March 1, 2013

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STATE OF THE UTILL AND TERAL DOMESTICS

Re: UE-112133

Chapter 480-108

Thank you for the opportunity to comment:

On page 4 the size definition is a little bit weak. I suggest you specify Power Factor along with KW when you are applying KW to AC electrical equipment or use KVA alone and do not use KW at all. On DC systems, or non electrical energy systems or components using KW or Horsepower if fine.

The reason I mention this is that, particularly where surplus equipment is used, there is often not a match between electrical and mechanical ratings. Few inspectors understand this.

What usually happens is there is a big fight that ends up with the owner having a special nameplate made on the black market that shuts up the inspector. No need for this nonsense if you define more precisely.

For economic reasons the generator voltage or winding configuration often does not match the utilities system.

Example:

A 3 wire ungrounded delta generator and a 4 wire grounded neutral system. (There are several possible combinations) The rules should allow this generator transformer to be considered as an integral part of the generator. (An example is SCL's Boundry Dam where all the generator transformers are considered part of the generator (Transformers hard wired to the generator). This simplifies things a lot, ie Define the Generator voltage as the generator transformer utility side voltage.

The tariff rules for Tier 2 and 3 should provide for compensation (both penalty and bonus to the DG operator for voltage regulation and reactive component regulation if the DG is synchronous. (Does not apply to inverters and induction generators.)

This is a much overlooked benefit of DG Why should utilities talk about it when they can steal the benefits from the DG operator? Conversely, a sloppy DG operator should be penalized if he negatively impacts voltage or power factor on the utility system.

Similiarly, DG rate schedules should reflect time of day pricing that is tied to the demand curve. WE ARE VERY GUILTY IN IGNORING DEMAND RELATED PRICING. THIS IS A SERIOUS NATIONAL PROBLEM. Did you know that in 1931 90% of the electric water heaters in Washington had time switches on them? That's a fact. They all disappeared when we went into the excess hydro period in the 50's and 60's.

I know that the subject of, visible, accessable, lockable disconnects has been discussed over and over again but I am not going to give up. All the exceptions to this should be eliminated.

I know that if I put in a grid tie system at my house, it would have one regardless of the code or this regulation. Even if the utility didn't bother to lock it out, just having it would reduce my liability in event of an accident. I guarantee, there will be a fatality related to an inverter that did not perform as it should.

This battle has been lost but wait until the first bad burn or fatality occurs and it will be back on the table.

I spent 40 years in pulp and paper mills and I never lost a man in my 100 man maintenance crew but I did have over a dozen incidences where some automated piece of equipment falsely started or failed to stop. Manual lockout SAVES LIVES. That's why it was mandatory in every mill I worked in. (4 mills in 3 countries). Parker Holden Olympia