



Building Technologies Program

Tax Deduction Qualified Software

Owens Corning Commercial Energy Calculator (OC-CEC) version 1.1

On this page you'll find information about the Owens Corning Commercial Energy Calculator (OC-CEC) version 1.1 [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;	Green Building Studio, Inc. 444 Tenth Street, Suite 300 Santa Rosa, California 95401 www.greenbuildingstudio.com
(2) The name, email address, and telephone number of the person to contact for further information regarding the software;	John F. Kennedy Green Building Studio, Inc. info@greenbuildingstudio.com +1 (707) 569-7373
(3) The name, version, or other identifier of the software as it will appear on the list;	Owens Corning Commercial Energy Calculator (OC-CEC) version 1.1 (based on GBS web service v.3.0 & DOE-2.2-44e4) www.owenscorning.com/comminsul/calculator.asp
(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—	"Green Building Studio's development team 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 software is fully compliant with ASHRAE 90.1-2001 and meets all of the below requirements."
(i) 8,760 hours per year;	"The OC-CEC v 1.1 software complies."
(ii) Calculation methodologies for the building components being modeled;	"The OC-CEC v 1.1 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 OC-CEC v 1.1 software complies."
(iv) Thermal mass effects;	"The OC-CEC v 1.1 software complies."
(v) Ten or more thermal zones;	"The underlying GBS web service v 3.0 and DOE-2.2-44e4 software complies. The OC-CEC v 1.1 software is designed for single zone metal building warehouses and shall only be used for such buildings. "
(vi) Part-load performance curves for mechanical equipment;	"The OC-CEC v 1.1 software complies."
(vii) Capacity and efficiency correction curves for mechanical heating and cooling equipment; and	"The OC-CEC v 1.1 software complies."
(viii) Air-side and water-side economizers with integrated control; and	"The OC-CEC v 1.1 software complies with the air-side economizer and water-side economizer requirements. The underlying DOE-2.2-44e4 software cannot model water-side economizers with integrated control, and shall not be used for projects with that technology. "
(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 OC-CEC v 1.1 software complies."
(ii) Design load calculations to determine required HVAC equipment capacities and air and water flow rates.	"The OC-CEC v 1.1 software complies."

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