

US EPA ARCHIVE DOCUMENT

**Clean Energy Analysis Tools**

Tools/Organization	Type	Description	Inputs	Outputs	URL/Source
<b>Tools for Assessing Building Performance</b>					
<b>Portfolio Manager</b> (ENERGY STAR)	Web-based tool	<ul style="list-style-type: none"> <li>Enables states to rate their facilities' energy performance and identify priority opportunities.</li> <li>Assists states in applying for the ENERGY STAR label for facilities scoring 75 or higher.</li> </ul>	<ul style="list-style-type: none"> <li>Facility space type.</li> <li>Meter information.</li> <li>Energy type.</li> <li>Energy use.</li> </ul>	<ul style="list-style-type: none"> <li>ENERGY STAR energy performance rating (1–100).</li> <li>Portfolio profile, including information on status, progress, financials, performance, environment, and energy intensity.</li> </ul>	<a href="http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager">http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager</a>
<b>Target Finder</b> (ENERGY STAR)	Web-based tool	<ul style="list-style-type: none"> <li>Allows states to assess the design of new buildings and compare simulations with existing buildings, based on data provided.</li> <li>Helps set energy performance goals and receive an energy rating for design projects.</li> </ul>	<ul style="list-style-type: none"> <li>Facility location, type, size, occupancy, number of computers, and operating hours per week.</li> <li>Energy target rating or energy reduction target, energy source, estimated energy usage, and energy rate.</li> </ul>	<ul style="list-style-type: none"> <li>Projected ENERGY STAR energy performance rating (1–100).</li> <li>Projected energy reduction (%) (from an average building).</li> <li>Projected energy use intensity.</li> <li>Projected annual source energy use.</li> <li>Projected site energy use.</li> <li>Projected energy costs.</li> </ul>	<a href="http://www.energystar.gov/index.cfm?c=new_bldg_design.bus_target_finder">http://www.energystar.gov/index.cfm?c=new_bldg_design.bus_target_finder</a>
<b>Small Business Calculator</b> (ENERGY STAR)	Web-based calculator	<ul style="list-style-type: none"> <li>Estimates a facility's energy intensity and potential energy cost savings from upgrades.</li> </ul>	<ul style="list-style-type: none"> <li>Facility size.</li> <li>Facility type.</li> <li>Previous 12 months energy bill figures.</li> </ul>	<ul style="list-style-type: none"> <li>Energy intensity (energy used per square foot).</li> <li>Potential cost savings from energy efficiency upgrades.</li> </ul>	<a href="http://www.energystar.gov/index.cfm?c=small_business.sb_calculate">http://www.energystar.gov/index.cfm?c=small_business.sb_calculate</a>
<b>Life-Cycle Cost Program</b> (National Institute of Standards / Technology)	Computer software	<ul style="list-style-type: none"> <li>Enables states to evaluate alternative designs that may have higher initial costs, using a life-cycle costing method.</li> </ul>	<ul style="list-style-type: none"> <li>Initial and contract costs</li> <li>Base-year energy costs.</li> <li>Maintenance and repair costs.</li> <li>Time period.</li> <li>Emissions inputs.</li> </ul>	<ul style="list-style-type: none"> <li>Costs and benefits of energy and water conservation and renewable energy projects.</li> <li>Economic analyses (net savings, savings-to-investment ratio, rate of return, payback period).</li> </ul>	<a href="http://www1.eere.energy.gov/femp/information/download_blcc.html">http://www1.eere.energy.gov/femp/information/download_blcc.html</a>

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<b>Emission Inventory Tools</b>					
<b>Clean Air and Climate Protection Software</b> (National Association of Clean Air Agencies)	Computer software	<ul style="list-style-type: none"> <li>Tracks emission reductions and forecasts emissions from proposed reduction measures.</li> <li>Develops government baseline inventory.</li> </ul>	<ul style="list-style-type: none"> <li>Fuel and energy use by type of source (e.g., coal, solar, wind).</li> <li>Sector information.</li> <li>Emissions factors (default provided)</li> </ul>	<ul style="list-style-type: none"> <li>Equivalent GHG emissions from fuel and electricity use, presented in reports outlined by sector, by location, by source, or by indicator.</li> </ul>	<a href="http://www.cacpsoftware.org/">http://www.cacpsoftware.org/</a>
<b>Greenhouse Gas Equivalencies Calculator</b> (U.S. EPA)	Web-based calculator	<ul style="list-style-type: none"> <li>Translates GHG reductions into terms that are easier to conceptualize. States can also use the calculator "in reverse."</li> </ul>	<ul style="list-style-type: none"> <li>Quantity of emission reductions (e.g., metric tons of CO<sub>2</sub> equivalent).</li> </ul>	<ul style="list-style-type: none"> <li>Gallons of gasoline not consumed.</li> <li>kWh of electricity not consumed.</li> <li>Number of cars and light trucks not driven in one year.</li> </ul>	<a href="http://www.epa.gov/cleanenergy/energy-resources/calculator.html">http://www.epa.gov/cleanenergy/energy-resources/calculator.html</a>
<b>e-GRID</b> (U.S. EPA)	Online database	<ul style="list-style-type: none"> <li>Allows states to obtain information on power plants.</li> <li>Develop emissions inventories for buildings.</li> </ul>	<ul style="list-style-type: none"> <li>Year of data.</li> <li>Plant(s) or state(s) of interest.</li> </ul>	<ul style="list-style-type: none"> <li>NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, and mercury, with emissions reported in tons, input and output rates.</li> <li>Generation resources mix, in MWh and percentage.</li> </ul>	<a href="http://www.epa.gov/cleanenergy/egrid/index.htm">http://www.epa.gov/cleanenergy/egrid/index.htm</a>
<b>State Inventory Tool</b> (EPA; under development)	Interactive spreadsheet	<ul style="list-style-type: none"> <li>Enables states to develop GHG emissions inventories</li> </ul>	<ul style="list-style-type: none"> <li>State-specific data (pre-loaded default data used otherwise)</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive GHG emissions inventory covering multiple industry sources</li> </ul>	<a href="http://www.epa.gov/climatechange/wycd/stateandlocalgov/analyticaltools.html">http://www.epa.gov/climatechange/wycd/stateandlocalgov/analyticaltools.html</a>
<b>Emissions Forecasting Tool</b> (EPA; under development)	Interactive spreadsheet	<ul style="list-style-type: none"> <li>Enables states to forecast business-as-usual emissions through 2020</li> </ul>	<ul style="list-style-type: none"> <li>State assumptions relating to future growth and consumption patterns</li> </ul>	<ul style="list-style-type: none"> <li>Estimation of future emissions through linear extrapolation of State Inventory Tool output and federal forecasts</li> </ul>	<a href="http://www.epa.gov/climatechange/wycd/stateandlocalgov/analyticaltools.html">http://www.epa.gov/climatechange/wycd/stateandlocalgov/analyticaltools.html</a>

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<b>Community-Level Energy Saving Tool</b>					
<b>Community Energy Opportunity Finder</b> (Rocky Mountain Institute)	Web-based calculator	<ul style="list-style-type: none"> <li>Helps identify potential community benefits resulting from energy efficiency upgrades and renewable energy opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Community and building characteristics.</li> <li>Building energy consumption.</li> <li>Energy costs.</li> <li>Emissions data.</li> </ul>	<ul style="list-style-type: none"> <li>Energy savings.</li> <li>Dollar savings.</li> <li>Reductions in CO<sub>2</sub>, NO<sub>x</sub>, and SO<sub>2</sub> emissions.</li> <li>Job creation.</li> </ul>	<a href="http://www.energyfinder.org">http://www.energyfinder.org</a>
<b>Financial and Economic Analysis Tool</b>					
<b>Cash Flow Opportunity Calculator</b> (ENERGY STAR)	Web-based calculator	<ul style="list-style-type: none"> <li>Calculates the amount of equipment that can be purchased using anticipated savings.</li> <li>Compares costs of financing and waiting for cash.</li> </ul>	<ul style="list-style-type: none"> <li>Facility size.</li> <li>Energy costs and savings target</li> <li>Financing rate and term.</li> <li>% savings to be committed to upgrades.</li> </ul>	<ul style="list-style-type: none"> <li>Suggested spending on energy efficiency (\$/ft<sup>2</sup>).</li> <li>Potential lost savings due to waiting one year to avoid financing.</li> <li>Potential cost of waiting for better interest rate.</li> </ul>	<a href="http://www.energystar.gov/ia/business/cfo_calculator.xls">http://www.energystar.gov/ia/business/cfo_calculator.xls</a>