

CNA | 2022 GREENHOUSE GAS EMISSION INVENTORY

747.7
metric tons of CO₂
equivalent emissions



Recognizing the critical importance of worldwide efforts to reduce greenhouse gas (GHG) emissions, CNA is reporting its GHG baseline emission inventory. This report summarizes CNA's inventory of Scope 1 and 2 GHG emissions sources for calendar year 2022 and was prepared in accordance with *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* developed by the World Resources Institute and World Business Council for Sustainable Development.

CNA's Scope 1 and 2 GHG emissions totaled 747.7 metric tons of CO₂ equivalent and are summarized in Table 1. Scope 1 emissions are emissions from sources that CNA owns or controls. Scope 2 emissions (emissions that occur at sources owned or controlled by another organization) make up 99 percent of CNA's GHG emissions and are the result of the electricity CNA consumes.

EMISSIONS FROM SOURCES THAT CNA OWNS OR CONTROLS



Standby generator, which provides backup emergency power



Company vehicle, a 2011 Ford Flex



Refrigerators, freezers, and ice machines located in our headquarter's galleys



The air conditioning units in our data center and company vehicle



The fire suppression system in our data center

CNA SCOPE 1 AND 2 GHG INVENTORY (METRIC TONS)

Scope	Description	CO ₂ -e
1	Stationary Combustion (Generator)	1.1
1	Mobile Sources (Vehicle)	0.3
1	Refrigeration and AC Equipment Use	5.2
1	Fire Suppression	3.3
2	Purchased Electricity	737.8
All	Total	747.7

SCOPE 1

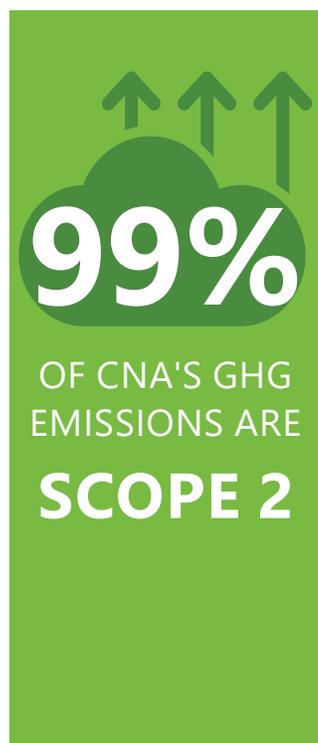
emissions from sources that CNA owns or controls

SCOPE 2

emissions that occur at sources owned or controlled by another organization

CNA used EPA’s Simplified GHG Emissions Calculator to develop the inventory. The inputs are summarized in Table 2 and our methodology is detailed in the appendix.

DATA INPUTS AND ASSUMPTIONS



Scope	Description	Fuel/Gas Source	Amount	Notes
1	Stationary Combustion (Generator)	Distillate Fuel Oil No. 2	107 gallons	
1	Mobile Sources (Vehicle)	Gasoline	34 gallons	626 miles traveled in 2022
1	Refrigeration and AC Equipment Use	HFC-134a R-404A R-407C	4.3 kg 0.3 kg 23.1 kg	
1	Fire Suppression	HFC-227ea	29.5 kg	
2	Purchased Electricity	SERC Virginia/Carolina eGRID	2,596,349 kWh	CNA occupies 60 percent of its building

This 2022 GHG inventory will serve as a **baseline** from which to **measure** and **compare** future inventories.

APPENDIX: METHODOLOGY

CNA defined its organizational boundary to include the office space it leases at 3003 Washington Boulevard in Arlington, Virginia, and its company-owned vehicle. CNA occupies six floors (approximately 60 percent) of the building. Scope 1 sources consist of those sources that CNA owns or controls within our organizational boundary. We also included Scope 2 emissions from our share of the building's electricity consumption. CNA used EPA's Simplified GHG Emissions Calculator to calculate emissions from these sources.

STATIONARY COMBUSTION

CNA's standby generator operates on distillate fuel oil No. 2. The generator tank was filled with 300 gallons of fuel on January 12, 2023. About 33 months (1,023 days) had passed since the tank had last been filled, on March 25, 2020. CNA estimated that 107 gallons of fuel were combusted in 2022 (300 gallons/1,023 days * 365 days/year = 107 gallons). Using the calculator, combustion of 107 gallons of fuel resulted in emissions of 1,092.5 kg of CO₂, 43.9 g of CH₄, and 8.6 g of N₂O. CO₂ equivalent emissions totaled 1.1 metric tons.

MOBILE SOURCES

CNA owns a 2011 Ford Flex, a light duty truck that uses gasoline for fuel. Receipts show that CNA purchased 34 gallons of fuel for this vehicle in 2022. According to fueleconomy.gov, a 2011 Ford Flex has a fuel efficiency of 19 miles per gallon. Thus, we estimate that the vehicle was driven 646 miles (34 gallons * 19 miles/gallon = 646 miles). Using the calculator, combustion of 34 gallons of gasoline resulted in emissions of 300.6 kg of CO₂, 6.2 g of CH₄, and 2.2 g of N₂O. CO₂ equivalent emissions totaled 0.3 metric tons.

REFRIGERATION AND AC

CNA owns and operates 31 stand-alone commercial refrigeration units, such as refrigerators, freezers, water coolers, and ice makers. Twenty-nine of the units use HFC-134a refrigerant and have a total combined capacity of 3.7 kg. The remaining two units use R-404A refrigerant and have a combined capacity of 0.3 kg. CNA also owns and operates three commercial air conditioning (AC) units in its data center that use R-407C refrigerant; each has a capacity of 7.7 kg. Our company vehicle has an AC unit that uses HFC-134a refrigerant and has a capacity of 0.6 kg. CNA used the screening method in the EPA Simplified GHG Emissions Calculator to estimate emissions from these sources based on their capacities. CNA did not dispose of or recharge any units in 2022. CO₂ equivalent emissions totaled 5.2 metric tons.

FIRE SUPPRESSION

CNA owns and operates a fixed fire suppression system in our data center that uses HFC-227ea refrigerant and has a capacity of 29.5 kg. CNA used the screening method in the calculator, which estimated that CO₂ equivalent emissions totaled 3.3 metric tons.

ELECTRICITY

CNA obtained a 2022 billing summary from Dominion Energy for 3003 Washington Boulevard. Total energy usage for 2022 was 4,327,249 kWh. CNA's portion of this usage, based on its pro rata share, is 60 percent, or 2,596,349 kWh. Using the calculator, emissions totaled 733.8 metric tons of CO₂, 58.9 kg of CH₄, and 8.2 kg of N₂O. The total CO₂ equivalent emissions were 737.8 metric tons.