


IEC TR 62921:2016 Factsheet

How do I use this methodology? Ask for support!

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|  | IEC TR 62921:2016 : Quantification methodology for greenhouse gas emissions for computers and monitors | |
| Name of Initiative/Methodology | Quantification methodology for greenhouse gas emissions for computers and monitors | |
| Link to the latest published version | IEC TR 62921 (10/2016): Version 2.0 https://webstore.iec.ch/publication/2599d | |
| Developed by | International Electrotechnical Commissions (IEC), Technical Committee 111: Environmental Standardisation for Electrical and Electronic Products and Systems | |
| History and Status | <ul style="list-style-type: none"> • Work started in 2011 and first publication in 2015 • Updated version published in October 2016 | |
| Involved companies / parties | <ul style="list-style-type: none"> • Not known | |
| Scope | <ul style="list-style-type: none"> ✘ Organisation env. accounting ✘ Scope 1 ✘ Scope 2 ✘ Scope 3 | <ul style="list-style-type: none"> ✔ Product env. assessment ✔ Life cycle approach ✘ Use phase only |
| | <ul style="list-style-type: none"> ✔ GWP ✘ Energy (focus on secondary energy) | <ul style="list-style-type: none"> ✘ Other environmental impacts ✘ KPIs |
| System(s) covered by the methodology | <ul style="list-style-type: none"> • Computers and monitors (incl. notebook, desktop, LCD monitor, etc.) | |
| Goals | <ul style="list-style-type: none"> • Providing supporting data for identification of a life cycle stage, subassembly or process that have significant GHG emissions (hot spot) • Assessing carbon footprint of computers and monitors • Prioritising reduction efforts across the product life cycle • Creating a basis for quantifying and reporting CFP performance over time. | |
| Generic features | <ul style="list-style-type: none"> • Targeted data collection is performed based on an analysis of the biggest contributors to impacts and to results' uncertainty. This analysis may also be used to determine the appropriate cut-off criteria. • Allocation should be avoided; if proven necessary, several methods can be used and are detailed in the document. • Uncertainty analysis and sensitivity analysis are to be performed • First party verification is recommended for communication • An informative list of life cycle database (public database) is provided in Annex C. | |
| ICT-specific features | <ul style="list-style-type: none"> • Primary data or aggregated primary data should be used for LCDs, PWBs and ICs. Secondary data should be used for all other data needs. • When assessing GHG emissions of EE products, the following should be considered: <ul style="list-style-type: none"> ◦ The organisation should use primary data from its suppliers ◦ All packaging materials should be considered. ◦ Distribution stage should include transportation processes ◦ The use phase should be estimated under realistic conditions of use (i.e. use profile based on actual usage patterns, power consumption of the different modes, etc.) ◦ End of life should cover impacts generated from transport to the recycling facility, recycling or landfilling of the materials ◦ Maintenance, refurbishment and second use are excluded. • Communication may not necessarily detail results for each life cycle stage. • Recommended sources for product energy consumption are provided in Annex. | |
| Examples of implementation / experience feedback | None identified | |
| Interaction with other methodologies | <ul style="list-style-type: none"> • [IEC TR 62725] Analysis of quantification methodologies of greenhouse gas emissions for electrical and electronic products and systems • [IEC 62430] Environmentally conscious design for electrical and electronic products • [IEC 62474] Material declaration for products of and for the electrotechnical industry • [IEC 62623] Desktop and notebook computers - Measurement of energy consumption • [IEC TR 62635] Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment • [ISO 14040] Environmental management - Life cycle assessment - Principles and framework • [ISO 14044] Environmental management - Life cycle assessment - Requirements and guidelines • [ISO 14064-1] Greenhouse gases - Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals • [ISO/TS 14067] Greenhouse gases -- Carbon footprint of products -- Requirements and guidelines for quantification and communication • [GHG Protocol] Product Life Cycle Accounting and Reporting Standard • [ETSI TS 103 199] Environmental Engineering (EE); Life Cycle Assessment (LCA) of ICT equipment, networks and services; General methodology and common requirements • [ITU-T L.1410] Methodology for environmental life cycle assessments of information and communication technology goods, networks and services | |

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