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CALIFORNIA ENERGY COMMISSION

1516 Ninth Street
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Implementation of Renewables
Investment Plan Legislation
Docket No. 02-REN-1038
Renewable Energy Program
Public Utilities Code Sections 381, 383.5, and 445; [SB 1038]

RE: Changes to the Emerging Renewables Program Guidebook

To Commissioner Geesman, Mr. Brasil, the Energy Commission, and our Esteemed Colleagues:

As the process to revise the CEC methods of determining an appropriate rebate structure have developed, the inverter efficiency test protocol has undergone many revisions to reach its completion. The primary goals of this process are to make this a fair and representative test in the most reasonable and cost-effective way possible. Although we support most of the latest draft of the document, we would like to express our concern over the issue of what is considered an acceptable test laboratory. The ideal situation is to have a series of laboratories that are both experienced in the testing of such parameters, have legitimacy to verify accurate and repeatable measurements, and provide ample opportunities for manufacturers to obtain quick and inexpensive results.

The 2005 Emerging Draft Guidebook (CEC-300-2005-001-ED4F) defines laboratory criteria in Appendix 3 as follows:

Nationally Recognized Testing Laboratories shall be those laboratories that have been recognized by the U.S. Department of Labor, Occupational Safety & Health Administration (OSHA), in accordance with Title 29 of the Code of Federal Regulations, section 1910.7, and are approved to conduct test UL 1741 under the scope of their OSHA recognition. A list of all current Nationally Recognized Testing Laboratories is available on OSHA's web page at www.osha.gov/dts/otpc/nrtl/index.html. Please note, not all of the Nationally Recognized Testing Laboratories identified on OSHA's list are approved to conduct test UL 1741.

This definition is both technically and logically inconsistent with the goals of the program. The definition of a NRTL in and of itself is restrictive when there are numerous laboratories worldwide that meet equally strict or stricter guidelines.

If we are to seek a common denominator as defined by OSHA-approved NRTLs, we then restrict our industry to 18 potential labs, which may appear to be sufficient. This would be the case, if not for the restrictions placed by the language requiring UL 1741-approved testing requirements. When examining

the website listed in the footnote further, one finds that only 3 of these 18 labs are approved to test to UL 1741 – and none of these have branches outside North America, where the largest percentage of inverters are manufactured.

UL 1741 is a safety test – nothing more. It in no way qualifies a laboratory for performance-based testing. The efficiency protocol is one we are crafting together in California as an industry, and no laboratory can currently claim experience in testing to it since it has not even been finalized. However, European labs such as TÜV have tested to such standards under the Euro Efficiency Tests required in the EU. To be accredited for this, European labs and laboratories in other parts of the world must adhere to ISO 17025 status (which is similar in requirements internationally to what a NRTL is in the US), along with other more specific standards.

There is nothing unique about the equipment required to test to the California Efficiency Protocol. The over-riding requirements should not be that a laboratory is allowed to test to a safety protocol, but that it has the equipment and test experience to examine the same or similar pieces of equipment to the degree of accuracy required for the State's purposes. To place the restrictiveness of allowing only three labs in the world an opportunity to perform these tests (of which at least one is regularly back-logged) is a significant barrier that will delay the testing of new inverters and create greater demand than supply for these tests.

As a result, FRONIUS strongly urges the CEC to consider revised language that would enable the following facilities to test inverters to the California Efficiency Protocol:

- Companies that are NRTLs, regardless of whether or not they are specifically approved to test to UL 1741, and,
- Secondly, internationally accredited test labs (ISO 17025) efficiency measurements that can meet the quality/calibration requirements described in the test protocol.

We thank the Energy Commission for their time and hope we can find a solution that enables all manufacturers to obtain test results in a timely and accurate manner.

FRONIUS USA, LLC

Document Management Form (Revised 4/29/04)

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