I'm not robot	reCAPTCHA
Continue	

Ipcc report 2018 gwp

Charts and tables in this Emissions section of our website convert all greenhouse gas (GHG) emissions into CO2 equivalents so they can be compared. Each greenhouse gas (GHG) has a different global warming potential (GWP) and persists for a different length of time in the atmosphere. The three main greenhouse gas (along with water vapour) and their 20-year global warming potential (GWP) compared to carbon dioxide are: (1) 1 x - carbon dioxide (CO2) NOTE: Any carbon dioxide added to the atmosphere will hang around for a long time: between 300 to 1,000 years. All this time, it will be contributing to trapping heat and warming the atmosphere. 84 x methane (CH4) – I.e. Releasing 1 kg of CH4 into the atmosphere is about equivalent to releasing 84 kg of CO2. Methane's 100-year GWP is used to derive CO2e. 298 x – nitrous oxide (N2O) – I.e. Releasing 1 kg of N2O into the atmosphere is about equivalent to releasing about 298 kg of CO2. Nitrous oxide persists in the atmosphere for more than a century. It's 20-year and 100-year GWP are basically the same. Water vapour is not considered to be a cause of man-made global warming because it does not persist in the atmosphere for more than a few days. There are other greenhouse gases which have far greater global warming potential (GWP) but are much less prevalent. These are sulphur hexafluoride (SF6), hydrofluorocarbons (HFCs), and perfluorocarbons (HFCs), and perfluorocarbons (HFCs), and perfluorocarbons (HFCs). for fire suppression. Many of these compounds also have a depleting effect on ozone in the upper atmosphere. The following table shows the 100-year global warming potential for greenhouse gases reported by the United Nations Framework Convention on Climate Change (UNFCCC). (1) Click here to download an expanded PDF table: GHG Lifetimes and GWPs (144 kB) How to read this table The column on the right shows how much that chemical would warm the earth over a 100-year period as compared to carbon dioxide. For example, sulphur hexafluoride is used to fill tennis balls. The table shows that a release on 1 kg of this gas is equivalent to 22,800 kg or 22.8 tonnes of CO2. Therefore, releasing ONE KILOGRAM of sulphur hexafluoride is about equivalent to driving 5 cars for a year! (2) Greenhouse GasFormula100-year GWP (AR4) Carbon dioxideCO21 MethaneCH425 Nitrous oxideN2O298 Sulphur hexafluorideSF622,800 Hydrofluorocarbon-23CHF314,800 Hydrofluorocarbon-32CH2F2675 PerfluoromethaneCF47,390 PerfluoropertaneC2F612,200 PerfluoropertaneC3F88,830 PerfluoropertaneC4F108,860 PerfluoropertaneC4F108,300 NOTE: The GWP values were changed in 2007. The values in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) in 2007 where refined from the IPCC Second Assessment Report (SAR) values used previously and still in much of the literature. The California Greenhouse Gas Emissions for 2000 to 2018, Trends of Emissions and Other Indicators, summarizes and highlights the major annual changes and notable longer-term trends of each year's GHG inventory. It provides easy-to-read graphs and explanations to illuminate California's progress in its commitment to reduce climate-changing emissions. California Greenhouse Gas 2000-2018 Emissions Trends and Indicators Report2000-2018 GHG Emissions Trends Report Data used for figures in the report is available for download. Links to additional data and documentation can be found below. Note: Carbon dioxide equivalent values. BackgroundCalifornia's annual statewide greenhouse gas (GHG) emission inventory is an important tool for establishing historical emission trends and tracking California's progress in reducing GHGs. In concert with data collected through various California Global Warming Solutions Act (AB 32) programs, the GHG inventory is a critical piece in demonstrating the state's progress in achieving the statewide GHG target. The inventory provides estimates of anthropogenic GHG emissions within California, as well as emissions associated with imported electricity; natural sources are not included in the inventory includes estimates for carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and fluorinated gases with high global warming potentials (High-GWP) which includes hydrofluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3). It uses an inventory scope and framework consistent with international and national GHG inventory practices. An updated emission inventory is published annually to include additional years and improved estimation are available on the archive page. What are Greenhouse Gases? Global Warming Potentials (GWPs) for GHG Emissions Glossary of GHG Inventory Terms2000-2018 GHG and GDP TrendsEmissions by Economic SectorData OverviewStatewide emission estimates rely on state, regional or federal data sources, and on aggregated facility-specific emission reports from CARB's Mandatory GHG Reporting Program (MRR). Calculation methodologies are consistent with the 2006 IPCC Guidelines. The current inventory uses 100-year global warming potential (GWP) values from the IPCC Fourth Assessment Report, consistent with current international and national GHG inventory practices. In preparation for each new edition of the inventory, recalculations are made to correct errors, incorporate new methodologies or, most commonly, to reflect changes in statistical data supplied by other agencies. Emission estimates are recalculated for all years to maintain a consistent time-series following IPCC recommendations for developing GHG inventories. Thus the new inventory may report a different emission level for an earlier year than previous inventory editions. The California GHG inventory is categorized in three ways: Scoping Plan; follows the categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories, which are similarly categorized. IPCC process-oriented categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories, which are similarly categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories, which are similarly categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories, which are similarly categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories, which are similarly categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories, which are similarly categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories and sectors in the categorized in three ways: Scoping Plan. Economic sectors; allows for comparison with other CARB emission inventories and sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: Scoping Plan. Economic sectors in the categorized in three ways: S to ensure comparability with international inventory Categorization Crosswalk among the three categorization Schemes. Inventory Documentation 2000–2018 Emissions Trends Report 2000–2018 Trends Figure Data2000–2018 Inventory Updates Documentation GHG Inventory Categorization Crosswalk Current Inventory Categorization Categori Documentation IndexDataGHG Inventory Query ToolSummaries of GHG Emissions by CategorizationEconomic Sector CategorizationIPCC CategorizationTotals by GasGHG Emission Summaries Segregated by GasFull InventoryScoping Plan CategorizationEconomic Sector CategorizationIPCC CategorizationFuel Combustion and Heat Content [Updated 12/07/2020]Download a detailed list of all fuel combustion data used to calculate the GHG emissions by sector and activity. The categorization in this workbook matches the "Economic Sector Categorization" inventory spreadsheet above. Guidance & Resources for Working with GHG Inventory DataCogeneration EmissionsThe CARB Regulation for the Mandatory Reporting of GHG Emissions (MRR) is a primary data source for the statewide inventory but emissions are categorized differently in the two programs. Industrial cogeneration (also known as Combined Heat and Power, or CHP) represents the major categorization difference. The guidance document below provides instruction for working with and crosswalking between the two datasets. A spreadsheet provides GHG inventory industrial cogeneration emissions disaggregation to facilitate comparison with MRR data. Guidance for Working with the GHG Inventory & MRR Data Using Disaggregated Industrial Cogeneration Data 2011–2018 Industrial Cogeneration Breakout AB 2195 Report on Upstream Emissions of California's Natural Gas Consumption AB 2195 requires CARB "to quantify and publish annually the amount of greenhouse gas emissions resulting from the loss or release of uncombusted natural gas to the atmosphere and emissions from natural gas flares during all processes associated with the production, processing, and transporting of natural gas imported into the state from out-of-state sources." Most of the emissions quantified in the AB 2195 report occurred outside of California borders; and therefore, are not added to the GHG Inventory total. Link to the report: AB 2195 Out-of-State Natural Gas Emissions [Updated 11/6/2020] Other Resource LinksCurrent GHG Data & Documentation for Past GHG Inventories 2020 Business as Usual (BAU) GHG Emissions ProjectionShort Lived Climate Pollutant (SLCP) Inventory Forest & Other Lands InventoryOriginal (1990-2004) Inventory Data and Documentation, provided in the 1990 Inventory Query Tool. This inventory, and associated 1990-2004 Inventory Data and Documentation, provided the basis for developing the 1990 Statewide Emission Level & 2020 Emission Limit required by the Global Warming Solutions Act of 2006 (AB 32).