



Building Technologies Program

Tax Deduction Qualified Software EnergyPlus version 2.1.0.023

On this page you'll find information about the EnergyPlus version 2.1.0.023 [qualified computer software](http://www.buildings.energy.gov/qualified_software.html) (www.buildings.energy.gov/qualified_software.html), which calculates energy and power cost savings that meet federal tax incentive requirements for [commercial buildings](http://www.buildings.energy.gov/commercial/) (www.buildings.energy.gov/commercial/).

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Statements in quotes are from the software developer.

Internal Revenue Code §179D (c)(1) and (d) Regulations Notice 2006-52, Section 6 requirements	
(1) The name, address, and (if applicable) web site of the software developer;	U. S. Department of Energy EE-2J, Building Technologies Program 1000 Independence Avenue, SW Washington, DC 20585-0121 www.energyplus.gov
(2) The name, email address, and telephone number of the person to contact for further information regarding the software;	Drury Crawley Drury.Crawley@ee.doe.gov
(3) The name, version, or other identifier of the software as it will appear on the list;	EnergyPlus version 2.1.0.023
(4) All test results, input files, output files, weather data, modeler reports, and the executable version of the software with which the tests were conducted; and	Provided to DOE.
(5) A declaration by the developer of the software, made under penalties of perjury, that—	"On behalf of the EnergyPlus development team I certify the following:"
(a) The software has been tested according to ANSI/ASHRAE Standard 140-2004 Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs;	"The software has been tested according to ANSI/ASHRAE Standard 140-2004 Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs."
(b) The software can model explicitly—	"The EnergyPlus software is fully compliant with ASHRAE 90.1-2001 and meets all of the below requirements."
(i) 8,760 hours per year;	"The EnergyPlus software complies."
(ii) Calculation methodologies for the building components being modeled;	"The EnergyPlus software complies."
(iii) Hourly variations in occupancy, lighting power, miscellaneous equipment power, thermostat setpoints, and HVAC system operation, defined separately for each day of the week and holidays;	"The EnergyPlus software complies."
(iv) Thermal mass effects;	"The EnergyPlus software complies."

(v) Ten or more thermal zones;	"The EnergyPlus software complies."
(vi) Part-load performance curves for mechanical equipment;	"The EnergyPlus software complies."
(vii) Capacity and efficiency correction curves for mechanical heating and cooling equipment; and	"The EnergyPlus software complies."
(viii) Air-side and water-side economizers with integrated control; and	"The EnergyPlus software complies."
(c) The software can—	
(i) Either directly determine energy and power costs or produce hourly reports of energy use by energy source suitable for determining energy and power costs separately; and	"The EnergyPlus software complies."
(ii) Design load calculations to determine required HVAC equipment capacities and air and water flow rates.	"The EnergyPlus software complies."

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