

EXPLANATORY NOTES FOR REPORTING YEAR 2018

THE EXPLANATORY NOTES REFER TO THE ENVIRONMENTAL FOOTPRINT OF ALLIANZ GROUP'S OPERATIONS.

REPORTING STANDARDS

Our reporting on environmental data generally follows the GRI Standards of the Global Reporting Initiative (GRI). The Group's carbon footprint is oriented towards the Greenhouse Gas (GHG) Protocol's Corporate Accounting and Reporting Standard. For data compilation, Allianz further applies the standards developed by the Association of Financial Institutions for Environmental Management and Sustainability (Verein für Umweltmanagement und Nachhaltigkeit in Finanzinstitutionen "VfU") as they are tailored to financial services institutions. Detailed guidance for environmental data compilation is further defined in internal guidelines for environmental reporting.

ORGANIZATIONAL BOUNDARIES

Allianz defines its organizational boundaries applying the operational control approach as defined in the GHG Protocol. Operational control is established when Allianz or one of its entities has full authority to introduce and implement its operating policies and thus has operational control of the entity. The emissions of all operations over which Allianz has operational control, all owned and leased facilities that the company occupies and vehicles the company operates, are included in the environmental data either based on measurements or calculations where possible. Where data cannot be determined by measuring or calculating, it is extrapolated based on employee headcount.

Allianz collects environmental data for a significant proportion of the entities over which it has operational control. In 2018, this was 94.1% of the total employee base. To achieve 100% coverage, the indicators are extrapolated based on Group average figures.

METHODOLOGY UPDATES

Continuous improvement

As part of our efforts to continuously improve the quality of our environmental data, we closely follow developments in the GHG Protocol and further develop our systems appropriately. The implications from the GHG Protocol reporting requirements for Scope 2 emissions have been analyzed and implemented.

Our emissions data consistently includes upstream emissions e.g. from the production of energy and Well-to-Tank emissions for air, car and train travel. Our emissions data is in CO₂e, except for emissions from electricity (in CO₂) in the absence of consistent availability of global factors.

Our source of scope 3 CO₂ emission factors for electricity (transmission & distribution losses) has been changed to the newly available data set published by the International Energy Agency (IEA), which applies also to 2016 and 2017.

Following the increase in capacity of the strategic data center estate and the progress of migration from local to such strategic data centers in recent years, the methodology for 2018 reporting on the calculated energy consumption of local data centers was reviewed and updated.

Systems, processes and internal controls for environmental data collection are subject to regular review and continuous development in order to continuously improve overall data quality at both Allianz Group and entity level.

Data coverage updates

Allianz undertakes reasonable efforts to collect relevant environmental data from all its entities and their operations. Within the scope of our environmental reporting boundary are entities that have been part of Allianz for a full reporting year. At Group level, the headcount from entities that do not meet this criteria but for HR purposes are included in the official Group HR figure for the reporting year are subtracted from the Group HR figure. This results in a total Group headcount figure for environmental reporting purposes, which represents 100%. In 2018, 7 entities were first consolidated in Allianz's financial statements with a total headcount of 2849 and were outside the reporting boundary and excluded as described below. These entities will be included for the first time in our 2019 environmental reporting. However, in some instances, not all of the required performance data is available given reasonable efforts (for example for small or remote offices). In those instances, data is extrapolated to 100%.

Data is extrapolated for either part of an entity or for entire entities. The basis for these extrapolations is the total headcount of the individual entity or of the Group and, for extrapolating

- Part of an entity, the entity's average values are used
- Entire entities, the Group's average values are used

This enables performance monitoring as well as comparison and benchmarking of entities using comparable system boundaries.

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ALLIANZ'S ENVIRONMENTAL MONITORING AND REPORTING PROCESSES COVER TWO ASPECTS

1. CARBON FOOTPRINT

2. ENVIRONMENTAL FOOTPRINT

1.1 Carbon footprint by scopes

In line with the relevant reporting standards, Allianz has developed methods to measure and analyze CO₂-equivalents, differentiating between the three Scopes:

Scope 1 – direct GHG emissions:

emissions from sources that are owned or controlled by Allianz

- Stationary Combustion: gas and oil heating systems, back-up generators. Data is based on meter readings (where available), invoice amounts (where available) and estimations from entities. Mobile Combustion: company-owned vehicles. Data is based on expenses data (where available) and estimations from entities.

Scope 2 – indirect GHG emissions:

emissions from the consumption of purchased electricity heat or steam.

- Electricity – Office and data centers. Data is based on invoice amounts or meter readings (where available) and estimations from entities.
- District heating: Office. Data is based on invoice amounts or meter readings (where available) and estimations from entities.

In line with new external requirements by the Greenhouse Gas Protocol for carbon accounting on Scope 2 emissions, we calculate two Scope 2 emissions:

- o Market-based approach
This is in line with our existing (net) carbon accounting approach; emissions factors are based on IEA. As the annual preparatory steps for reporting requires conversion factors to be available in the autumn of each year, the preliminary IEA version of these factors is being applied.
- o Location-based approach
- To fulfill the requirements of the additional 'location-based' method for Scope 2 reporting, we also calculate and publish Scope 2 emissions on the basis of Grid-average emission factors (national, based on IEA, preliminary version) applied to all Scope 2 energy consumed (including 'green electricity'). This approach reflects the current absence of global 'residual mix' factors that can be consistently applied. Please note that associated Scope 3 emissions e.g. from Transport & Distribution (T&D) Losses are not considered in this recalculation.

Scope 3 – other indirect GHG emissions:

emissions from other sources, including travel, paper and related upstream emissions.

Business travel data includes employees travelling by air, rail and car only.

- Air travel: business flights are split into short (<500 km) and long-haul flights (>500 km); extrapolation of CO₂-equivalents is based on the actual distance travelled and/ or the costs. Emission factors applied for air emissions do not account for radiative forcing due to the very significant scientific uncertainty.
- Train Travel: emissions from train travel are calculated based on the actual distance traveled or the cost multiplied by the appropriate CO₂e conversion factor.
- Road travel: emissions from cars are calculated based on the actual distance traveled or the cost multiplied by the appropriate CO₂e conversion factor.
- Paper: data is based on invoice amounts (where available) and estimations from entities.

1.2 Carbon accounting

We use CO₂-equivalents (CO₂e) in our carbon accounting where available, as they are the universal unit of measurement to indicate the global warming potential of each of the six greenhouse gases, expressed in terms of the global warming potential of one unit of carbon dioxide. It is used to evaluate the release (or avoided release) of different greenhouse gases against a common basis. The source of Global warming Potential (GWP) is IPCC 4th Assessment Report (AR-100 year).

Note: electricity scope 2 emissions is in CO₂ due to data availability (IEA).

Our carbon footprint target is based on net carbon accounting (market-based approach for Scope 2). We use the contractual emission factors provided by our suppliers. The Allianz Group's total reported carbon footprint already considers the compensation activities of some of our subsidiaries.

We use 2010 as our baseline year as it is the first reporting year for which actual, audited data in a Group-wide reporting system is available at our required level of quality.

The scope of our data for electricity from renewable sources is electricity from hydro, wind, solar and biomass power plants.

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2. Environmental footprint

In line with the relevant reporting standards, Allianz has developed methods to measure and analyze the company's environmental footprint across five indicators.

2.1 Energy use

Energy consumption from sources that are owned or controlled by Allianz is monitored and reported on the following basis.

a) Electricity

- electricity from hydroelectric power stations
- electricity from wind power stations
- electricity from biomass power stations
- electricity from photovoltaic power stations
- electricity from average market mix

b) Fossil fuels

- natural gas
- heating oil
- fuels for emergency power units (petrol, diesel)

c) Other energy

- renewable heating energy (solar power, bioorganic, etc.)
- district heating

Energy consumption data is based on invoice amounts or meter readings (where available) and estimations from entities.

2.2 Business travel is monitored and reported on the following basis

- 2a) rail travel
- 2aa) train travel
- 2ab) carbon neutral(ized) train travel
- 2b) road travel
- 2ba) fleet cars
- 2bb) private cars
- 2bc) carbon neutral(ized) cars
- 2bd) rental cars
- 2c) air travel
- 2ca) short-haul air travel (<500 km)
- 2cb) long-haul air travel (>500 km)
- 2cc) carbon neutral(ized) air travel

Business travel data is, where available, based on sources including travel booking information, travel expenditure data, fuel consumption and estimations from entities.

2.3 Paper use is monitored and reported on the following basis

3. Paper use for internal or external purposes, with following environmental attributes

- 3a) post-consumer recycled
- 3b) new fibres elemental chlorine free + totally chlorine free (ECF + TCF)
- 3c) new fibres chlorine bleached
- 3d) Consumption of FSC labelled paper
- 3e) Carbon neutral paper (kg)

Paper data is based on invoice amounts (where available) and estimations from entities.

2.4 Water use is monitored and reported on the following basis

4a) rain water

4b) natural water (please note: this is equal to the GRI term "unpurified water from surface/ ground water")

4c) drinking water

Water data is based on meter reading (where available), invoice amounts (where available) and estimations from entities.

2.5 Waste output is monitored and reported on the following basis

5a) valuable materials separated and recycled

5b) waste incinerated

5c) waste disposed of in landfills

5d) special waste treatment

Please note: the waste data reported includes "hazardous waste" as defined on the basis of treatment method (special treatment); the definition and approach to reporting is subject to review as part of our standard Group processes;

- Waste data is based on invoice amounts (where available) and estimations from entities.

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COMPARABILITY

The GHG Protocol requires that, in the case of a structural or methodology change, companies adjust historic inventories if the change has a significant effect on reported emissions. Allianz uses a significance threshold for:

- Structural changes: 5% per indicator category of the current year's total emissions.
- Methodological changes: 5% on Group level or 10% on entity level per indicator category of current year's total emissions.
- Errors: 5% on Group level or 10% on entity level per indicator category.

That is, a structural change that increases or decreases the total inventory by 5% or more, or a methodology change or aggregate errors that increases or decreases the total inventory by 5% or more on a Group level or 10% on an entity level per indicator category, will trigger an adjustment of historic data. A structural change that increases or decreases the total inventory by less than 5% will be considered only going forward.

As such, historic data for energy (2017, including the share of renewable electricity) and CO₂e emissions (2017 and 2016) were restated, which includes the methodology change for scope 3 emissions from electricity (see methodology update above). Due to constraints in the available reporting system, changes to CO₂ emissions are reflected in scopes 1, 2 and 3.

Also, the methodology update for reporting on the calculated energy consumption and related emissions from local data center impacted on the 2018 figures.

Carbon neutrality

Allianz became a carbon-neutral business in 2012. Instead of purely buying credits on the carbon market, we invest directly in high-quality carbon projects that generate credits which we can then use to neutralize our remaining carbon footprint. In 2018, 373448 credits, each accounting for one metric ton of carbon avoided, were retired from our own projects.

Data quality

We will continue to improve and formalize our systems, processes and internal controls for environmental performance reporting on both Group and entity level to continuously improve data quality. As part of our efforts, we seek to include more entities in our data collection and hence increase the scope of data being measured or calculated.