GRUPO SANTANDER 2020 CARBON FOOTPRINT PROCEDURE AND REPORT

Santander

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Contents

Introduction

Grupo Santander pledges to reduce its carbon footprint and protect the environment. We base our environmental strategy on three areas:

- Reducing and offsetting CO_2 emissions.
- Reducing and managing waste responsibly.
- Raising employees' and other stakeholders' awareness of environmental issues.

We've been measuring our environmental footprint (energy consumption, waste and emissions) since 2001. Since 2011, our strict energy efficiency and sustainability initiatives have made sure we have the lowest possible impact on the environment.

We also made two pledges that affect the core markets where we operate (the "G10"):

- To be carbon neutral by 2020 through investment in emissions offsetting programmes.
- To consume electricity only from renewable sources by 2025.

Purpose

This document summarizes how Group Santander measures its carbon footprint (as part of its environmental footprint) and offsets its emissions. Our carbon footprint covers all offices and branch networks in our 10 core markets: Argentina, Brazil, Chile, Germany, Mexico, Poland, Portugal, Spain, the UK and the US. It includes such greenhouse gases used in production, energy consumption and employee commuting as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_20).

To calculate our carbon footprint, we use the GHG Protocol, which sets out the principles and guidance for organizations preparing an emissions inventory and a greenhouse gas (GHG) emissions and removal report.

CHAPTER 1 - GRUPO SANTANDER'S 2020 CARBON FOOTPRINT

Definition

Grupo Santander's carbon footprint (the "Footprint") means the atmospheric emissions that stem from its internal operations.

The types of GHG emissions are:

- Scope 1 (direct): emissions that arise from own sources or from activities the organization controls. These include from stationary combustion, mobile sources

owned by the organization and fugitive emissions from fossil fuels like natural gas and diesel.

- Scope 2 (indirect): emissions that come from the organization's electricity and steam consumption from external sources.
- Scope 3 (other indirect): upstream and downstream emissions across the organization's value chain that come from assets not owned or controlled by it.

Grupo Santander's Footprint comprises all three emission types.

Annex III details the emission factors for each type.

The emissions we attribute to our Footprint can arise from energy consumption in our buildings, employee business travel (by plane or car) and commuting.

Further details on each scope are:

Scope 1

Emissions from natural gas consumption

- Definition: The atmospheric emissions from natural gas consumption at our offices and branches.
- Unit: Tons (t)
- Interval: Quarterly
- Methodology: Calculated in the Tool (defined below) using the subsidiaries' natural gas consumption and the emission factor that the reporting manager loads onto it. Thus, there is no requirement for them to add any further data.
- Considerations: The Group's environmental footprint manager updates the emission factor loaded onto the Tool every year so the calculation always uses the most recent figure.

Emissions from diesel consumption

- Definition: The atmospheric emissions from diesel consumption at our offices and branches.
- Unit: Tons (t)
- Interval: Quarterly
- Methodology: Calculated in the Tool using the subsidiaries' diesel consumption and the emission factor that the reporting manager loads into it. Thus, there is no requirement for them to add any further data.

- Considerations: The Group's environmental footprint manager updates the emission factor loaded onto the Tool every year so the calculation always uses the most recent figure.

Scope 2

Emissions from electricity consumption

- Definition: The atmospheric emissions from electricity consumption at our offices and branches.
- Unit: Tons (t)
- Interval: Quarterly
- Methodology: Calculated in the Tool using the subsidiaries' electricity consumption and the emission factor that the reporting manager loads into it. Thus, there is no requirement for them to add any further data.
- Considerations: the Group's environmental footprint manager updates the emission factor loaded onto the Tool every year so the calculation always uses the most recent figure.

  As electricity from renewable sources does not generate emissions, the Group's environmental footprint manager discards it from the emissions calculation.

Scope 3

Emissions from air travel

- Definition: The atmospheric emissions from employee air travel.
- Unit: Tons (t)
- Interval: Quarterly
- Methodology: Calculated in the Tool using the distance in kilometres that office and branch-based employees travel by aeroplane. Each subsidiary's reporting manager must provide these data:
    - Short-haul flights: the kilometres travelled within the same country.
    - Medium-haul: the kilometres travelled within the same continent.
    - Long-haul: the kilometres travelled from one continent to another.

  The Tool calculates the total emissions with the short-, medium- and long-term data and the emission factor.

- Considerations: The Group's environmental footprint manager updates the emission factor loaded onto the Tool every year so the calculation always uses the most recent figure.

  Air travel data may be cumulative per subsidiary and not broken down by each building or branch network. If so, we will report consumption in a single survey (preferably on the subsidiary's HQ).

Emissions from car travel

- Definition: The atmospheric emissions from employee car travel.
- Unit: Tons (t)
- Interval: Quarterly
- Methodology: Calculated in the Tool using the distance in kilometres that office and branch-based employees travel by car. Each subsidiary's reporting manager must provide these data:
  - Petrol engines: the kilometres travelled by office and branch-based employees in petrol-engine cars.
  - Diesel engines: the kilometres travelled by office and branch-based employees in diesel-engine cars.

  The Tool uses the kilometres travelled in petrol- and diesel-engine cars and the emission factor to calculate the total emissions. If the reporting manager does not have the split between petrol- and diesel-engine cars, they can use the percentages that the Group's environmental footprint manager provides (based on statistics available on the Internet).
- Considerations: The Group's environmental footprint manager updates the emission factor loaded onto the Tool every year so the calculation always uses the most recent figure.
- Car travel data may be cumulative per subsidiary and not broken down by each building or branch. If so, we will report consumption in a single survey (preferably on the subsidiary's HQ).

Emissions from commuting

- Definition: The atmospheric emissions from employees travelling between their homes and the workplace.
- Unit: Tons (t)
- Interval: Quarterly

- Methodology: Calculated in the Tool using the distance in kilometres that employees travel between their homes and the workplace. Each subsidiary's reporting manager must provide these data:
    - Daily distance in petrol-engine cars to the workplace: Each employee's commute both ways in kilometres.
    - Number of working days in the quarter.
    - Number of parking spaces at the building the survey relates to. If some spaces aren't used during the quarter, we will take the average number of occupied spaces.
    - Daily distance in diesel-engine cars to the workplace: Each employee's commute both ways in kilometres.
    - Daily distance by bus to the workplace: Each employee's commute both ways in kilometres.
    - Daily distance by train to the workplace: Each employee's commute both ways in kilometres.

  The Tool calculates total emissions based on the kilometres employees travel to commute and the emission factor. If the reporting manager does not have the split between petrol- and diesel-engine cars, they can use the percentages the Group environmental footprint manager provides (based on statistics available on the Internet).
- Considerations: The Group's environmental footprint manager updates the emission factor loaded onto the Tool every year so the calculation always uses the most recent figure.
  This indicator is for offices only, given the difficulty in extracting the same information for branches.

Carbon footprint reporting methodology

Grupo Santander has a global manager in charge of preparing and reviewing Footprint reports. They use the Green Building tool (the "Tool") to request information from the subsidiaries through surveys based on the Footprint indicators for each building and branch network.

Each subsidiary has a reporting manager who compiles all indicator data to respond to the buildings and branch network surveys that the global manager creates in the Tool.

The global manager reviews and combines the data, which are then audited and published in the Responsible Banking Report.

Carbon footprint control

The global manager reviews the Footprint indicator data in line with the reporting intervals (quarterly or annually). The latest data for each building and branch network are compared year-on-year or to the previous period to spot any significant changes. The global manager will ask subsidiaries to explain any large differences and correct any misreported data. Once data are considered valid, they are recorded in the Tool and made available to auditors, who review and verify our Footprint as part of the Responsible Banking Report.

The global manager also updates the emission factors (usually once a year) to make sure we are using the most recent data.

In addition to the internal reviews, an external entity checks the Footprint data every year before producing a report that the Group publishes on its website. Our carbon footprint features in the Responsible Banking chapter of Grupo Santander's annual report.

CHAPTER 2 - CARBON FOOTPRINT DATA

The carbon footprint data for 2020 are:

ACTIVITY DATA

Scope 1

Indicator	Volume	Units	Source
Natural gas consumption	10,394,668	m^3	Utility company bills
Diesel consumption	981,267	litres	Utility company bills

Scope 2

Indicator	Volume	Units	Source
Electricity consumption (non-renewables)	394,697,682	kWh	Utility company bills
Electricity consumption (renewables)	525,756,164	kWh	Utility company bills

Electricity consumed by each subsidiary that forms part of the Footprint scope:

Indicator	Volume	Units	Source

Electricity consumption (renewables) Germany	13,399,575	kWh	Utility company bills
Electricity consumption (renewables) Argentina	8,569,848	kWh	Utility company bills
Electricity consumption (renewables) Brazil	84,850,357	kWh	Utility company bills
Electricity consumption (renewables) Chile	6,898,254	kWh	Utility company bills
Electricity consumption (renewables) Spain	237,563,711	kWh	Utility company bills
Electricity consumption (renewables) Mexico	0	kWh	Utility company bills
Electricity consumption (renewables) Poland	28,888,018	kWh	Utility company bills
Electricity consumption (renewables) Portugal	25,401,925	kWh	Utility company bills
Electricity consumption (renewables) UK	94,490,220	kWh	Utility company bills
Electricity consumption (renewables) US	25,694,257	kWh	Utility company bills

Scope 3

Indicator	Volume	Scope	Units	Source
BUSINESS TRAVEL				
Short-haul flights	7,866,472	Buildings and branch networks	km	Data provided by partner travel agencies
Medium-haul flights	24,513,922	Buildings and branch networks	km	Data provided by partner travel agencies

Long-haul flights	17,384,236	Buildings and branch networks	km	Data provided by partner travel agencies
Travel by petrol-engine car	42,432,319	Buildings and branch networks	km	Internal app. Data provided by employees and statistics from subsidiaries' car parks
Travel by diesel-engine car	31,681,492	Buildings and branch networks	km	Internal app. Data provided by employees and statistics from subsidiaries' car fleet
EMPLOYEE COMMUTING				
Petrol-engine car	54,865,561.55	Buildings	km	Estimate based on parking spaces at each building and subsidiaries' car fleet
Diesel-engine car	48,009,876.59	Buildings	km	Estimate based on parking spaces at each building and subsidiaries' car fleet
Natural gas-engine car	525,341.97	Buildings	km	Estimate based on parking spaces at each building and subsidiaries' car fleet
Bus	1,960,501	Buildings	km	Data calculated on the distance covered by employee shuttles and results of employee surveys
Train	8,004,346	Buildings	km	Data calculated on results from employee surveys

EMISSION FACTORS

Scope 1

Fuel	Emission factor	Units	Source
Natural gas	2.02266	kg CO_{2eq}/m^3	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)
Diesel	2.75776	kg CO_{2eq}/l	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)

Scope 2

Electricity (non-renewables)	Emission factor	Units	Source
Consumption Germany	0.4167	kg CO_{2eq}/kWh	IEA 2019 (*CO_2 emissions from fuel combustion 2019-HIGHLIGHTS report*)
Consumption Argentina	0.3511	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019-HIGHLIGHTS report*)
Consumption Brazil	0.1166	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019-HIGHLIGHTS report*)
Consumption Chile	0.4351	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019-HIGHLIGHTS report*)
Consumption Spain	0.2883	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019-HIGHLIGHTS report*)
Consumption Mexico	0.4773	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019-HIGHLIGHTS report*)
Consumption Poland	0.7094	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel*

			combustion 2019- HIGHLIGHTS report)
Consumption Portugal	0.3588	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019- HIGHLIGHTS report*)
Consumption UK	0.2453	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019- HIGHLIGHTS report*)
Consumption US	0.4211	kg CO_2/kWh	IEA 2019 (*"CO_2 emissions from fuel combustion 2019- HIGHLIGHTS report*)

Scope 3

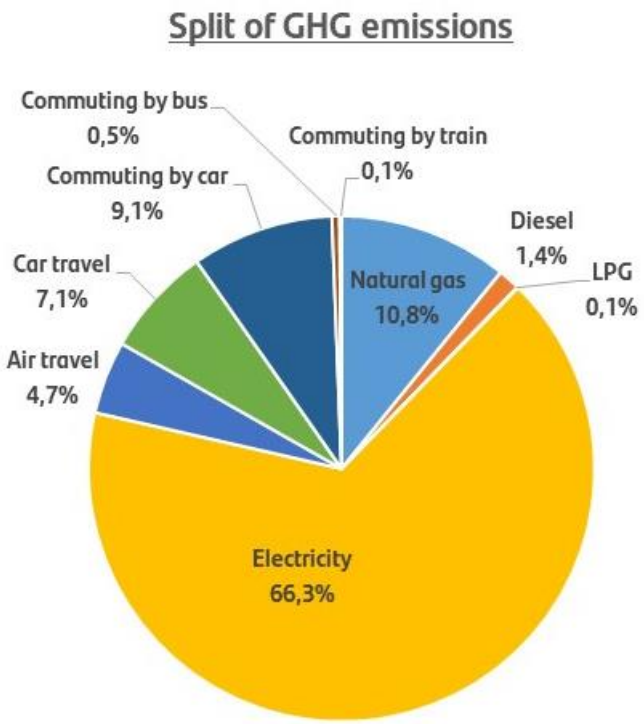
Mode of transport	Emission factor	Units	Source
Short-haul flights	0.2443	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)
Medium-haul flights	0.15553	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)
Long-haul flights	0.19085	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)
Petrol-engine car	0.1743	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)
Diesel-engine car	0.16844	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)
Bus	0.479740	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)

Train	0.02991	kg CO_{2eq}/ km	Defra 2020 (*UK Government GHG Conversion Factors for Company Reporting*)

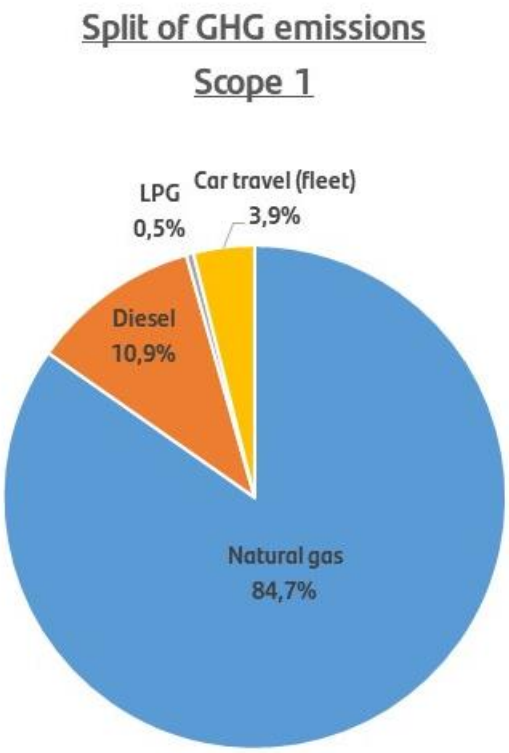
RESULTS

Grupo Santander's total GHG emissions (scope 1, 2 and 3) were 194,159 t CO_{2eq} in 2020. They decreased by 41.6% from 332,387 t CO_{2eq} in 2019 mainly because offices and branches purchased more green energy. The covid-19 pandemic also left our buildings fully or partially empty and caused travel to nosedive.

The split between scope 1, 2 and 3 emissions under Grupo Santander's Footprint was:



Scope 1 emissions

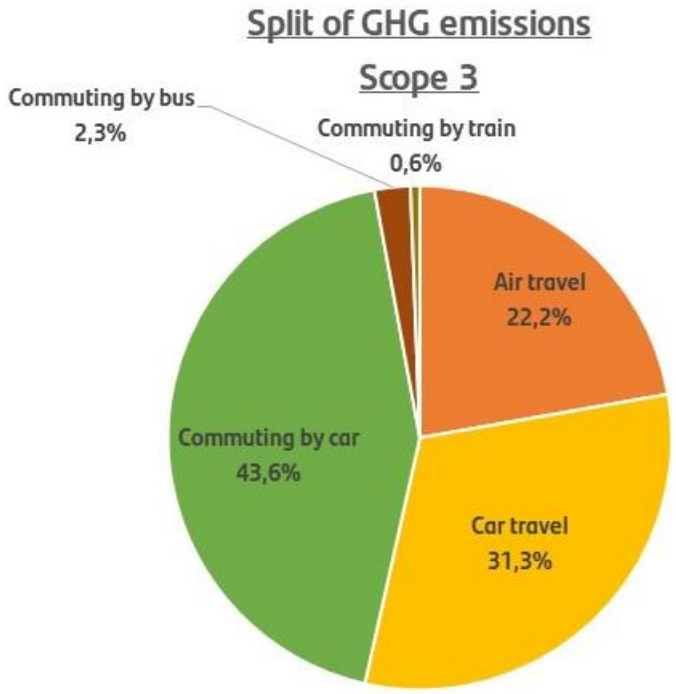


As the above graph shows, Scope 1 emissions equalled 24,818 tCO_{2eq}. Natural gas accounted for 85%, diesel for 11%, and our vehicle fleet and liquefied petroleum gas (LPG) made up the difference.

Scope 2 emissions

Scope 2 emissions equalled 128,633 tCO_2, without electricity from renewable sources (which does not release emissions). 57.12% of the electricity we consumed in 2020 came from renewable sources.

Scope 3 emissions results



As the above graph shows, Scope 3 emissions equalled 40,708 tCO_{2eq}. 22% of emissions were from air travel, 31% from car travel, 44% from car commutes, 2% from bus commutes, and 1% from train commutes. In 2020, emissions volumes and the split between them were unusual due to the covid-19 pandemic. Because we had cancelled most trips, travel emissions dropped significantly while emissions from commuting gained weight.

CHAPTER 3 - OFFSETTING EMISSIONS

Having calculated atmospheric emissions, Grupo Santander must offset the emissions it is unable to cut in order to achieve its carbon neutral objective. Therefore, we buy carbon offsets from providers that run offsetting programmes.

We calculate our estimated emissions for each financial year as close in time as possible to tender periods so that the carbon offsets we buy mirror the actual emissions we release.

Tender

To select programmes and providers in 2020:

1. we researched the market to find companies that offered carbon credits from offsetting initiatives;
2. we met with those companies to explain our carbon offset needs, preferences and requirements, which our Grupo Santander *Emissions offset strategy* sets out in addition to the desired location, verification and other aspects of offsetting programmes; and
3. we invited selected companies to take part in a tender with Aquanima. Our specifications detailed features we valued the most as well as our two-part selection process: first, assessing the companies and programmes' technical criteria and, second, analysing their economic proposals.

Selection

After analysing proposals, we drafted a 2020 Offsetting Plan for the Group (G10). We took the each subsidiary's estimates for 2020 to determine how many carbon offsets we needed to purchase. We allocated an offsetting programme to each subsidiary, which signed carbon offset purchase agreements with each provider.

Achieving our carbon neutral objective

Grupo Santander becomes carbon neutral when we purchase enough carbon offsets to offset our emissions. In Q1 2021, we implemented an internal and external communications plan to announce that we had achieved our objective as well as which programmes we had invested in. We regularly ask providers to send information so we can monitor the programmes we invest in.

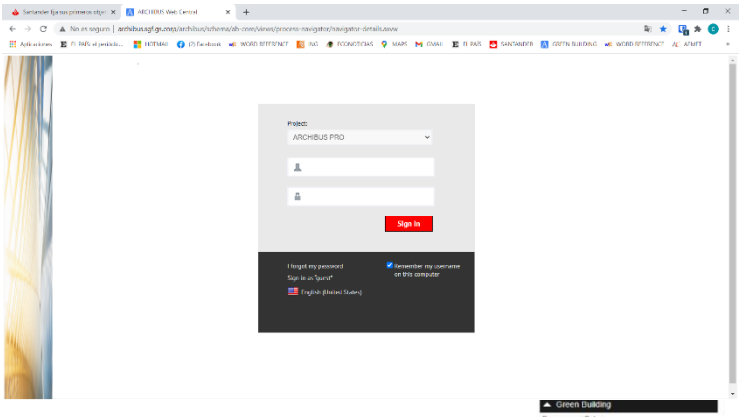
To remain carbon neutral, we must determine how much our emissions have increased and how many offsets we need to purchase.

We calculate our estimated emissions for each financial year as close in time as possible to tender periods so that the carbon offsets we buy mirror the actual emissions we release.

ANNEXES

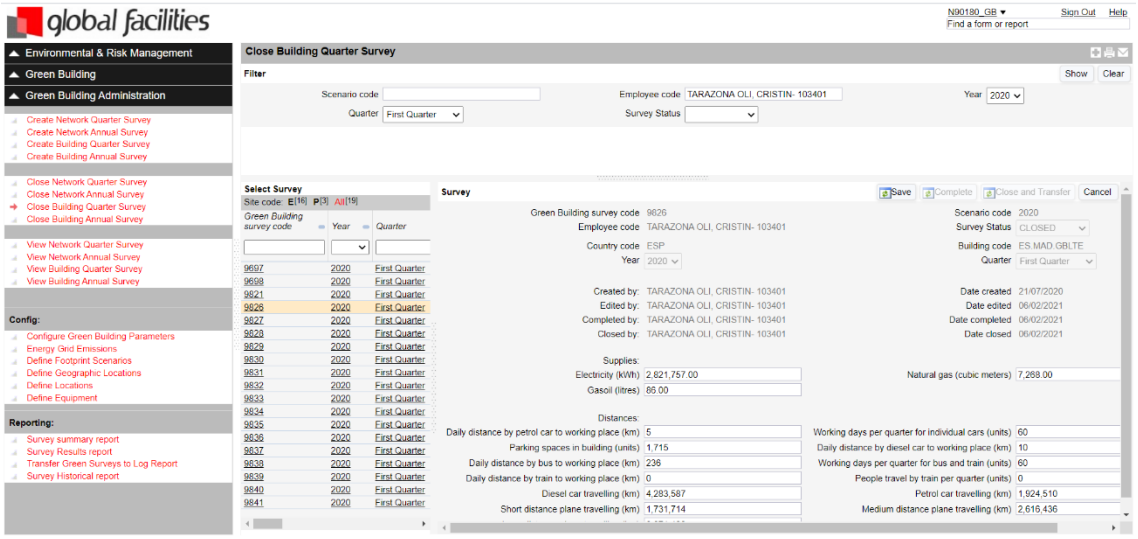
Annex I - Green Building tool

Below are screenshots of the Green Building tool that we use to record and report on environmental footprint data.

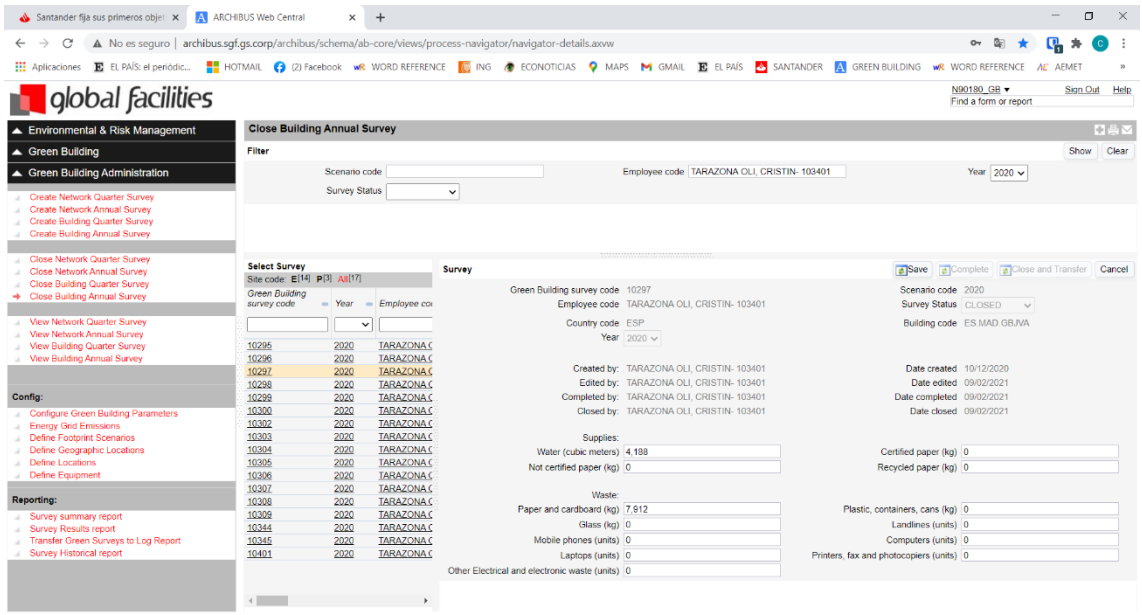


There are four surveys, depending on whether the report relates to buildings or a branch network, and the indicators being reported on:

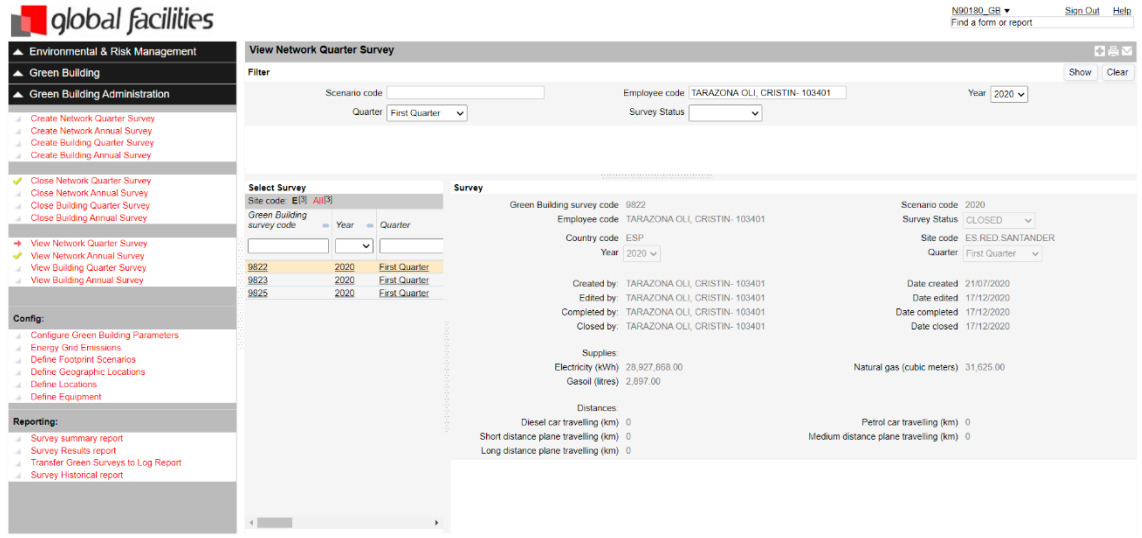
1 - Quarterly buildings survey:



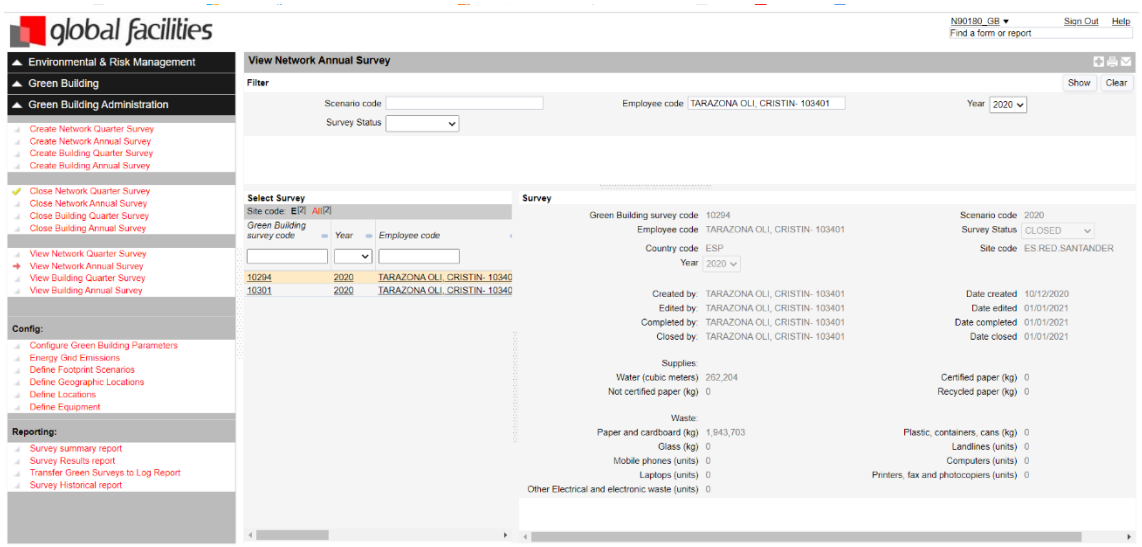
2 - Annual buildings survey:



3 - Quarterly branch network survey:



4 - Annual branch network survey:



Annex II - Grupo Santander emissions offsetting strategy