

Labs/Wetlabs Emission trackers

1. Lab-Specific Tools and Spreadsheets

Tool/Spreadsheet Name	Description	Key Features for Wet Labs	Type	Availability/Pricing	Source
GES 1point5	Open-source French tool (adaptable globally) for calculating lab carbon footprints across scopes 1-3.	Tracks equipment electricity (e.g., freezers, incubators); procurement (reagents, plastics); travel/commuting. Averages 479 tCO ₂ e/year per lab. Includes spreadsheets for data entry and visualization.	Spreadsheet-based with online interface	Free/open-source	labos1point5.org (from earlier search; also referenced in physicsworld.com article on open-source lab tools)
Labs2Zero / I2SL Laboratory Benchmarking Tool (LBT)	Benchmarking tool from the International Institute for Sustainable Laboratories for lab buildings and operations.	Operational emissions from energy (HVAC, equipment like fume hoods); embodied carbon for materials. Peer comparisons for wet labs; pilot for detailed equipment tracking.	Online tool with spreadsheet exports	Free (anonymized data submission)	i2sl.org/labs2zero
EPFL CO2 Calculator	Swiss academic tool following GHG Protocol for research labs.	Equipment electricity; procurement (e.g., lab chemicals, consumables); project-specific breakdowns. Wet lab focus on energy per occupied space; open-source by 2026.	Spreadsheet-based	Free for academic labs	epfl.ch (search for "EPFL CO2 Calculator")
My Green Lab ACT Ecolabel 2.0	Product scorecard for lab equipment and consumables.	Energy use ratings for wet lab items (e.g., pipettes, centrifuges, gloves); manufacturing and end-of-life emissions. Third-party verified; includes calculator for total footprint.	Online database with spreadsheet downloads	Free scorecard access	mygreenlab.org/act

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UCSC Green Labs Energy Consumption Spreadsheet	PDF/spreadsheet from UC Santa Cruz sustainability program listing lab equipment energy use.	Typical kWh for items like fume hoods (115 kWh/day), ultra-low freezers (20-30 kWh/day), incubators. Adapt for emissions by multiplying by factors.	Spreadsheet/PDF table	Free	sustainability.ucsc.edu (energy_consumption.pdf) (from snippets; note: direct URL may vary)
Stanford Lab Plug Load Assessment	Research-based tool/figure from Stanford (via ResearchGate) on lab equipment energy.	Breaks down consumption by type (e.g., freezers 50% of plug loads); adaptable spreadsheet for inventory.	Spreadsheet from publication	Free (academic access)	researchgate.net (lab equipment energy figure)

General Tools and Spreadsheets Adaptable for Wet Lab Equipment

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Climatiq Excel Carbon Calculator	AI-powered Excel add-in for carbon insights.	Access 200,000+ emission factors; calculate from energy use (e.g., lab electricity); custom formulas for equipment. Free for 250 calculations/month.	Excel add-in with templates	Free (non-commercial); paid upgrades	climatiq.io/excel-carbon-calculator
Regreener Company Carbon Footprint Template	Free Excel template for SME carbon footprints per GHG Protocol.	Covers scopes 1-3 (energy, vehicles, waste); input lab electricity/heating; graphs for hotspots like equipment.	Excel spreadsheet	Free	regreener.earth/blog/free-excel-template
EPA Simplified GHG Emissions Calculator	Excel-based tool for small organizations/low emitters.	Scopes 1-3 from energy data; adaptable for lab equipment kWh inputs.	Excel spreadsheet	Free	epa.gov/climateleadership/simplified-ghg-emissions-calculator
GHG Protocol Cross-Sector Tools (e.g., Stationary Combustion, Mobile Sources)	Suite of spreadsheets for emissions from energy and transport.	Energy factors for lab electricity; uncertainty estimation; Chinese/English versions.	Spreadsheets	Free	ghgprotocol.org/calculation-tools
GHG Protocol Refrigeration and AC Tool	Spreadsheet for HFC/PFC emissions from cooling equipment.	Relevant for wet lab freezers/refrigerators; sales or lifecycle methods.	Spreadsheet	Free	ghgprotocol.org (part of cross-sector tools)
EPA Greenhouse Gas Equivalencies Calculator	Online converter for emissions/energy data to CO ₂ e equivalents.	Quick kWh-to-CO ₂ e for lab equipment; visualizations.	Online tool	Free	epa.gov/energy/greenhouse-gas-equivalencies-calculator
DOE Estimating Appliance Energy Use	Calculator for annual energy/costs of appliances.	Input wattage/runtime for lab devices; phantom load estimates.	Online with formulas (adapt to spreadsheet)	Free	energy.gov/energysaver/estimating-appliance-energy-use

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Omni Electricity Cost Calculator	Tool for power consumption and costs.	Daily/monthly kWh from devices; adaptable for lab inventories.	Online	Free	omnicalculator.com/everyday-life/electricity-cost
RapidTables Energy Consumption Calculator	Simple kWh estimator.	Wattage \times time for equipment; easy for batch lab items.	Online	Free	rapidtables.com/calc/electric/energy-consumption-calculator.html
SERC Energy Calculation Spreadsheet	Excel for home/lab energy use.	Customizable for equipment lists; annual totals.	Excel spreadsheet	Free	serc.carleton.edu (energy_calculat.xls)
Electricity Consumption Calculator (Spreadsheet Page)	Excel for household/appliance costs, adaptable to labs.	Tracks per device; annual estimates.	Excel spreadsheet	Free	spreadsheetpage.com/budget/electricity-consumption
MEASUR Calculators (DOE)	Over 40 equipment/property calculators.	Energy-related for industrial/lab-like setups.	Software with calculators	Free	energy.gov/eere/amo/measur-calculator-list