Safety and Maintenance [(2)(c)(i) - (2)(d)(i) of SJ 12]

1. Do the retail inverters in rooftop systems have adequate EMF (voltage) protection from induced seasonal electrical storms? Is there a risk for any level of loss of phase synchronicity?

A. While no systems are 100% effective, there are grounding types that when used together can reduce the risk.

B. No, too tight of tolerances are required.

2. Are there national standards for the inverters established by IEEE or other such institutions?

Yes IEEE 1547 UL. Listings

3. At what level of loss of synchronization is there an electrical risk (due to wire heating) or efficiency loss?

Again, UL listing would have to be in place and enforced. Montana Building Codes and their Certified Cities/Counties must be forced to permit and inspect all of these electrical installations to ensure the installations are installed according to applicable codes. Montana would likely have to adopt and enforce a statewide standard, because of the lack of uniform or reliable production standards. Currently, homeowners are allowed to do their own electrical installations as long as they are permitted and inspected. We believe, that for net metering purposes, homeowners should not be allowed to do their own electrical installations and these should all be done by a licensed electrical contractor with it being permitted and inspected.

4. If an inverter's lockout fails and there is a backflip of power on a "downed" line, for what distance does a shock risk remain for linemen engaged in repairing the distribution line?

That question has no-one simple answer; everything depends upon conditions at the time. What has to be kept in mind is .001 amp can kill you. With the energy we’re dealing with; you can’t see it, you can’t smell it and you only get to feel it once.