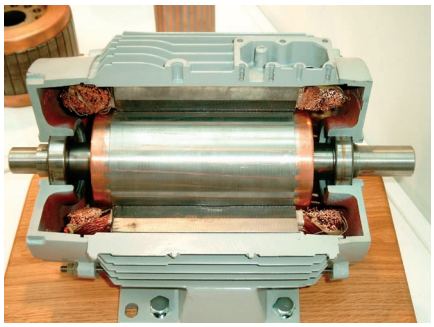
COPPER ROTORS SAVE ENERGY

Copper has been essential to power generation since 1831, when British scientist Michael Faraday's experiments with copper wire, motion and magnetic force led to the development of the first modern electric motor, generator and transformer.

Today's innovations involving copper hold great promise for making the electric products used in our homes and industries more energy-efficient.

A new die casting technology makes it commercially viable for companies to manufacture electric motors using all-copper rotors, which have been found to reduce heat loss and increase motor efficiency by 1.2-1.7 percentage points over traditional aluminum rotors.

That may not sound like much, but considering that electric motors account for 23% of America's energy use, a 1% increase in motor efficiency would save $1.1 billion in energy costs annually, according to the U.S. Department of Energy. Other benefits are longer motor life, more lightweight motors and a reduction of carbon dioxide and other harmful emissions.



General industry and consumers will benefit from lower energy bills with the development of premium-efficiency electric motors that rely on all-copper rotors.

Recognizing the potential of the copper rotor and the new Copper-Based Casting Technology (C-BCT) used to produce it, the U.S. government appropriated one million dollars in fiscal 2004 for an industry consortium — led by the Copper Development Association — that will develop more efficient, durable and lightweight motors for the military's defense systems.

In addition to military and industrial applications, some European companies are already working on using the new copper rotors in motors designed to make appliances like washing machines and vacuum cleaners more energy-efficient. **Cu**