

EPA: CHP Energy and Emissions Calculator	
Goal	To provide education and overview of the role of CHP in microgrids, resilience, and grid integration
Method	<ul style="list-style-type: none"> • The CHP Emissions Calculator calculates the difference between the anticipated CO₂, methane (CH₄), nitrous oxide (N₂O), SO₂, and NO_x emissions from a CHP system to those of a separate heat and power system. • The Calculator uses fuel specific CO₂, CH₄ and N₂O emissions factors from the EPA's GHG Reporting Program, region specific Transmission & Distribution (T&D) loss values, and data from eGRID 2012.
Case Study	<p>Microgrid in Milford, CT</p> <ul style="list-style-type: none"> • 2x 146 kW natural gas CHP systems; 120 kW PV array with battery storage • Estimator tool provides amount and percent reductions in NO_x, SO₂, CO₂, CH₄, N₂O, total GHGs, fuel consumption, and passenger vehicle/electricity generation GHG equivalents
Updates	<ul style="list-style-type: none"> • Current tool to be updated to include key renewables for which CHP is a grid-balancing, dispatch-flexibility resource. • DOE models provide more depth; EPA estimator is a simple educational tool
Availability	Free web tool
URL	https://www.epa.gov/chp/chp-energy-and-emissions-savings-calculator