

# Green, Social and Sustainability Lending Programme – Criteria

31 March 2023

**LGFA**



New Zealand Local  
Government Funding Agency  
Te Pūtea Kāwanatanga ā-rohe

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## About this Report

The LGFA Green, Social and Sustainability Lending Programme – Criteria (Criteria) was developed to provide a detailed background to LGFA borrowers on how to access LGFA Green, Social and Sustainability Loan funding.

This document is available at [www.lgfa.co.nz](http://www.lgfa.co.nz)

# 1. Introduction

## 1.1 Purpose of this Criteria

New Zealand Local Government Funding Agency Limited (**LGFA**) recognises the risks inherent in climate change for both New Zealand and Councils, and wishes to support New Zealand's shift to a low- carbon economy. LGFA also recognises it has a role to play in New Zealand's contribution to meeting the United Nations' Sustainable Development Goals (**UN SDGs**) and helping its member Councils and council-controlled organisations (**CCOs**) to build a stronger and more resilient society.

To help achieve these goals, LGFA lends funds to member Councils and CCOs to enable them to undertake green, social and/or sustainability (**GSS**) projects that will help drive forward ambitious climate, environmental and social projects in the New Zealand local government sector (**GSS Loans**). The GSS Loans will be documented as debt securities under LGFA's Multi-issuer Deed, however, we refer to these debt securities as 'GSS Loans' in this document.

This Green, Social and Sustainability Lending Programme – Criteria (**Criteria**) sets out the basis on which member Councils or CCOs (**Borrowers**) can access a GSS Loan.

## 1.2 Introduction to GSS Loans

LGFA can provide GSS Loans for projects that provide a demonstrable reduction in energy consumption and/or greenhouse gas (**GHG**) emissions, that strengthen the level of local adaptation to challenges posed by climate change, or that have identified social and/or environmental objectives. Such projects must target requirements higher than or at least the minimum requirements in the relevant New Zealand legislation, policies or principles and must have explicit climate, environmental, social, or sustainable ambitions.

The purpose of GSS Loans is for financing new green or social projects, and generally GSS Loans will not be made available to finance or refinance projects that were completed more than 18 months prior to the GSS Loan application date. When existing GSS Loans mature, these can be refinanced within the economic lifetime of the project, but the projects will be reassessed against LGFA's latest Criteria.

The Criteria supports three types of GSS Loans to Borrowers, including a:

- **Green Loan**; where the net proceeds are to be notionally allocated to finance and/or refinance projects, assets and/or activities that meet the criteria for at least one Green Project Category, as outlined in Section 3.4;
- **Social Loan**; where the net proceeds are to be notionally allocated to finance and/or refinance projects, assets and/or activities that meet the criteria for at least one Social Project Category, as outlined in Section 3.5;
- **Sustainability Loan**; where the net proceeds are to be notionally allocated to finance and/or refinance projects, assets and/or activities that meet both the criteria for at least one Green Project Category and at least one Social Project Category, as outlined in Section 3.4 and Section 3.5 respectively.

To help fund GSS Loans, LGFA may issue '**Sustainable Financing Bonds**' in the debt capital markets using LGFA's Sustainable Financing Bond Framework (**Framework**) established in March 2023. The Framework will outline the basis on which Sustainable Financing Bonds will be issued by LGFA, how the net proceeds of the Sustainable Financing Bonds will be notionally allocated towards environmental and social projects, and how LGFA will report to investors on its Sustainable Financing Bonds.

Compliance with this Criteria will support LGFA to comply with aspects of its Framework and issue Sustainable Financing Bonds that finance Borrowers (including to refinance LGFA's existing debt).

## 1.3 Alignment to Sustainable Finance Market Standards

LGFA's approach to providing GSS Loans will be undertaken in alignment with the Green Loan Principles<sup>1</sup> (GLP) and/or the Social Loan Principles<sup>2</sup> (SLP). These are voluntary sustainable finance guidelines developed by the Loan Markets Association (LMA), Asia Pacific Loan Market Association (APLMA), and Loan Syndications & Trading Association (LSTA) to support the structuring of green, social and/or sustainability loans.

LGFA's GSS Lending Programme aligns to the core components of these principles, including:

- Use of Proceeds;
- Process for Project Evaluation and Selection;
- Management of Proceeds; and
- Reporting.

The core components of these principles have been integrated within the requirements for Borrower's to obtain a GSS Loan in this Criteria.

## 1.4 Structure of this Criteria

**Section 2** of this Criteria sets out the application and selection process for GSS Loans.

**Section 3** of this Criteria outlines the project types for which LGFA may provide Borrowers with a GSS Loan and sets out the criteria for projects and the information required by LGFA to verify the project is in line with this Criteria.

**Section 4** of this Criteria outlines the obligation on Borrower's regarding the reporting and management of GSS Loans, as well as how LGFA may use the information Borrowers send LGFA relating to their GSS Loans for LGFA's Sustainable Financing Bond annual update report.

The final section of this Criteria, **Section 5**, looks at some of the calculation methods LGFA may require Borrowers to use when calculating values for energy savings, emission reductions and other metrics for GSS Loan applications.

This Criteria will be reviewed regularly (and updated from time to time) by LGFA.

If you have any questions or comments on this Criteria, we ask that you contact LGFA's Head of Sustainability.

# 2. Application Process

All Borrowers are eligible to apply for a GSS Loan from LGFA. Applications for GSS Loans will be subject to a separate assessment process based on the criteria set out in **Section 3** of this Criteria in conjunction with the normal process to assess a Borrower's creditworthiness.

## 2.1 Application Form

The application process is started by the Borrower completing the relevant project category GSS Loan application form, which can be requested by contacting LGFA. There is a separate form for each of the nine categories of green projects and one for the three categories of social projects. If the requested GSS Loan is to finance or refinance projects in more than one category, a separate application form may be

1 APLMA / LMA / LSTA – Green Loan Principles, updated February 2023, as amended from time to time

2 APLMA / LMA / LSTA – Social Loan Principles, updated February 2023, as amended from time to time

required to be completed for each category. Our aim has been to ensure the application forms are easy to complete and that the information requested is easily available from project summaries or proposals with contractors. Attachments should be provided to verify the figures and information provided in the completed application form, as far as possible. For example, we expect the energy needs calculated for new builds and the expected reductions resulting from energy efficiency measures to be documented by an energy report from a contractor. For other types of investment, impact calculations in the proposals submitted by contractors, project descriptions or similar can be used as supporting documentation. For all projects, LGFA requires information on the processes by which the Borrower identifies and manages perceived, actual or potential environmental and social risks associated with the relevant project.

LGFA will consider applications for projects that have already commenced, provided that the date of project completion does not exceed a period of 18 months prior to the date of the GSS Loan application(s).

All the information we ask for is ex-ante, which is to say energy consumption, emission reductions, car kilometres saved or other indicators *as calculated in advance of GSS project implementation*.

We need at least ten working days to assess applications, so we ask that applicants send us the completed forms and necessary attachments in good time, before you need to draw a GSS Loan. If you need assistance completing the form, please contact LGFA's Head of Sustainability who will be able to assist you.

## 2.2 Assessment of Applications

Once we have received an application and the necessary attachments, we will then assess it against the criteria for the relevant project category. We will normally be able to determine whether the project does or does not qualify in the course of ten working days. If we need more information to decide whether the GSS project qualifies, we will be in contact to request the necessary information and the process may take more time. Applications are, in the first instance, assessed by LGFA's management team, and then presented at a session of the Sustainability Committee before a final recommendation is made by the Sustainability Committee to the Chief Executive. This may include a request for further information regarding the GSS project to be provided.

The **Sustainability Committee** is a consultative body responsible for reporting to the Chief Executive and assisting the Chief Executive and Board on all material matters in relation to sustainability within LGFA, including making recommendations to the Chief Executive on applications for GSS Loans.

## 2.3 Loan Confirmations

Where a GSS project satisfies our GSS Loan criteria, we will confirm in writing that a GSS Loan can be made to the Borrower. Where a project does not satisfy LGFA's GSS Loan criteria, the Borrower can continue to borrow under LGFA's standard financing terms.

By borrowing a GSS Loan, a Borrower agrees to the information provided about the project being used in our impact reporting. You can find more information on how we use this information in Section 4.

## 2.4 Changes to a GSS Project

If a GSS project changes during the construction or use phase, such that it is probable that it will no longer satisfy the GSS criteria set out in this Criteria, the Borrower is required to notify LGFA. **If, at any time, LGFA determines (in its sole discretion) that the GSS project does not satisfy this Criteria, LGFA may, by notice in writing to the Borrower, declare the GSS Loan to be immediately due and payable. The Borrower may then apply for replacement funding from LGFA under LGFA's standard financing terms.**

In the event the Borrower is no longer able to meet its annual reporting commitments in section 4.2, then LGFA may decide (in its sole discretion) to follow the same process as above.

# 3. Categories and Criteria

## 3.1 About this Section

This section sets out the criteria a GSS project must meet in order for it to be financed using a GSS Loan. We offer GSS Loans for a wide range of projects across nine Green Project Categories and three Social Project Categories.

The criteria a GSS project must satisfy to qualify for a GSS Loan are set out in the sub-sections of this section, each of which addresses a specific project category. Each of the categories also includes the purpose of each project type, example projects, and documentation requirements and conditions specific to each category, where appropriate.

We recognise that not all the points in the 'Documentation that must be provided' sections will be relevant or viable for every project. Please contact us if you would like to apply for a GSS Loan for an activity or project that is not covered by any of the categories below. The key aspects of each GSS project that will be of primary interest to LGFA will be:

- What is the intent of the project?
- Are there any additive designs of the project?
- What are the measurable impacts of the project?

A Borrower should start by making a list of which projects in their existing asset pool or future investment budget could potentially qualify for a GSS Loan. The next step is to find the appropriate category in this section and, on the basis of the nature of the project, find the type of project that is the closest fit.

For each project, the Borrowers' project must meet at least one of the criteria to be eligible.

A Borrower will then complete the application form for the category selected and attach the required documentation.

## 3.2 Summary List of Eligible Green and Social Project Categories:

### **Green Project Categories (address environmental objectives and challenges)**

- Energy Efficiency
- Green Buildings
- Clean Transportation
- Sustainable Water and Wastewater Management
- Renewable Energy
- Pollution Prevention and Control
- Environmentally Sustainable Management of Living Natural Resources and Land Use
- Climate Change Adaptation
- Terrestrial and Aquatic Biodiversity Conservation

### **Social Project Categories (address social objectives for target populations)**

- Affordable Basic Infrastructure
- Access to Essential Services
- Affordable Housing

### 3.3 General Criteria

As set out in Section 1.2, to qualify for a GSS Loan the Borrower must demonstrate that the GSS project complies with the criteria in at least one of the Green Project Categories and/or at least one of the Social Project Categories (**GSS Eligibility Criteria**).

Projects that qualify for LGFA's GSS Loans must do one or more of the following:

- Promote the transition to a low-carbon society;
- Lead to verifiable reductions in GHG emissions (accumulated impact where possible) or energy consumption;
- Promote resilience to climate change;
- Support adaptation to climate change or adaptations that are, in some other way, related to New Zealand's national energy, climate and/or environment targets;
- Form part of a Borrower's systematic work on climate change, the environment and/or community and social development, and have relevant plans and strategies as their foundation; or
- Provide clearly defined social benefits to the community.

In addition to the category-specific documentation, all applications must provide information on:

- The estimated total cost of the project;
- The date on which construction work is expected to start;
- Whether any grants have been received from central Government or the private sector;
- The expected completion date; and
- The expected lifetime of the project.

For the more complex projects with lengthy planning stages involving climate related studies and pathways, the approval process will benefit from direct feedback with the respective Borrower's project management team.

Please refer to the 17 UN SDGs<sup>3</sup> for more details on the individual targets and goals, as well as Appendix I of this document.

### 3.4 Green Projects (address environmental objectives and challenges)

#### 3.4.1 Energy Efficiency

##### ***Purpose***

Investments in this category are intended to manage demand for energy and/or reduce the energy requirements of projects, buildings, assets and/or activities. This may include reducing reliance on, or phasing out, the use of fossil fuel energy sources and to generally encourage more efficient use of energy.

##### ***Example projects***

Energy conservation measures such as fitting additional insulation, replacing windows, LED lighting, upgrading and installing energy efficient heating systems (e.g. electric heat pumps and absorption heat pumps (where driven by solar-heated water or geothermal-heated water)). Renovating buildings to improve their energy efficiency (e.g. LED lighting). Replacing oil and gas boilers with electric alternatives. Smart meters that optimise energy efficiency. Systems for energy management that meet the criteria outlined below in 3.4.1.1.

##### **3.4.1.1 Measures to reduce energy usage**

##### ***Conditions***

Applicants must be able to demonstrate that the investment will generate an estimated reduction in annual energy consumption of at least 25%. For comprehensive renovation projects, applicants must be able to demonstrate that the building is expected to use 35% less energy per square metre.

Summary of documentation and key performance indicators to be provided if available and applicable:

- Heated surface area included in the project, in square metres.
- Estimate of the avoidance/reduction in annual energy requirements, measured in kWh.

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<sup>3</sup> [www.un.org/sustainabledevelopment/sustainable-development-goals](http://www.un.org/sustainabledevelopment/sustainable-development-goals)

- For projects to phase out fossil fuel heating sources: An estimate of the annual reduction in GHG emissions, measured in tonnes of CO<sub>2</sub> equivalent (tCO<sub>2e</sub>).
- Annual energy savings in MWh/GWh (electricity) and GJ/TJ (other energy savings).
- Annual GHG emissions reduced/avoided in tonnes of CO<sub>2</sub> equivalent.
- Annual absolute (gross) GHG emissions from the project in tonnes of CO<sub>2</sub> equivalent.
- Number of people to benefit.

### 3.4.2 Green Buildings

#### **Purpose**

Investments in this category are intended to support the development and operation of low carbon, energy efficient or sustainably designed buildings where those buildings meet national or internationally recognised green building ratings.

#### **Example projects**

Buildings that and meet a minimum rating in national, or internationally recognised green building standards, ratings or certifications. This includes the acquisition, construction, retrofit and/or operation of new and existing buildings and includes the building types of office, industrial, retail, health, community facilities, other non-residential buildings and residential buildings. National green building rating schemes include the following:

- **NABERSNZ:** NABERSNZ is a system for rating the energy efficiency of office buildings. It is an independent tool, backed by the New Zealand Government and administered by the New Zealand Green Building Council (NZGBC). NABERSNZ maintains online a list of currently rated buildings.
- **NZGBC Green Star:** Green Star is an internationally recognised rating system for the sustainable design, construction and operation of buildings and fit-outs. Green Star provides a trusted mark of independent verification. Green Star maintains online a database of rated buildings.
- **Homestar:** Homestar is a sustainable building certification administered by the NZGBC for residential properties.

More specific measures applying to existing building stock include:

#### 3.4.2.1 Existing green buildings

Existing buildings (i.e. buildings which are at least two years post build completion) that meet one of the following green building ratings:

- **For office buildings:** Certified as obtaining, or verified as targeting, a minimum 4 Star NABERSNZ Energy Base Building rating or Energy Whole Building rating; or
- **For retail buildings (or other building types, as applicable):** Certified as obtaining, or verified as targeting (a) a minimum 4 Star Green Star Performance rating or b) a Green Star Performance rating and a minimum score of 8/20 (base building) or 9/23 (whole building) within the GHG emissions credit section of the Green Star Performance rating.

For new or retrofitted buildings, more specific measures include:

#### 3.4.2.2 New or retrofitted green buildings

New buildings or refurbishments that meet one of the following green building ratings:

- **For residential buildings:** Certified as obtaining, or verified as targeting, a minimum 7 Star Homestar rating. A lower rating of 6 Star Homestar may be accepted for public housing where significant other GHG emissions criteria on waste or embodied carbon are achieved; or
- **For all other applicable building types:** Certified as obtaining, or verified as targeting, a minimum NZGBC 5 Green Star Design and/or Built rating.

#### **Conditions**

For buildings to be considered green, they must meet the national, or internationally recognised ratings, standards or certifications specified above.

#### **Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Green building rating, standards or certifications obtained or evidence that indicates the target rating will be achieved.
- Estimate of the annual energy consumption per square metre of heated area.



- Estimate of the annual energy and/or GHG emissions reduced/avoided in comparison with an equivalent building that complies with the applicable MBIE Building Code compliance regulations on technical requirements for building works (Section H1 Energy Efficiency) in kWh/tonnes of CO<sub>2e</sub>.
- Information on planned use of bio-based/renewable materials, materials with a high proportion of recycled content, low-carbon concrete, and other climate-friendly construction materials.

### 3.4.3 Clean Transportation

#### **Purpose**

Investments in this category are intended to create transport solutions that produce zero GHG emissions, with no fossil fuels used.

#### **Example projects**

##### Cycling and walking

- 3.4.3.1 Bicycles** – Procurement of electric scooters, bicycles, and electric bicycles. (Documentation required – Investment decision or other documentation on the project).
- 3.4.3.2 Facilitating walking and cycling** – Possible projects include constructing new footpaths and cycle paths, lighting for footpaths/cycle paths, and bike parking facilities/stations. (Documentation required – Investment decision or other documentation on the project).

##### Land transport

- 3.4.3.3 Light or heavy vehicles, and public transportation** – Procurement of zero GHG emissions light or heavy vehicles and buses that run on electricity or green hydrogen. Hybrids vehicles (plugin and self-charging) do not qualify for GSS Loans. (Documentation required – Type of vehicle. Estimated annual mileage).
- 3.4.3.4 Equipment for rail-based public transport** – Procurement of zero GHG emissions new carriage and other equipment for rail-based public transport. The fleet must run on either electricity or green hydrogen (produced using renewable energy). (Documentation required – Investment decision or other documentation on the project).

##### Maritime transport

- 3.4.3.5 Maritime Transport** – Procurement of zero GHG emissions ferries, high-speed craft and other types of maritime transport vessels relevant to council and CCO operations that run on electricity or green hydrogen. (Documentation required – Type of vessel).

##### Heavy machinery

- 3.4.3.6 Heavy machinery** – The procurement of zero GHG emissions heavy machinery such as diggers, compactors, telehandlers, straddle carriers that run on electricity or green hydrogen. (Documentation required – Type of heavy machinery).

##### Infrastructure

- 3.4.3.7 Charging points for vehicles** – Installing new or upgrading existing charging points for electric vehicles. Includes both high-speed chargers and normal chargers. (Documentation required – Investment decision or other documentation of the project).
- 3.4.3.8 Filling stations for green hydrogen** – Construction of green hydrogen (produced using renewable energy) filling stations that are open to the public. (Documentation required – Investment decision or other documentation of the project).
- 3.4.3.9 Operating equipment for public transport** – Equipment predominantly used for zero GHG emissions transport for operating public transport services, such as ticketing systems, real-time display systems and information equipment as well as tram depots. The vehicle(s) must run on either electricity or green hydrogen. (Documentation required – Investment decision or other documentation of the project. Type of vehicle and fuel composition).
- 3.4.3.10 Shore-side power connections and charging points** – Installation of shore-side power connections/charging points for ferries, ships, etc. (Documentation required – Estimated amount of shore-side power supplied annually (kWh/year)).
- 3.4.3.11 Other port infrastructure** – Zero GHG emission port infrastructure that only uses electricity or green hydrogen (e.g. electric cranes). (Documentation required – Investment decision or other documentation of the project that describes the technology).

**3.4.3.12 Infrastructure for zero-emission heavy machinery** – Infrastructure associated with the use of zero emissions heavy machinery, e.g. charging points and energy stations. (Documentation required – Investment decision or other documentation of the project that describes the technology).

**Conditions**

The project must be a zero-emission option for transporting people or goods.

**Summary of documentation and key performance indicators that must be provided if available and applicable:**

- The number of people the project will affect each year.
- If possible: Annual energy saving, reduction in GHG emissions and/or local emissions, or the amount of GHG emissions and/or local emissions that will be avoided as a result of the investment in tonnes CO<sub>2</sub> equivalent per annum.
- Reduction in air pollutants: Particulate matter (PM), sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and non-methane volatile organic compounds (NMVOCs).
- Estimated reduction in car use, in number of kilometres driven or as a share of total transport ridership.

### 3.4.4 Sustainable Water and Wastewater Management

**Purpose**

Investments in this category are intended to deliver future-oriented water, stormwater and wastewater systems that are designed to accommodate higher precipitation levels and/or droughts. Such projects may use innovative technologies to make good use of the resources contained in wastewater.

**Example projects**

Treatment of discharges to watercourses, construction of biogas plants, investment in energy and heat recovery from water and wastewater networks, and sustainable urban drainage systems. These can be classified into three areas:

**Surface runoff management:**

**3.4.4.1 Separating wastewater and surface runoff** – Separate pipes for surface runoff that carry the surface water to a watercourse/fjord. Water supply pipes that are replaced at the same time as the separate surface runoff pipes are installed and that use the same route can also be included as part of applications. (Documentation required – Project description).

**Small scale energy production measures:**

**3.4.4.2 Heat recovery** – Installations for recovering heat from wastewater. (Documentation required – Expected annual energy production (kWh/year), GWP rating of any heat pumps and exchanges along with confirmation of robust refrigerant leak control, detection and monitoring and appropriate measures for recovery, reclamation, recycling or destruction of refrigerants at end of life).

**3.4.4.3 Energy recovery** – Energy recovery from gravity distribution networks. (Documentation required – Expected annual energy production (kWh/year)).

**Climate-friendly facilities:**

**3.4.4.4 Phosphorous recovery** – Facilities or installations that recover plant-available phosphorus from wastewater without using precipitant chemicals. At least 30% of the phosphorus must be able to be recovered. Covers both the installation of new facilities and upgrading existing processing facilities. (Documentation required – Description of the technology selected. Expected proportion of phosphorus recovered. For new facilities, if available: a risk assessment).

**3.4.4.5 Sludge treatment facilities for biogas production** – Facilities for treating sludge as a precursor to biogas production. Covers both the construction of new facilities and upgrading existing processing facilities. The sludge must be used to produce biogas to meet the criteria. (Documentation required – Expected amount of sludge produced per year (dry matter/year). For new buildings/facilities, if available: a risk assessment).

**Conditions**

The investment must significantly and innovatively upgrade or upscale the infrastructure for water and/or wastewater, and must play a clear role in the Borrower's work to adapt to climate change. Investment to carry out routine maintenance, replacement or construction of water and/or wastewater pipes without clear environmental ambition does not qualify for a GSS Loan.

Projects relating to sustainable urban drainage systems must be supported by a risk assessment. The risk assessment must contain the following characteristics:

- a) considers both current weather variability and future climate change, including uncertainty.
- b) is based on robust analysis of available climate data and projections across a range of future scenarios.
- c) is consistent with the expected lifetime of the activity.
- d) contain a management response plan to the conclusions and findings of the risk assessment, noting how identified climate risks will be addressed.

**Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Number of metres of piping/conduit laid, upgraded, or replaced.
- Number of person equivalents (PE) of water or wastewater the plant processes, identifying any increase that can be attributed to the investment.
- Qualitative indicators/targets for adaptation to climate change (managing urban runoff, etc.), with a description of weather-related or climate-related problems that will be mitigated by the investment.
- Where relevant, amount of electricity, biogas or other energy carrier expected to be produced each year.
- For sustainable water management services delivering annual water savings: Annual absolute (gross) water use before and after the project, and reduction in water use in %.
- For wastewater treatment projects: Annual absolute (gross) amount of wastewater treated, reused, or avoided before and after the project.
- For treatment and disposal and/or reuse of sewage sludge: Annual absolute (gross) amount of sludge that is reused (in tonnes of dry solids p.a. and in %) or annual absolute (gross) amount of raw/untreated sludge that is treated and disposed of (in tonnes of dry solids p.a. and in %).
- Area covered by sustainable land and water resource management practices.

### 3.4.5 Renewable Energy

#### **Purpose**

Investments in this category are intended to utilise the energy potential of the sun, the wind, the ground, the sea, biomaterials and other renewable energy carriers, and thereby to replace energy produced from fossil fuels and other energy sources that produce GHG emissions.

#### **Example projects**

**Renewable energy production** (Documentation required – Expected annual energy production (kWh/year)). Applies to the following:

- 3.4.5.1 **Bioenergy** – Manufacture of Biomass, biogas or biofuels: Produced from the advanced feedstock that is listed in Part A of Annex IX of the Directive (EU) 2018/2001. Currently this includes, but is not limited to a) Biomass fraction of mixed municipal waste (but excluding separated waste that can be recycled), b) Biomass fraction of industrial waste not fit for use in the food or feed chain, including material from retail and wholesale and the agro-food industry, c) Straw and sewage sludge, and d) Biomass fraction of wastes and residues from forestry and forest-based industries, namely, bark, branches, precommercial thinnings, leaves, needles, tree tops, saw dust, cutter shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil.

#### 3.4.5.2 **Geothermal Energy**

**Generation:** Geothermal electricity generation facilities that have direct emissions of less than 100g CO<sub>2e</sub>/kWh.

**Production of heat and cooling generation technology:** Direct use of geothermal heat (including geothermal heat pump or ground-source heat pumps) is acceptable if it can be demonstrated through a ISO 14067 or GHG Protocol Product Lifecycle Standard-compliant Product Carbon Footprint assessment, that the lifecycle impacts for producing 1 kWh of heat/cool are below the declining threshold outlined in the EU Taxonomy (Declining threshold: Facilities operating at less than 100g CO<sub>2e</sub>/kWh, declining to 0g CO<sub>2e</sub>/kWh by 2050, are eligible. This threshold will be reduced every 5 years in line with a net-zero CO<sub>2e</sub> 2050 trajectory).

**Infrastructure:** Transmission infrastructure specifically supporting qualifying geothermal energy generation facilities.

#### 3.4.5.3 Solar Energy

**Generation:** Onshore solar electricity generation or solar thermal facilities, that has no more than 15% of electricity generated from non-renewable sources.

**Infrastructure:** Transmission infrastructure specifically supporting qualifying solar generation facilities, and other supporting infrastructure including inverters, transformers, energy store systems and control systems.

#### 3.4.5.4 Wind Energy

**Generation:** Onshore wind energy generation, that has no more than 15% of electricity generated from non-renewable sources and average life cycle GHG emissions from electricity generation will be at or below 14.4g CO<sub>2</sub>/kWh

**Infrastructure:** Transmission infrastructure specifically supporting qualifying wind energy generation facilities.

**Energy storage in connection with energy production facilities** (Documentation required – Expected storage capacity (kW)): Storage of locally-generated energy using the following method:

#### 3.4.5.5 Electrical storage, e.g. batteries

Storage of renewable energy as defined above.

**Energy infrastructure** (Documentation required – Expected increase in capacity (MW)):

#### 3.4.5.6 Network capacity

Transmission and distribution infrastructure dedicated to renewable energy.

#### **Conditions**

The energy production facility must only use non-fossil, renewable energy sources during both base and peak load periods. The use of mineral-fuel-based back-up in, for example, local and district heating systems may be approved for clearly defined back-up situations.

#### **Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Output to be installed, measured in kW or MW (as well as Wp for solar farms).
- Estimate of the renewable energy to be produced each year, measured in kWh or another appropriate unit.
- Estimate of the annual reduction in GHG emissions, measured in tonnes of CO<sub>2</sub> equivalent, if the facility is to replace energy from fossil fuels.
- Annual GHG emissions reduced/avoided in tonnes of CO<sub>2</sub> equivalent.
- Annual renewable energy generation in MWh/GWh (electricity) and GJ/TJ (other energy).
- Capacity of renewable energy plant(s) constructed or rehabilitated in MW.
- Capacity of renewable energy plant(s) to be served by transmission systems (MW).
- Annual absolute (gross) GHG emissions from the project in tonnes of CO<sub>2</sub> equivalent.

### 3.4.6 Pollution Prevention and Control

#### **Purpose**

Investments in this category are intended to ensure sustainable, energy efficient and resource-saving waste management.

#### **Example projects**

Upgrading old or building new waste management facilities for the purpose of sorting and recycling waste. Projects can be classified into two areas:

#### **Waste prevention and reuse:**

- #### 3.4.6.1 Measures to reduce waste
- Measures that contribute to waste prevention, e.g. setting up a new reuse centre with a focus on reuse, repair, repurposing, and upcycling. (Documentation required – Expected impact (qualitative or quantitative). For new buildings/facilities: Risk and vulnerability assessment for the planning area, if available).

#### Waste collection, processing and treatment:

- 3.4.6.2 Measures to increase the waste sorting rate** – Measures that help increase the waste sorting rate at the point of collection, e.g. introducing a collection scheme for a new waste fraction. (Documentation required – Material recovery rate before investment (in %) and expected recovery rate following investment (in %)).
- 3.4.6.3 New facilities for sorting waste** – Setting up new waste sorting facilities for which there is a clear ambition from a climate and environmental perspective, e.g. residual waste sorting plants. (Documentation required – Project description that explains the climate and environmental ambition).
- 3.4.6.4 New facilities for treating waste** – Setting up new waste treatment facilities for supporting the sorting and recycling of waste which there is a clear ambition from a climate and environmental perspective, e.g. facilities that help increase the material recovery rate. The expenditures may include waste treatment facilities for e-waste recycling. Evidence of robust waste management policies and processes for e-waste recycling will be a requirement for such activities. (Documentation required – Project description that explains the climate and environmental ambition).
- 3.4.6.5 Measures at existing facilities** – Upgrading existing waste facilities with a clear climate and environmental ambition. Example projects include measures that increase the recycling rate or improve waste quality. (Documentation required – Project description that explains the climate and environmental ambition).

#### **Conditions**

The investment must improve the waste management chain. For example, by increasing the recovery rate, by reducing the use of incineration, or by improving resource use. The investment must contribute to the applicant complying with relevant guidelines such as applicable New Zealand requirements. Investment to maintain or replace facilities or equipment without any clear environmental benefit will not qualify for a GSS Loan.

#### **Summary of documentation to be provided if available and applicable:**

- Number of tonnes of waste expected to be processed by the facility each year.
- The amount of waste reduced, reused, recycled and/or diverted from landfill (tonnes p.a. or % total waste).
- The amount of waste that is separated and/or collected and treated (including composted) or disposed of (in tonnes p.a. and in % of total waste).
- The number of people or % of population with improved district or regional waste treatment or disposal services.
- Absolute or % reduction in local air pollutants.
- Number of households whose waste will go to the facility.
- Estimate of the reduction in GHG emissions or the amount of GHG emissions that will be avoided as a result of the investment, measured in tonnes of CO<sub>2</sub> equivalent.
- If possible: An estimate of the annual energy saving attributable to the investment, measured in kWh.
- Expected improvement in material recovery rate or other target for improved resource use.
- Applicable to the construction of biogas plants: Expected annual production volume.

### **3.4.7 Environmentally Sustainable Management of Living Natural Resources and Land Use**

#### **Purpose**

Investments in this category are intended to ensure sustainable land use.

#### **Example projects**

Environmentally sustainable forestry projects certified by Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC) or the Sustainable Forestry Initiative (SFI), restoration of natural landscapes, as well as projects focusing on the preservation and restoration of the water quality of waterways and seas.

Projects can be classified into the following area:

#### Anti-pollution measures:

- 3.4.7.1 **Measures against pollution on land** – Examples include, improving filtration systems on storm water systems to prevent the spread of microplastics or other measures against local pollution. (Documentation required – Project description).
- 3.4.7.2 **Environmentally sustainable forestry** – Examples include projects certified by Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC) or the Sustainable Forestry Initiative (SFI).
- 3.4.7.3 **Nature restoration** – Converting an area into a green space. This excludes projects related to ecological compensation where land-use changes that cause adverse effects on biodiversity and ecosystem services are compensated by providing new values in another area. A Borrower should provide LGFA with information on the management of nature-, climate- and environmental risk (which could take the form of a risk and vulnerability assessment for the planning area, if available). (Documentation required – Project description. If available: A risk and vulnerability assessment).
- 3.4.7.4 **Measures against water pollution (ports, seas, rivers, watercourses, etc.)** – Measures that improve the water quality. Other measures that help improve water quality or strengthen biological diversity where the status classification is not relevant will also be considered. (Documentation required – Status classification before and after the measure).

#### **Conditions**

The project must clearly be green in nature and have an explicitly formulated climate/environmental objective.

Investments will exclude the funding of any synthetic or chemical pesticides, herbicides or weedicides.

#### **Summary of documentation that must be provided if available and applicable:**

- Surface area of the land or waterways protected measured in square metres or square kilometres.
- Qualitative indicators/targets in terms of environmental impact.

### 3.4.8 Climate Change Adaptation

#### **Purpose**

Investments in this category are intended to ensure local communities are adapting to climate change.

#### **Example projects**

Facilities and installations to manage urban runoff, floods, landslides, avalanches, rising sea levels, etc. This may include information support systems, such as climate observations and early warning systems. These can be classified into three areas:

#### Surface runoff management:

- 3.4.8.1 **Surface runoff management** – Measures to manage surface runoff that are not financed by wastewater charges. For example, opening streams, constructing flood bypasses, local surface runoff disposal measures through artificial swales, etc. (Documentation required – The need for the measure).

#### Climate change adaptation:

- 3.4.8.2 **Protection against natural disasters** – Protecting buildings, facilities, infrastructure, and cultural heritage sites against natural disasters such as floods, landslides, avalanches, and storm surges. (Documentation required – The need for the measure).

#### Emergency preparedness:

- 3.4.8.3 **Warning systems and emergency preparedness** – Warning systems and other emergency preparedness measures in areas with a risk of natural disasters such as floods, avalanches, landslides and storm surges. (Documentation required – The need for the measure).

#### **Conditions**

The project must clearly constitute an adaptation to climate change.

Investments will exclude the funding of any synthetic or chemical pesticides, herbicides or weedicides.

Projects relating to Climate Change Adaption must be supported by a risk assessment. The risk assessment must contain the following characteristics:

- a) considers both current weather variability and future climate change, including uncertainty.
- b) is based on robust analysis of available climate data and projections across a range of future scenarios.
- c) is consistent with the expected lifetime of the activity.
- d) contain a management response plan to the conclusions and findings of the risk assessment, noting how identified climate risks will be addressed will be implemented.

**Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Qualitative targets/indicators relevant to the adaptation to climate change with a description of the weather-related and climate-related problems that will be mitigated by the investment.

### 3.4.9 Terrestrial and Aquatic Biodiversity Conservation

**Purpose**

Investments in this category are intended to prevent loss or degradation of ocean habitat, coral reefs, mangrove forests, coastal wetlands, habitat loss and degradation, as well as preventing unsustainable harvesting of species, climate change and pollution. This may include investments to improve plant management strategies or management of invasive species.

**Example projects**

Protection of the life supporting capacity of ecosystems through avoiding, remedying, or mitigating (in that order of priority) the adverse effects of activities, substances and introduced species on the functioning of natural ecosystems. Protection of areas of significant indigenous vegetation and the significant habitats of indigenous fauna.

**3.4.9.1 Conservation Investments** – Measures to prevent habitat loss and degradation, unsustainable harvesting of species, climate change, invasive species, and pollution.

**3.4.9.2 Protection of the Life-Supporting Capacity of Ecosystems** – Measures to avoid, remedy or mitigate the adverse effects of activities, substances and introduced species on the functioning of natural ecosystems.

**3.4.9.3 Indigenous Vegetation and Fauna Protection** – Measures to protect areas of indigenous vegetation and habitats of indigenous fauna.

**Conditions**

The project must seek to reduce the threat of either terrestrial or aquatic biodiversity degradation and have an explicitly formulated climate/environmental objective.

Tree species used for afforestation projects must be well-adapted to the site conditions and will include sustainable management plans certified by a credible certification agency (e.g. FSC or PEFC).

Investments will exclude the funding of any synthetic or chemical pesticides, herbicides, or weedicides.

**Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Qualitative indicators/targets in terms of environmental impact.

## 3.5 Social Projects (address social issues for target populations)

Social projects directly aim to address or mitigate a specific social issue and/or seek to achieve positive social outcomes especially, but not exclusively, for a target population(s). A social issue threatens, hinders, or damages the wellbeing of society or a specific target population. For the avoidance of doubt, it is acknowledged that the definition of target population can vary depending on local contexts and that, in some cases, such target population(s) may also be served by addressing the general public.

### 3.5.1 Affordable Basic Infrastructure

**Purpose**

Investments in this category are intended to support projects, assets or programmes that enable affordable and equitable access to basic infrastructure in the relevant region, that will also benefit economic development and human wellbeing.

### **Example projects**

- 3.5.1.1 **Basic Telecommunications:** Development and expansion of basic communication infrastructure to areas or groups with limited connectivity or access (e.g. internet coverage, fibre network, mobile phone connectivity).
- 3.5.1.2 **Sewers, Sanitation and Clean Drinking Water:** Activities that improve or expand access to adequate drinking water, sewer and sanitation systems. This includes a) public access and the development of infrastructure in areas with limited sanitation facilities and b) activities that improve and expand public access to safe, reliable and affordable drinking water. This includes activities to improve water quality to ensure it's reliable for human use and consumption.
- 3.5.1.3 **Transport:** Activities that expand access to zero emissions transportation infrastructure to socioeconomically disadvantaged or remote areas (e.g. development of bus services access to areas that lack core connectivity). This may include activities that support affordable and equitable access to basic infrastructure, as well as greater access to public transportation for people with disabilities or aging populations.

### **Conditions**

The project must be able to clearly demonstrate an improvement to affordable and equitable access to basic infrastructure and be provided at an affordable rate.

### **Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Number of individuals or households who will be positively impacted by the access to basic infrastructure.
- Details of the expected impact on those who will benefit.

## **3.5.2 Access to Essential Services**

### **Purpose**

Investments in this category are intended to support projects, assets or programmes that enable accessibility to services that are deemed essential to the relevant region, with a focus on education and vocational training services.

### **Example projects**

- 3.5.2.1 Acquisition and development, of childcare educational and vocational training services – including infrastructure, programmes, and services – which are broadly accessible to the whole public.
- 3.5.2.2 Acquisition and development of tertiary education, vocational and technical training facilities and supporting infrastructure.
- 3.5.2.3 Activities that enhance access to and the inclusion of minority groups in education.

### **Conditions**

The project must be able to clearly demonstrate an improvement to the affordability and equitable access to education and essential services. This may include improved access for minority groups, including minority groups based on gender, race or ethnicity, sexual orientation, religion, mentally challenged or new migrants.

### **Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Number of individuals or households who will be positively impacted by the access to education and essential services.
- Projected student numbers.
- Details of the expected impact on those who will benefit.



### 3.5.3 Social and Affordable Housing

#### **Purpose**

Investments in this category are intended to support projects, assets or programmes that enable the construction, retrofit and/or operation of low-cost and social housing.

#### **Example projects**

- 3.5.3.1 Development and activities that maintain or expand access to social and affordable housing.
- 3.5.3.2 **Social housing:** Construction and provision of registered social housing facilities, including Community Housing Providers, and low-cost housing provided to tenants who are typically low income, reliant on benefits as a significant source of income (i.e., tenants should not pay more than 35% of their income on rent) or to support eligible applicants on the Ministry of Social Development Housing Register.
- 3.5.3.3 **Affordable housing:** The construction and provision of housing at significantly lower cost than market and/or that supports owners or tenants to overcome barriers to access housing. This may include progressive home ownership models/schemes to address financial barriers to home ownership, including rent-to-buy, shared equity and papakāinga. Projects will often be in partnership with iwi, government entities or charitable organisations. Such schemes will provide financing to construct and provide housing or support owners or tenants which are below the median income of New Zealand.

#### **Conditions**

The project must be able to clearly demonstrate an improvement to social and affordable housing.

#### **Summary of documentation and key performance indicators that must be provided if available and applicable:**

- Number of social and/or affordable housing dwellings provided/retrofitted.
- Number of people housed with new and/or retrofitted social and/or affordable housing accommodation.
- Modifications, number of new and/or upgraded facilities financed that include mobility, accessibility, intensive support housing considerations.

### 3.6 Excluded Categories

1. Manufacture or wholesale trade of tobacco products;
2. Manufacture or wholesale trade of alcoholic beverages;
3. Ownership or operation of gambling enterprises;
4. Production or distribution of adult entertainment materials;
5. Manufacture or retail sale and distribution of weapons and small arms;
6. Transportation of live cattle;
7. Whaling;
8. Predatory lending activities;
9. Production or refining of palm oil;
10. Extraction or refining of fossil fuels<sup>4</sup>;
11. Transmission infrastructure and systems where 25% or more of electricity transmitted to the grid is fossil-fuel-generated; and
12. Restricted by CBS requirements (if applicable).

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<sup>4</sup> For projects that encompass fossil energy to a non-negligible extent, impact analysis and impact reporting will be a firm requirement for approval. LGFA will not approve investment projects that lead to a lock-in of fossil energy-based infrastructure. Maximum fossil fuel component for district heating projects is 10% (peat is treated as a fossil energy source); including fossil component of waste used for energy extraction the share of fossil energy is a maximum 20%. Maximum fossil energy component for public transportation is 20%.

## 4. Loan Management and Reporting

LGFA may decide to finance its lending to Borrowers by issuing Sustainable Financing Bonds in the debt capital markets. Investors that provide money for GSS projects want to see evidence that their capital is being used to deliver on environmental and/or social objects, and in accordance with broader sustainable finance market practice. It is therefore essential that we gather documentation on the individual projects that LGFA finances with GSS Loans.

If requested by LGFA, the Borrower is required to provide any other information that LGFA may request to evidence the Borrower's compliance with this Criteria and market practice for GSS Loans.

### 4.1 Borrowers Management of GSS Loan Proceeds

The application form and the changes to the standard LGFA loan documentation to make the loan a GSS Loan require the borrower to:

- Apply the net proceeds of the loan for the GSS Loan Purpose which will be to either finance or refinance, new or existing expenditure relating to an eligible GSS project;
- Ensure that the GSS project financed by the GSS Loan continues to meet the GSS Eligibility Criteria at all times following the first disbursement of the GSS Loan;
- Upon request by LGFA, provide evidence that the project cost (or any such credible value agreed with LGFA) of the GSS project is not less than the principal amount of the GSS Loan;
- Notify LGFA within 30 business days if the GSS project is sold or disposed of; and
- Provide annual reporting (as set out in Section 4.2 below)

### 4.2 Borrowers Annual Reporting

Following the advance of a GSS Loan, the Borrower will need to provide annual reporting by no later than 30th November directly to LGFA on the GSS Loan and the GSS project. This is to include all of the following:

- **Allocation reporting:** a breakdown of the notional allocation of the net proceeds of the GSS Loan to green and/or social projects (including the description, recorded project value and amounts disbursed). This will include confirmation whether any net proceeds of the GSS Loans have not been allocated;
- **Eligibility reporting:** confirmation that the green and/or social project continues to meet the relevant GSS Eligibility Criteria (as relevant in section 3.4 and 3.5); and
- **Impact reporting:** if requested by LGFA, the Borrower is to report on the impacts of the GSS projects funded from the GSS Loans, using agreed qualitative and/or quantitative impact metrics. Example impact metrics are set out in this Criteria and the application forms.

In addition to the above annual reporting, the Borrower may be required to respond to LGFA's request to provide further information where LGFA considers it necessary to evidence the Borrower's ongoing compliance with this Criteria and market practice for GSS Loans.

## 4.3 LGFAs Disclosure

All the information on eligible GSS Loans that Borrowers send to LGFA will be processed such that it can be used for LGFA's own reporting. This may, for example, involve converting between different energy and emission units. We reserve the right to use any information provided about a project as part of our ongoing reporting activities, which may include:

- 'GSS Loan Summaries' on LGFA's website;
- Featuring in LGFA's annual reports and investor letters;
- Featuring in presentations on GSS Loans and/or on LGFA more generally;
- LGFA media releases around GSS Loans;
- Inclusion of the project(s) on the aggregated list of all GSS Loans that will be available via LGFA's website; or
- Inclusion of the GSS Loans in LGFA's annual update reports for its Sustainable Financing Bonds (as outlined in the Framework).

LGFA anticipates that building up an overview of the projects financed by the GSS Loans will both satisfy its investors' expectations in terms of reporting, and also motivate Borrowers to undertake highly sustainable investment projects. We regard sharing expertise as a central part of our commitment to being a sustainable business.

# 5. Calculation Methods

The impact of our GSS Loans for green projects can be calculated either by reference to the reduction in energy consumption or GHG emissions, to strengthening local adaptation to climate change or other environmental impacts. GSS Loans provided on a social basis will have any impact metrics, targets, or calculations pre-agreed between LGFA and the relevant Borrower.

We have outlined below the general methodological choices related to the categories covered by the concept of 'GHG mitigation investments', which include the following categories outlined in section 3 of this Criteria:

- Energy Efficiency;
- Green Buildings;
- Clean Transportation;
- Sustainable Water and Wastewater Management;
- Renewable Energy;
- Pollution Prevention and Control; and
- Environmentally Sustainable Management of Living Natural Resources and Land Use.

We also outline below guidelines on calculating the impact of investments covered by the concept of climate change adaptation.

## 5.1 Methodological choices for GHG gas mitigation investments

This section addresses the method of calculating the impact of GHG mitigation investments, as defined above. Investments in these categories lead to direct reductions in GHG emissions or indirectly reduce GHG emissions (e.g. through reduced energy consumption). The impact of the first type of investment is measured in CO<sub>2</sub> equivalent savings, while the impact of the second type of investment is measured in kWh of energy saved. The impact of an investment or part-investment must be measured either in CO<sub>2</sub> equivalent or kWh of energy, with no double counting permitted. We report the impact of investments on an ex-ante basis, which is to say on the basis of estimated annual results for a representative year once the GSS project is completed and operating at normal capacity.

### 5.1.1 Starting point

To calculate the climate and environmental impact of a GHG mitigation investment, the completed project has to be compared with an alternative scenario. In some cases, it will be appropriate to consider the investment in relation to a base scenario – a reference scenario in which the investment does not exist. This applies, for example, to transport projects: the reduction in GHG emissions that can be attributed to a public transport project is calculated on the basis of the emissions that the transport sector would have produced if the project had not happened. Also, where an investment involves improving existing facilities, for example measures to improve the energy efficiency of a building or measures to improve a waste processing plant, a base scenario will be a natural starting point for calculating the investment's impact. In such cases, the calculation will be as follows:

*Annual climate impact = (emissions produced by, or energy consumption of, the sector or unit in the base scenario) – (emissions produced by, or energy consumption of, the sector or unit after investment completed).*

In other cases, for example where the investment in question is a new building, the approach will naturally be to assume that the building will be built regardless, but that the Borrower could have chosen to adhere to less strict climate standards. In such instances, the climate impact is calculated on the basis of an alternative scenario in which the investment meets the minimum requirements contained in the applicable building regulations. The calculation would thus be as follows:

*Annual climate impact = (emissions produced by, or energy consumption of, equivalent investment if minimum standards were followed) – (emissions produced by, or energy consumption of, actual investment).*

### 5.1.2 Units and conversion

Investments included in LGFA's GSS Loan portfolio can generate many types of emission savings. In order to be able to compare the impact of projects in different categories, we convert all emission figures to CO<sub>2</sub> equivalent. Values for making such conversions are taken from the Greenhouse Gas Protocol's matrix for Global Warming Potentials (GWP) over a 100-year time horizon, which were calculated using the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. For example, we take methane as having 28 times the global warming potential of carbon dioxide, meaning that one unit of methane represents 28 CO<sub>2</sub>e units.

### 5.1.3 Time

Time is an important parameter when calculating the climate impact of a project. Advanced lifetime models take into account that materials and structures deteriorate with age, and the fact that the impact of an investment will therefore decrease at a certain rate. LGFA does not have the resources to carry out such analysis in relation to each individual project we finance, and we similarly do not expect Borrowers to carry out such accounting for all investments. We therefore calculate the climate impact of investments in a simplified fashion as follows:

*Climate impact over investment's lifetime = (annual climate impact) x (expected lifetime of investment).*

## 5.2 Methodological choices for climate change adaptation investments

This next section addresses the method of calculating the impact of climate change adaptation investments, which include the following categories outlined in section 3 of this Criteria:

- Sustainable Water and Wastewater Management; and
- Climate Change Adaptation.

The impact of investment in climate change adaptation is usually more difficult to quantify than the impact of investment in GHG mitigation measures. We therefore accept that in the case of climate change adaptation investments, the methodology applied may need to be adapted to individual projects to a somewhat greater extent. Qualitative descriptions of a project's purpose and its expected results can supplement or replace quantitative indicators where this creates a better picture of the impact of the investment.

### 5.2.1 Starting point

The impact of investments in climate change adaptation measures will, as a general rule, be calculated using a base scenario as described above.

### 5.2.2 Units

The measurement units used to quantify the impact of climate adaptation investments are more complicated than for GHG mitigation investments. Recommended units are set out for each project category.

## 5.3 General Methodological Choices

### 5.3.1 Reporting on LGFA's Proportional Investment Impact

Investments included in LGFA's GSS Loan portfolio are not necessarily financed in their entirety by loans from LGFA. In order for LGFA to quantify and fairly report on the proportionate impact from the GSS Loans, we need to know the proportion of each GSS project that LGFA is financing. This is to be reported on the following basis:

*LGFA's proportionate share of a GSS project = (LGFA's GSS Loan) / (total GSS project cost).*

In the Sustainable Financing Bonds annual update report covering LGFA's GSS Loan portfolio, 'our' proportion of the impact of an investment over its lifetime is recognised in the year the investment is financed. If GSS Loans for a project are advanced over time, the impact is recognised in the respective years in the same proportion that the relevant advance under each GSS Loan for that project is made.

A project remains in LGFA's aggregate Sustainable Financing Bonds annual update report for the duration of the GSS Loans. In other terms, the impact of a project will be removed from the total when the related GSS Loans are paid back in their entirety or is for other reasons removed from LGFA's portfolio of GSS Loans.

## Appendix I – Mapping of Green and Social Project Categories to the UN SDGs

The UN SDGs were established in 2015 to form an agenda to achieve sustainable development by 2030. The UN SDGs includes 17 goals with 169 targets.

LGFA has utilised the International Capital Market Association's (ICMA's) 'High-Level Mapping to the UN SDGs' (published by ICMA in June 2018 and updated in June 2022) when considering the potential outcomes of the Green and Social Project Categories against the UN SDGs.

### Mapping of Green Project Categories to the UN SDGs

The relevant LGFA Green Project Categories are referenced below with regard to the following numbers:

1. Energy Efficiency (see section 3.4.1)
2. Green Buildings (see section 3.4.2)
3. Clean Transportation (see section 3.4.3)
4. Sustainable Water and Wastewater Management (see section 3.4.4)
5. Renewable Energy (see section 3.4.5)
6. Pollution Prevention and Control (see section 3.4.6)
7. Environmentally Sustainable Management of Living Natural Resources and Land Use (see section 3.4.7)
8. Climate Change Adaptation (see section 3.4.8)
9. Terrestrial and Aquatic Biodiversity Conservation (see section 3.4.9)



**Ensure healthy lives and promote well-being for all at all ages**

**Target 3.9** – By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. (LGFA Green Project Categories #5 and #6)



**Ensure availability and sustainable management of water and sanitation for all**

**Target 6.1** – By 2030, achieve universal and equitable access to safe and affordable drinking water for all. (LGFA Green Project Category #4)

**Target 6.2** – By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations. (LGFA Green Project Category #4)

**Target 6.3** – By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. (LGFA Green Project Category #4)

**Target 6.6** – By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes. (LGFA Green Project Category #9)

**Target 6.b** – Support and strengthen the participation of local communities in improving water and sanitation management. (LGFA Green Project Category #4)

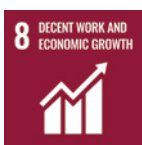


## Ensure access to affordable, reliable, sustainable and modern energy

**Target 7.2** – By 2030, increase substantially the share of renewable energy in the global energy mix. (LGFA Green Project Category #5)

**Target 7.3** – By 2030, double the global rate of improvement in energy efficiency. (LGFA Green Project Categories #1 and #5)

**Target 7.a** – By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology. (LGFA Green Project Categories #1 and #5)



## Sustained, inclusive and sustainable economic growth and decent work for all

**Target 8.4** – Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead. (LGFA Green Project Categories #1 and #5)



## Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

**Target 9.1** – Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all. (LGFA Green Project Category #5)

**Target 9.4** – By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities. (LGFA Green Project Category #1 and #5)



## Make cities inclusive, safe, resilient and sustainable

**Target 11.2** – By 2030, provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons. (LGFA Green Project Category #3)

**Target 11.5** – By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations. (LGFA Green Project Categories #4 and #7)

**Target 11.6** – By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management. (LGFA Green Project Category #6)

**Target 11.7** – By 2030, provide universal access to safe, inclusive, and accessible, green, and public spaces, in particular for women and children, older persons, and persons with disabilities. (LGFA Green Project Category #7)

**Target 11.c** – Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilising local materials. (LGFA Green Project Category #2)



## Ensure sustainable consumption and production patterns

**Target 12.2** – By 2030, achieve the sustainable management and efficient use of natural resources. (LGFA Green Project Categories #2, #4 and #7)

**Target 12.4** – By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment. (LGFA Green Project Categories #5 and #6)

**Target 12.5** – By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse. (LGFA Green Project Categories #4 and #6)



## Take urgent action to combat climate change and its impacts

**Target 13.1** – Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. (LGFA Green Project Category #8)

**Target 13.2** – Integrate climate change measures into national policies, strategies and planning. (LGFA Green Project Category #8)

**Target 13.3** – Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. (LGFA Green Project Category #8)



## Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Target 14.1** – By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution. (LGFA Green Project Category #9)

**Target 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. (LGFA Green Project Category #9)

**Target 14.3** – Minimise and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels. (LGFA Green Project Category #9)

**Target 14.4** – By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics. (LGFA Green Project Category #7)

**Target 14.5** – By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information. (LGFA Green Project Category #9)

**Target 14.6** – By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognising that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organisation fisheries subsidies negotiation. (LGFA Green Project Categories #7 and #9)

**Target 14.a** – Increase scientific knowledge, develop research capacity, and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries. (LGFA Green Project Categories #7 and #9)





**Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**

**Target 15.1** – By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements. (LGFA Green Project Category #9)

**Target 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. (LGFA Green Project Category #9)

**Target 15.3** – By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world. (LGFA Green Project Category #9)

**Target 15.4** – By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development. (LGFA Green Project Category #9)

**Target 15.5** – Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. (LGFA Green Project Category #9)

**Target 15.7** – Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products. (LGFA Green Project Category #7)

**Target 15.8** – By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species. (LGFA Green Project Category #7)

**Target 15.a** – Mobilise and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems. (LGFA Green Project Category #7)

**Target 15.b** – Mobilise significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation. (LGFA Green Project Category #9)

## Mapping of the Social Project Categories to the UN SDGs

The relevant LGFA Social Project Categories are referenced below with regard to the following numbers:

1. **Affordable Basic Infrastructure** (see section 3.5.1)
2. **Access to Essential Services** (see section 3.5.2)
3. **Affordable Housing** (see section 3.5.3)



### End poverty in all its forms everywhere

**Target 1.2** – By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions. (LGFA Social Project Category #2)

**Target 1.4** – By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance. (LGFA Social Project Category #3)



### Ensure healthy lives and promote well-being for all at all ages

**Target 3.1** – By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births. (LGFA Social Project Category #2)

**Target 3.2** – By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births. (LGFA Social Project Category #2)



### Quality Education

**Target 4.2** – By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education. (LGFA Social Project Category #2)

**Target 4.5** – By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations. (LGFA Social Project Category #2)

**Target 4.a** – Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all. (LGFA Social Project Category #2)



### Ensure access to water and sanitation for all

**Target 6.1** – By 2030, achieve universal and equitable access to safe and affordable drinking water for all. (LGFA Social Project Category #1)

**Target 6.3** – By 2030, improve water quality by reducing pollution, eliminating dumping, and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. (LGFA Social Project Category #1)

**Target 6.b** – Support and strengthen the participation of local communities in improving water and sanitation management. (LGFA Social Project Category #1)



## **Build resilient infrastructure, promote sustainable industrialisation and foster innovation**

**Target 9.1** – Develop quality, reliable, sustainable, and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all. (LGFA Social Project Category #1)

**Target 9.c** – Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020. (LGFA Social Project Categories #1 and #2)



## **Reduce inequality within and among countries**

**Target 10.2** – By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. (LGFA Social Project Category #2)

**10.3** – Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard (LGFA Social Project Category #2)



## **Make cities inclusive, safe, resilient and sustainable**

**Target 11.1** – By 2030, ensure access for all to adequate, safe, and affordable housing and basic services and upgrade slums. (LGFA Social Project Categories #1 and #3)

**Target 11.2** – By 2030, provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons. (LGFA Social Project Category #1)



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