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19-October-2020

Information Quality Guidelines Staff
USEPA Headquarters
1200 Pennsylvania Ave., NW
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Washington, DC 20460
Email: quality@epa.gov

Re: Information Quality Act Correction Request Regarding Dissemination of Flawed Information Concerning the Terms “Greenhouse Effect” or “Greenhouse Gas” -- Revised (19-10-2020) to correct misspelling of Stefan-Boltzmann.

In the following, “Agency” will be a reference to your Agency within the US Government.

I am submitting this request for correction under the Information Quality Act (IQA), 114 Stat. 2763, section 515, as implemented through the Agency and the Office of Management and Budget (OMB) guidelines.

Paraphrased from the Federal Register, Volume 67, Number 36, Friday, February 22, 2002/Notices Page 8459, Under the general definition of “Objectivity”, there are two distinct areas of concern. The first is that the Agency in question accurately reports existing information in a clear, complete, and unbiased manner. The second is that the information itself is accurate and reliable and has been arrived at in an unbiased manner.

The second of these is alluded to in the summary text of the same document on page 8453, “...presented in an accurate, clear, complete, and unbiased manner *and as a matter of substance, is accurate, reliable, and unbiased*” (my italics).

It is my contention that the second of these, i.e., the accuracy of the information itself, in reference to the terms “Greenhouse Effect”, “Greenhouse Gas”, and related concepts, has not been met.

As has been detailed in the recently published book, *Air of Doubt* (ISBN: 979-8697917329), the genesis of the concept of a “Greenhouse Effect” (also called a “Natural Greenhouse Effect”) is by noting that the empirically measured global mean surface temperature of the Earth over continental crust, $\sim 288K$ (15C or 59F), differs from that computed through the Stefan-Boltzmann equation using empirically measured ground-level incident solar flux, $240 W/m^2$. The

Stefan-Boltzmann equation computation is somewhat trivial,

$$\begin{aligned} T &= 64.8 \cdot \Phi^{0.25} \\ &= 64.8 \cdot 240^{0.25} \\ &= 64.8 \cdot 3.936 \\ &= 255K \text{ } (-18C \text{ or } 0.4F). \end{aligned} \quad 1$$

In this, the 64.8 factor is, in essence, the Stefan-Boltzmann constant. Obviously, the symbol Φ represents ground-level insolation.

From this, it is easily seen that the measured surface temperature (288K) is 33K greater than that provided by insolation (255K). Therefore, there must be some contribution to Earth's surface temperature other than insolation. This is the basis of the "Greenhouse Effect Theory" that postulates an atmospheric contribution to the surface temperature that involves absorption and reradiation of thermal radiative flux emitted from the surface.

This is manifestly incorrect in that one contribution to Earth's surface temperature is not properly accounted for. That is, the geothermal heat from Earth's interior is missing. The mean global geothermal flux has been well-measured for some time. It is common knowledge in the field that the magnitude of that flux over continental crust is approximately $0.065W/m^2$. Using the Stefan-Boltzmann equation above and this well-known mean flux value we obtain

$$\begin{aligned} T &= 64.8 \cdot \Phi^{0.25} \\ &= 64.8 \cdot 0.065^{0.25} \\ &= 64.8 \cdot 0.505 \\ &= 33K. \end{aligned} \quad 2$$

What this computation does is indicate that for Earth's surface to radiate away the $0.065W/m^2$ of geothermal flux as it reaches the surface, the surface must have a temperature of 33K.

There is no argument within the scientific community that the geothermal flux is ignored in the calculation. The argument for doing so is because of the relative difference between the magnitude of the solar flux and that of the geothermal flux. However, this analysis requires the simple addition of the fluxes in the Stefan-Boltzmann equation, i.e.,

$$\begin{aligned} T &= 64.8 \cdot \Phi^{0.25} \\ &= 64.8 \cdot (240 + 0.065)^{0.25} \\ &= 64.8 \cdot 3.936 \\ &= 255K. \end{aligned} \quad 3$$

This naïve summing of the two fluxes violates the first law of thermodynamics (conservation of energy). The mathematical technique used to solve for temperature in a solid with two constant heat sources is to 1) treat each source independently of the others, 2) compute the temperature distribution for each source, and then 3) sum the solutions. This is known as the

superposition principle. It is not simply a mathematical technique. It is, in fact, required by the physics of the problem. In this instance, since the temperature at any place in the solid is equivalent to the internal energy there, to not obey the superposition principle is to violate the first law of thermodynamics. Adding the heat fluxes violates the superposition principle.

Therefore, the entire, exact, global mean surface temperature of planet Earth is completely explained by properly including both solar and geothermal fluxes through standard mathematical techniques and the Stefan-Boltzmann equation. As such, the "Greenhouse Effect" is unconditionally disproven. Further, sans a "Greenhouse Effect", the concept of a "Greenhouse Gas" is equally disproven.

Therefore, it is requested that correction be made to all documents, electronic or paper based, published by the Agency, that includes the terms "Greenhouse Effect", "Greenhouse Gas", or any related concept. Such correction should address the fact that the Effect has been disproven or the document in question should be removed from public view and replaced with an accurate analysis of Earth's surface temperature.

Since the term itself is in wide use throughout the Agency, focus on a specific document is unhelpful. However, a relatively accurate and complete list of flawed documents can be found via a search engine focused on the Agency's URL and the terms "greenhouse effect" or "greenhouse gas".

Using the Google search engine, the Agency has approximately *64,200* flawed documents. I've attached a portion of the results of that search.

It must be stressed that widespread adoption of the flawed Greenhouse Effect Theory has affected virtually every citizen of the United States. Rapid response to this request for correction can only help to resolve the deleterious effect it has had on those citizens.

Sincerely,

Frank A Tinker, Ph.D.

ftinker@airofdoubt.com

About 55,500 results (0.65 seconds)

www.epa.gov > ghgemissions > overview-greenhouse-g...

Overview of Greenhouse Gases | Greenhouse Gas (GHG ...

Sep 8, 2020 — Overview of Greenhouse Gases. Overview; Carbon Dioxide; Methane; Nitrous Oxide; Fluorinated Gases. Pie chart that shows different types of ...

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Greenhouse Gas (GHG) Emissions | US EPA

Sep 1, 2020 — Businesses participating in EPA's voluntary partnership programs saved \$37 billion and avoided emissions of 433 million tons carbon dioxide ...

www.epa.gov > ghgemissions > sources-greenhouse-gas...

Sources of Greenhouse Gas Emissions - EPA

Sep 9, 2020 — Industry (22.0 percent of 2018 greenhouse gas emissions) – Greenhouse gas emissions from industry primarily come from burning fossil fuels for ...

www.epa.gov > enviro > greenhouse-gas-overview >

Greenhouse Gas Overview | Envirofacts | US EPA

The program requires annual reporting of greenhouse gas (GHG) data and other relevant information from large direct emissions sources and suppliers of ...

www.epa.gov > ghgemissions > global-greenhouse-gas-...

Global Greenhouse Gas Emissions Data - EPA

Sep 10, 2020 — Global Emissions by Economic Sector. Global greenhouse gas emissions can also be broken down by the economic activities that lead to their ...

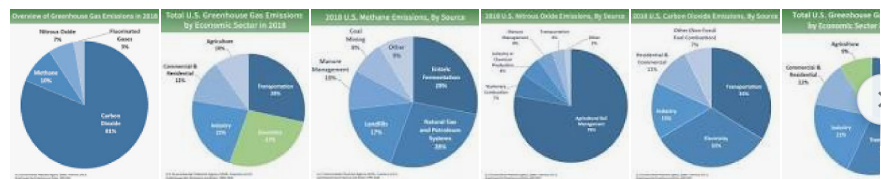
www.epa.gov > ghgemissions > understanding-global-...

Understanding Global Warming Potentials | Greenhouse Gas ...

Sep 9, 2020 — Greenhouse gases (GHGs) warm the Earth by absorbing energy and slowing the rate at which the energy escapes to space; they act like a ...

Images for "greenhouse effect" OR "greenhouse gas" site:epa.gov

nitrous oxide methane emissions global greenhouse fluorinated gases



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[Global Greenhouse Gas Emissions - EPA](#)

Increasing emissions of greenhouse gases due to human activities worldwide have led to a substantial increase in atmospheric concentrations of long-lived and ...

www.epa.gov › [climate-indicators](#) › [greenhouse-gases](#) ▼

[Climate Change Indicators: Greenhouse Gases - EPA](#)

Feb 22, 2017 — Since 2005, however, total U.S. **greenhouse gas** emissions have decreased by 7 percent. Carbon dioxide accounts for most of the nation's ...

www.epa.gov › [report-environment](#) › [greenhouse-gases](#) ▼

[Greenhouse Gases | EPA's Report on the Environment \(ROE ...](#)

Mar 19, 2020 — What are the trends in **greenhouse gas** emissions and concentrations and their impacts on human health and the environment? Importance of ...

archive.epa.gov › [climatechange](#) › [kids](#) › [basics](#) › [today](#) ▼

[The Greenhouse Effect | A Student's Guide to Global Climate ...](#)

May 9, 2017 — The **Greenhouse Effect**. If it were not for greenhouse gases trapping heat in the atmosphere, the Earth would be a very cold place. Greenhouse ...

19january2017snapshot.epa.gov › [ghgemissions](#) › [sour...](#) ▼

[Sources of Greenhouse Gas Emissions - US EPA](#)

Oct 6, 2016 — Approximately 67 percent of our electricity comes from burning fossil fuels, mostly coal and natural gas. Transportation (26 percent of 2014 ...

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[Greenhouse Gases | A Student's Guide to Global Climate ...](#)

Sep 5, 2017 — Carbon dioxide is the **greenhouse gas** you hear people talk about the most. That's because we produce more carbon dioxide than any other ...

www.epa.gov › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks - EPA](#)

Sep 11, 2020 — This annual report provides a comprehensive accounting of total **greenhouse gas** emissions for all man-made sources in the United States. The ...

www.epa.gov › [ghgemissions](#) › [us-greenhouse-gas-inve...](#) ▼

[US Greenhouse Gas Inventory Report: 1990-2014 - EPA](#)

Sep 10, 2020 — This report tracks total annual U.S. emissions and removals by source, economic sector, and **greenhouse gas** going back to 1990. EPA uses ...

www.epa.gov › [ghgemissions](#) › [greenhouse-gas-endang...](#) ▼

[Greenhouse Gas Endangerment Finding: Health Effects - EPA](#)

Jul 11, 2017 — **Greenhouse Gas** Endangerment Finding: Health Effects. View English or Spanish-language version of a fact sheet that highlights key effects ...

cfpub.epa.gov › [ghgdata](#) › [inventoryexplorer](#) ▼

[Greenhouse Gas Inventory Data Explorer | US EPA](#)

The Data Explorer is an interactive tool that provides access to data from EPA's annual Inventory of U.S. **Greenhouse Gas** Emissions and Sinks. You can follow ...

www.epa.gov › [ghgemissions](#) › [household-carbon-foot...](#) ▼

[Household Carbon Footprint Calculator | Greenhouse Gas ...](#)

Sep 10, 2020 — Many of our daily activities cause emissions of greenhouse gases. For example, we produce **greenhouse gas** emissions from burning gasoline ...

[www.epa.gov](#) › [climate-indicators](#) › [climate-change-ind...](#) ▼

[Climate Change Indicators: U.S. Greenhouse Gas Emissions ...](#)

Dec 17, 2016 — This figure shows emissions of carbon dioxide, methane, nitrous oxide, and several fluorinated gases in the United States from 1990 to 2014.

[www.epa.gov](#) › [ghgreporting](#) › [fluorinated-greenhouse...](#) ▼

[Fluorinated Greenhouse Gas Emissions - EPA](#)

Oct 1, 2019 — The **Greenhouse Gas** Reporting Program (GHGRP) covers emissions of these compounds by requiring specific facilities that emit significant ...

[www.epa.gov](#) › [energy](#) › [greenhouse-gas-equivalencies...](#) ▼

[Greenhouse Gas Equivalencies Calculator | Energy and the ...](#)

Did you ever wonder what reducing carbon dioxide (CO₂) emissions by 1 million metric tons means in everyday terms? The **greenhouse gas** equivalencies ...

[www.epa.gov](#) › [ghgreporting](#) ▼

[Greenhouse Gas Reporting Program \(GHGRP\) | US EPA](#)

Jan 10, 2020 — The GHGRP requires reporting of **greenhouse gas** (GHG) data and other relevant information from large GHG emission sources, fuel and ...

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[US Greenhouse Gas Emissions - EPA](#)

This "**greenhouse effect**" occurs naturally, making life as we know it possible. Since the Industrial Revolution began in the late 1700s, however, people have ...

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[US Greenhouse Gas Inventory Report Archive - EPA](#)

Sep 10, 2020 — This page contains past versions of the U.S. **Greenhouse Gas** Inventories developed by the U.S. government to meet U.S. commitments under the ...

[archive.epa.gov](#) › [epa](#) › [reducing-greenhouse-gas-emiss...](#) ▼

[Reducing Greenhouse Gas Emissions | Climate Change | US ...](#)

May 9, 2017 — These changes are linked to the climbing levels of carbon dioxide and other greenhouse gases in our atmosphere, caused by human activities ...

[www.epa.gov](#) › [ghgemissions](#) › [endangerment-and-cau...](#) ▼

[Endangerment and Cause or Contribute Findings for ... - EPA](#)

However, this action was a prerequisite for implementing **greenhouse gas** emissions standards for vehicles. In collaboration with the National Highway Traffic ...

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of U.S. Greenhouse Gas Emissions and Sinks Fast ...](#)

Apr 13, 2020 — Inventory of U.S. **Greenhouse Gas** Emissions and Sinks Fast Facts and Data Highlights. See below for summary information from the report, ...

[www.epa.gov](#) › [carbon-pollution-transportation](#) ▼

[Carbon Pollution from Transportation | Transportation, Air ...](#)

Jun 25, 2020 — Transportation and Climate Change. Burning fossil fuels like gasoline and diesel releases carbon dioxide, a **greenhouse gas**, into the ...

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks: 1990–2015 (published 2017), developed by the U.S. Government to meet ...

[www.epa.gov](#) › [energy](#) › [greenhouse-gases-equivalenci...](#) ▼

[Greenhouse Gases Equivalencies Calculator - Calculations ...](#)

To determine annual **greenhouse gas** emissions per mile, the following methodology was used: carbon dioxide emissions per gallon of gasoline were divided by ...

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Aug 19, 2020 — View the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks: 1990–2018 (published 2020), developed by the U.S. Government to meet ...

[www.epa.gov](#) › [enviro](#) › [greenhouse-gas-search-user-g...](#) ▼

[Greenhouse Gas Search User Guide | Envirofacts | US EPA](#)

This is a brief user's guide to the GHG Search. Select a variety of different search options and output options detailed below. Select more than one search option ...

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[Mapping Greenhouse Gas Emissions Where You Live ...](#)

or human-produced gases that trap heat in the atmosphere and contribute to the **greenhouse effect**. Greenhouse gases include water vapor, carbon dioxide, ...

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[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 11, 2020 — View the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks: 1990–2014 (published 2016), developed by the U.S. Government to meet ...

[www.epa.gov](#) › [greenvehicles](#) › [fast-facts-transportation...](#) ▼

[Fast Facts on Transportation Greenhouse Gas Emissions - EPA](#)

Jul 29, 2020 — The transportation sector is one of the largest contributors to anthropogenic U.S. **greenhouse gas** (GHG) emissions. According to the Inventory ...

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2009 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

[www.epa.gov](#) › [ghgemissions](#) › [forms](#) › [contact-us-abo...](#) ▼

[Contact Us about Greenhouse Gas Emissions - EPA](#)

Sep 7, 2020 — Please use the form below to send us comments or questions regarding EPA's Inventory of U.S. **Greenhouse Gas** Emissions and Sinks. Be sure ...

[cfpub.epa.gov](#) › [roe](#) › [indicator_pdf](#) ▼ [PDF](#)

[Greenhouse Gas Concentrations - EPA](#)

This "**greenhouse effect**" occurs naturally, making life as we know it possible. Since the Industrial Revolution began in the late 1700s, however, people have ...

[www.epa.gov](#) › [climate-indicators](#) › [climate-change-ind...](#) ▼

[Climate Change Indicators: Atmospheric Concentrations of ...](#)

Jun 29, 2020 — Water vapor is the most abundant **greenhouse gas** in the atmosphere. Human activities have only a small direct influence on atmospheric ...

[www.epa.gov](#) › [newsreleases](#) › [latest-inventory-us-gree...](#) ▼

[Latest Inventory of US Greenhouse Gas Emissions and ... - EPA](#)

Latest Inventory of U.S. **Greenhouse Gas** Emissions and Sinks Shows Long-Term Reductions, with Annual Variation. 04/13/2020. Contact Information:.

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2012 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

[www.epa.gov](#) › [final-rule-finding-greenhouse-gas-emis...](#) ▼

[Final Rule for Finding That Greenhouse Gas Emissions From ...](#)

The EPA finalized findings that **greenhouse gas** (GHG) emissions from certain classes of engines used in aircraft contribute to the air pollution that causes climate ...

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2014 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

[www.epa.gov](#) › [ghgreporting](#) › [ghgrp-reported-data](#) ▼

[GHGRP Reported Data | Greenhouse Gas Reporting Program ...](#)

Dec 16, 2019 — Reported direct emissions totaled 2.99 billion metric tons carbon dioxide equivalent (CO₂e), about half of total U.S. **greenhouse gas** emissions; ...

[www.epa.gov](#) › [ghgemissions](#) › [inventory-us-greenhou...](#) ▼

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2008 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

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[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2006 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

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[GHG Reporting Program Data Sets | Greenhouse Gas ... - EPA](#)

The **Greenhouse Gas** Reporting Program (GHGRP) collects **Greenhouse Gas** (GHG) data from large emitting facilities, suppliers of fossil fuels and industrial ...

[www.epa.gov](#) › [files](#) › [us-ghg-inventory-2019-main-text](#) PDF

[Inventory of US Greenhouse Gas Emissions and Sinks - EPA](#)

Apr 11, 2019 — Notice and is posted on the EPA **Greenhouse Gas** Emissions web site. ... enhancing the **greenhouse effect** because both are essentially ...

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[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

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Sep 10, 2020 — View the 2015 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

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Sep 10, 2020 — View the 2013 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

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[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2011 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

[www.epa.gov](#) › [ghgreporting](#) › [ghgrp-petroleum-and-n...](#) ▼

[GHGRP Petroleum and Natural Gas Systems | Greenhouse ...](#)

Sep 14, 2020 — Sector - **Greenhouse Gas** Emissions Reported to the GHGRP (all reported emissions values presented in million metric tons CO2e based on ...

[www.epa.gov](#) > documents > 2017_complete_report ▾ PDF

[Inventory of US Greenhouse Gas Emissions and Sinks - EPA](#)

Apr 15, 2017 — For more information regarding climate change and **greenhouse gas** ... Water vapor is the largest contributor to the natural **greenhouse effect**.

[www.epa.gov](#) > ghgreporting > ghgrp-waste ▾

[GHGRP Waste | Greenhouse Gas Reporting Program ...](#)

Sep 14, 2020 — The waste sector consists of municipal solid waste (MSW) landfills, industrial waste landfills, industrial wastewater treatment systems, and ...

[www.epa.gov](#) > ghgemissions > inventory-us-greenhou... ▾

[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Feb 11, 2019 — View the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks: 1990–2016 (published 2018), developed by the U.S. Government to meet ...

[www.epa.gov](#) > regulations-greenhouse-gas-emissions-a... ▾

[Regulations for Greenhouse Gas Emissions from Aircraft - EPA](#)

EPA proposed **greenhouse gas** (GHG) emission standards for airplanes used in commercial aviation and for large business jets. This action, if finalized, will align ...

[www.epa.gov](#) > sites > production > files > documents ▾ PDF

[Guide to Greenhouse Gas Management for Small ... - EPA](#)

change by implementing actions that save money, improve productivity, and lower **greenhouse gas** (GHG) emissions. This document is a guide to estimating ...

[www.epa.gov](#) > greenvehicles > greenhouse-gas-emissi... ▾

[Greenhouse Gas Emissions from a Typical Passenger Vehicle ...](#)

May 10, 2018 — This number can vary based on a vehicle's fuel, fuel economy, and the number of miles driven per year. Click on the questions below to learn ...

[www.epa.gov](#) > files > us-ghg-inventory-2020-main-text PDF

[Inventory of US Greenhouse Gas Emissions and Sinks - EPA](#)

Apr 13, 2020 — Register Notice and is posted on the EPA **Greenhouse Gas** Emissions web ... enhancing the **greenhouse effect** because both are essentially ...

[www.epa.gov](#) > ghgemissions > natural-gas-and-petrole... ▾

[Natural Gas and Petroleum Systems | Greenhouse Gas \(GHG ...](#)

It is EPA's standard process to update the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks (GHG Inventory) when relevant new and improved data are ...

[www.epa.gov](#) > ghgreporting > key-facts-and-figures ▾

[Key Facts and Figures | Greenhouse Gas Reporting Program ...](#)

Sep 14, 2020 — EPA **Greenhouse Gas** Data Sets. EPA has two complementary programs that publish annual data on U.S. GHG emissions: Inventory of U.S. ...

[www.epa.gov](#) > ghgreporting > ghgrp-underground-co... ▾

[GHGRP Underground Coal Mines | Greenhouse Gas ...](#)

Sep 14, 2020 — Sector - **Greenhouse Gas** Emissions Reported to the GHGRP (all emissions values presented in million metric tons CO2e). 2011, 2012, 2013 ...

[19january2017snapshot.epa.gov](#) > ghgemissions > glob... ▾

[Global Greenhouse Gas Emissions Data - US EPA](#)

Aug 9, 2016 — Global **Greenhouse Gas** Emissions Data. On This Page: Global Emissions by Gas; Global Emissions by Economic Sector. Trends ...

[www.epa.gov](#) › [federal-fleets-using-low-greenhouse-ga...](#) ▼

[Federal Fleets using Low-Greenhouse Gas Emitting Vehicles ...](#)

Overview. Section 141 of the 2007 Energy Independence and Security Act (EISA) requires federal agencies to acquire low **greenhouse gas** (GHG) emitting ...

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[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Sep 10, 2020 — View the 2003 U.S. **Greenhouse Gas** Inventory developed by the U.S. government to meet U.S. commitments under the United Nations ...

[www3.epa.gov](#) › [ttnchie1](#) › [final](#) ▼ [PDF](#)

[AP-42, CH 14.1: Emissions From Soils - Greenhouse ... - EPA](#)

Various agricultural soil management practices contribute to **greenhouse gas** emissions. The use of synthetic and organic fertilizers adds nitrogen to soils, ...

[www.epa.gov](#) › [sites](#) › [production](#) › [files](#) › [documents](#) ▼ [PDF](#)

[Emission Factors for Greenhouse Gas Inventories - EPA](#)

Fuel Type. Heat Content (HHV). CO2 Factor. CH4 Factor. N2O Factor. CO2 Factor. CH4 Factor. N2O Factor. mmBtu per short ton kg CO2 per mmBtu g CH4 per ...

[www.epa.gov](#) › [ghgreporting](#) › [greenhouse-gas-reporti...](#) ▼

[Greenhouse Gas Reporting Program and the U.S. Inventory of ...](#)

Nov 25, 2019 — These sources are found across all segments of the U.S. economy. EPA is responsible for characterizing **greenhouse gas** emissions using two ...

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[Inventory of US Greenhouse Gas Emissions and Sinks ... - EPA](#)

Feb 11, 2020 — View the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks: 1990–2017 (published 2019), developed by the U.S. Government to meet ...

[www.epa.gov](#) › [regulations-greenhouse-gas-emissions-...](#) ▼

[Regulations for Greenhouse Gas Emissions from Passenger ...](#)

Aug 12, 2020 — The national program for **greenhouse gas** emissions (GHG) and fuel economy standards for light-duty vehicles (passenger cars and trucks) ...

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[Greenhouse Gas RESTful Data Service | Envirofacts | US EPA](#)

This information is provided for technical experts who intend to work directly with the database. Other users can retrieve information using the **Greenhouse Gas** ...

[www.epa.gov](#) › [midterm-evaluation-light-duty-vehicle-...](#) ▼

[Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas ...](#)

On April 2, 2018, the Administrator signed the Mid-term Evaluation Final Determination which finds that the model year 2022-2025 **greenhouse gas** standards are ...

[www.epa.gov](#) › [energy](#) › [greenhouse-gas-equivalencies...](#) ▼

[Greenhouse Gas Equivalencies Calculator - Revision History ...](#)

Mcf of natural gas: The emission factor has been updated to 0.0549 metric tons of CO2/Mcf. The previous value was 0.0551 metric tons. Home electricity use: The ...

[www.epa.gov](#) › [files](#) › [documents](#) › [2018_complete_report](#) [PDF](#)

[Inventory of US Greenhouse Gas Emissions and Sinks - EPA](#)

Apr 12, 2018 — Energy Sources of Indirect **Greenhouse Gas** Emissions enhancing the **greenhouse effect** because both are essentially transparent to ...

[www.epa.gov](#) › [climate-indicators](#) › [climate-change-ind...](#) ▼

[Climate Change Indicators: Climate Forcing - EPA](#)

Dec 17, 2016 — On the right side of the graph, radiative forcing has been converted to the Annual **Greenhouse Gas** Index, which is set to a value of 1.0 for 1990.

19january2017snapshot.epa.gov › ghgemissions ▼

[Greenhouse Gas \(GHG\) Emissions | US EPA](#)

Dec 20, 2016 — NEW! Explore 2015 GHG emissions from the largest sources and sectors: Read the Press Release » Explore the data through our map app, ...

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[Archives of Fast Facts: U.S. Transportation Sector Greenhouse ...](#)

Emissions estimates in the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks are recalculated each year for the entire time range of the inventory (1990 to ...

www.epa.gov › gmi › importance-methane ▼

[Importance of Methane | Global Methane Initiative \(GMI\) | US ...](#)

Nov 15, 2016 — Methane is also a **greenhouse gas** (GHG), so its presence in the atmosphere affects the earth's temperature and climate system. Methane is ...

www.epa.gov › enviro › greenhouse-gas-customized-se... ▼

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The **Greenhouse Gas** (GHG) Customized Search retrieves data from the GHF database in Envirofacts. GHG Customized Search allows you to create a report on ...

www.epa.gov › state-and-local-transportation › estimati... ▼

[Estimating Greenhouse Gas Emissions | State and Local ...](#)

Jul 1, 2020 — Estimating **Greenhouse Gas** Emissions. Related Information. Transportation and Climate Includes links to "Basic Information," "Regulations and ...

www.epa.gov › sites › production › files › documents ▼ PDF

[Emission Factors for Greenhouse Gas Inventories - EPA](#)

Coal and Coke. Anthracite Coal. 25.09. 103.69. 11. 1.6. 2,602. 276. 40 short tons. Bituminous Coal. 24.93. 93.28. 11. 1.6. 2,325. 274. 40 short tons.

www.epa.gov › global-mitigation-non-co2-greenhouse... ▼

[Global Non-CO2 Greenhouse Gas Emission Projections ... - EPA](#)

Dec 4, 2019 — Between 1990 and 2015, global non-CO2 emission levels rose by about 29%. · In 2030, the total global non-CO2 GHG mitigation potential is ...

www.epa.gov › ghgemissions › gridded-2012-methane... ▼

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Sep 11, 2020 — A team at Harvard University along with EPA and other coauthors developed a gridded inventory of U.S. anthropogenic methane emissions ...

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[GHGRP Chemicals | Greenhouse Gas Reporting Program ...](#)

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[Latest Inventory of US Greenhouse Gas Emissions and ... - EPA](#)

Latest Inventory of U.S. **Greenhouse Gas** Emissions and Sinks Shows Long-Term Reductions. 04/11/2019. Contact Information: EPA Press Office ...

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0 - 23,000,000 metric tons CO₂e: Min: Max: Filter by Status. Facilities are color coded to designate their verification and reporting status as of EPA's latest data ...

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[Final Rule for Mandatory Reporting of Greenhouse Gases - EPA](#)

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[Greenhouse Gas Rating | Green Vehicle Guide | US EPA](#)

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Subpart RR – Geologic Sequestration of Carbon Dioxide - EPA

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