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C. C. Grassia
440 Windship Drive
Port Townsend, WA-98368

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Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive, S.W.
P.O. Box 47250
Olympia, WA-98504-7250

Dear Sir:

Regarding Docket No. UE-991168- Electric System Reliability, I am submitting the following comments for consideration and for record file:

1. WAC 480-100-191 as currently written, does not provide consumer protection in the event of power surges. "Standard Voltage" is not specifically defined, but should be. Left to power companies, voltage has crept upwards from 110 volts to 115 volts and later to 120 volts. Significant equipment failure and shortened equipment life has resulted from these changes.
2. The variation of 5% stated in the WAC seems reasonable but should be applied to the voltage at the consumer site. A greater voltage should not be allowed "in case of emergency service or in a limited or extended area where revenues do not justify close regulation". This is tantamount to supplying destructive power to those consumers.
3. Power at the consumer site should be provided at the "Standard Voltage" level to 5% less than this level under average load, not peak load, conditions. Transformer taps and wire size should be adjusted accordingly. This arrangement would accommodate 5% variations due to surges elsewhere in the grid so that voltage at the consumer site would never rise above the +5% level for extended periods of time.

Regarding Washington State Electricity System Study Item 8.3.2:

1. Failure data and complaint data are lacking for several reasons. The consumer, in general, is uninformed about the effects of higher voltage on equipment. The consumer usually does not have monitoring equipment, such as permanently installed recording voltmeters. The consumer takes power for granted and assumes standard voltage is being provided. Equipment manufacturers are blamed rather than the power supplier, which is easier since the burden of proof is on the consumer.
2. Many electrical components such as resistors, capacitors, lamps, transistors, integrated circuits, etc. are stressed when voltage exceeds design criteria for extended periods of time. In fact it is common practice to sense equipment life expectancy by applying higher than normal voltage during design trials. The customary 30 days to one year warranty periods are too short to address this problem.

3. Class action is in order but it not practical because consumers are not organized and a proper recording system does not exist. Individual action is simply too costly because legal action is required and present laws favor power providers.

4. A State sponsored monitoring system is needed to address this problem.

The Washington Utilities & Transportation Commission has the responsibility to regulate power rates as well as quality. It would appear logical that regulation should also be applied to the sale of electrical goods, if not by WUTC, then by some other state agency. Equipment designed to operate at 110 volts and 115 volts is still being sold in this state. This practice sets the stage for equipment failure. Much imported equipment is designed for these voltages because many foreign manufacturers are not aware of the changes in our "standard" voltage. Of course, other agencies have responsibilities in protecting the consumer and decreasing generation of wasted electrical devices.

In conclusion, at present the the public is not being well served by current WUTC regulations.

Yours truly,

A handwritten signature in cursive script that reads "C. C. Grassia".

C. C. Grassia