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EPA Center for Corporate Climate Leadership

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GHG Emission Factors Hub

This document was designed to provide organizations with a regularly updated and easy-to-use set of default emission factors for organizational greenhouse gas reporting. The document includes updated emission factors collated from both EPA's Greenhouse Gas Reporting Program <<https://epa.gov/ghgreporting>> and the Center's technical guidance. The most recent version of the Emission Factors Hub (April 2022) includes updates to emission factors for purchased electricity from EPA's Emissions & Generation Resource Integrated Database <<https://epa.gov/egrid>> (eGRID) mobile combustion, upstream and downstream transportation, business travel, product transport, and employee commuting. Guidance on the use of EPA's Emission Factors Hub's waste emission factors versus the Waste Reduction Model (WARM) is also available.

Download as an Excel file:  GHG Emission Factors Hub (xlsx) <<https://epa.gov/sites/default/files/2020-04/ghg-emission-factors-hub.xlsx>>

-  GHG Emission Factors Hub (pdf) <https://epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf> (173.91 KB, April 2022)
-  ARCHIVED 2021 GHG Emission Factors Hub (pdf) <https://epa.gov/sites/default/files/2021-04/documents/emission-factors_apr2021.pdf> (299.17 KB, April 2021)
-  Use of EPA's Emission Factors Hub's Waste Emission Factors vs. the Waste Reduction Model (WARM): Guidance for Organizations (pdf) <https://epa.gov/sites/default/files/2020-04/documents/guidanceefwastefactors_vs_warm.pdf> (253.58 KB, March 2020)
-  ARCHIVED 2020 GHG Emission Factors Hub (pdf) <https://epa.gov/sites/default/files/2021-04/documents/emission-factors_mar2020.pdf> (197.07 KB, March 2020)
-  ARCHIVED 2018 GHG Emission Factors Hub (pdf) <https://epa.gov/sites/default/files/2018-03/documents/emission-factors_mar_2018_0.pdf> (354.8 KB, March 2018)
-  ARCHIVED 2015 GHG Emission Factors Hub (pdf) <https://epa.gov/sites/default/files/2016-09/documents/emission-factors_nov_2015_v2.pdf> (1.42 MB, November 2015, v2)
-  ARCHIVED 2014 GHG Emission Factors Hub (pdf) <https://epa.gov/sites/default/files/2015-07/documents/emission-factors_2014.pdf> (141.55 KB, April 2014)
-  ARCHIVED 2011 GHG Emission Factors Hub (pdf) <https://epa.gov/sites/default/files/2015-11/documents/emission-factors_2011.pdf> (232.22 KB, November 2011)

[Center for Corporate Climate Leadership Home <https://epa.gov/climateleadership>](https://epa.gov/climateleadership)

[About the Center <https://epa.gov/climateleadership/about-center-corporate-climate-leadership>](https://epa.gov/climateleadership/about-center-corporate-climate-leadership)

GHG Inventory Development Process & Guidance

Determine Organizational Boundaries <<https://epa.gov/climateleadership/determine-organizational-boundaries>>

Inventory Guidance for Low Emitters <<https://epa.gov/climateleadership/ghg-inventory-guidance-low-emitters>>

Scope 1 & Scope 2 Inventory Guidance <<https://epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance>>

Scope 3 Inventory Guidance <<https://epa.gov/climateleadership/scope-3-inventory-guidance>>

GHG Emission Factors Hub

Inventory Management Plan Guidance <<https://epa.gov/climateleadership/inventory-management-plan-guidance>>

Corporate GHG Inventorying and Target Setting Self-Assessment <<https://epa.gov/climateleadership/corporate-ghg-inventorying-and-target-setting-self-assessment>>

Target Setting <<https://epa.gov/climateleadership/target-setting>>

GHG Reduction Programs & Strategies <<https://epa.gov/climateleadership/ghg-reduction-programs-strategies>>

Reporting Corporate Climate Risks and Opportunities <<https://epa.gov/climateleadership/reporting-corporate-climate-risks-and-opportunities>>

Supply Chain Guidance <<https://epa.gov/climateleadership/supply-chain-guidance>>

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