

November 21, 2006

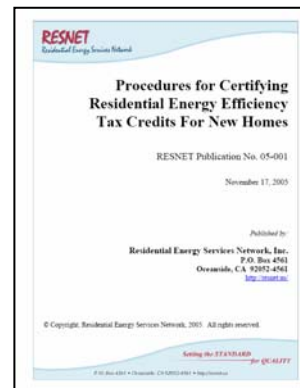
Re: **MICROPAS® v7.3 Tax Credit Version**

Welcome to MICROPAS v7.3 Tax Credit Version!

### IRS and RESNET Approval

The MICROPAS v7.3 Tax Credit version was approved by the Residential Energy Services Network (RESNET) and listed by the IRS in November 2006. This version follows the corrected RESNET<sup>1</sup> tax credit document using the “Normalized Modified Loads” metric to determine the energy savings.

This version is based on the California Energy Commission (CEC) approved Alternative Calculation Method<sup>2</sup> (ACM) version modified to follow the specific rules found in the RESNET tax document. In some cases, the RESNET tax credit rules do not cover certain features. If clarifying language is not available from the 2004 IECC Supplement<sup>3</sup>, this version then follows the rules and requirements found in the CEC’s ACM document.



### Advisory Notice

It is essential that the user understand the tax credit rules before doing any calculations with this version. Therefore, the user is strongly advised to read the IRS rules and to also get copies of the copyrighted RESNET publications and the 2004 IECC Supplement. In accordance with IRS rules, all homes qualifying for tax credits must be inspected in accordance with RESNET requirements and there are also requirements for rater insurance. Ultimately, the rater is responsible for certifying that a home meets the tax credit criteria.

The IRS rules are installed when MICROPAS is installed and can be viewed by going to “Start” then “All Programs” and choosing the MICROPAS 7.3 Tax program group.

### Licensing

This program is offered on a licensed basis. In addition to an initial license fee to use this version, there is a monthly license fee per copy. You may cancel the license on 30 days written notice if the software is no longer in use. If the monthly license fees are not paid, then your license to use this program is terminated. See the license agreement for details.

<sup>1</sup> *Procedures for Certifying Residential Energy Efficiency Tax Credits for New Homes*, RESNET publication No. 06-001, June 1, 2006. Available at [resnet.us](http://resnet.us) for free

<sup>2</sup> California standards and ACM manual are available at [www.energy.ca.gov/title24/2005standards](http://www.energy.ca.gov/title24/2005standards) for free

<sup>3</sup> 2004 IECC Supplement Edition is available at [www.iccsafe.org](http://www.iccsafe.org) for a fee

### Input Differences from Other Versions

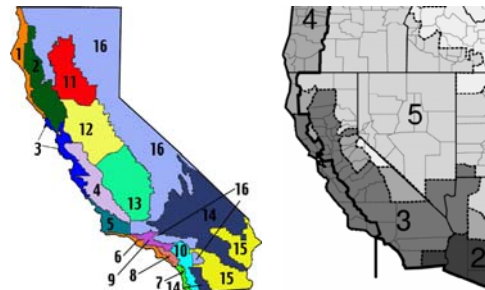
A few inputs have been modified from other MICROPAS versions in order to follow the RESNET rules.

Under BUILDING and RUN FEATURES:

- COMPLIANCE RUN. Should be set to either 'TaxCredit' or 'TaxCredit152'. The TaxCredit keyword uses the values found in Table 3.2(3) of the RESNET tax credit document. TaxCredit152 uses the values found in Table 3.2(3) for the reference home, but uses the CEC's ASHRAE 152 calculation for the qualifying home.
- IECC YEAR. Must be set to '2004' for tax credit runs.

Under BUILDING and SITE AND WEATHER DATA

- WEATHER DATA FILE NAME. For California, determine which California climate zone the home is in, and enter 'CTZxxS05' where the xx is the two digit climate zone. For example, enter 'CTZ12S05' for California Climate zone 12. Weather data is provided for southwestern states including Arizona, Idaho, Nevada and Utah. Additional locations may be available later.
- IECC CLIMATE ZONE. The IECC uses its own climate zone boundaries. See the map and county listing in the 2004 IECC.



Under BUILDING and CALCULATIONS AND REPORTS

- WATER HEATING CALCULATION. Not used by tax credit version as water heating is not part of IRS rules.

Under ZONES

- VERIFIED INSULATION QUALITY. RESNET uses grades I through III to describe the quality of the insulation installation, with I being perfect and III being a poor installation. Enter 'I', 'II', or 'III'. To be compatible with existing input files, the software also maps 'Yes' equal to 'I' and 'No' equal to 'III'.

Under OPAQUE and OPAQUE SURFACES

- SOLAR GAINS. RESNET rules recognize surface color (absorptivity) as a calculation variable. See Table 3.3 of the RESNET tax credit document. User can enter 'Yes', 'No' or a value between 0 and 1. 'Yes' directs the program to use the default RESNET values for cases where color is not known. 'No' is used if a surface is fully shaded.

Under OPAQUE and OPAQUE CHARACTERISTICS

- U-FACTORS. RESNET rules state in a footnote to table 3.2(2) that "Non-fenestration U-factors shall be obtained from measurement, calculation, or an approved source". Values listed in Appendix U-factor library are from the 2003 IECC. 2005 California values are substantially higher for walls than used in the RESNET rules because of the use of 25% framing.

**Reports**

The principle tax credit document is similar to the CF-1R but is renamed the CERTIFICATE OF COMPLIANCE: TAX CREDIT CHECKLIST to be consistent with RESNET terminology. A few new values are documented on this report in response to RESNET reporting requirements including

- Specific Leakage Area (SLA) in accordance with RESNET values
- Internal Gains in accordance with RESNET values
- Emittance based on ASHRAE combined surface air film calculations
- Attic and Crawlspace Vent areas calculated in accordance with IRC requirements based on the attic and floor areas

**Converting Files**

A file converter that imports other version input files is provided. The file converter is located under the Other Operations menu.

- By default, the file converter looks for files in the latest version 7.2 directory (usually \MP72). If you placed your files in a different directory, you will need to change the disk settings to match the directory where your files are stored. You can change the directory by choosing Other Operations, then Edit Settings, then Disk Installation and then HardDisk. To switch to version 7.1 for example, you would then enter '\MP71\' for item 15.
- If you want to convert all input files between versions at once, use '/All' for the file name
- The file converter will also convert HVAC sizing location data and Mandatory Measure data. Run the converter with the file name set to '/HVACLocation' or '/Mandatory' to convert desired data. Because U-factors are likely different in Tax Credit version, it is not recommended that you convert Appendix IV data.

Please don't hesitate to call us at 800-755-5908 when you have questions related to the use of MICROPAS for tax credits. You can reach me at Extension 1 or Dee Anne Ross at Extension 2.

Sincerely,

**Ken Nittler, P.E.**  
Enercomp, Inc.