## Building Technologies Program

# Tax Deduction Qualified Software
## Green Building Studio Web Service version 3.1

On this page you'll find information about the Green Building Studio Web Service version 3.1 qualified computer software (www.buildings.energy.gov/qualified_software.html), which calculates energy and power cost savings that meet federal tax incentive requirements for commercial buildings (www.buildings.energy.gov/commercial/).

Date Documentation Received by DOE: 31 March 2008

*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.<br>444 Tenth Street, Suite 300<br>Santa Rosa, California 95401<br>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<br>Green Building Studio, Inc.<br>info@greenbuildingstudio.com<br>+1 (707) 569-7373 |
| (3) The name, version, or other identifier of the software as it will appear on the list; | Green Building Studio web service version 3.1<br>(based on DOE-2.2-44e4)<br>www.greenbuildingstudio.com/default.aspx |
| (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 Green Building Studio v 3.1 software complies." |
| (ii) Calculation methodologies for the building components being modeled; | "The Green Building Studio v 3.1 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 | "The Green Building Studio v 3.1 software complies." |

| | |
|---|---|
| week and holidays; | |
| (iv) Thermal mass effects; | "The Green Building Studio v 3.1 software complies." |
| (v) Ten or more thermal zones; | "The Green Building Studio v 3.1 software complies." |
| (vi) Part-load performance curves for mechanical equipment; | "The Green Building Studio v 3.1 software complies." |
| (vii) Capacity and efficiency correction curves for mechanical heating and cooling equipment; and | "The Green Building Studio v 3.1 software complies." |
| (viii) Air-side and water-side economizers with integrated control; and | "The Green Building Studio v 3.1 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 Green Building Studio v 3.1 software complies." |
| (ii) Design load calculations to determine required HVAC equipment capacities and air and water flow rates. | "The Green Building Studio v 3.1 software complies." |

Date Posted: 31 March 2008