

High frequencies can cause overheating of wires designed for 60 Hz power because they see a much higher resistance on the system. The overheating in turn damages the system. There are some visible signs of overheating. One is deteriorated paint. The overheating can actually "burn" the paint off transformers and other components of the electrical grid. Another is deterioration of the insulation on electrical wires. Such deteriorated components can be a fire or safety hazard. This is not a rich or poor problem, a residential or business problem, OR a country or city problem. It is everyone's problem. Deteriorated electrical grid components can be found all over, once you know what to look for.

Below are photographs illustrating the decline of the electrical grid, as well as features of the grid that may be helpful to you as you learn about electrical pollution.



New transformer with new wires installed during the summer of 2002 - some electrical utilities are fusing their wires so that the primary neutral is not visibly larger, but the fuses are sized such that less than half the capacity of the phase wires is utilized. (this way of fixing the problem seems to be occurring only in isolated cases.)



Crimp-on connectors were used to join the transformer (picuted above) to distribution wires. They are the black rectangles in the center of the photo.



Split-bolt connectors on a utility owned house. The split-bolts themselves are not visible as they are wrapping in many layers of electrical tape for protection. The PSC in Wisconsin has not allowed the electrical utilities to use split-bolts for many years because over time they loosen up and arc.



Is this the approved method of repairing broken poles?



Transformer with paint showing evidence of deterioration and old-style connectors