

February 26, 2015

HOWARD INDUSTRIES INC. – LAUREL, MS.

Comments to the U.S. EPA Energy Star Efficiency Program for Distribution Transformers.

Howard Industries is a leading manufacturer of Liquid Immersed Distribution Transformers and as a stakeholder offers the following comments as feedback to EPA for the purpose of developing a first draft of a voluntary ENERGY STAR Specification.

Howard Industries is a full line supplier of liquid-immersed distribution transformers in the United States utilizing both silicon and amorphous core construction. All of our transformers are manufactured in the USA.

We support EPA's efforts to launch a voluntary Energy Star specification for medium voltage, liquid-immersed distribution transformers.

We recommend that the scope of the Energy Star products should be 10 through 500 KVA, single phase and 15 through 2500 KVA, three phase for liquid immersed distribution transformers operating between 1 and 36 kV. Units with secondary voltages above 600 volts should be excluded. Also impedance and tap ranges should remain as specified in the latest DOE Rule.

On single phase units, we don't recommend higher efficiency levels than those listed in the DOE rule for sizes larger than 500 KVA due to the increased size and weight of these mostly Pole Type units. The utilities will have a difficult time using them.

The maximum Insulation Level for Energy Star units should be 150 kV BIL. DOE has already established efficiency levels for units above 150 kV BIL that are too high.

These units should have only one KVA size rating listed on its nameplate. No multiple KVA ratings should be included unless there is engagement of fans, pumps or other equipment. Duplex units may have two KVA sizes listed. All transformers should be required to meet the IEEE National Standards.

Efficiency levels should be determined in the same manner as the latest DOE Rule with the load loss at 50% referenced at 55 deg. C. The No load Loss is to be referenced at 20 deg. C.

We think that the DOE, TSL 4 Efficiency Levels should form the basis for establishing the efficiency levels for the Energy Star Units.

The DOE Test Procedures should be used for qualification, compliance, certification and enforcement, including the use of the DOE, AEDM system as we presently use.

Our distribution transformer design and manufacturing facility generates thousands of new models or catalog numbers during each year of production to satisfy the needs of the electric utilities across our nation. This huge variety of models does not lend itself to the use of third party laboratories and the witnessing of testing in order to qualify an Energy Star rating; there are just too many models or ratings.

We think the EPA should adopt a “DOE, CCMS” like system for qualifying Energy Star Transformers in order to provide manufacturers with a self-reporting method of reporting the efficiencies that must be achieved for model qualification. It would be too time consuming and too costly to do otherwise.

The Energy Star System must be such that all transformer manufacturers, large or small have the ability to participate.

Reasonable Payback must be taken into account such that it is achieved in 8 to 10 years.

Hopefully this information we are sending will help the EPA develop the first draft of a voluntary specification for Energy.

Let us know if you have any additional questions related to this effort. We want to actively help EPA establish this Energy Star Transformer program.

Jerry Hodge
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