

From: [Dean Villalva](#)
To: ENERGYSTARVerificationProgram@energystar.gov; vokes.kathleen@epa.gov;
cc: ["Billy Byrom"](#); ["Tim Villalva"](#); ["John Alger"](#);
Subject: Draft Laboratory Requirements
Date: Friday, May 28, 2010 9:23:19 AM

To whom it may concern,

My name is Dean Villalva and I am contacting you from the Engineering Department of Alternate Energy Technologies, LLC., (herein referred to as AET). AET is a Florida based manufacturer of liquid-type, glazed flat-plate solar collectors and specifier of solar thermal water heating systems. AET and its founders have been manufacturing solar thermal in the State of Florida for more than 35 years.

This email is in response to your impending Laboratory Report requirement for EPA/ENERGY STAR product recognition. As you are aware, it's only been just over a year since ENERGY STAR approved the listing of solar water heating (SWH) systems. In order to qualify for said listing, the SWH system must be certified by the Solar Rating and Certification Corporation (herein referred to as SRCC), to the SRCC OG-300 Standard (OPERATING GUIDELINES AND MINIMUM STANDARDS FOR CERTIFYING SOLAR WATER HEATING SYSTEMS). In my communications with SRCC, it should be noted, there is no Laboratory Report generated for the evaluation of a SWH system.

The performance evaluation of an OG-300 system is modeled by a computer program called TRANSYS. Performance values for the major components (i.e., solar collectors, water storage tanks, circulation pumps and system controls) are entered into the TRANSYS program from which a model of the overall performance is derived using program inherent weather data. The program is designed to account for total heat contribution, heat losses across the major components and associated piping, and electrical consumption of the control and pumping mechanisms. From this data, the system performance is calculated and a Solar Energy Factor (SEF) value is assigned. The SEF is the solar equivalent to a standard water heater's EF (Energy Factor) rating. In short, there is minimal instrumentation utilized in the evaluation of a SWH system.

Now, if we were to look at the individual components; collectors, tanks, pumps and etc..., then Laboratory Report or such may be available.

As you can see, I find myself a bit confused on what we (the solar thermal industry) will need to provide in order to remain/become ENERGY STAR listed. As stated previously, I have been in communication with SRCC concerning your requirements and I have also voiced my concerns with David Ryan and Ray Long of D&R International (an ENERGY STAR qualifying authority). We would like to ask EPA/ENERGY STAR to take a closer look at the Laboratory Report requirement for solar thermal systems. Perhaps some communication with SRCC or a review of its testing protocols should take place.

Any assistance you can provide in the matter would be greatly appreciated.

Best Regards,

Dean Villalva

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Thank you