AT&T Basis of Calculations for Greenhouse Gas Emissions Data

Executive Summary

The AT&T Basis of Calculations for greenhouse gas (GHG) emissions aims to ensure transparency in the annual reporting of AT&T's GHG emissions. AT&T is a wireless and broadband communications provider with network operations in the US and Mexico with additional business customers across the globe. AT&T is committed to developing more sustainable operations and reducing its Scope 1, Scope 2 and Scope 3 GHG emissions.

Scope and Boundaries

AT&T utilizes the operational control approach to consolidate GHG emissions. This approach includes any asset or facility in which AT&T has an operating interest in the inventory. For instance, both owned and leased assets in AT&T's real estate portfolio and mobile fleet have been included in the inventory.

Reporting Period

Calendar Year (January 1 – December 31)

Emissions Sources

AT&T reports on Scope 1, Scope 2 and Scope 3 emissions

- Scope 1 emissions refer to direct GHG emissions occurring from sources that are owned or controlled by the company (i.e., combustion emissions from boilers, furnaces, and vehicles)
- Scope 2 emissions refer to Indirect GHG emissions from the generation of purchased electricity, heat, cooling, and steam (associated emission factors shall be per the market-based method)
- Scope 3 emissions refer to all other indirect emissions. Scope 3 emissions are a consequence of the activities of the company but occur from sources not owned or controlled by the company (e.g., extraction and production of purchased materials, transportation of purchased fuels, use of sold products and services, etc.)

Calculation Methodologies

AT&T's GHG emissions are calculated using the following standards and guidance:

- GHG Protocol Corporate Accounting and Reporting Standard (WBCSD/WRI Revised Edition 2015) for Scope 1 and Scope 2 GHG emissions
- GHG Protocol Scope 2 Guidance – An amendment to the GHG Protocol Standard (2015) for Scope 2 Market Based emissions
- The Corporate Value Chain (Scope 3) Accounting and Reporting Standard (WBCSD/WRI 2022) for Scope 3 emissions.

AT&T utilizes multiple sources for emissions factors to provide the most accurate picture of its GHG footprint. Those sources include:

- The Climate Registry 2023 Default Emission Factors
- DESNZ Conversion factors for Company Reporting Version 1.1 (2023)
- USEPA eGRID2022
- 2023 Green-e® Residual Mix Emission Rates
- IEA CO2 Emissions from Electricity Generation, OECD/IEA, Paris, 2023
- European Residual Mixes 2022, Association of Issuing Bodies
- ENGIE Impact database of supplier/utility emission factors
- Association of Issuing Bodies – European Residual Mixes 2022
- U.S. Energy Information Administration Form EIA-1605 (2010)
- U.S. EPA Environmentally-Extended Input-Output (USEEIO) emission factor database, v1.2
- 2023 CDP supplier-specific self-reported emissions factors
- EPA Center for Corporate Climate Leadership (CCCL) Emission Factors for Greenhouse Gas Inventories (2023 & 2024)

Data Collection and Management

AT&T's emissions source data are collected via enterprise data systems and AT&T's utility bill management (UBM) provider. AT&T attempts to acquire source data to more accurately calculate emissions whenever possible, utilizing purchasing records, real estate portfolio systems, flight operations data, HVAC system records and procurement data. In the absence of source data, AT&T models and estimates emissions when material to the company's GHG footprint.

Figure 1: GHG Inventory Data Collection Process
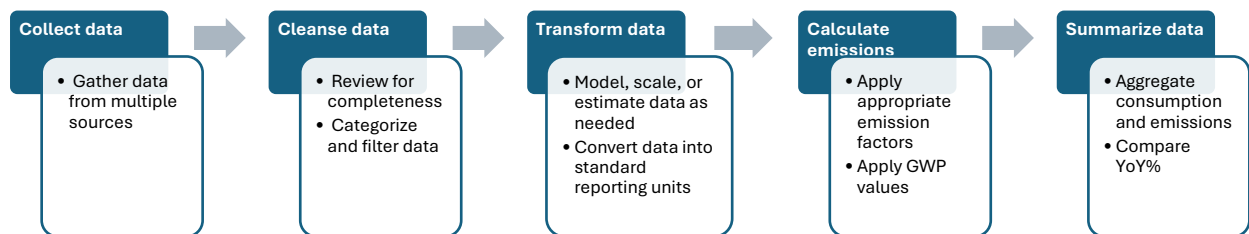
Information regarding AT&T's use of source data and modeled / estimated data can be found in Table 1. In many instances source data is used to estimate emissions for specific situations. For instance, AT&T utilizes UBM natural gas consumption data from facilities with utility accounts and estimates natural gas consumption at facilities that may be leased and source data is not available.

Table 1. AT&T's Source Data vs. Modeled/Estimated Data

Emission Source	Data Source			
	AT&T	UBM	Other	Modeled/Estimated
Stationary Engines				
Diesel	√			√
Propane/LPG	√			√
Natural Gas	√			√
Kerosene	√			√
Gasoline	√			√
Portable Engines				
Diesel	√			√

(SCOPE 1)

Emission Source	AT&T	UBM	Other	Modeled/Estimated
Gasoline	√			√
Propane/LPG	√			√
Other Stationary Fuels				
Natural Gas	√	√		√
Diesel	√			
Propane/LPG		√		
Fuel Oil 1		√		
Fuel Oil 2		√		
Gasoline	√			
Mobile Combustion				
Gasoline			√	
Diesel			√	
Propane/LPG			√	
CNG			√	
Jet Fuel	√			
E5.7 (Ethanol Gasoline Blend)			√	
E10 (Ethanol Gasoline Blend)			√	
E15 (Ethanol Gasoline Blend)			√	
E20 (Ethanol Gasoline Blend)			√	
E85 (Ethanol Gasoline Blend)			√	
B10 (Biodiesel and Diesel Blend)			√	
B2 (Biodiesel and Diesel Blend)			√	
B5 (Biodiesel and Diesel Blend)			√	
B11 (Biodiesel and Diesel Blend)			√	
B20 (Biodiesel and Diesel Blend)			√	
LNG			√	
M5.7 (Methanol Gasoline Blend)			√	
M7.7 (Methanol Gasoline Blend)			√	
M10 (Methanol Gasoline Blend)			√	
M85 (Methanol Gasoline Blend)			√	
Fugitive Emissions				
Refrigerants (Wireline)	√			√
Refrigerants (Mobility)	√			√

Emission Source	Data Source			
	AT&T	UBM	Other	Modeled/Estimated
Purchased Electricity, Steam, Heat, or Cooling				
Electric Power	√	√	√	√
Renewable Energy Certificates (RECs)	√	√	√	
Steam		√		
Chilled Water		√		

SCOPE 1

SCOPE 2

Emission Source	Data Source			
	AT&T	UBM	Other	Modeled/Estimated
SCOPE 3				
Purchased Goods and Services	√		√	√
Capital Goods	√		√	√
Fuel- and Energy-Related Activities	√	√	√	√
Upstream and Downstream Transportation and Distribution	√		√	√
Waste Generated in Operations	√		√	√
Business Travel				
Air Travel			√	
Rental Cars			√	
Rail			√	
Employee Commuting	√		√	√
Use of Sold Products	√			
Downstream Leased Assets	√			
Investments	√			√

Changes in Methodology

AT&T emissions calculation methodologies change regularly due to the availability of new and better data sources, better estimation procedures and when errors are identified. Our approach to recalculating our baseline or previous year's data aligns with the GHG Protocol. A recalculation shall be performed if any qualitative or quantitative change is made to the data, inventory boundary and/or methods in excess of the significance threshold. The types of situations that would provoke a need to recalculate would include examples such as: acquisitions, divestitures, methodology changes and errors. AT&T has adopted a Scope 1 and 2 significance threshold of 5% relative to base year Scope 1 and 2 emissions and a Scope 3 significance threshold of 5% relative to total base year Scope 3 emissions and 10% relative to the base year emissions of any single category. It is at the discretion of AT&T to recalculate base year emissions when the change is lower than these thresholds.

Uncertainties and Limitations

As with any GHG inventory there is potential that AT&T's inventory is not exhaustive and that specific sources of GHGs may be missed. AT&T takes numerous precautions to minimize that risk. These precautions include but are not limited to:

- Reviews for duplication
- Reverse engineering of calculations to double check calculations
- Comparisons to 5 years of data
- Analysis for data outliers
- Review by internal subject matter experts
- Review by a 3rd party assurance provider

Verification and Assurance

ERM Certification and Verification Services provides a limited assurance per the ISAE 3000 standard to AT&T. ERM CVS's assurance includes total Scope 1, total Scope 2 (location-based), total Scope 2 (market-based) and Scope 3 Categories 1, 2, 3, 4, 5, 6, 7, 11 and 15. More information regarding ERM CVS's Independent Limited Assurance Report to AT&T Services, Inc. can be found on our website.

Context and Narrative

AT&T has set emissions reduction targets through the Science Based Targets Initiative. The targets covering greenhouse gas emissions from AT&T's operations (scopes 1 and 2) are consistent with reductions required to keep warming to 1.5°C.

- Scope 1 & 2: 63% reduction by 2030 (2015 base year)
- AT&T also commits that 50% of its suppliers (by spend) will set science-based scope 1 and scope 2 targets by 2024.

Additionally, AT&T commits to being carbon neutral across its entire global operations by 2035.

AT&T has reduced its Scope 1 and Scope 2 emissions by 52% from its 2015 baseline.
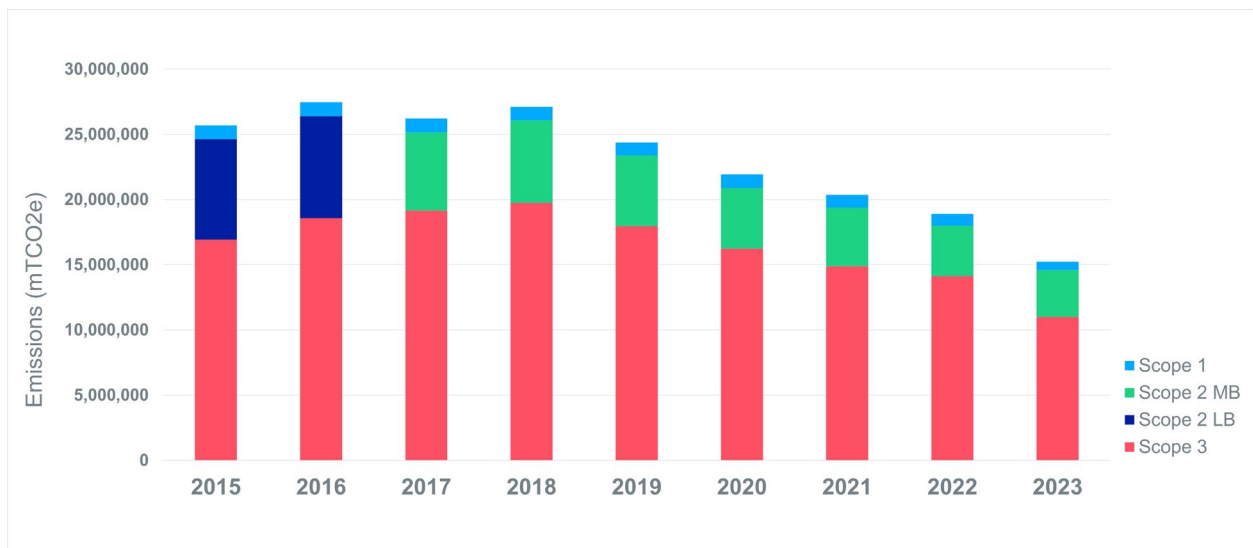
A breakdown of those emissions and their sources by scope for 2023 can be found below:

Scope 1 Emissions by Source	mTCO2e	Rank	Cum %	%
Ground Fleet	396,881	1	62%	62%
Stationary Engines	108,454	2	79%	17%
Fuel	64,488	3	89%	10%
Refrigerant	61,413	4	98%	10%
Portable Engines	6,985	5	99%	1%
Flight Ops	5,125	6	100%	1%

* AT&T had 25,541 MTCO2e of biogenic emissions from operations

Scope 2 Emissions by Source	mTCO2e	Rank	Cum %	%
Electric Power	3,575,233	1	100%	99.727%
Steam	8,983	2	100%	0.251%
Chilled Water	688	3	100%	0.019%
Ground Fleet	104	4	100%	0.003%

Scope 3 Emissions by Reporting Category	MTCO2e	Rank	Cum %	%
Category 1: Purchased Goods & Services	4,270,744	1	39%	39%
Category 2: Capital Goods	2,268,868	2	59%	21%
Category 15: Investments	1,741,695	3	75%	16%
Category 3: Fuel- and Energy-Related Activities	1,087,623	4	85%	10%
Category 13: Downstream Leased Assets	834,484	5	93%	8%
Category 11: Use of Sold Products	277,290	6	95%	3%
Category 7: Employee Commuting	191,819	7	97%	2%
Category 4: Upstream & Downstream Transportation & Distribution	175,679	8	99%	2%
Category 6: Business Travel	84,507	9	99%	1%
Category 5: Waste in Operations	72,022	10	100%	1%

* AT&T had 2,139 MTCO2e of biogenic emissions from rental car travel

Exclusions

AT&T has specific exclusions relating to its GHG report. Handheld propane and refrigerants in our international facilities both generate emissions. However, due to difficulty of data collection and the immaterial footprint of those sources, AT&T has elected to exclude them from our emissions reporting. Additionally, AT&T's category 13 – Downstream Leased Assets is only partially accounted for. AT&T has not been able to acquire the necessary data for determining the significance of emissions from business customer premise equipment.