	26,2	17,3
Pollution prevention and control (*Sludge handling, Sulphur acid plant*)	31,7	34,1
Sustainable water (and waste water) management (*Effluent treatment, Cooling towers*)	57,8	75,7
Total expenses	115,7	127,1