

NOT JUST A BIG FISH STORY

Cambridge, MD. — Between October of 1993 and July of 1994, the Coldwater Seafood Corporation of Cambridge, MD. Bought 11 National Energy Technologies Uses[®] **Shunt Efficiency System** and had them installed on the north end of their plant. After November 26, 1994, they wished they had installed the full recommended system in the southern end of the plant as well.

On Saturday, November 26, 1994, something happened to the Coldwater plant. Sifting through the evidence, they believe there was a major voltage sag. Although the voltage sag lasted only a few seconds, it caused the plant considerable electrical damage, knocking out two of the three transformers that supplied electricity to the plant's south end freezers. The phase protection on that set of transformers, designed to protect against single-phasing, never tripped; it's magnetic coil melted. Two of the transformers were knocked out, after which, single-phasing did occur, causing the refrigeration units' motors to burn out. On that circuit, the coils on the 480 volt and 110 volt motor starter were cooked and the contacts were welded together. Consequently, the refrigeration units failed.

No damage was sustained in the north end of the plant, even though all of the transformers owned by Coldwater were wired in parallel, with the north end of the plant generally drawing 10 to 20 times the power used by the south end during a normal weekend. A conservative estimate of the damage that would have occurred in the north end was over six to eight million dollars, or roughly 200 times the total cost of the **Shunt Efficiency** units.

According to a news release prepared by Coldwater, "All these north end loads have been protected by **Power factor correction devices** which evidently do stabilize voltage as claimed. These units not only saved the motors from damage, preventing a loss of temperature in the freezers which contain 5 to 6 million pounds of fish, but they protected the transformers which are up line. The investment in the Uses Shunt Efficiency System certainly been repaid, particularly since they have also dropped the Kw demand in the north end by 40 to 50 Kw."

The Shunt Efficiency Units save money in a number of ways. According to E. Brian Wohlforth, Uses[®] inventor, and many satisfied customer, the system improves equipment reliability, including computer and electronic systems, reduce life-cycle maintenance, repair and replacement costs. In an average industrial setting, the our systems generally provide an average return on investment in 6 to 36 months; in cases like the Coldwater plant, the system can pay for itself overnight.

