



# SUSTAINABILITY-LINKED BOND FRAMEWORK



VÄSTERÅS STAD

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### IMPORTANT NOTICE

This document (the "Sustainability-Linked Bond Framework" or "Framework") contains information on the City of Västerås ("Västerås") and its potential use of financing with environmental criteria (the "Sustainability-Linked Terms"). Any such financing by Västerås which include Sustainability-Linked Terms in its associated financing documentation, by reference or inclusion, as detailed in this Framework or in future versions of this Framework, will be designated as a Sustainability-Linked Bond ("Sustainability-Linked Bond" or "SLB").

Depending on the language of the financing documentation, the Sustainability-Linked Terms in this Framework may be translated into other languages, as required or preferred in the local jurisdiction. Furthermore, all parties are advised to review the risk factors in the relevant financing documentation, such as any applicable prospectus. Any financing will be subject to the version of the Sustainability-Linked Terms specified in the associated financing documentation.

Any new financing activity will include a reference to, or inclusion of, the most recently published Sustainability-Linked Terms, which shall be publicly available in the Framework on Västerås' website. Investors, lenders and third parties are advised to conduct an independent evaluation of the relevance and adequacy of the information in this Framework and for making such other investigations considered necessary prior to entering into any of the types of transactions or arrangements where the Sustainability-Linked Terms would be applicable, for instance regarding the adherence to current and future regulation, standards or market practices such as the Sustainability-Linked Bond Principles. If there is a conflict between any applicable laws, statutes and regulations and the guidelines set forth in ICMA's Sustainability-Linked Bond Principles, the relevant local laws, statutes and regulations shall prevail.

# Executive Summary

**BACKGROUND AND RATIONALE:** Västerås is to be a sustainable city where the inhabitants feel that everything is possible. By establishing a Sustainability-Linked Bond Framework, the City of Västerås aims to further emphasize its commitments to sustainability, combat climate change and reduce greenhouse gases. This Framework enables Västerås to connect its financing with key objectives that are material for the city's sustainability performance. The Framework has been developed in accordance with the Sustainability-Linked Bond Principles (SLBP), established by ICMA in 2020. The City of Västerås can under this Framework issue bonds with a sustainability link.

To issue SLBs yields an opportunity for the City of Västerås to broaden the investor base, deepen the relationship with current investors and ensure long term funding to the whole municipal group. Furthermore, through the issuance of sustainability-linked bonds, City of Västerås get a new arena to educate and tell about the sustainability work and how the City of Västerås work to reduce greenhouse gases.

The City of Västerås is rated AAA by Standard & Poor's. The City of Västerås is tax financed. The City of Västerås' treasury department on-lends funds to the whole municipal group.

## **SELECTION OF KEY PERFORMANCE INDICATOR (KPI):**

**Carbon dioxide equivalent emissions (Co<sub>2</sub>e) per inhabitant in the geographical area of Västerås municipality.** This KPI relates to SDG 13 Climate Action which is about taking urgent action to combat climate change and its impacts. Monitoring carbon dioxide emissions is a way to ensure that actions yield results.

## **CALIBRATION OF SUSTAINABILITY PERFORMANCE TARGET (SPT):**

**SPT Emissions per inhabitant in tons of CO<sub>2</sub>e: 85 per cent reduction from the baseline year 1990 to the target year of 2040.** The City of Västerås' goal of achieving 85 per cent CO<sub>2</sub>e reduction by 2040 is in line with the goals set at the national level.

While the overarching SPT is set for 2040, the relevant SPT for each individual Sustainability-Linked Bond will be specified in the separate specific Sustainability-Linked Bond documentation. The calculation of emission per inhabitant is based on data from the National Emission Database, administrated by SMHI, the Swedish Meteorological and Hydrological Institute and population data is collected by Statistics Sweden.

**STRATEGY TO ACHIEVE THE TARGET:** To achieve the target of an 85 per cent reduction from the baseline year of 1990 to the target year of 2040, commitment from all stakeholders is required. The City of Västerås strategy consists of several solutions, which among other things includes actions to promote sustainable transports, environmentally friendly buildings and recycling.

**BOND CHARACTERISTICS:** The proceeds of Sustainability-Linked Bonds will be used for general municipal and corporate purposes. Depending on the City of Västerås' performance versus the SPT as per the Target Observation Date, financial effects may trigger coupon step-ups or increased redemption price of Sustainability-Linked Bonds.

**REPORTING:** The City of Västerås will publish a sustainability-linked progress report each year.

**VERIFICATION:** To ensure transparency to investors and other stakeholders, in line with the Sustainability-Linked Bond Principles, data sources are official statistics, publicly available and externally verified data. The National Emission Database collects and calculates the emission part of the KPI.

**SECOND PARTY OPINION:** A Second Party Opinion has been provided by S&P Global Ratings.





Visualisering: Walk the Room/Sweco.

# Background

## ABOUT VÄSTERÅS

The City of Västerås is to be a city where people feel that everything is possible and a city to be proud of. To achieve this, the planetary impact needs to become sustainable. Västerås benefits from a long and promising tradition of people and businesses reaching new possibilities, especially when it comes to adaptation and development of electrification.

Västerås is one of Sweden's oldest cities and has a proud history of being an electrification hub through its industrial and academic profile. Västerås is situated by Lake Mälaren, joint by water with the Baltic Sea. The city is growing fast and has a population of 157,000, a vibrant business community, a university with high technology and a rich sports life.

Attracting industries and competence to Västerås gives us larger possibilities to make a positive impact on the global scale, making the city a good investment and an industrial eco-system for businesses that are key to the green transition. Global actors of industrial automation, electric transmission, electric vehicle batteries and trains have chosen Västerås. The ability to combine technical development with human needs is our core strength.

In 1990, the baseline year of the KPI, Västerås celebrated 1,000 years as a city. People were living in and around the city area even during the bronze age and has historically adapted to the changing environment. Back then, in a warmer climate, the water level was several meters higher and Lake Mälaren was a bay in the Baltic sea. We are facing yet another material climate change, this time due to human impact, and again, we need to adapt. To combat the climate changes, we need to partner up with other stakeholders, have a long-term goal and act.

The City of Västerås is responsible for city planning, education, day care, eldercare and social work. We are responsible for park and recreation areas and large parts of the road network. All in all, the City of Västerås has got the impact to create conditions for people to live healthy and sustainable lives in which they feel that everything is possible.

## SUSTAINABILITY STRATEGY

The City of Västerås' work for sustainable development is based on the UN Sustainable Development Goals (SDGs). The sustainability strategy consists of the three pillars: **Program for Social Sustainability, Program for Ecological Sustainability and Program for Business Development.**

Key to the purpose of this framework is the Program for Ecological Sustainability. The program is a governing document for the City of Västerås, based on scientific models and frameworks that describe boundaries for environmental sustainability as in; The Sustainable Development Goals, The Swedish Environmental Goals (Sw. Sveriges miljömål), The Planetary Boundaries and The Ecological Footprint. The long-term goals of the program are that by the year 2045, i) the City of Västerås' impact on the environment and climate has decreased, ii) is within the planetary boundaries and iii) that the ecological footprint of the inhabitants of Västerås is sustainable.

The program for Ecological Sustainability is complemented by a Program for Climate that is in line with the Paris Agreement. The CO<sub>2</sub>e level objective for the geographical region of Västerås municipality is close to zero by 2040, approximately 85 per cent less than in the base year 1990. Part of the work for climate mitigation consists of a CO<sub>2</sub>-Budget for the city, initiated and ongoing since 2018.

On Västerås' road towards environmental sustainability, improvements in all sectors are essential. The Electricity and Heating and transport sector are, however, the two sectors that account for the largest share of CO<sub>2</sub>e emissions. The sectors Electricity and Heating and Transport are still generating a substantial amount of fossil emissions, although implemented measures in the energy production in Västerås have led to large reductions, in recent years by a transition from district heating and electric power production solely based on oil and coal to a current state of only using renewable and recycled fuel sources.

To achieve the overall goal, CO<sub>2</sub>e close to zero by 2040, the City of Västerås has set sub-goals in energy and transport that need to be met by 2030. The goals are:

- The total emissions of greenhouse gases from production of electricity and district heating should be zero and
- The emissions of greenhouse gases from road traffic must be 80 per cent lower compared to the 2010 level. These sub-goals are handled in the Program for Ecological sustainability.

The City of Västerås is the most efficient when collaborating with stakeholders such as inhabitants, private businesses in the city, actors in the public sector and visitors. All stakeholders have a role to play and spatial planning and prerequisites for living a sustainable life are of great importance, but four main stakeholders play a particular important role in achieving the climate target as the two largest CO<sub>2</sub>e emitting sources in the Västerås municipal area the ones of Energy and heating and Transport. For the City of Västerås, this especially implies the following organizations:

- **VAFABMILJÖ:** The City of Västerås is the largest member of the municipal association Vafabmiljö seated in the Västerås municipality, it hosts an effective waste management for not one, but 12 municipalities. There, biogas is extracted from household waste and also transformed into liquid biogas.
- **MÄLARENERGI:** The municipal energy company, Mälarenergi, recovers energy from waste for electric energy production and provides district heating for not one, but three municipalities. This waste-to-energy conversion provides a better climate efficiency compared to landfill and its long-term greenhouse gas emission. This waste management service is provided for regions in several European countries.
- **MIMER:** The City of Västerås' fully owned housing company. It is primarily the consumed electricity, district heating in buildings and the concrete in the construction process that generate the most significant amount of emissions. In 2017, the construction and real estate sector accounted for approximately 19 per cent of Sweden's total annual emissions of greenhouse gases.
- **MÄLARHAMNAR:** The City of Västerås' port company operating the Västerås and Köping commercial ports controlled by a 55 per cent share.

This list is non exhaustive. The City of Västerås operate several other businesses and take part in other collaborations.



## ENGAGEMENTS

The City of Västerås' work for sustainable development is based on the UN Sustainable Development Goals (SDGs). The SDGs are designed to meet the challenge at all levels. Poverty, inequality, justice and the climate crisis work together, and these problems cannot be solved individually. This means that the municipality works with virtually all SDGs, but in this framework the focus is on the following goals:



### SDG 7. Affordable and clean energy

7.2 Increase substantially the share of renewable energy in the global energy mix

7.3 Double the global rate of improvement in energy efficiency

Important activities are to continue to use renewable and reused fuels in energy production. All new construction of community properties and homes built by the housing company takes place according to the standard Miljöbyggnad Silver, which entails a lower energy use than the average building.

## SDG 9. Industry, innovation and infrastructure

9.4 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

The municipality collaborates with companies and organizations in the region and carries out various projects together, for example we are active in Electrification Hub which is a collaboration platform that gathers cutting-edge expertise in joint initiatives to accelerate development around electrification, energy and electromobility.



## SDG 11. Sustainable cities and communities

11.2 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

11.6 Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

Västerås master plan describes 13 strategies for sustainable development. They will permeate the planning and give Västerås the opportunity to grow sustainably. This, for example, include strategies for making it easy to walk and cycle, to develop public transport and to manage resources and adapt society to climate change.

Investments are continuously made in the pedestrian and cycle path network to improve quality and complete missing links. Together with the municipal association VafabMiljö, the opportunities for sorting and recycling waste for increased material and energy recycling are improved.



## SDG 13. Climate action

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Work on implementing identified actions in the Climate Adaptation Action Plan is ongoing. These include dimensioning for extreme rainfall or heatwaves by ensuring the production of district cooling and training relevant personnel in climate and climate adaptation issues. This also includes informing the public about how to act during such events. The municipality also offers free energy and climate advice to residents and companies.



# Sustainability-Linked Bond Framework

By establishing a Sustainability-Linked Bond Framework, the City of Västerås aims to further emphasize its commitments to sustainability, combatting climate change and to reduce greenhouse gases. The City of Västerås can under this Framework, issue bonds with a sustainability link.

The Sustainability-Linked Bond Framework has been developed together with Handelsbanken and is aligned with the Sustainability-Linked Bond Principles (SLBP), established by the International Capital Markets Association (ICMA) in June 2020. The structure consists of the following five core components:

- 1) Selection of Key Performance Indicators (KPIs)
- 2) Calibration of Sustainability Performance Targets (SPTs)
- 3) Bond characteristics
- 4) Reporting
- 5) Verification

S&P Global Ratings has provided a Second Party Opinion, confirming alignment with ICMA's Sustainability-Linked Bond Principles.

## SELECTION OF KEY PERFORMANCE INDICATOR (KPI)

### Definitions and rationale

The City of Västerås has chosen one KPI for this Sustainability-Linked Bond Framework:

– **Carbon dioxide equivalent emissions (CO<sub>2</sub>e) per inhabitant in the geographical area of Västerås municipality.**

This KPI relates to SDG 13 Climate Action which is about taking urgent action to combat climate change and its impacts. Monitoring carbon dioxide emissions is a way to ensure that actions yield results.

According to IPCC's Sixth Assessment Report, climate change is one of the biggest threats facing societies of today - addressing climate change is hence crucial for the quality of life, both in the short term, and even more so in the long-term. The City of Västerås therefore has incentives to address climate change, from a risk perspective as well as from a quality of life perspective.

## Description of measurement methodology

The CO<sub>2</sub>e emissions from fossil sources in the geographical area of Västerås municipality is measured yearly in the National Emission Database, administered by SMHI, the Swedish Meteorological and Hydrological Institute. Figures are published yearly with a two-year lag. The National Emission Database holds data from 1990 onwards, some years are interpolated but yearly data is available from 2010 onwards.

The national emission data is normally recalculated annually due to refinement procedures, these calculations are verified by Svenska MiljöEmissionsData (SMED).

The National Emission Database is built out of a large amount of direct and indirect sources and the data collection methods are being improved over time, see their methodology section ([www.smhi.se/data/miljo/nationella-emissionsdatabasen](http://www.smhi.se/data/miljo/nationella-emissionsdatabasen)) for more details.

Since the KPI is CO<sub>2</sub>e per inhabitant, data related to the number of inhabitants is also used. The population data is collected by Statistics Sweden.

KPI – Fossil source emissions in tons of CO<sub>2</sub>e of year i, the year of the datapoint, divided by number of inhabitants (I).

$$KPI = CO_2e_i / I_i$$

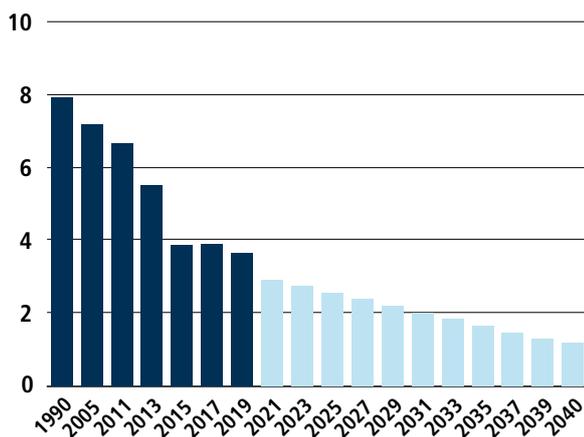
## CALIBRATION OF SUSTAINABILITY PERFORMANCE TARGET (SPT)

SPT Emissions per inhabitant in tons of CO<sub>2</sub>e: 85 per cent reduction from the baseline year 1990 to the target year of 2040.

The baseline is set to 1990 since Swedish emission data started to be recorded this year.

The calculation of emission per inhabitant is based on data from the National Emission Database, administered by SMHI, the Swedish Meteorological and Hydrological Institute. Population data is collected by Statistics Sweden.

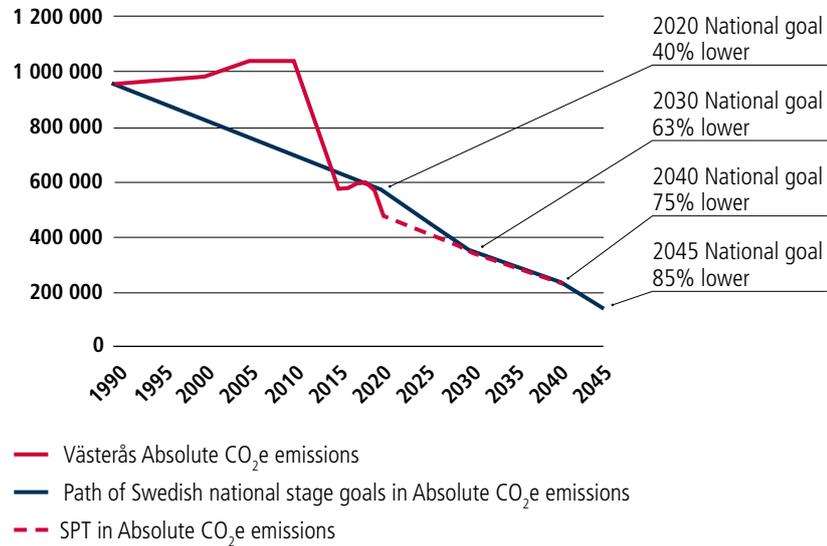
The SPT is set at an overarching level to 2040. A yearly breakdown would indicatively correspond to the below trajectory:



Since the emission data is recalculated every year, including the baseline level, the future trajectory will be adjusted when new data is available. The overarching target to achieve an 85 per cent reduction by 2040 remains, but the trajectory will be adjusted based on new database calculations on the past performance. Therefore, the SPT relevant for the individual Sustainability-Linked Bond is specified in each separate Sustainability-Linked Bond documentation.

To assure alignment with national absolute targets, the SPT breakdown is calibrated to at least be at par with the national absolute targets.

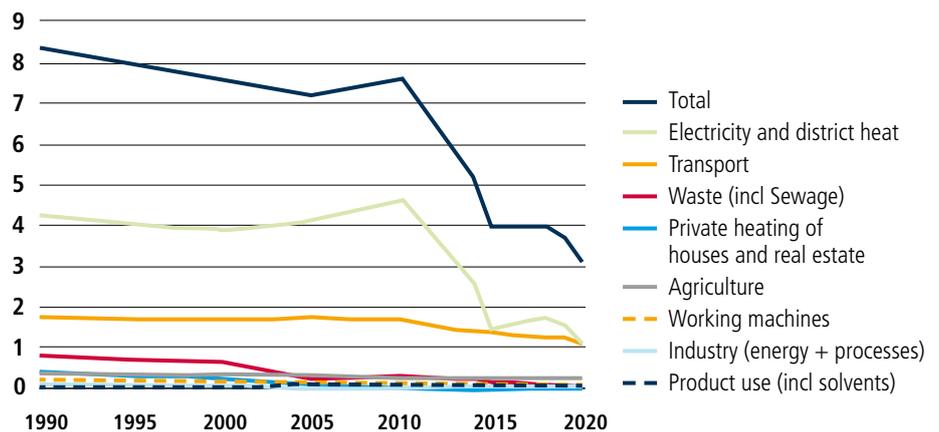
### VÄSTERÅS ABSOLUTE PERFORMANCE VS SWEDISH NATIONAL GOALS



### Historical data

The figure below shows the historical progress of the CO<sub>2</sub>e emissions per inhabitant since 1990. As can be seen, the current level is at 63 per cent (year 2020).

### VÄSTERÅS CO<sub>2</sub>E EMISSIONS IN TONS / INHABITANT



Missing data points have been interpolated.

The rapid decrease from 2010 to 2015 shows the impact potential of technological development in the geographical area. A Carbon Capture and Storage solution (CCS) that currently is under evaluation, would likely have a similar effect and might drive us into net negative territory, depending on scale.

To reach the target we rely on a positive projection of external factors such as technologies improving and CO<sub>2</sub> markets evolving. Also, new regulations must support the green transition and national and local actors need to commit for the same goal.

### Per inhabitant

Demographics, statistics related to the population and particular groups within it, is the main source of analysis for any municipality. The City of Västerås' income is largely based on taxation of the inhabitants, likewise services are dimensioned for the inhabitants and the businesses they work in. The inhabitants form and govern the municipality.

Some peers have set absolute CO<sub>2</sub> level targets, while the City of Västerås has set a per inhabitant target. This gives the inhabitants insight and ability to take part and choose the direction of their individual contribution in peer with their friends, families and neighbours. At the same time this makes the individual impact visible in the global perspective.

People moving to denser city regions is positive from a climate perspective as logistics and personal transports get more effective. So even if the absolute CO<sub>2</sub> levels might increase in the local context if people move to Västerås from more sparsely populated regions, the effect on net emissions in a national context would likely be positive.

Attracting or keeping CO<sub>2</sub> intense industries or logistics might jeopardize our ability to reach the current target, but it could still be beneficial in a global maximin-strategy of industrial research settlement around its most competent workforce. We believe collaboration opportunities as well as logistics should take place where they are the most efficient. The equation for such external factors is not fully graspable but will likely come into play over time and duration of the SLB Framework lifecycle. A rough estimate is that the reduction progress is shifted 1 per cent per 10,000 inhabitants deviation from the population forecast.

### Target Observation Date

Target Observation Date will be set in each issuance. Emission data is published with a two-year lag, in the late fall following the data publication. The historical date is set and available for investors ahead of each bond issuance.





## Benchmark

The Swedish national target for CO<sub>2</sub>e reduction is set with a higher ambition than the EU-level targets found in the Green Deal based on the scientific IPCC reports. Setting local targets is a voluntary action and not forced by law.

Earlier analysis performed in the Swedish municipal sector identified that local goals are slightly different to each other in terms of scope and metrics. This conclusion is found to still be valid. The City of Västerås' target of 85 per cent CO<sub>2</sub>e reduction is set to 2040 and is in line with the national level targets that are set to 2045.

Currently Västerås is at 52 per cent absolute reduction, ahead of the Swedish aggregated absolute reduction at 35 per cent. In the KPI measure Västerås is at 63 per cent reduction per inhabitant, also ahead of the Swedish aggregated KPI level, 46 per cent.

## Large municipalities

The City of Västerås' target has been benchmarked against two groups of Sweden's 10 largest as well as the 30 largest municipalities. Municipal organizations have generally equal assignments, but emission composition and needed reduction efforts differ vastly. To display the reduction performance regardless of peer-group composition not one, but two peer groups are added.

The absolute CO<sub>2</sub>e level in 1990, the reduction in absolute figures and the rate of change varies. Västerås has a higher starting point than the mean of both these groups of municipalities, but our reduction rate of emissions per inhabitant has so far exceeded the reduction rate of the two peer groups. A linear projection of Västerås versus the respective group would put us at a lower level than both groups. Without the addition of more ambitious goals or accelerated change, neither of the groups would reach the overarching goal of neutrality by 2050.

## Climate Municipalities network

The overall aim of the Climate Municipalities (Sw. Klimatkommuner) is to reduce greenhouse gas emissions in Sweden through the exchange of experience, advocacy work and the dissemination of good examples. The City of Västerås is a member of this network.

Currently 46 member municipalities and one region have joined this network. For the relevance of this particular benchmark group, an assumption has been made, that these municipalities have a higher ambition in average than the average of the other 244 out of a total of 290 municipalities.

We have identified eight municipalities with reduction targets more ambitious than the City of Västerås, six with equivalent or equal targets, nine with lower targets, this includes net positive targets within a longer timeframe. 18 municipalities have not provided such data to the relevant platform.

### *Absolute reduction*

15 municipalities have from the base year of 1990 a better trajectory towards 85 per cent absolute reduction than Västerås, 30 have a worse trajectory than Västerås.

### *KPI Benchmark performance*

14 municipalities have from the base year of 1990 a better trajectory towards 85 per cent CO<sub>2</sub>e reduction per inhabitant than Västerås (six out of these lack data in the major Energy and Heat segment), 30 have a worse trajectory than Västerås.

Four of the municipalities with better than Västerås trajectory in the absolute emissions reduction rate have a worse per inhabitant trajectory. Three municipalities with worse absolute emissions reduction rate had a better per inhabitant rate than Västerås.

Twelve municipalities lack data in the Energy and Heat segment, while possibly reporting in a different category, this decreases the quality of the comparison. Seven out of these twelve municipalities have better trajectory in the CO<sub>2</sub>e per inhabitant benchmark performance than Västerås.

All the KPI related data, except the population forecast, are available in public sources for all Swedish municipalities and regions. We encourage investors to perform their own benchmark tests on the National Emission Database ([nationellaemissionsdatabasen.smhi.se](http://nationellaemissionsdatabasen.smhi.se)) and Kolada ([kolada.se](http://kolada.se)) for benchmarks of years 2017 onwards. The Kolada database has included an exact replica of the KPI available for detailed benchmarking purposes between Swedish municipalities and regions.





## Strategy towards SPT

To meet the target of reducing emissions per inhabitant in tons of CO<sub>2</sub>e by 85 per cent by 2040, several solutions have been identified. By partnering with different actors, sharing experiences and setting ambitious but achievable goals, an increase in the pace of reducing the climate impact can be achieved. The City of Västerås plans to start Västerås climate commitment that will coordinate and inspire joint efforts from a network of representatives of business and civil society. Right now, a concept is being developed and the hope is to be able to launch it in 2023.

Some solutions are however not presented in this Framework as they might be out of the City of Västerås' reach, too fragmented or not relevant for funding.

Our main strategy to reach the SPT stems from the following areas:

### Management system

The municipality is planning for an action plan and process where every municipal committee will be responsible for reduction of its own climate impact. Local ownership both for procurement process and end users is needed to reach the KPI target. Commitment to accomplishment of goals needs to be deeply rooted in order to eliminate the risk of moral hazard, that otherwise can occur when goals are not established and accounted for on every level or branch in the organization.

Since 2020, all the municipal public procurement projects are analyzed and guided for general sustainability requirements by a dedicated sustainability function in the procurement department. This is a key piece to cover not only specific CO<sub>2</sub> mitigation projects, but also to include all the vital components for daily operations in a more holistic approach on sustainability. This includes, but is not limited to, climate impact.

### Transports

The city master plan states that the public transport must be the spine of our community building. It states that the capacity of the public transport must be increased, more nodes created, and more destinations reached faster so that even more people for themselves are able to, and want to travel, in a sustainable way. In the City of Västerås, travel should be more flexible and adapted for different purposes, the Plan for Traffic paves way for more public transport, vehicle pools, attractive bike travel or micro mobility services as examples of improvement that yields not only environmental but also social benefits. Due to economic expansion, it is estimated that transports in the municipal geographic area will increase, but since technical evolution makes low carbon solutions accessible, it is also estimated that the CO<sub>2</sub> impact per km is to trend downwards.

Some travel might not even be needed. Smart logistics, rapid digitalization, and usage of one of Sweden's first municipal fibre networks in Västerås creates conditions making it easier to optimize travel.

In 2022 the City of Västerås has invested in biking infrastructure. Outside the municipal domain but in the geographical area of Västerås, covered by the KPI, the Regional Transport Plan for 2022-2033 has planned development of train, public transport and biking infrastructure. This aligns with the municipal goals and the possibility of reaching the KPI-targets. Public transport and sustainable alternatives such as bicycle roads are addressed in the action plan for sustainable transports.



Photo: Lasse Fredriksson.

The bus traffic operated by the local region runs fossil free, to a large extent on locally produced biogas since 2016. Regional plans and a current technological shift from biogas buses towards buses run by electricity, reduce energy consumption and CO<sub>2</sub>e emissions from already fossil free low levels, towards zero. The biogas left over is transformed to liquid biogas (LBG) in the municipal associations brand-new facility, to be used in the growing LBG fuelled heavy transport segment.

The private motoring accounts for a large share of the municipal CO<sub>2</sub> footprint. In recent years the municipal energy company has noticed an increased market demand for vehicle charging solutions from private individuals, tenant-owner associations, and real estate owners. For a broad shift to electric vehicles, an upscale of the local charging infrastructure is needed. The City of Västerås can support the green transition of this domain by ensuring grid capacity and sufficient charging infrastructure.

The private motoring has been the world focus of electrification, but now also heavy goods transports are being electrified. This puts an increased load on the electric infrastructure and significantly increases the demand for power. To address the increased demand for grid power, we are investing to strengthen the transmission capacity of the power grids, at the same time, we are making our customers and the inhabitants of Västerås more integrated in the green transition. The energy company's plan for Electromobility includes strategic placement, ownership, and maintenance of thousands of charging stations for personal cars and trucks in support of the increasing demand.

A political decision has been made, stating that, from the year 2020 on, cars bought or leased by the municipality should only be EV, HEV or biogas cars. This could support a fraction of the local secondary market. This is however dependent on stable market conditions as market supply deficit and logistics problems in some market segments affect our ability to choose freely within this range.



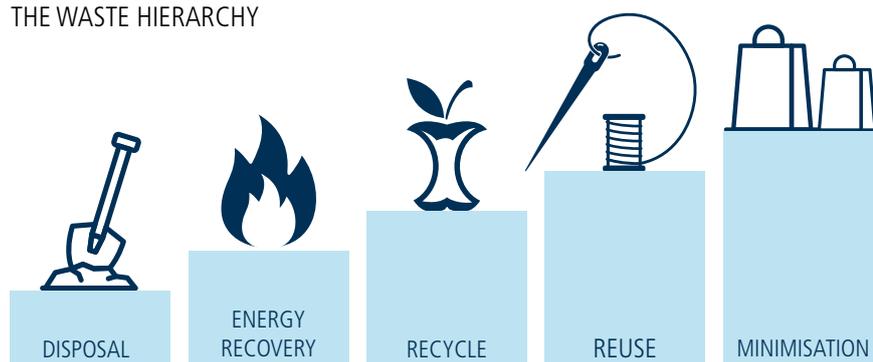


## Energy and recycling

In Västerås, there is a district heating grid that covers 98 per cent of the properties in the municipality. The municipal energy company produces electricity and heat in an efficient energy recovery process at the Combined Heat and Power (CHP) plant in Västerås and owns several smaller hydro power plants. Only renewable and recycled fuels such as recycled wood and waste are used in the CHP plant. The residual waste originates from Västerås, municipalities in the region and from countries in Europe who need waste treatment. Using waste from other European countries as fuel in the combined heat and powerplants is CO<sub>2</sub> import but contributes to reduced emissions in Europe, as the waste would otherwise end up in a landfill and emit methane gas with a greater greenhouse effect than carbon dioxide. Effective energy recovery instead of landfilling is in line with the EU waste hierarchy.

The waste that is energy recovered contains some plastic and the challenge in the future is to reduce that fraction, to be able to recycle the plastics and reduce CO<sub>2</sub> emissions from the energy recovery. The joint waste plan, developed for Västerås and the 11 other municipalities that belong to the municipal association VafabMiljö, contains objectives and activities to both reduce the use of plastic in society and to increase the sorting of plastic so that it does not end up in residual waste.

### THE WASTE HIERARCHY



The collective efficient material- and energy recovery process make the power plant a large source of CO<sub>2</sub> in the Swedish context. One of the more technical solutions to mitigate this impact is the usage of Carbon Capture technology. A feasibility study was completed in 2021 and we are now investigating how the power plants can be fitted with this type of technology and the infrastructure for a complete Carbon Capture and Storage (CCS) chain.

The powerplant's placement adjacent to the port supports the feasibility for a logistic solution where both the current imported fuel and the future CCS captured CO<sub>2</sub> is transported out by boat. This is not without effort. The feasibility study shows a feasible yet demanding project that could be finished after 2030. The current calculation accounts for about 1,500 tons of CO<sub>2</sub> being captured, transported and stored, per day. Currently the market chain for CCS and emission rights need to mature and we are taking part in that development. Meanwhile, a pre-study of this project is being prepared for progression.

## Shipping

A CCS project would require additional capacity in the port and the fairway of Lake Mälaren towards Södertälje and the Baltic Sea. Since 2016 the City of Västerås has invested to increase the port capacity and the fairway to the port has been dredged, to support larger vessels. This upgrade moves us from a maximum sized vessel equivalent of 300 trucks, to a model with capacity per vessel equivalent to a thousand trucks. Along with this, the state shipping project, Mälarpjektet has finally addressed the last missing piece of the shipping path, adaptation of the Hjulsta Bridge, to the National Transport Plan 2022-2033.

Currently 96 per cent of all Swedes live within 100 km from the water path. The ports in the centre of the greater business region Stockholm-Mälardalen with 60 per cent of Swedish growth and 30 per cent of the Swedish people and businesses, could easily make better use of water logistics and the Västerås port. The Västerås port upgrade and fairway expansion, connected via Södertälje to the Baltic Sea, drastically increases the capacity for environmentally friendly water logistics. According to Trafikanalys, each ton moved from road transport to water transport reduces its CO<sub>2</sub>e impact per km by 70 per cent, even without environmental improvement of the ships. But the national fairway self-funding fee structure cannot compete effectively with the costs of logistics by tax supported roads, and because of this, road logistics is often chosen over water logistics.

1 = 300

Current maximum category



Trucks

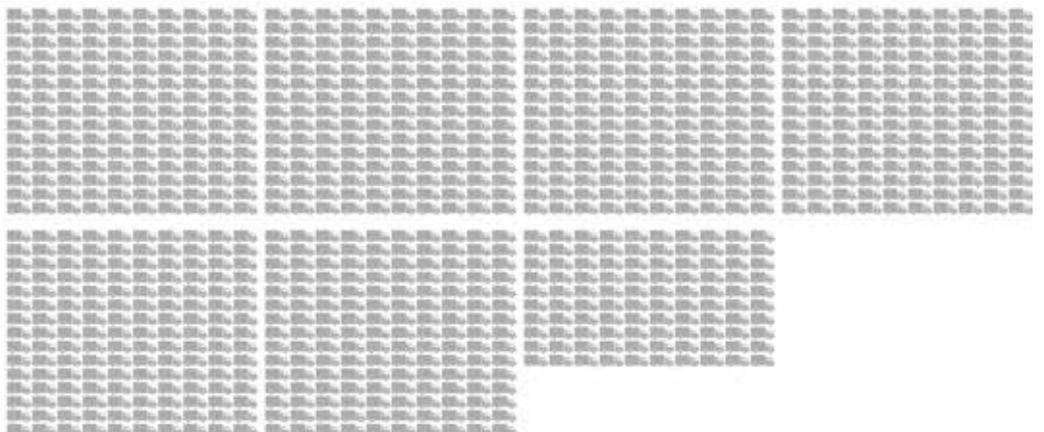


1 = 1 000

New maximum category



Trucks



## Housing and construction

The city real estate board decided in 2015 that new buildings under the city real estate office should be certified with Miljöbyggnad Silver or better.

As a growing municipality, the housing company is building around 200 new rental apartments per year, all equipped with solar cells. The housing company builds with more ambitious standards than the regulatory requirements, currently Miljöbyggnad Silver.

While new buildings are getting more climate friendly the building process accounts for a larger share of the CO<sub>2</sub> emissions. To maintain projection for CO<sub>2</sub> emission reduction, improvements of the lifecycle, recycling and resource efficiency in the building process are being made. A broad spectrum of upgrades on the current real estate increase the energy efficiency towards the goal to reduce its CO<sub>2</sub> impact by 50 per cent from (base year 2020) to 2030. The housing company is to decrease energy usage with 2 per cent per year and increase own production of green energy by building solar cells equivalent to around 200 kW per year.

Our energy company is engaged in a project around Smart Built Environment with the purpose of creating city planning and energy optimization from a system perspective. They provide an AI-solution for decision support based on simulation, modelling and visualization for planning of energy systems in the early phase of the city planning process. The key players should have decision support to maximize energy optimization, without moving the climate impact somewhere else in time or space.

## Carbon sinks

The municipality association is exploring the possibility for a bio char plant that converts branches and twigs from the current recycling process into bio char, while supplying sufficient heat for the biogas extraction process. Instead of evaporating the biomass in the district heat grid process, the residual bio char could act as a solid carbon sink, potentially offsetting some CO<sub>2</sub> and act as a complementary measure to a CCS solution.

Carbon sinks in form of additional wetland restoration projects are a crucial part of holding the current CO<sub>2</sub> budget.



Johannisbergs wetland park.



Examples of City of Västerås green buildings Sjöodjuret – low energy housing Miljöbyggnad Silver 2019.

## BOND CHARACTERISTICS

### Financial characteristics

Financial characteristics outlined in this Framework are applicable to all Sustainability-Linked Bonds issued under it. The proceeds of Sustainability-Linked Bonds will be used for general municipal and corporate purposes. Depending on the City of Västerås' performance versus the annual SPTs as per the Target Observation Date, financial effects may trigger coupon step-ups or increased redemption price of Sustainability-Linked Bonds, a "Trigger Event". While the overarching SPT is set for 2040, the relevant SPT for a Sustainability-Linked Bond will be specified in each separate Sustainability-Linked Bond documentation. Regardless of financial characteristic selected, the scale of the impact aims at being meaningful and commensurate. The financial characteristic selected for each finance instrument will be specified in the transaction specific documentation.

### Fallback mechanism

The fallback mechanism determines how and when the City of Västerås is allowed to make recalculations or pro-forma adjustment to the baseline. While not the intent of the City of Västerås, due to the emission data being recalculated every year, changes to the baseline or other similar adjustments could warrant changes to the SPT. However, any change to the SPT must not represent a lowered level of ambition. Furthermore, if material changes are made to the SPT a new external review will be published.

### KPI calculation

Emissions are measured in the National Emission Database as of year  $i$ , published in year  $i+2$ , per inhabitant in year  $i$  measured by Statistics Sweden.

### Detailed description of the potential variation of the financial and/or structural characteristics of a SLB

In case of worse than projected outcome is observed on the Target Observation Date, it will result in a failure to achieve the SPT, a Trigger Event. A Trigger Event will result in an economic compensation to the investors as described above and as further specified by any Sustainability-Linked Bond documentation. The scale of the economic compensation aims at being meaningful and commensurate. The City of Västerås will determine the appropriate adjustment mechanism for any Sustainability-Linked Bond, which may include an adjustment of the redemption price or the coupon, including:

- a coupon step-up until maturity, by a number of basis points; or
- a one-time payment, either in redemption amount or in a coupon step-up, payable in connection with maturity of the Sustainability-Linked Bond.

Details on the structure of the Trigger Event, possible adjustments to rates or redemption amount will be specified by any Sustainability-Linked Bond documentation.

KPI – Fossil source emissions per inhabitant in tons of CO<sub>2</sub>e of year  $i$  in the Västerås municipal area, the year of the datapoint.

$$KPI = CO_2e_i / I_i$$

## REPORTING

To provide investors and other stakeholders with adequate information about the progress made on the KPIs in relation to the SPT set out in this Framework, the City of Västerås will provide relevant reporting. The reporting shall be made publicly available on an annual basis in a Sustainability-Linked Bond Progress Report. The Reporting shall be published on the City of Västerås' web page within 30 business days following the publication of the CO<sub>2</sub>e data in the National Emission Database. The Reporting will be published on the City of Västerås' webpage for as long as there are any Sustainability Linked Bonds outstanding.

Failure to provide a Sustainability-Linked Bond Progress Report (the Data) will result in a Trigger Event.

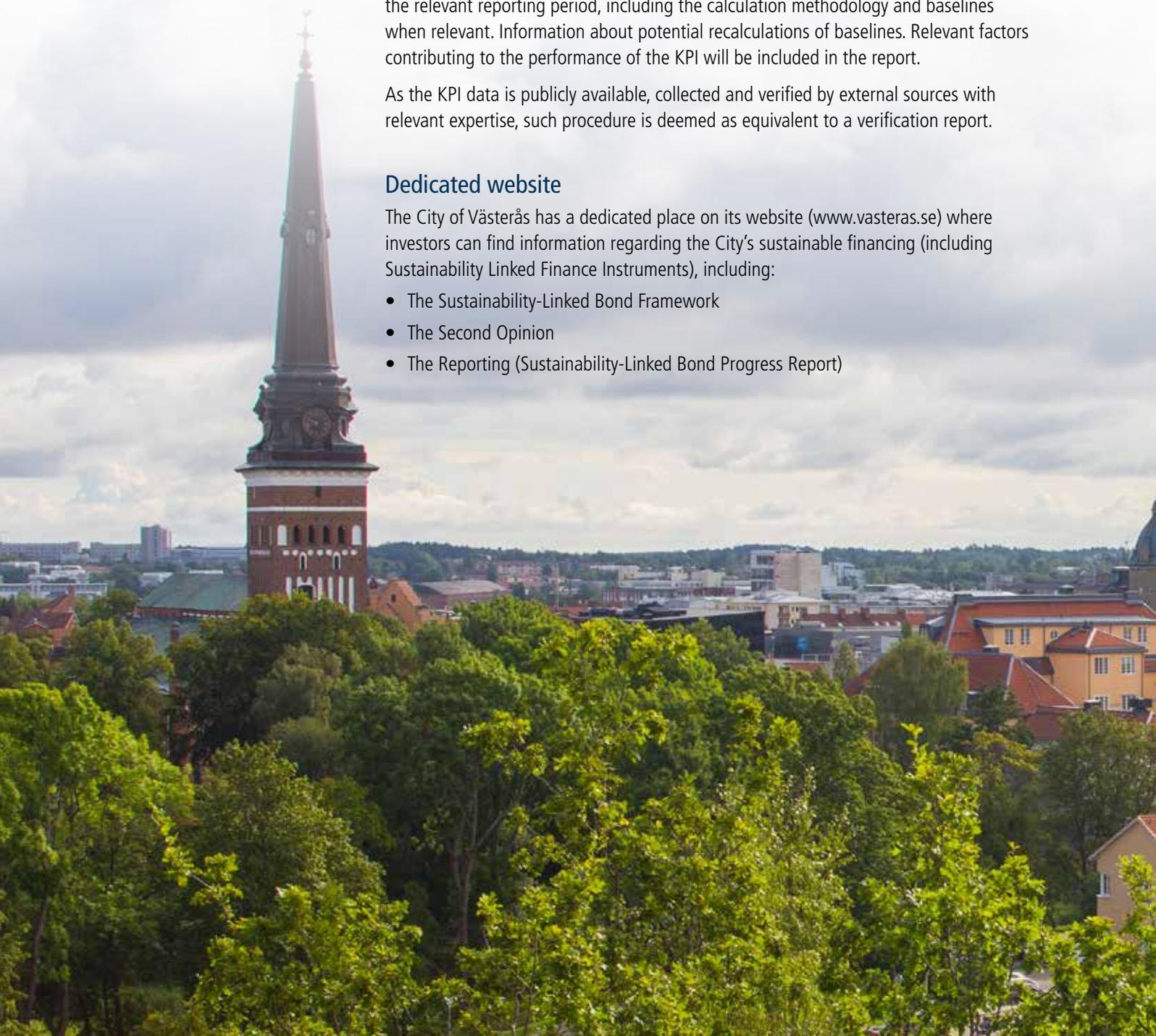
The Sustainability-Linked Bond Progress Report (the Data) will contain the relevant information needed to assess if any changes to the security characteristics are to be made, including but not limited to: The performance of the KPI versus the SPT, as per the relevant reporting period, including the calculation methodology and baselines when relevant. Information about potential recalculations of baselines. Relevant factors contributing to the performance of the KPI will be included in the report.

As the KPI data is publicly available, collected and verified by external sources with relevant expertise, such procedure is deemed as equivalent to a verification report.

### Dedicated website

The City of Västerås has a dedicated place on its website ([www.vasteras.se](http://www.vasteras.se)) where investors can find information regarding the City's sustainable financing (including Sustainability Linked Finance Instruments), including:

- The Sustainability-Linked Bond Framework
- The Second Opinion
- The Reporting (Sustainability-Linked Bond Progress Report)



## Content

Significant Outcome of KPI measure will be reported.

Significant projects and progression events related to the KPI in the recent year and outcome of KPI and the progress of the SPT will be reported.

## VERIFICATION

To ensure transparency to investors and other stakeholders, in line with the Sustainability-Linked Bond Principles, data sources are official statistics, publicly available and externally verified data. The National Emission Database collects and calculates the emission part of the KPI. The national emission data is normally recalculated annually due to refinement procedures, these calculations are verified by Svenska MiljöEmissions Data (SMED). Other calculations than dividing the absolute figures in the National Emission Database with the inhabitant figures provided and publicly made available by Statistics Sweden, are not performed by the City of Västerås. As a fallback and point of reference Kolada, an association between the Swedish State, Swedish Municipalities and Regions, a council for promotion of municipal analyzes, currently presents the KPI in a benchmark tool on their website ([kolada.se](http://kolada.se)), based on the same sources. The annually updated raw data will be provided with a source reference on the website for transparency along with the SPT for comparison in tabular form.





# Definitions

**CO<sub>2</sub>e** – Greenhouse gasses is measured in CO<sub>2</sub> equivalents (CO<sub>2</sub>e) and within that, CO<sub>2</sub> is included. Sometimes CO<sub>2</sub>e is referred to, and sometimes CO<sub>2</sub> is referred.

**City of Västerås** – The legal entity of Västerås municipality, including its controlled companies.

**Municipal association** – A public sector collaboration with other public sector actors, such as state, regions or other municipalities.

**Baseline** – The baseline is a fixed point of reference that is used for comparison to determine the measurement of the performance of the SPT.

**Benchmark** – A benchmark is a reference that can be used to measure or compare performance.

**KPI** – Key Performance Indicators are quantifiable metrics used to measure the performance of selected indicators.

**SPT** – Sustainability Performance Targets are measurable improvements in Key Performance indicators on to which issuers commit to a predefined timeline. SPTs should be ambitious, material and where possible benchmarked and consistent with an issuer's overall sustainability/ESG strategy.

**Target Observation Date** – The Target Observation Date refers to the specific date at which the performance of the KPI against the SPT is observed.

**Target Setting** – Target setting refers to the recommended process of establishing credible SPTs as outlined in the SLBP.

**Trigger Event** – Event leading to coupon step-up or increase in redemption price of a particular Sustainability-Linked Bond.

**Verification** – A verification or attestation, typically in the form of limited or reasonable assurance, is performed by and independent third party with relevant expertise and credentials.



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